PROC SQL;

CREATE TABLE WORK.query AS

SELECT CASEID , Q1 , STATE , REGION , Q2C1 , Q2C1T1 , Q2C1T2 , Q2C2 , Q2C2T1 , Q2C2T2 , Q3A , Q3B , Q3C , Q3D , Q4 , Q5A , Q5B , Q6CORNA , Q6CORNY , Q6SOYA , Q6SOYY , Q6WHA , Q6WHY , Q6ALFA , Q6ALFY , Q7A , Q7B , Q8A , Q8B , Q8C , Q8D , Q8E , Q8F , Q8G , Q8H , Q9AYN , Q9AAC , Q9ACORN , Q9ASOY , Q9AWHT , Q9AOTH , Q9BYN , Q9BAC , Q9BCORN , Q9BSOY , Q9BWHT , Q9BOTH , Q9CYN , Q9CAC , Q9CCORN , Q9CSOY , Q9CWHT , Q9COTH , Q9DYN , Q9DAC , Q9EYN , Q9EAC , Q9FYN , Q9FAC , Q10A1 , Q10A2 , Q10A3 , Q10A4 , Q10A5 , Q10A6 , Q10A7 , Q10A8 , Q10A9 , Q10A10 , Q10B , Q11A , Q11B , Q11C , Q12A , Q12B , Q12C , Q12D , Q13A , Q13B , Q13C , Q13D , Q14A1 , Q14A2 , Q14A3 , Q14B1 , Q14B2 , Q14B3 , Q15ACHEC , Q15A1 , Q15A2 , Q15A3 , Q15A4 , Q15A5 , Q15A6 , Q15A7 , Q15A8 , Q15A9 , Q15A10 , Q15B , Q16A , Q16B , Q16C , Q16D , Q17A , Q17B , Q17C , Q17D , Q18A , Q18B , Q18C , Q18D , Q19 , Q20 , Q21 , Q22 , Q23 , CITY , STATEID , ZIPCODE , FIPSCODE , COUNTY , TENURE , WHTACRE , CORNACRE , SOYBACRE , HAYACRE , PLNTACRE , BEEFHERD , LATITUDE , LNGITUDE , OUTCOME , REGIONX FROM \_TEMP0.dakota15;

RUN;

QUIT;

PROC DATASETS NOLIST NODETAILS;

CONTENTS DATA=WORK.query OUT=WORK.details;

RUN;

PROC PRINT DATA=WORK.details;

RUN;

/\*thesis \*/

libname sasintro "/folders/myfolders/";

proc print data =sasintro.dakota15;

run;

/\*data cleaning proceess, delete missing variable\*/

data sasintro.dakota15clean;

set sasintro.dakota15;

if Q19 = 9 then delete;

if Q20 = 9 then delete;

if Q21 = 9 then delete;

if Q22 = 9 then delete;

if Q22 = 5 then delete;

if Q23 = 1 then Q23=12;

if Q23 = 2 then Q23=12;

if Q3a = . then delete;

if Q4=. then delete;

if Q4=7 then delete;

run;

proc print data=sasintro.dakota15clean;run;

/\*question 1\*/

proc format;

value operation

1='Have been a farm operator'

2='less than 10 years as a farm operator'

3='10 to 10 years as a farm operator'

4='20 to 29 years as a farm operator'

5='30 years or more as a farm operator'

;

run;

proc freq data=sasintro.dakota15;

label Q1 ='Years as a farm opertor';

tables Q1\*State /norow nocol nocum;

format Q1 operation.;

run;

proc format;

value operation

1='Have been a farm operator'

2='less than 10 years as a farm operator'

3='10 to 10 years as a farm operator'

4='20 to 29 years as a farm operator'

5='30 years or more as a farm operator'

;

run;

proc freq data=sasintro.dakota15;

label Q1 ='Years as a farm opertor';

tables Q1\*Region /norow nocol nocum;

format Q1 operation.;

run;

/\*\* question 10 \*\*/

proc format;

value Impact

1='No Impact'

2='Slight Impact'

3='Some Impact'

4='Quite a bit of Impact'

5='Great Impact';

run;

proc freq data=sasintro.dakota15;

label CaseID='State'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

tables(Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)\*CaseID/norow;

format CaseID State. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.

Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;

run;

\*question 10b;

proc format;

value State

1001-2182,9002='North Dakota'

2183-4000,9001='South Dakota';

value gimpact

01 = 'Changing crop prices'

02 = 'Changing prices in input markets (seed, fertilizer, chemicals, etc.) '

03 = 'Availability of crop and revenue insurance policies'

04= 'Availability of drought-tolerant seed'

05= 'Developments in pest management practices, including pest management seed traits'

06= 'Improved crop yields (other than seed related traits) '

07 = 'Development of more efficient cropping equipment'

08 = 'Labor availability problems'

09 = 'Improving wildlife habitat'

10 = 'Changing weather /climate patterns';

proc tabulate data=sasintro.dakota15;

class CaseID Q10b;

label CaseID='State';

tables Q10b,CaseID;

format CaseID State. Q10b gimpact.;

run;

/\*my data anyalysis start \*/

/\* region and state based means analysis question 10a \*/

proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=1;

class region;

var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;

label CaseID='State'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

run;

proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=1;

class state;

var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;

label CaseID='State'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

run;

/\*region and State based frequency analysis question 10a \*/

proc format;

value Impact

1='No Impact'

2='Slight Impact'

3='Some Impact'

4='Quite a bit of Impact'

5='Great Impact';

run;

proc freq data=sasintro.dakota15;

tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)\*Region / norow nocum;

format CaseID region. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.

Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;

run;

proc format;

value Impact

1='No Impact'

2='Slight Impact'

3='Some Impact'

4='Quite a bit of Impact'

5='Great Impact';

run;

proc freq data=sasintro.dakota15;

tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)\*State / norow nocum;

format CaseID State. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.

Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;

run;

/\*region and State based frequency question 10a with chisq\*/

proc format;

value Impact

1='No Impact'

2='Slight Impact'

3='Some Impact'

4='Quite a bit of Impact'

5='Great Impact';

run;

proc freq data=sasintro.dakota15;

tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)\*Region /chisq;

format CaseID region. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.

Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;

run;

proc format;

value Impact

1='No Impact'

2='Slight Impact'

3='Some Impact'

4='Quite a bit of Impact'

5='Great Impact';

run;

proc freq data=sasintro.dakota15;

tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)\*State / chisq;

format CaseID State. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.

Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;

run;

/\* proc tabulute region and state based 10a\*/

proc tabulate data=sasintro.dakota15 format=6.;

class Region;

var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;

label

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

table (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10),Region;

run;

proc tabulate data=sasintro.dakota15 format=6.;

class State;

var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;

label

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

table (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10),State;

run;

/\* 10b tabulate analysis region and state based \*/

proc format;

value State

1001-2182,9002='North Dakota'

2183-4000,9001='South Dakota';

value gimpact

01 = 'Changing crop prices'

02 = 'Changing prices in input markets (seed, fertilizer, chemicals, etc.) '

03 = 'Availability of crop and revenue insurance policies'

04= 'Availability of drought-tolerant seed'

05= 'Developments in pest management practices, including pest management seed traits'

06= 'Improved crop yields (other than seed related traits) '

07 = 'Development of more efficient cropping equipment'

08 = 'Labor availability problems'

09 = 'Improving wildlife habitat'

10 = 'Changing weather /climate patterns';

proc tabulate data=sasintro.dakota15;

class CaseID Q10b;

label CaseID='State';

tables Q10b,CaseID;

format CaseID State. Q10b gimpact.;

run;

proc format;

value State

1001-2182,9002='North Dakota'

2183-4000,9001='South Dakota';

value gimpact

01 = 'Changing crop prices'

02 = 'Changing prices in input markets (seed, fertilizer, chemicals, etc.) '

03 = 'Availability of crop and revenue insurance policies'

04= 'Availability of drought-tolerant seed'

05= 'Developments in pest management practices, including pest management seed traits'

06= 'Improved crop yields (other than seed related traits) '

07 = 'Development of more efficient cropping equipment'

08 = 'Labor availability problems'

09 = 'Improving wildlife habitat'

10 = 'Changing weather /climate patterns';

run;

proc tabulate data=sasintro.dakota15;

class region;

tables Q10B, Region;

format Q10B gimpact.;

run;

/\* 10b means analysis region and state based \*/

proc format;

value State

1001-2182,9002='North Dakota'

2183-4000,9001='South Dakota';

value gimpact

01 = 'Changing crop prices'

02 = 'Changing prices in input markets (seed, fertilizer, chemicals, etc.) '

03 = 'Availability of crop and revenue insurance policies'

04= 'Availability of drought-tolerant seed'

05= 'Developments in pest management practices, including pest management seed traits'

06= 'Improved crop yields (other than seed related traits) '

07 = 'Development of more efficient cropping equipment'

08 = 'Labor availability problems'

09 = 'Improving wildlife habitat'

10 = 'Changing weather /climate patterns';

proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=1;

class State;

var Q10B;

label CaseID='State';

format CaseID State. Q10b gimpact.;

run;

proc format;

value State

1001-2182,9002='North Dakota'

2183-4000,9001='South Dakota';

value gimpact

01 = 'Changing crop prices'

02 = 'Changing prices in input markets (seed, fertilizer, chemicals, etc.) '

03 = 'Availability of crop and revenue insurance policies'

04= 'Availability of drought-tolerant seed'

05= 'Developments in pest management practices, including pest management seed traits'

06= 'Improved crop yields (other than seed related traits) '

07 = 'Development of more efficient cropping equipment'

08 = 'Labor availability problems'

09 = 'Improving wildlife habitat'

10 = 'Changing weather /climate patterns';

proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=1;

class Region;

var Q10B;

label CaseID='Region';

format CaseID Region. Q10b gimpact.;

run;

/\* 10b frequency distribution analysis region and state based \*/

proc format;

value State

1001-2182,9002='North Dakota'

2183-4000,9001='South Dakota';

value gimpact

01 = 'Changing crop prices'

02 = 'Changing prices in input markets (seed, fertilizer, chemicals, etc.) '

03 = 'Availability of crop and revenue insurance policies'

04= 'Availability of drought-tolerant seed'

05= 'Developments in pest management practices, including pest management seed traits'

06= 'Improved crop yields (other than seed related traits) '

07 = 'Development of more efficient cropping equipment'

08 = 'Labor availability problems'

09 = 'Improving wildlife habitat'

10 = 'Changing weather /climate patterns';

run;

proc freq data=sasintro.dakota15;

label

Q10B ='Greatest Impact on Changes in Land Use';

tables Q10B \*Region / nocum;

format Q10B gimpact.;

run;

proc format;

value State

1001-2182,9002='North Dakota'

2183-4000,9001='South Dakota';

value gimpact

01 = 'Changing crop prices'

02 = 'Changing prices in input markets (seed, fertilizer, chemicals, etc.) '

03 = 'Availability of crop and revenue insurance policies'

04= 'Availability of drought-tolerant seed'

05= 'Developments in pest management practices, including pest management seed traits'

06= 'Improved crop yields (other than seed related traits) '

07 = 'Development of more efficient cropping equipment'

08 = 'Labor availability problems'

09 = 'Improving wildlife habitat'

10 = 'Changing weather /climate patterns';

proc freq data=sasintro.dakota15;

label CaseID='State'

Q10B ='Greatest Impact on Changes in Land Use';

tables Q10B \*CaseID / norow nocum;

format Q10B gimpact. CaseID State.;

run;

/\* 10b frequency distribution analysis region and state based with chisq \*/

proc format;

value State

1001-2182,9002='North Dakota'

2183-4000,9001='South Dakota';

value gimpact

01 = 'Changing crop prices'

02 = 'Changing prices in input markets (seed, fertilizer, chemicals, etc.) '

03 = 'Availability of crop and revenue insurance policies'

04= 'Availability of drought-tolerant seed'

05= 'Developments in pest management practices, including pest management seed traits'

06= 'Improved crop yields (other than seed related traits) '

07 = 'Development of more efficient cropping equipment'

08 = 'Labor availability problems'

09 = 'Improving wildlife habitat'

10 = 'Changing weather /climate patterns';

run;

proc freq data=sasintro.dakota15;

label

Q10B ='Greatest Impact on Changes in Land Use';

tables Q10B \*Region / chisq;

format Q10B gimpact.;

run;

proc format;

value State

1001-2182,9002='North Dakota'

2183-4000,9001='South Dakota';

value gimpact

01 = 'Changing crop prices'

02 = 'Changing prices in input markets (seed, fertilizer, chemicals, etc.) '

03 = 'Availability of crop and revenue insurance policies'

04= 'Availability of drought-tolerant seed'

05= 'Developments in pest management practices, including pest management seed traits'

06= 'Improved crop yields (other than seed related traits) '

07 = 'Development of more efficient cropping equipment'

08 = 'Labor availability problems'

09 = 'Improving wildlife habitat'

10 = 'Changing weather /climate patterns';

proc freq data=sasintro.dakota15;

label CaseID='State'

Q10B ='Greatest Impact on Changes in Land Use';

tables Q10B \*CaseID / chisq;

format Q10B gimpact. CaseID State.;

run;

/\* Q10a and means by selected farm operator 19-23 plus 1, 3a and 4\*/

proc format;

value Age

1='19 to 34 years'

2='35 to 49 years'

3='50 to 59 years'

4='60 to 69 years'

5='70 years and over';

value Gender

1='Male'

2='Female';

value Education

1='Less than high school'

2='High school'

3='Some college/technical school'

4='4-year college degree'

5='Advanced degree (Masters, etc.)';

value Occupation

1='Farming or Ranching'

2='Employment in off-farm job'

3='Own/operate a non-farm business'

4='Retired';

value Sales

12='Less than $99,999'

3='From $100,000 up to $249,999'

4='From $250,000 up to $499,999'

5='From $500,000 up to $999,999'

6='$1 million or more';

run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;

class Q19;

var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;

label Q19='Respondent Age'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

format Q19 Age.;

run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;

class Q20;

var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;

label Q20='Respondent Gender'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

format Q20 Gender.;

run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;

class Q21;

var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;

label Q21='Respondent Level of Education'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

format Q21 Education.;

run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;

class Q22;

var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;

label Q22='Principal Occupation'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

format Q22 Occupation.;

run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;

class Q23;

var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;

label Q23='Gross farm/ranch sales'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

format Q23 Sales.;

run;

proc format;

value operation

1='Have been a farm operator'

2='less than 10 years as a farm operator'

3='10 to 10 years as a farm operator'

4='20 to 29 years as a farm operator'

5='30 years or more as a farm operator'

;

run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;

class Q1;

var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;

label Q1 ='Years as a farm opertor'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

format Q1 operation.;

run;

proc format;

value Farmland 0 ='0 acres'

1-9 = '1 to 9 acres'

10-49 ='10 to 49 acres'

50-69 ='50 to 69 acres'

70-99 ='70 to 99 acres'

100-139 ='100 to 139 acres'

140-179 ='140 to 179 acres'

180-219 ='180 to 219 acres'

220-259 ='220 to 259 acres'

260-499 ='260 to 499 acres'

500-999 ='500 to 999 acres'

1000-1999 ='1,000 to 1,999 acres'

2000-4999 ='2,000 to 4,999 acres'

5000-high ='5000 acres and above';

run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;

class Q3a;

var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;

label Q3a ='Farmland acres operated in 2014'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

format Q3a Farmland.;

run;

proc format;

value Ownership

1='Own all acres farmed'

2='Own most acres farmed, rented the remainder'

3='Own and rent roughly equal number of farmland acres'

4='Rented most of the acres farmed,owned the remainder'

5='Rented all acres farmland'

6='Professional farm manager';

run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;

class Q4;

var Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10;

label Q4 ='Best Ownership Status in 2014'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

format Q4 Ownership.;

run;

/\* Q10a and frequency distribution by selected farm operator 19-23 plus 1, 3a and 4\*/

proc format;

value Age

1='19 to 34 years'

2='35 to 49 years'

3='50 to 59 years'

4='60 to 69 years'

5='70 years and over';

value Gender

1='Male'

2='Female';

value Education

1='Less than high school'

2='High school'

3='Some college/technical school'

4='4-year college degree'

5='Advanced degree (Masters, etc.)';

value Occupation

1='Farming or Ranching'

2='Employment in off-farm job'

3='Own/operate a non-farm business'

4='Retired';

value Sales

12='Less than $99,999'

3='From $100,000 up to $249,999'

4='From $250,000 up to $499,999'

5='From $500,000 up to $999,999'

6='$1 million or more'

proc format;

value Impact

1='No Impact'

2='Slight Impact'

3='Some Impact'

4='Quite a bit of Impact'

5='Great Impact';

run;

proc freq data=sasintro.dakota15clean;

label Q19='Respondent Age'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)\*Q19/norow;

format Q19 Age. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.

Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;

run;

proc freq data=sasintro.dakota15clean;

label Q20='Respondent Gender'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)\*Q20/norow;

format Q20 Gender. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.

Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;

run;

proc freq data=sasintro.dakota15clean;

label Q21='Respondent Level of Education'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)\*Q21/norow;

format Q21 Education. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.

Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;

run;

proc freq data=sasintro.dakota15clean;

label Q22='Principal Occupation'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)\*Q22/norow;

format Q22 Occupation. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.

Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;

run;

proc freq data=sasintro.dakota15clean;

label Q23='Gross farm/ranch sales'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)\*Q23/norow;

format Q23 Sales. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.

Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;

run;

proc format;

value operation

1='Have been a farm operator'

2='less than 10 years as a farm operator'

3='10 to 10 years as a farm operator'

4='20 to 29 years as a farm operator'

5='30 years or more as a farm operator'

;

run;

proc freq data=sasintro.dakota15clean;

label Q1 ='Years as a farm opertor'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)\*Q1/norow;

format Q1 Operation. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.

Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;

run;

proc format;

value Farmland 0 ='0 acres'

1-9 = '1 to 9 acres'

10-49 ='10 to 49 acres'

50-69 ='50 to 69 acres'

70-99 ='70 to 99 acres'

100-139 ='100 to 139 acres'

140-179 ='140 to 179 acres'

180-219 ='180 to 219 acres'

220-259 ='220 to 259 acres'

260-499 ='260 to 499 acres'

500-999 ='500 to 999 acres'

1000-1999 ='1,000 to 1,999 acres'

2000-4999 ='2,000 to 4,999 acres'

5000-high ='5000 acres and above';

run;

proc freq data=sasintro.dakota15clean;

label Q3a ='Farmland Acres Operated in 2014'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)\*Q3a/norow;

format Q3a Farmland. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.

Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;

run;

run;

proc format;

value Ownership

1='Own all acres farmed'

2='Own most acres farmed, rented the remainder'

3='Own and rent roughly equal number of farmland acres'

4='Rented most of the acres farmed,owned the remainder'

5='Rented all acres farmland'

6='Professional farm manager';

run;

proc freq data=sasintro.dakota15clean;

label Q4 ='Best Ownersip Status in 2014'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

tables(Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)\*Q4/norow;

format Q4 Ownership. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.

Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;

run;

/\* 10a frequency distribution by Selected Farm operator(19-23, 1,3a and 4 with chisqu\*/

proc format;

value Age

1='19 to 34 years'

2='35 to 49 years'

3='50 to 59 years'

4='60 to 69 years'

5='70 years and over';

value Gender

1='Male'

2='Female';

value Education

1='Less than high school'

2='High school'

3='Some college/technical school'

4='4-year college degree'

5='Advanced degree (Masters, etc.)';

value Occupation

1='Farming or Ranching'

2='Employment in off-farm job'

3='Own/operate a non-farm business'

4='Retired';

value Sales

12='Less than $99,999'

3='From $100,000 up to $249,999'

4='From $250,000 up to $499,999'

5='From $500,000 up to $999,999'

6='$1 million or more';

proc format;

value Impact

1='No Impact'

2='Slight Impact'

3='Some Impact'

4='Quite a bit of Impact'

5='Great Impact';

run;

proc freq data=sasintro.dakota15clean;

label Q19='Respondent Age'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)\*Q19/chisq;

format Q19 Age. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.

Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;

run;

proc freq data=sasintro.dakota15clean;

label Q20='Respondent Gender'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)\*Q20/chisq;

format Q20 Gender. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.

Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;

run;

proc freq data=sasintro.dakota15clean;

label Q21='Respondent Level of Education'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)\*Q21/chisq;

format Q21 Education. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.

Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;

run;

proc freq data=sasintro.dakota15clean;

label Q22='Principal Occupation'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)\*Q22/chisq;

format Q22 Occupation. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.

Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;

run;

proc freq data=sasintro.dakota15clean;

label Q23='Gross farm/ranch sales'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)\*Q23/chisq;

format Q23 Sales. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.

Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;

run;

proc format;

value operation

1='Have been a farm operator'

2='less than 10 years as a farm operator'

3='10 to 10 years as a farm operator'

4='20 to 29 years as a farm operator'

5='30 years or more as a farm operator'

;

run;

proc freq data=sasintro.dakota15clean;

label Q1 ='Years as a farm opertor'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)\*Q1/chisq;

format Q1 Operation. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.

Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;

run;

proc format;

value Farmland 0 ='0 acres'

1-9 = '1 to 9 acres'

10-49 ='10 to 49 acres'

50-69 ='50 to 69 acres'

70-99 ='70 to 99 acres'

100-139 ='100 to 139 acres'

140-179 ='140 to 179 acres'

180-219 ='180 to 219 acres'

220-259 ='220 to 259 acres'

260-499 ='260 to 499 acres'

500-999 ='500 to 999 acres'

1000-1999 ='1,000 to 1,999 acres'

2000-4999 ='2,000 to 4,999 acres'

5000-high ='5000 acres and above';

run;

proc freq data=sasintro.dakota15clean;

label Q3a ='Farmland Acres Operated in 2014'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

tables (Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)\*Q3a/chisq;

format Q3a Farmland. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.

Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;

run;

proc format;

value Ownership

1='Own all acres farmed'

2='Own most acres farmed, rented the remainder'

3='Own and rent roughly equal number of farmland acres'

4='Rented most of the acres farmed,owned the remainder'

5='Rented all acres farmland'

6='Professional farm manager';

run;

proc freq data=sasintro.dakota15clean;

label Q4 ='Best Ownersip Status in 2014'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

tables(Q10A1 Q10A2 Q10a3 Q10A4 Q10A5 Q10A6 Q10A7 Q10A8 Q10A9 Q10A10)\*Q4/chisq;

format Q4 Ownership. Q10A1 Impact. Q10A2 Impact. Q10A3 Impact. Q10A4 Impact. Q10A5 Impact.

Q10A6 Impact. Q10A7 Impact. Q10A8 Impact. Q10A9 Impact. Q10A10 Impact.;

run;

/\*Qestion 3, More complete analysis of land use conversiob decisions (Q9 iteams)

and land use conversion intentions (Q11 items) \*/

/\*part one Q9 analysis with means\*/

proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=1;

class CaseID State;

var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN ;

label CaseID='State'

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

format CaseID State. Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.

Q9eYN Response. Q9fYN Response.;

run;

proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=1;

class Region;

var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN ;

label

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

format Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.

Q9eYN Response. Q9fYN Response.;

run;

/\*part one Q9 analysis with frequency\*/

proc format;

value Response

1='Yes'

2='No';

run;

proc freq data=sasintro.dakota15;

label CaseID='State'

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

table (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)\*CaseID/norow;

format CaseID State. Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.

Q9eYN Response. Q9fYN Response.;

run;

proc format;

value Response

1='Yes'

2='No';

run;

proc freq data=sasintro.dakota15;

label

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

table (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)\* Region/norow;

format Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.

Q9eYN Response. Q9fYN Response.;

run;

/\*part one Q9 analysis with frequency chisq \*/

proc format;

value Response

1='Yes'

2='No';

run;

proc freq data=sasintro.dakota15;

label CaseID='State'

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

table (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)\*CaseID/chisq;

format CaseID State. Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.

Q9eYN Response. Q9fYN Response.;

run;

proc format;

value Response

1='Yes'

2='No';

run;

proc freq data=sasintro.dakota15;

label

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

table (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)\* Region/chisq;

format Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.

Q9eYN Response. Q9fYN Response.;

run;

/\*part one Q9 analysis with tabulate\*/

proc tabulate data=sasintro.dakota15 format=6.;

class CaseID;

var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN;

label CaseID='State'

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

table (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN), CaseID;

format CaseID State.;

run;

proc tabulate data=sasintro.dakota15 format=6.;

class Region;

var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN;

label

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

table (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN), Region;

run;

/\*part two Q9 state and region based analysis with means\*/

proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=1;

class CaseID State;

var Q9aAC Q9bAC Q9cAC Q9dAC Q9eAC Q9fAC ;

label CaseID='State'

Q9aAC='Conversion of native grass to cropland'

Q9bAC='Conversion of tamend grassland to cropland'

Q9cAC='Conversion of CRP land to cropland'

Q9dAC='Conversion of CRP land to pasture/hay'

Q9eAC='Enrollment of farmland acres to CRP'

Q9fAC='Enrollment of land into WRP (wetland reserve) or grass easement program';

format CaseID State.;

run;

proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=1;

class Region;

var Q9aAC Q9bAC Q9cAC Q9dAC Q9eAC Q9fAC ;

label

Q9aAC='Conversion of native grass to cropland'

Q9bAC='Conversion of tamend grassland to cropland'

Q9cAC='Conversion of CRP land to cropland'

Q9dAC='Conversion of CRP land to pasture/hay'

Q9eAC='Enrollment of farmland acres to CRP'

Q9fAC='Enrollment of land into WRP (wetland reserve) or grass easement program';

run;

/\*part two, Q9 state and region based analysis with frequency\*/

proc format;

value Farmacres 0 ='0 acres'

1-9 = '1 to 9 acres'

10-49 ='10 to 49 acres'

50-69 ='50 to 69 acres'

70-99 ='70 to 99 acres'

100-139 ='100 to 139 acres'

140-179 ='140 to 179 acres'

180-219 ='180 to 219 acres'

220-259 ='220 to 259 acres'

260-499 ='260 to 499 acres'

500-999 ='500 to 999 acres'

1000-1999 ='1,000 to 1,999 acres'

2000-4999 ='2,000 to 4,999 acres'

5000-high ='5000 acres and above'

.='Missing';

run;

proc freq data=sasintro.dakota15;

label CaseID='State'

Q9aAC='Conversion of native grass to cropland'

Q9bAC='Conversion of tamend grassland to cropland'

Q9cAC='Conversion of CRP land to cropland'

Q9dAC='Conversion of CRP land to pasture/hay'

Q9eAC='Enrollment of farmland acres to CRP'

Q9fAC='Enrollment of land into WRP (wetland reserve) or grass easement program';

table (Q9aAC Q9bAC Q9cAC Q9dAC Q9eAC Q9fAC)\*CaseID/norow;

format CaseID State. Q9aAC Farmacres. Q9bAC Farmacres. Q9cAC Farmacres. Q9dAC Farmacres.

Q9eAC Farmacres. Q9fAC Farmacres.;

run;

proc freq data=sasintro.dakota15;

label

Q9aAC='Conversion of native grass to cropland'

Q9bAC='Conversion of tamend grassland to cropland'

Q9cAC='Conversion of CRP land to cropland'

Q9dAC='Conversion of CRP land to pasture/hay'

Q9eAC='Enrollment of farmland acres to CRP'

Q9fAC='Enrollment of land into WRP (wetland reserve) or grass easement program';

table (Q9aAC Q9bAC Q9cAC Q9dAC Q9eAC Q9fAC)\*Region/norow;

format Q9aAC Farmacres. Q9bAC Farmacres. Q9cAC Farmacres. Q9dAC Farmacres.

Q9eAC Farmacres. Q9fAC Farmacres.;

run;

/\*part two, Q9 state and region based analysis with frequency with chisq\*/

proc format;

value Farmacres 0 ='0 acres'

1-9 = '1 to 9 acres'

10-49 ='10 to 49 acres'

50-69 ='50 to 69 acres'

70-99 ='70 to 99 acres'

100-139 ='100 to 139 acres'

140-179 ='140 to 179 acres'

180-219 ='180 to 219 acres'

220-259 ='220 to 259 acres'

260-499 ='260 to 499 acres'

500-999 ='500 to 999 acres'

1000-1999 ='1,000 to 1,999 acres'

2000-4999 ='2,000 to 4,999 acres'

5000-high ='5000 acres and above'

.='Missing';

run;

proc freq data=sasintro.dakota15;

label CaseID='State'

Q9aAC='Conversion of native grass to cropland'

Q9bAC='Conversion of tamend grassland to cropland'

Q9cAC='Conversion of CRP land to cropland'

Q9dAC='Conversion of CRP land to pasture/hay'

Q9eAC='Enrollment of farmland acres to CRP'

Q9fAC='Enrollment of land into WRP (wetland reserve) or grass easement program';

table (Q9aAC Q9bAC Q9cAC Q9dAC Q9eAC Q9fAC)\*CaseID/chisq;

format CaseID State. Q9aAC Farmacres. Q9bAC Farmacres. Q9cAC Farmacres. Q9dAC Farmacres.

Q9eAC Farmacres. Q9fAC Farmacres.;

run;

proc freq data=sasintro.dakota15;

label

Q9aAC='Conversion of native grass to cropland'

Q9bAC='Conversion of tamend grassland to cropland'

Q9cAC='Conversion of CRP land to cropland'

Q9dAC='Conversion of CRP land to pasture/hay'

Q9eAC='Enrollment of farmland acres to CRP'

Q9fAC='Enrollment of land into WRP (wetland reserve) or grass easement program';

table (Q9aAC Q9bAC Q9cAC Q9dAC Q9eAC Q9fAC)\*Region/chisq;

format Q9aAC Farmacres. Q9bAC Farmacres. Q9cAC Farmacres. Q9dAC Farmacres.

Q9eAC Farmacres. Q9fAC Farmacres.;

run;

/\*part two, state and region Q9 analysis with tabulate\*/

proc tabulate data=sasintro.dakota15 format=6.;

class CaseID;

var Q9aAC Q9bAC Q9cAC Q9dAC Q9eAC Q9fAC;

label CaseID='State'

Q9aAC='Conversion of native grass to cropland'

Q9bAC='Conversion of tamend grassland to cropland'

Q9cAC='Conversion of CRP land to cropland'

Q9dAC='Conversion of CRP land to pasture/hay'

Q9eAC='Enrollment of farmland acres to CRP'

Q9fAC='Enrollment of land into WRP (wetland reserve) or grass easement program';

table (Q9aAC Q9bAC Q9cAC Q9dAC Q9eAC Q9fAC),CaseID;

format CaseID State.;

run;

proc tabulate data=sasintro.dakota15 format=6.;

class Region;

var Q9aAC Q9bAC Q9cAC Q9dAC Q9eAC Q9fAC;

label

Q9aAC='Conversion of native grass to cropland'

Q9bAC='Conversion of tamend grassland to cropland'

Q9cAC='Conversion of CRP land to cropland'

Q9dAC='Conversion of CRP land to pasture/hay'

Q9eAC='Enrollment of farmland acres to CRP'

Q9fAC='Enrollment of land into WRP (wetland reserve) or grass easement program';

table (Q9aAC Q9bAC Q9cAC Q9dAC Q9eAC Q9fAC), Region;

run;

/\* Q9 part three state and region based analysis tabulate\*/

proc format;

value response

0='No'

1='Yes';

proc tabulate data=sasintro.dakota15;

class CaseID Q9aCorn Q9aSoy Q9aWht Q9aOth Q9bCorn Q9bSoy Q9bWht Q9bOth Q9cCorn Q9cSoy Q9cWht Q9cOth;

label CaseID='State'

Q9aCorn='Conversion of native grass to Corn land'

Q9aSoy='Conversion of native grass to Soybean land'

Q9aWht='Conversion of native grass to Wheat land'

Q9aOth='Conversion of native grass to Other use'

Q9bCorn='Conversion of tamend grassland to Corn land'

Q9bSoy='Conversion of tamend grassland to Soy land'

Q9bWht='Conversion of tamend grassland to Wheat land'

Q9bOth='Conversion of tamend grassland to Other use'

Q9cCorn='Conversion of CRP land to Corn land'

Q9cSoy='Conversion of CRP land to Soy land'

Q9cWht='Conversion of CRP land to Wheat land'

Q9cOth='Conversion of CRP land to Other use' ;

table (Q9aCorn Q9aSoy Q9aWht Q9aOth Q9bCorn Q9bSoy Q9bWht Q9bOth Q9cCorn Q9cSoy Q9cWht Q9cOth),CaseID;

format CaseID State. Q9aCorn response. Q9aSoy response. Q9aWht response. Q9aOth response.

Q9bCorn response. Q9bSoy response. Q9bWht response. Q9bOth response.

Q9cCorn response. Q9cSoy response. Q9cWht response. Q9cOth response.;

run;

proc format;

value response

0='No'

1='Yes';

proc tabulate data=sasintro.dakota15;

class Region Q9aCorn Q9aSoy Q9aWht Q9aOth Q9bCorn Q9bSoy Q9bWht Q9bOth Q9cCorn Q9cSoy Q9cWht Q9cOth;

label

Q9aCorn='Conversion of native grass to Corn land'

Q9aSoy='Conversion of native grass to Soybean land'

Q9aWht='Conversion of native grass to Wheat land'

Q9aOth='Conversion of native grass to Other use'

Q9bCorn='Conversion of tamend grassland to Corn land'

Q9bSoy='Conversion of tamend grassland to Soy land'

Q9bWht='Conversion of tamend grassland to Wheat land'

Q9bOth='Conversion of tamend grassland to Other use'

Q9cCorn='Conversion of CRP land to Corn land'

Q9cSoy='Conversion of CRP land to Soy land'

Q9cWht='Conversion of CRP land to Wheat land'

Q9cOth='Conversion of CRP land to Other use' ;

table (Q9aCorn Q9aSoy Q9aWht Q9aOth Q9bCorn Q9bSoy Q9bWht Q9bOth Q9cCorn Q9cSoy Q9cWht Q9cOth),Region;

format Q9aCorn response. Q9aSoy response. Q9aWht response. Q9aOth response.

Q9bCorn response. Q9bSoy response. Q9bWht response. Q9bOth response.

Q9cCorn response. Q9cSoy response. Q9cWht response. Q9cOth response.;

run;

/\* Q9 part three state and region based analysis frequency\*/

proc format;

value Response

1='Yes'

0 ='No';

run;

proc freq data=sasintro.dakota15;

label CaseID='State'

Q9aCorn='Conversion of native grass to Corn land'

Q9aSoy='Conversion of native grass to Soybean land'

Q9aWht='Conversion of native grass to Wheat land'

Q9aOth='Conversion of native grass to Other use'

Q9bCorn='Conversion of tamend grassland to Corn land'

Q9bSoy='Conversion of tamend grassland to Soy land'

Q9bWht='Conversion of tamend grassland to Wheat land'

Q9bOth='Conversion of tamend grassland to Other use'

Q9cCorn='Conversion of CRP land to Corn land'

Q9cSoy='Conversion of CRP land to Soy land'

Q9cWht='Conversion of CRP land to Wheat land'

Q9cOth='Conversion of CRP land to Other use' ;

table (Q9aCorn Q9aSoy Q9aWht Q9aOth Q9bCorn Q9bSoy Q9bWht Q9bOth Q9cCorn Q9cSoy Q9cWht Q9cOth)\*CaseID/norow;

format CaseID State. Q9aCorn response. Q9aSoy response. Q9aWht response. Q9aOth response.

Q9bCorn response. Q9bSoy response. Q9bWht response. Q9bOth response.

Q9cCorn response. Q9cSoy response. Q9cWht response. Q9cOth response.;

run;

proc format;

value Response

1='Yes'

0 ='No';

run;

proc freq data=sasintro.dakota15;

label

Q9aCorn='Conversion of native grass to Corn land'

Q9aSoy='Conversion of native grass to Soybean land'

Q9aWht='Conversion of native grass to Wheat land'

Q9aOth='Conversion of native grass to Other use'

Q9bCorn='Conversion of tamend grassland to Corn land'

Q9bSoy='Conversion of tamend grassland to Soy land'

Q9bWht='Conversion of tamend grassland to Wheat land'

Q9bOth='Conversion of tamend grassland to Other use'

Q9cCorn='Conversion of CRP land to Corn land'

Q9cSoy='Conversion of CRP land to Soy land'

Q9cWht='Conversion of CRP land to Wheat land'

Q9cOth='Conversion of CRP land to Other use' ;

table (Q9aCorn Q9aSoy Q9aWht Q9aOth Q9bCorn Q9bSoy Q9bWht Q9bOth Q9cCorn Q9cSoy Q9cWht Q9cOth)\*Region/norow;

format Q9aCorn response. Q9aSoy response. Q9aWht response. Q9aOth response.

Q9bCorn response. Q9bSoy response. Q9bWht response. Q9bOth response.

Q9cCorn response. Q9cSoy response. Q9cWht response. Q9cOth response.;

run;

/\* Q9 part three state and region based analysis frequency with chisq\*/

proc format;

value Response

1='Yes'

0 ='No';

run;

proc freq data=sasintro.dakota15;

label CaseID='State'

Q9aCorn='Conversion of native grass to Corn land'

Q9aSoy='Conversion of native grass to Soybean land'

Q9aWht='Conversion of native grass to Wheat land'

Q9aOth='Conversion of native grass to Other use'

Q9bCorn='Conversion of tamend grassland to Corn land'

Q9bSoy='Conversion of tamend grassland to Soy land'

Q9bWht='Conversion of tamend grassland to Wheat land'

Q9bOth='Conversion of tamend grassland to Other use'

Q9cCorn='Conversion of CRP land to Corn land'

Q9cSoy='Conversion of CRP land to Soy land'

Q9cWht='Conversion of CRP land to Wheat land'

Q9cOth='Conversion of CRP land to Other use' ;

table (Q9aCorn Q9aSoy Q9aWht Q9aOth Q9bCorn Q9bSoy Q9bWht Q9bOth Q9cCorn Q9cSoy Q9cWht Q9cOth)\*CaseID/chisq;

format CaseID State. Q9aCorn response. Q9aSoy response. Q9aWht response. Q9aOth response.

Q9bCorn response. Q9bSoy response. Q9bWht response. Q9bOth response.

Q9cCorn response. Q9cSoy response. Q9cWht response. Q9cOth response.;

run;

proc format;

value Response

1='Yes'

0 ='No';

run;

proc freq data=sasintro.dakota15;

label

Q9aCorn='Conversion of native grass to Corn land'

Q9aSoy='Conversion of native grass to Soybean land'

Q9aWht='Conversion of native grass to Wheat land'

Q9aOth='Conversion of native grass to Other use'

Q9bCorn='Conversion of tamend grassland to Corn land'

Q9bSoy='Conversion of tamend grassland to Soy land'

Q9bWht='Conversion of tamend grassland to Wheat land'

Q9bOth='Conversion of tamend grassland to Other use'

Q9cCorn='Conversion of CRP land to Corn land'

Q9cSoy='Conversion of CRP land to Soy land'

Q9cWht='Conversion of CRP land to Wheat land'

Q9cOth='Conversion of CRP land to Other use' ;

table (Q9aCorn Q9aSoy Q9aWht Q9aOth Q9bCorn Q9bSoy Q9bWht Q9bOth Q9cCorn Q9cSoy Q9cWht Q9cOth)\*Region/chisq;

format Q9aCorn response. Q9aSoy response. Q9aWht response. Q9aOth response.

Q9bCorn response. Q9bSoy response. Q9bWht response. Q9bOth response.

Q9cCorn response. Q9cSoy response. Q9cWht response. Q9cOth response.;

run;

/\* Q9 part three state and region based analysis with means\*/

proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=1;

class CaseID State;

var Q9aCorn Q9aSoy Q9aWht Q9aOth Q9bCorn Q9bSoy Q9bWht Q9bOth Q9cCorn Q9cSoy Q9cWht Q9cOth ;

label CaseID='State'

Q9aCorn='Conversion of native grass to Corn land'

Q9aSoy='Conversion of native grass to Soybean land'

Q9aWht='Conversion of native grass to Wheat land'

Q9aOth='Conversion of native grass to Other use'

Q9bCorn='Conversion of tamend grassland to Corn land'

Q9bSoy='Conversion of tamend grassland to Soy land'

Q9bWht='Conversion of tamend grassland to Wheat land'

Q9bOth='Conversion of tamend grassland to Other use'

Q9cCorn='Conversion of CRP land to Corn land'

Q9cSoy='Conversion of CRP land to Soy land'

Q9cWht='Conversion of CRP land to Wheat land'

Q9cOth='Conversion of CRP land to Other use' ;

format CaseID State. ;

run;

proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=1;

class Region;

var Q9aCorn Q9aSoy Q9aWht Q9aOth Q9bCorn Q9bSoy Q9bWht Q9bOth Q9cCorn Q9cSoy Q9cWht Q9cOth ;

label

Q9aCorn='Conversion of native grass to Corn land'

Q9aSoy='Conversion of native grass to Soybean land'

Q9aWht='Conversion of native grass to Wheat land'

Q9aOth='Conversion of native grass to Other use'

Q9bCorn='Conversion of tamend grassland to Corn land'

Q9bSoy='Conversion of tamend grassland to Soy land'

Q9bWht='Conversion of tamend grassland to Wheat land'

Q9bOth='Conversion of tamend grassland to Other use'

Q9cCorn='Conversion of CRP land to Corn land'

Q9cSoy='Conversion of CRP land to Soy land'

Q9cWht='Conversion of CRP land to Wheat land'

Q9cOth='Conversion of CRP land to Other use' ;

run;

/\* means by selected farm operator Q9 part one \*19, 20,21, 22, 23 plus 1, 3a and 4 \*/

proc format;

value Age

1='19 to 34 years'

2='35 to 49 years'

3='50 to 59 years'

4='60 to 69 years'

5='70 years and over';

value Gender

1='Male'

2='Female';

value Education

1='Less than high school'

2='High school'

3='Some college/technical school'

4='4-year college degree'

5='Advanced degree (Masters, etc.)';

value Occupation

1='Farming or Ranching'

2='Employment in off-farm job'

3='Own/operate a non-farm business'

4='Retired';

value Sales

12='Less than $99,999'

3='From $100,000 up to $249,999'

4='From $250,000 up to $499,999'

5='From $500,000 up to $999,999'

6='$1 million or more';

run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;

class Q19;

var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN;

label Q19='Respondent Age'

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

format Q19 Age.;

run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;

class Q20;

var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN;

label Q20='Respondent Gender'

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

format Q20 Gender.;

run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;

class Q21;

var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN;

label Q21='Respondent Level of Education'

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

format Q21 Education.;

run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;

class Q22;

var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN;

label Q22='Principal Occupation'

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

format Q22 Occupation.;

run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;

class Q23;

var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN;

label Q23='Gross farm/ranch sales'

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

format Q23 Sales.;

run;

proc format;

value operation

1='Have been a farm operator'

2='less than 10 years as a farm operator'

3='10 to 10 years as a farm operator'

4='20 to 29 years as a farm operator'

5='30 years or more as a farm operator'

;

run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;

class Q1;

var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN;

label Q1 ='Years as a farm opertor'

Q23='Gross farm/ranch sales'

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

format Q1 operation.;

run;

proc format;

value Farmland 0 ='0 acres'

1-9 = '1 to 9 acres'

10-49 ='10 to 49 acres'

50-69 ='50 to 69 acres'

70-99 ='70 to 99 acres'

100-139 ='100 to 139 acres'

140-179 ='140 to 179 acres'

180-219 ='180 to 219 acres'

220-259 ='220 to 259 acres'

260-499 ='260 to 499 acres'

500-999 ='500 to 999 acres'

1000-1999 ='1,000 to 1,999 acres'

2000-4999 ='2,000 to 4,999 acres'

5000-high ='5000 acres and above';

run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;

class Q3A;

var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN;

label Q3A ='Farmland Acres Operated in 2014'

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

format Q3A Farmland.;

run;

proc format;

value Ownership

1='Own all acres farmed'

2='Own most acres farmed, rented the remainder'

3='Own and rent roughly equal number of farmland acres'

4='Rented most of the acres farmed,owned the remainder'

5='Rented all acres farmland'

6='Professional farm manager';

run;

proc means data=sasintro.dakota15clean n nmiss sum min max mean std maxdec=1;

class Q4;

var Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN;

label Q4 ='Best Ownership Status in 2014'

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

format Q4 Ownership.;

run;

/\* cross tab chi square test, Q9 part one region and state based, 19, 20, 21, 22, 23, \*/

proc format;

value Age

1='19 to 34 years'

2='35 to 49 years'

3='50 to 59 years'

4='60 to 69 years'

5='70 years and over';

value Gender

1='Male'

2='Female';

value Education

1='Less than high school'

2='High school'

3='Some college/technical school'

4='4-year college degree'

5='Advanced degree (Masters, etc.)';

value Occupation

1='Farming or Ranching'

2='Employment in off-farm job'

3='Own/operate a non-farm business'

4='Retired';

value Sales

12='Less than $99,999'

3='From $100,000 up to $249,999'

4='From $250,000 up to $499,999'

5='From $500,000 up to $999,999'

6='$1 million or more';

run;

proc format;

value Response

1='Yes'

2='No';

run;

proc freq data=sasintro.dakota15clean;

label Q19='Respondent Age'

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

tables (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)\*Q19/chisq;

format Q19 Age. Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.

Q9eYN Response. Q9fYN Response. ;

run;

proc format;

value Response

1='Yes'

2='No';

run;

proc freq data=sasintro.dakota15clean;

label Q20='Respondent Gender'

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

tables (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)\*Q20/chisq;

format Q20 Gender. Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.

Q9eYN Response. Q9fYN Response. ;

run;

proc format;

value Response

1='Yes'

2='No';

run;

proc freq data=sasintro.dakota15clean;

label Q21='Respondent Level of Education'

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

tables (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)\*Q21/chisq;

format Q21 Education. Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.

Q9eYN Response. Q9fYN Response. ;

run;

proc format;

value Response

1='Yes'

2='No';

run;

proc freq data=sasintro.dakota15clean;

label Q22='Principal Occupation'

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

tables (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)\*Q22/chisq;

format Q22 Occupation. Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.

Q9eYN Response. Q9fYN Response. ;

run;

proc format;

value Response

1='Yes'

2='No';

run;

proc freq data=sasintro.dakota15clean;

label Q23= 'Gross farm/ranch sales'

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

tables (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)\*Q23/chisq;

format Q23 Sales. Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.

Q9eYN Response. Q9fYN Response. ;

run;

proc format;

value Response

1='Yes'

2='No';

run;

proc format;

value operation

1='Have been a farm operator'

2='less than 10 years as a farm operator'

3='10 to 10 years as a farm operator'

4='20 to 29 years as a farm operator'

5='30 years or more as a farm operator'

;

run;

proc freq data=sasintro.dakota15clean;

label Q1= 'Year As a Farm Operator'

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

tables (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)\*Q1/chisq;

format Q1 Operation. Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.

Q9eYN Response. Q9fYN Response. ;

run;

proc format;

value Farmland 0 ='0 acres'

1-9 = '1 to 9 acres'

10-49 ='10 to 49 acres'

50-69 ='50 to 69 acres'

70-99 ='70 to 99 acres'

100-139 ='100 to 139 acres'

140-179 ='140 to 179 acres'

180-219 ='180 to 219 acres'

220-259 ='220 to 259 acres'

260-499 ='260 to 499 acres'

500-999 ='500 to 999 acres'

1000-1999 ='1,000 to 1,999 acres'

2000-4999 ='2,000 to 4,999 acres'

5000-high ='5000 acres and above';

run;

proc freq data=sasintro.dakota15clean;

label Q3A= 'Farmland Acres Operated in 2014'

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

tables (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)\*Q3A/chisq;

format Q3A Farmland. Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.

Q9eYN Response. Q9fYN Response. ;

run;

proc format;

value Ownership

1='Own all acres farmed'

2='Own most acres farmed, rented the remainder'

3='Own and rent roughly equal number of farmland acres'

4='Rented most of the acres farmed,owned the remainder'

5='Rented all acres farmland'

6='Professional farm manager';

run;

proc freq data=sasintro.dakota15clean;

label Q4= 'Best Ownership Status in 2014'

Q9aYN='Conversion of native grass to cropland'

Q9bYN='Conversion of tamend grassland to cropland'

Q9cYN='Conversion of CRP land to cropland'

Q9dYN='Conversion of CRP land to pasture/hay'

Q9eYN='Enrollment of farmland acres to CRP'

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

tables (Q9aYN Q9bYN Q9cYN Q9dYN Q9eYN Q9fYN)\*Q4/chisq;

format Q4 Ownership. Q9aYN Response. Q9bYN Response. Q9cYN Response. Q9dYN Response.

Q9eYN Response. Q9fYN Response. ;

run;

/\*\* question 11 frequency analysis State and Region Based\*\*/

proc format;

value Future

1='Yes'

2='No'

3='Dont Know';

run;

proc freq data=sasintro.dakota15;

label CaseID='State'

Q11a='Plan to convert native grassland to cropland in next 10 years'

Q11b='Plan to convert tame grassland to cropland in next 10 years'

Q11c='Plan to convert cropland to grassland in next 10 years';

tables (Q11a Q11b Q11c)\*CaseID/norow;

format CaseID State. Q11a Future. Q11b Future. Q11c Future.;

run;

proc format;

value Future

1='Yes'

2='No'

3='Dont Know';

run;

proc freq data=sasintro.dakota15;

label

Q11a='Plan to convert native grassland to cropland in next 10 years'

Q11b='Plan to convert tame grassland to cropland in next 10 years'

Q11c='Plan to convert cropland to grassland in next 10 years';

tables (Q11a Q11b Q11c)\* Region/norow;

format Q11a Future. Q11b Future. Q11c Future.;

run;

/\*\* question 11 frequency analysis State and Region Based with chisq \*\*/

proc format;

value Future

1='Yes'

2='No'

3='Dont Know';

run;

proc freq data=sasintro.dakota15;

label CaseID='State'

Q11a='Plan to convert native grassland to cropland in next 10 years'

Q11b='Plan to convert tame grassland to cropland in next 10 years'

Q11c='Plan to convert cropland to grassland in next 10 years';

tables (Q11a Q11b Q11c)\*CaseID/chisq;

format CaseID State. Q11a Future. Q11b Future. Q11c Future.;

run;

proc format;

value Future

1='Yes'

2='No'

3='Dont Know';

run;

proc freq data=sasintro.dakota15;

label

Q11a='Plan to convert native grassland to cropland in next 10 years'

Q11b='Plan to convert tame grassland to cropland in next 10 years'

Q11c='Plan to convert cropland to grassland in next 10 years';

tables (Q11a Q11b Q11c)\* Region/chisq;

format Q11a Future. Q11b Future. Q11c Future.;

run;

/\*\* question 11 Tabulate analysis State and Region Based\*\*/

proc tabulate data=sasintro.dakota15 format=10.;

class CaseID State;

var Q11a Q11b Q11c;

label CaseID='State'

Q11a='Plan to convert native grassland to cropland in next 10 years'

Q11b='Plan to convert tame grassland to cropland in next 10 years'

Q11c='Plan to convert cropland to grassland in next 10 years';

table (CaseID),(Q11a Q11b Q11c);

format CaseID State. Q11a Future. Q11b Future. Q11c Future.;

run;

proc tabulate data=sasintro.dakota15 format=10.;

class Region;

var Q11a Q11b Q11c;

label

Q11a='Plan to convert native grassland to cropland in next 10 years'

Q11b='Plan to convert tame grassland to cropland in next 10 years'

Q11c='Plan to convert cropland to grassland in next 10 years';

table (Region),(Q11a Q11b Q11c);

format Q11a Future. Q11b Future. Q11c Future.;

run;

/\*\* question 11 means analysis State and Region Based\*\*/

proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=0;

class CaseID State;

var Q11a Q11b Q11c;

label CaseID='State'

Q11a='Plan to convert native grassland to cropland in next 10 years'

Q11b='Plan to convert tame grassland to cropland in next 10 years'

Q11c='Plan to convert cropland to grassland in next 10 years';

format CaseID State. Q11a Future. Q11b Future. Q11c Future.;

run;

proc means data=sasintro.dakota15 n nmiss sum min max mean std maxdec=0;

class Region;

var Q11a Q11b Q11c;

label

Q11a='Plan to convert native grassland to cropland in next 10 years'

Q11b='Plan to convert tame grassland to cropland in next 10 years'

Q11c='Plan to convert cropland to grassland in next 10 years';

format Q11a Future. Q11b Future. Q11c Future.;

run;

/\* Q11 selected farm operator/business characteristics of responses plus 1, 3a and 4\*/

proc format;

value Age

1='19 to 34 years'

2='35 to 49 years'

3='50 to 59 years'

4='60 to 69 years'

5='70 years and over'

value Gender

1='Male'

2='Female'

value Education

1='Less than high school'

2='High school'

3='Some college/technical school'

4='4-year college degree'

5='Advanced degree (Masters, etc.)'

value Occupation

1='Farming or Ranching'

2='Employment in off-farm job'

3='Own/operate a non-farm business'

4='Retired'

value Sales

12='Less than $99,999'

3='From $100,000 up to $249,999'

4='From $250,000 up to $499,999'

5='From $500,000 up to $999,999'

6='$1 million or more';

run;

proc format;

value Future

1='Yes'

2='No'

3='Dont Know';

run;

proc freq data=sasintro.dakota15clean;

label Q19='Respondent Age'

Q11a='Plan to convert native grassland to cropland in next 10 years'

Q11b='Plan to convert tame grassland to cropland in next 10 years'

Q11c='Plan to convert cropland to grassland in next 10 years';

tables (Q11a Q11b Q11c)\*Q19/chisq;

format Q19 Age. Q11a Future. Q11b Future. Q11c Future.;

run;

proc freq data=sasintro.dakota15clean;

label Q20='Respondent Gender'

Q11a='Plan to convert native grassland to cropland in next 10 years'

Q11b='Plan to convert tame grassland to cropland in next 10 years'

Q11c='Plan to convert cropland to grassland in next 10 years';

tables (Q11a Q11b Q11c)\*Q20/chisq;

format Q20 Gender. Q11a Future. Q11b Future. Q11c Future.;

run;

proc freq data=sasintro.dakota15clean;

label Q21='Respondent Level of Education'

Q11a='Plan to convert native grassland to cropland in next 10 years'

Q11b='Plan to convert tame grassland to cropland in next 10 years'

Q11c='Plan to convert cropland to grassland in next 10 years';

tables (Q11a Q11b Q11c)\*Q21/chisq;

format Q21 Education. Q11a Future. Q11b Future. Q11c Future.;

run;

proc freq data=sasintro.dakota15clean;

label Q22='Principal Occupation'

Q11a='Plan to convert native grassland to cropland in next 10 years'

Q11b='Plan to convert tame grassland to cropland in next 10 years'

Q11c='Plan to convert cropland to grassland in next 10 years';

tables (Q11a Q11b Q11c)\*Q22/chisq;

format Q22 Occupation. Q11a Future. Q11b Future. Q11c Future.;

run;

proc freq data=sasintro.dakota15clean;

label Q23='Gross farm/ranch sales'

Q11a='Plan to convert native grassland to cropland in next 10 years'

Q11b='Plan to convert tame grassland to cropland in next 10 years'

Q11c='Plan to convert cropland to grassland in next 10 years';

tables (Q11a Q11b Q11c)\*Q23/chisq;

format Q23 Sales. Q11a Future. Q11b Future. Q11c Future.;

run;

proc format;

value operation

1='Have been a farm operator'

2='less than 10 years as a farm operator'

3='10 to 10 years as a farm operator'

4='20 to 29 years as a farm operator'

5='30 years or more as a farm operator'

;

run;

proc freq data=sasintro.dakota15clean;

label Q1='Years as a farm opertor'

Q11a='Plan to convert native grassland to cropland in next 10 years'

Q11b='Plan to convert tame grassland to cropland in next 10 years'

Q11c='Plan to convert cropland to grassland in next 10 years';

tables (Q11a Q11b Q11c)\*Q1/chisq;

format Q1 Operation. Q11a Future. Q11b Future. Q11c Future.;

run;

proc format;

value Farmland 0 ='0 acres'

1-9 = '1 to 9 acres'

10-49 ='10 to 49 acres'

50-69 ='50 to 69 acres'

70-99 ='70 to 99 acres'

100-139 ='100 to 139 acres'

140-179 ='140 to 179 acres'

180-219 ='180 to 219 acres'

220-259 ='220 to 259 acres'

260-499 ='260 to 499 acres'

500-999 ='500 to 999 acres'

1000-1999 ='1,000 to 1,999 acres'

2000-4999 ='2,000 to 4,999 acres'

5000-high ='5000 acres and above';

run;

proc freq data=sasintro.dakota15clean;

label Q3A='Farmland Acres Operated in 2014'

Q11a='Plan to convert native grassland to cropland in next 10 years'

Q11b='Plan to convert tame grassland to cropland in next 10 years'

Q11c='Plan to convert cropland to grassland in next 10 years';

tables (Q11a Q11b Q11c)\*Q3A/chisq;

format Q3A Farmland. Q11a Future. Q11b Future. Q11c Future.;

run;

proc format;

value Ownership

1='Own all acres farmed'

2='Own most acres farmed, rented the remainder'

3='Own and rent roughly equal number of farmland acres'

4='Rented most of the acres farmed,owned the remainder'

5='Rented all acres farmland'

6='Professional farm manager';

run;

proc freq data=sasintro.dakota15clean;

label Q4='Ownership Status in 2014'

Q11a='Plan to convert native grassland to cropland in next 10 years'

Q11b='Plan to convert tame grassland to cropland in next 10 years'

Q11c='Plan to convert cropland to grassland in next 10 years';

tables (Q11a Q11b Q11c)\*Q4/chisq;

format Q4 Ownership. Q11a Future. Q11b Future. Q11c Future.;

run;

/\*\*\* Chi square analysis Q10a vs Q9 \*\*/

/\*\* 9dYN,9eYN,9fYN versus 10a1\*\*/

proc format;

value Response

1='Yes'

2='No';

run;

proc freq data=sasintro.dakota15;

label

Q9dYN='Conversion of CRP land to pasture/hay'

Q10a1='Changing of crop prices';

tables Q10a1\* Q9dYN / chisq;

format Q10a1 Impact. Q9dYN Response.;

run;

proc freq data=sasintro.dakota15;

label

Q9eYN='Enrollment of farmland acres to CRP'

Q10a1='Changing of crop prices';

tables Q10a1\*Q9eYN / chisq;

format Q10a1 Impact. Q9eYN Response.;

run;

proc freq data=sasintro.dakota15;

label

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program'

Q10a1='Changing of crop prices';

tables Q10a1\*Q9fYN / chisq;

format Q10a1 Impact. Q9fYN Response.;

run;

/\*\* 9dYN,9eYN,9fYN versus 10a2\*\*/

proc format;

value Response

1='Yes'

2='No';

run;

proc freq data=sasintro.dakota15;

label

Q9dYN='Conversion of CRP land to pasture/hay'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)';

tables Q10a2\* Q9dYN / chisq;

format Q10a2 Impact. Q9dYN Response.;

run;

proc freq data=sasintro.dakota15;

label

Q9eYN='Enrollment of farmland acres to CRP'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)';

tables Q10a2\*Q9eYN / chisq;

format Q10a2 Impact. Q9eYN Response.;

run;

proc freq data=sasintro.dakota15;

label

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)';

tables Q10a2\*Q9fYN / chisq;

format Q10a2 Impact. Q9fYN Response.;

run;

/\*\* 9dYN,9eYN,9fYN versus 10a3\*\*/

proc format;

value Response

1='Yes'

2='No';

run;

proc freq data=sasintro.dakota15;

label

Q9dYN='Conversion of CRP land to pasture/hay'

Q10a3='Availability of crop and revenue insurance policies';

tables Q10a3\* Q9dYN / chisq;

format Q10a3 Impact. Q9dYN Response.;

run;

proc freq data=sasintro.dakota15;

label

Q9eYN='Enrollment of farmland acres to CRP'

Q10a3='Availability of crop and revenue insurance policies';

tables Q10a3\*Q9eYN / chisq;

format Q10a3 Impact. Q9eYN Response.;

run;

proc freq data=sasintro.dakota15;

label

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program'

Q10a3='Availability of crop and revenue insurance policies';

tables Q10a3\*Q9fYN / chisq;

format Q10a3 Impact. Q9fYN Response.;

run;

/\*\* 9dYN,9eYN,9fYN versus 10a4\*\*/

proc format;

value Response

1='Yes'

2='No';

run;

proc freq data=sasintro.dakota15;

label

Q9dYN='Conversion of CRP land to pasture/hay'

Q10a4='Availability of drought-tolerant seed';

tables Q10a4\* Q9dYN / chisq;

format Q10a4 Impact. Q9dYN Response.;

run;

proc freq data=sasintro.dakota15;

label

Q9eYN='Enrollment of farmland acres to CRP'

Q10a4='Availability of drought-tolerant seed';

tables Q10a4\*Q9eYN / chisq;

format Q10a4 Impact. Q9eYN Response.;

run;

proc freq data=sasintro.dakota15;

label

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program'

Q10a4='Availability of drought-tolerant seed';

tables Q10a4\*Q9fYN / chisq;

format Q10a4 Impact. Q9fYN Response.;

run;

/\*\* 9dYN,9eYN,9fYN versus 10a5\*\*/

proc format;

value Response

1='Yes'

2='No';

run;

proc freq data=sasintro.dakota15;

label

Q9dYN='Conversion of CRP land to pasture/hay'

Q10a5='Developments in pest management practices, including pest management seed traits';

tables Q10a5\* Q9dYN / chisq;

format Q10a5 Impact. Q9dYN Response.;

run;

proc freq data=sasintro.dakota15;

label

Q9eYN='Enrollment of farmland acres to CRP'

Q10a5='Developments in pest management practices, including pest management seed traits';

tables Q10a5\*Q9eYN / chisq;

format Q10a5 Impact. Q9eYN Response.;

run;

proc freq data=sasintro.dakota15;

label

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program'

Q10a5='Developments in pest management practices, including pest management seed traits';

tables Q10a5\*Q9fYN / chisq;

format Q10a5 Impact. Q9fYN Response.;

run;

/\*\* 9dYN,9eYN,9fYN versus 10a6\*\*/

proc format;

value Response

1='Yes'

2='No';

run;

proc freq data=sasintro.dakota15;

label

Q9dYN='Conversion of CRP land to pasture/hay'

Q10a6='Improved crop yields (other than seed related traits)';

tables Q10a6\* Q9dYN / chisq;

format Q10a6 Impact. Q9dYN Response.;

run;

proc freq data=sasintro.dakota15;

label

Q9eYN='Enrollment of farmland acres to CRP'

Q10a6='Improved crop yields (other than seed related traits)';

tables Q10a6\*Q9eYN / chisq;

format Q10a6 Impact. Q9eYN Response.;

run;

proc freq data=sasintro.dakota15;

label

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program'

Q10a6='Improved crop yields (other than seed related traits';

tables Q10a6\*Q9fYN / chisq;

format Q10a6 Impact. Q9fYN Response.;

run;

/\*\* 9dYN,9eYN,9fYN versus 10a7\*\*/

proc format;

value Response

1='Yes'

2='No';

run;

proc freq data=sasintro.dakota15;

label

Q9dYN='Conversion of CRP land to pasture/hay'

Q10a7='Development of more efficient cropping equipment';

tables Q10a7\* Q9dYN / chisq;

format Q10a7 Impact. Q9dYN Response.;

run;

proc freq data=sasintro.dakota15;

label

Q9eYN='Enrollment of farmland acres to CRP'

Q10a7='Development of more efficient cropping equipment';

tables Q10a7\*Q9eYN / chisq;

format Q10a7 Impact. Q9eYN Response.;

run;

proc freq data=sasintro.dakota15;

label

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program'

Q10a7='Development of more efficient cropping equipment';

tables Q10a7\*Q9fYN / chisq;

format Q10a7 Impact. Q9fYN Response.;

run;

/\*\* 9dYN,9eYN,9fYN versus 10a8\*\*/

proc format;

value Response

1='Yes'

2='No';

run;

proc freq data=sasintro.dakota15;

label

Q9dYN='Conversion of CRP land to pasture/hay'

Q10a8='Labor availability problems';

tables Q10a8\* Q9dYN / chisq;

format Q10a8 Impact. Q9dYN Response.;

run;

proc freq data=sasintro.dakota15;

label

Q9eYN='Enrollment of farmland acres to CRP'

Q10a8='Labor availability problems';

tables Q10a8\*Q9eYN / chisq;

format Q10a8 Impact. Q9eYN Response.;

run;

proc freq data=sasintro.dakota15;

label

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program'

Q10a8='Labor availability problems';

tables Q10a8\*Q9fYN / chisq;

format Q10a8 Impact. Q9fYN Response.;

run;

/\*\* 9aYN,9bYN,9cYN versus 10a9\*\*/

proc format;

value Response

1='Yes'

2='No';

run;

proc freq data=sasintro.dakota15;

label

Q9dYN='Conversion of CRP land to pasture/hay'

Q10a9='Improving wildlife habitat';

tables Q10a9\* Q9dYN / chisq;

format Q10a9 Impact. Q9dYN Response.;

run;

proc freq data=sasintro.dakota15;

label

Q9eYN='Enrollment of farmland acres to CRP'

Q10a9='Improving wildlife habitat';

tables Q10a9\*Q9eYN / chisq;

format Q10a9 Impact. Q9eYN Response.;

run;

proc freq data=sasintro.dakota15;

label

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program'

Q10a9='Improving wildlife habitat';

tables Q10a9\*Q9fYN / chisq;

format Q10a9 Impact. Q9fYN Response.;

run;

/\*\* 9aYN,9bYN,9cYN versus 10a10\*\*/

proc format;

value Response

1='Yes'

2='No';

run;

proc freq data=sasintro.dakota15;

label

Q9dYN='Conversion of CRP land to pasture/hay'

Q10a10='Changing weather /climate patterns';

tables Q10a10\* Q9dYN / chisq;

format Q10a10 Impact. Q9dYN Response.;

run;

proc freq data=sasintro.dakota15;

label

Q9eYN='Enrollment of farmland acres into CRP'

Q10a10='Changing weather /climate patterns';

tables Q10a10\*Q9eYN / chisq;

format Q10a10 Impact. Q9eYN Response.;

run;

proc freq data=sasintro.dakota15;

label

Q9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program'

Q10a10='Changing weather /climate patterns';

tables Q10a10\*Q9fYN / chisq;

format Q10a10 Impact. Q9fYN Response.;

run;

/\*\*logistic regression\*\*/

data sasintro.dakota15reg;

set sasintro.dakota15clean;

if (Q9aYN=1) then NQ9aYN=0;

if (Q9aYN=2) then NQ9aYN=1;

if (Q9bYN=1) then NQ9bYN=0;

if (Q9bYN=2) then NQ9bYN=1;

if (Q9cYN=1) then NQ9cYN=0;

if (Q9cYN=2) then NQ9cYN=1;

if (Q9dYN=1) then NQ9dYN=0;

if (Q9dYN=2) then NQ9dYN=1;

if (Q9eYN=1) then NQ9eYN=0;

if (Q9eYN=2) then NQ9eYN=1;

if (Q9fYN=1) then NQ9fYN=0;

if (Q9fYN=2) then NQ9fYN=1;

run;

proc print data=sasintro.dakota15reg;

run;

proc format;

value Age

1='19 to 34 years'

2='35 to 49 years'

3='50 to 59 years'

4='60 to 69 years'

5='70 years and over';

value Gender

1='Male'

2='Female';

value Education

1='Less than high school'

2='High school'

3='Some college/technical school'

4='4-year college degree'

5='Advanced degree (Masters, etc.)';

value Occupation

1='Farming or Ranching'

2='Employment in off-farm job'

3='Own/operate a non-farm business'

4='Retired';

value Sales

12='Less than $99,999'

3='From $100,000 up to $249,999'

4='From $250,000 up to $499,999'

5='From $500,000 up to $999,999'

6='$1 million or more';

run;

proc format;

value operation

1='Have been a farm operator'

2='less than 10 years as a farm operator'

3='10 to 10 years as a farm operator'

4='20 to 29 years as a farm operator'

5='30 years or more as a farm operator'

;

run;

proc format;

value Farmland 0 ='0 acres'

1-9 = '1 to 9 acres'

10-49 ='10 to 49 acres'

50-69 ='50 to 69 acres'

70-99 ='70 to 99 acres'

100-139 ='100 to 139 acres'

140-179 ='140 to 179 acres'

180-219 ='180 to 219 acres'

220-259 ='220 to 259 acres'

260-499 ='260 to 499 acres'

500-999 ='500 to 999 acres'

1000-1999 ='1,000 to 1,999 acres'

2000-4999 ='2,000 to 4,999 acres'

5000-high ='5000 acres and above';

run;

proc format;

value Ownership

1='Own all acres farmed'

2='Own most acres farmed, rented the remainder'

3='Own and rent roughly equal number of farmland acres'

4='Rented most of the acres farmed,owned the remainder'

5='Rented all acres farmland'

6='Professional farm manager';

run;

proc format;

value Regroup

0='Yes'

1='No';

run;

proc logistic data=sasintro.dakota15reg;

label CaseID='State'

Q19='Respondent Age'

Q20='Respondent Gender'

Q21='Respondent Level of Education'

Q22='Principal Ocupation'

Q23='Gross farm/ranch sales'

Q1=' Years as a farm operator'

Q3A='Farmland acres operated in 2014'

Q4='Ownership Status in 2014'

NQ9aYN='Conversion of native grass to cropland';

class NQ9aYN CaseID / param=ref;

model NQ9aYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 CaseID /rsquare;

format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.

Q3A Farmland. Q4 Ownership. NQ9aYN Regroup. CaseID State.;

run;

proc format;

value Regroup

0='Yes'

1='No';

run;

proc logistic data=sasintro.dakota15reg;

label CaseID='State'

Q19='Respondent Age'

Q20='Respondent Gender'

Q21='Respondent Level of Education'

Q22='Principal Ocupation'

Q23='Gross farm/ranch sales'

Q1=' Years as a farm operator'

Q3A='Farmland acres operated in 2014'

Q4='Ownership Status in 2014'

NQ9bYN='Conversion of tame grassland to cropland';

class NQ9bYN CaseID / param=ref;

model NQ9bYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 CaseID /rsquare;

format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.

Q3A Farmland. Q4 Ownership. NQ9bYN Regroup. CaseID State.;

run;

proc format;

value Regroup

0='Yes'

1='No';

run;

proc logistic data=sasintro.dakota15reg;

label CaseID='State'

Q19='Respondent Age'

Q20='Respondent Gender'

Q21='Respondent Level of Education'

Q22='Principal Ocupation'

Q23='Gross farm/ranch sales'

Q1=' Years as a farm operator'

Q3A='Farmland acres operated in 2014'

Q4='Ownership Status in 2014'

NQ9cYN='Conversion of CRP land to cropland';

class NQ9cYN CaseID / param=ref;

model NQ9cYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 CaseID /rsquare;

format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.

Q3A Farmland. Q4 Ownership. NQ9cYN Regroup. CaseID State.;

run;

proc format;

value Regroup

0='Yes'

1='No';

run;

proc logistic data=sasintro.dakota15reg;

label CaseID='State'

Q19='Respondent Age'

Q20='Respondent Gender'

Q21='Respondent Level of Education'

Q22='Principal Ocupation'

Q23='Gross farm/ranch sales'

Q1=' Years as a farm operator'

Q3A='Farmland acres operated in 2014'

Q4='Ownership Status in 2014'

NQ9dYN='Conversion of CRP land to pasture/hay';

class NQ9dYN CaseID / param=ref;

model NQ9dYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 CaseID /rsquare;

format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.

Q3A Farmland. Q4 Ownership. NQ9dYN Regroup. CaseID State.;

run;

proc format;

value Regroup

0='Yes'

1='No';

run;

proc logistic data=sasintro.dakota15reg;

label CaseID='State'

Q19='Respondent Age'

Q20='Respondent Gender'

Q21='Respondent Level of Education'

Q22='Principal Ocupation'

Q23='Gross farm/ranch sales'

Q1=' Years as a farm operator'

Q3A='Farmland acres operated in 2014'

Q4='Ownership Status in 2014'

NQ9eYN='Enrollment of farmland acres into CRP';

class NQ9eYN CaseID / param=ref;

model NQ9eYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 CaseID /rsquare;

format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.

Q3A Farmland. Q4 Ownership. NQ9eYN Regroup. CaseID State.;

run;

proc format;

value Regroup

0='Yes'

1='No';

run;

proc logistic data=sasintro.dakota15reg;

label CaseID='State'

Q19='Respondent Age'

Q20='Respondent Gender'

Q21='Respondent Level of Education'

Q22='Principal Ocupation'

Q23='Gross farm/ranch sales'

Q1=' Years as a farm operator'

Q3A='Farmland acres operated in 2014'

Q4='Ownership Status in 2014'

NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

class NQ9fYN CaseID / param=ref;

model NQ9fYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 CaseID /rsquare;

format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.

Q3A Farmland. Q4 Ownership. NQ9fYN Regroup. CaseID State.;

run;

/\*Region based Regression\*/

proc format;

value Age

1='19 to 34 years'

2='35 to 49 years'

3='50 to 59 years'

4='60 to 69 years'

5='70 years and over';

value Gender

1='Male'

2='Female';

value Education

1='Less than high school'

2='High school'

3='Some college/technical school'

4='4-year college degree'

5='Advanced degree (Masters, etc.)';

value Occupation

1='Farming or Ranching'

2='Employment in off-farm job'

3='Own/operate a non-farm business'

4='Retired';

value Sales

12='Less than $99,999'

3='From $100,000 up to $249,999'

4='From $250,000 up to $499,999'

5='From $500,000 up to $999,999'

6='$1 million or more';

run;

proc format;

value operation

1='Have been a farm operator'

2='less than 10 years as a farm operator'

3='10 to 10 years as a farm operator'

4='20 to 29 years as a farm operator'

5='30 years or more as a farm operator'

;

run;

proc format;

value Farmland 0 ='0 acres'

1-9 = '1 to 9 acres'

10-49 ='10 to 49 acres'

50-69 ='50 to 69 acres'

70-99 ='70 to 99 acres'

100-139 ='100 to 139 acres'

140-179 ='140 to 179 acres'

180-219 ='180 to 219 acres'

220-259 ='220 to 259 acres'

260-499 ='260 to 499 acres'

500-999 ='500 to 999 acres'

1000-1999 ='1,000 to 1,999 acres'

2000-4999 ='2,000 to 4,999 acres'

5000-high ='5000 acres and above';

run;

proc format;

value Ownership

1='Own all acres farmed'

2='Own most acres farmed, rented the remainder'

3='Own and rent roughly equal number of farmland acres'

4='Rented most of the acres farmed,owned the remainder'

5='Rented all acres farmland'

6='Professional farm manager';

run;

proc format;

value Regroup

0='Yes'

1='No';

run;

proc logistic data=sasintro.dakota15reg;

label

Q19='Respondent Age'

Q20='Respondent Gender'

Q21='Respondent Level of Education'

Q22='Principal Ocupation'

Q23='Gross farm/ranch sales'

Q1=' Years as a farm operator'

Q3A='Farmland acres operated in 2014'

Q4='Ownership Status in 2014'

NQ9aYN='Conversion of native grass to cropland';

class NQ9aYN Region / param=ref;

model NQ9aYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 Region /rsquare;

format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.

Q3A Farmland. Q4 Ownership. NQ9aYN Regroup.;

run;

proc format;

value Regroup

0='Yes'

1='No';

run;

proc logistic data=sasintro.dakota15reg;

label

Q19='Respondent Age'

Q20='Respondent Gender'

Q21='Respondent Level of Education'

Q22='Principal Ocupation'

Q23='Gross farm/ranch sales'

Q1=' Years as a farm operator'

Q3A='Farmland acres operated in 2014'

Q4='Ownership Status in 2014'

NQ9bYN='Conversion of tame grassland to cropland';

class NQ9bYN Region/ param=ref;

model NQ9bYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 Region /rsquare;

format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.

Q3A Farmland. Q4 Ownership. NQ9bYN Regroup.;

run;

proc format;

value Regroup

0='Yes'

1='No';

run;

proc logistic data=sasintro.dakota15reg;

label

Q19='Respondent Age'

Q20='Respondent Gender'

Q21='Respondent Level of Education'

Q22='Principal Ocupation'

Q23='Gross farm/ranch sales'

Q1=' Years as a farm operator'

Q3A='Farmland acres operated in 2014'

Q4='Ownership Status in 2014'

NQ9cYN='Conversion of CRP land to cropland';

class NQ9cYN Region/ param=ref;

model NQ9cYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 Region /rsquare;

format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.

Q3A Farmland. Q4 Ownership. NQ9cYN Regroup.;

run;

proc format;

value Regroup

0='Yes'

1='No';

run;

proc logistic data=sasintro.dakota15reg;

label

Q19='Respondent Age'

Q20='Respondent Gender'

Q21='Respondent Level of Education'

Q22='Principal Ocupation'

Q23='Gross farm/ranch sales'

Q1=' Years as a farm operator'

Q3A='Farmland acres operated in 2014'

Q4='Ownership Status in 2014'

NQ9dYN='Conversion of CRP land to pasture/hay';

class NQ9dYN Region / param=ref;

model NQ9dYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 Region /rsquare;

format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.

Q3A Farmland. Q4 Ownership. NQ9dYN Regroup.;

run;

proc format;

value Regroup

0='Yes'

1='No';

run;

proc logistic data=sasintro.dakota15reg;

label

Q19='Respondent Age'

Q20='Respondent Gender'

Q21='Respondent Level of Education'

Q22='Principal Ocupation'

Q23='Gross farm/ranch sales'

Q1=' Years as a farm operator'

Q3A='Farmland acres operated in 2014'

Q4='Ownership Status in 2014'

NQ9eYN='Enrollment of farmland acres into CRP';

class NQ9eYN Region / param=ref;

model NQ9eYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 Region /rsquare;

format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.

Q3A Farmland. Q4 Ownership. NQ9eYN Regroup.;

run;

proc format;

value Regroup

0='Yes'

1='No';

run;

proc logistic data=sasintro.dakota15reg;

label

Q19='Respondent Age'

Q20='Respondent Gender'

Q21='Respondent Level of Education'

Q22='Principal Ocupation'

Q23='Gross farm/ranch sales'

Q1=' Years as a farm operator'

Q3A='Farmland acres operated in 2014'

Q4='Ownership Status in 2014'

NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

class NQ9fYN Region / param=ref;

model NQ9fYN = Q19 Q20 Q21 Q22 Q23 Q1 Q3A Q4 Region /rsquare;

format Q19 Age. Q20 Gender. Q21 Education. Q22 Occupation. Q23 Sales. Q1 Operation.

Q3A Farmland. Q4 Ownership. NQ9fYN Regroup.;

run;

/\*extra analysis start\*/

proc format;

value Regroup

0='Yes'

1='No';

run;

proc logistic data=sasintro.dakota15reg;

label CaseID='State'

Q19='Respondent Age'

NQ9aYN='Conversion of native grass to cropland'

NQ9bYN='Conversion of tamend grassland to cropland'

NQ9cYN='Conversion of CRP land to cropland'

NQ9dYN='Conversion of CRP land to pasture/hay'

NQ9eYN='Enrollment of farmland acres to CRP'

NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID / param=ref;

model Q19 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID /rsquare;

format Q19 Age. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup. CaseID State.;

run;

proc logistic data=sasintro.dakota15reg;

label

Q19='Respondent Age'

NQ9aYN='Conversion of native grass to cropland'

NQ9bYN='Conversion of tamend grassland to cropland'

NQ9cYN='Conversion of CRP land to cropland'

NQ9dYN='Conversion of CRP land to pasture/hay'

NQ9eYN='Enrollment of farmland acres to CRP'

NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region / param=ref;

model Q19 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region /rsquare;

format Q19 Age. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup.;

run;

proc logistic data=sasintro.dakota15reg;

label CaseID='State'

Q20='Respondent Gender'

NQ9aYN='Conversion of native grass to cropland'

NQ9bYN='Conversion of tamend grassland to cropland'

NQ9cYN='Conversion of CRP land to cropland'

NQ9dYN='Conversion of CRP land to pasture/hay'

NQ9eYN='Enrollment of farmland acres to CRP'

NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID / param=ref;

model Q20 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID /rsquare;

format Q20 Gender. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup. CaseID State.;

run;

proc logistic data=sasintro.dakota15reg;

label

Q20='Respondent Gender'

NQ9aYN='Conversion of native grass to cropland'

NQ9bYN='Conversion of tamend grassland to cropland'

NQ9cYN='Conversion of CRP land to cropland'

NQ9dYN='Conversion of CRP land to pasture/hay'

NQ9eYN='Enrollment of farmland acres to CRP'

NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region / param=ref;

model Q20 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region /rsquare;

format Q20 Gender. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup.;

run;

proc logistic data=sasintro.dakota15reg;

label CaseID='State'

Q21='Respondent Level of Education'

NQ9aYN='Conversion of native grass to cropland'

NQ9bYN='Conversion of tamend grassland to cropland'

NQ9cYN='Conversion of CRP land to cropland'

NQ9dYN='Conversion of CRP land to pasture/hay'

NQ9eYN='Enrollment of farmland acres to CRP'

NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID / param=ref;

model Q21 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID /rsquare;

format Q21 Education. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup. CaseID State.;

run;

proc logistic data=sasintro.dakota15reg;

label

Q21='Respondent Level of Education'

NQ9aYN='Conversion of native grass to cropland'

NQ9bYN='Conversion of tamend grassland to cropland'

NQ9cYN='Conversion of CRP land to cropland'

NQ9dYN='Conversion of CRP land to pasture/hay'

NQ9eYN='Enrollment of farmland acres to CRP'

NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region / param=ref;

model Q21 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region /rsquare;

format Q21 Education. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup.;

run;

proc logistic data=sasintro.dakota15reg;

label CaseID='State'

Q22='Principal Occupation'

NQ9aYN='Conversion of native grass to cropland'

NQ9bYN='Conversion of tamend grassland to cropland'

NQ9cYN='Conversion of CRP land to cropland'

NQ9dYN='Conversion of CRP land to pasture/hay'

NQ9eYN='Enrollment of farmland acres to CRP'

NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID / param=ref;

model Q22 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID /rsquare;

format Q22 Occupation. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup. CaseID State.;

run;

proc logistic data=sasintro.dakota15reg;

label

Q22='Principal Occupation'

NQ9aYN='Conversion of native grass to cropland'

NQ9bYN='Conversion of tamend grassland to cropland'

NQ9cYN='Conversion of CRP land to cropland'

NQ9dYN='Conversion of CRP land to pasture/hay'

NQ9eYN='Enrollment of farmland acres to CRP'

NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region / param=ref;

model Q22 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region /rsquare;

format Q22 Occupation. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup.;

run;

proc logistic data=sasintro.dakota15reg;

label CaseID='State'

Q23='Gross farm/ranch sales'

NQ9aYN='Conversion of native grass to cropland'

NQ9bYN='Conversion of tamend grassland to cropland'

NQ9cYN='Conversion of CRP land to cropland'

NQ9dYN='Conversion of CRP land to pasture/hay'

NQ9eYN='Enrollment of farmland acres to CRP'

NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID / param=ref;

model Q23 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID /rsquare;

format Q23 Sales. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup. CaseID State.;

run;

proc logistic data=sasintro.dakota15reg;

label

Q23='Gross farm/ranch sales'

NQ9aYN='Conversion of native grass to cropland'

NQ9bYN='Conversion of tamend grassland to cropland'

NQ9cYN='Conversion of CRP land to cropland'

NQ9dYN='Conversion of CRP land to pasture/hay'

NQ9eYN='Enrollment of farmland acres to CRP'

NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region / param=ref;

model Q23 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region /rsquare;

format Q23 Sales. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup.;

run;

proc logistic data=sasintro.dakota15reg;

label CaseID='State'

Q1='Years as a farm opertor'

NQ9aYN='Conversion of native grass to cropland'

NQ9bYN='Conversion of tamend grassland to cropland'

NQ9cYN='Conversion of CRP land to cropland'

NQ9dYN='Conversion of CRP land to pasture/hay'

NQ9eYN='Enrollment of farmland acres to CRP'

NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID / param=ref;

model Q1 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID /rsquare;

format Q1 Operation. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup. CaseID State.;

run;

proc logistic data=sasintro.dakota15reg;

label

Q1='Years as a farm opertor'

NQ9aYN='Conversion of native grass to cropland'

NQ9bYN='Conversion of tamend grassland to cropland'

NQ9cYN='Conversion of CRP land to cropland'

NQ9dYN='Conversion of CRP land to pasture/hay'

NQ9eYN='Enrollment of farmland acres to CRP'

NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region / param=ref;

model Q1 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region /rsquare;

format Q1 Operation. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup.;

run;

proc format;

value Farmland 0 ='0 acres'

1-9 = '1 to 9 acres'

10-49 ='10 to 49 acres'

50-69 ='50 to 69 acres'

70-99 ='70 to 99 acres'

100-139 ='100 to 139 acres'

140-179 ='140 to 179 acres'

180-219 ='180 to 219 acres'

220-259 ='220 to 259 acres'

260-499 ='260 to 499 acres'

500-999 ='500 to 999 acres'

1000-1999 ='1,000 to 1,999 acres'

2000-4999 ='2,000 to 4,999 acres'

5000-high ='5000 acres and above';

run;

proc logistic data=sasintro.dakota15reg;

label CaseID='State'

Q3a='Farmland acres operated in 2014'

NQ9aYN='Conversion of native grass to cropland'

NQ9bYN='Conversion of tamend grassland to cropland'

NQ9cYN='Conversion of CRP land to cropland'

NQ9dYN='Conversion of CRP land to pasture/hay'

NQ9eYN='Enrollment of farmland acres to CRP'

NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID / param=ref;

model Q3a = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID /rsquare;

format Q3a Farmland. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup. CaseID State.;

run;

proc logistic data=sasintro.dakota15reg;

label

Q3a='Farmland acres operated in 2014'

NQ9aYN='Conversion of native grass to cropland'

NQ9bYN='Conversion of tamend grassland to cropland'

NQ9cYN='Conversion of CRP land to cropland'

NQ9dYN='Conversion of CRP land to pasture/hay'

NQ9eYN='Enrollment of farmland acres to CRP'

NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region / param=ref;

model Q3a = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region /rsquare;

format Q3a Farmland. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup.;

run;

proc format;

value Ownership

1='Own all acres farmed'

2='Own most acres farmed, rented the remainder'

3='Own and rent roughly equal number of farmland acres'

4='Rented most of the acres farmed,owned the remainder'

5='Rented all acres farmland'

6='Professional farm manager';

run;

proc logistic data=sasintro.dakota15reg;

label CaseID='State'

Q4='Ownersip Status in 2014'

NQ9aYN='Conversion of native grass to cropland'

NQ9bYN='Conversion of tamend grassland to cropland'

NQ9cYN='Conversion of CRP land to cropland'

NQ9dYN='Conversion of CRP land to pasture/hay'

NQ9eYN='Enrollment of farmland acres to CRP'

NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID / param=ref;

model Q4 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN CaseID /rsquare;

format Q4 Ownership. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup. CaseID State.;

run;

proc logistic data=sasintro.dakota15reg;

label

Q4='Ownersip Status in 2014'

NQ9aYN='Conversion of native grass to cropland'

NQ9bYN='Conversion of tamend grassland to cropland'

NQ9cYN='Conversion of CRP land to cropland'

NQ9dYN='Conversion of CRP land to pasture/hay'

NQ9eYN='Enrollment of farmland acres to CRP'

NQ9fYN='Enrollment of land into WRP (wetland reserve) or grass easement program';

class NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region / param=ref;

model Q4 = NQ9aYN NQ9bYN NQ9cYN NQ9dYN NQ9eYN NQ9fYN Region /rsquare;

format Q4 Ownership. NQ9aYN regroup. NQ9bYN regroup. NQ9cYN regroup. NQ9dYN regroup. NQ9eYN regroup. NQ9fYN regroup.;

run;

/\*extra analysis end \*/

/\* Q10 related regression analysis start \*/

data sasintro.dakota15regQ10a;

set sasintro.dakota15clean;

if (Q10a1=1) then NQ10a1=0;

if (Q10a1=2) or (Q10a1=3) then NQ10a1=1;

if (Q10a1=4) or (Q10a1=5) then NQ10a1=2;

if (Q10a2=1) then NQ10a2=0;

if (Q10a2=2) or (Q10a2=3) then NQ10a2=1;

if (Q10a2=4) or (Q10a2=5) then NQ10a2=2;

if (Q10a10=1) then NQ10a10=0;

if (Q10a10=2) or (Q10a10=3) then NQ10a10=1;

if (Q10a10=4) or (Q10a10=5) then NQ10a10=2;

if (Q10a7=1) then NQ10a7=0;

if (Q10a7=2) or (Q10a7=3) then NQ10a7=1;

if (Q10a7=4) or (Q10a7=5) then NQ10a7=2;

if (Q10a6=1) then NQ10a6=0;

if (Q10a6=2) or (Q10a6=3) then NQ10a6=1;

if (Q10a6=4) or (Q10a6=5) then NQ10a6=2;

if (Q10a3=1) then NQ10a3=0;

if (Q10a3=2) or (Q10a3=3) then NQ10a3=1;

if (Q10a3=4) or (Q10a3=5) then NQ10a3=2;

if (Q10a5=1) then NQ10a5=0;

if (Q10a5=2) or (Q10a5=3) then NQ10a5=1;

if (Q10a5=4) or (Q10a5=5) then NQ10a5=2;

if (Q10a8=1) then NQ10a8=0;

if (Q10a8=2) or (Q10a8=3) then NQ10a8=1;

if (Q10a8=4) or (Q10a8=5) then NQ10a8=2;

if (Q10a9=1) then NQ10a9=0;

if (Q10a9=2) or (Q10a9=3) then NQ10a9=1;

if (Q10a9=4) or (Q10a9=5) then NQ10a9=2;

if (Q10a4=1) then NQ10a4=0;

if (Q10a4=2) or (Q10a4=3) then NQ10a4=1;

if (Q10a4=4) or (Q10a4=5) then NQ10a4=2;

run;

proc print data=sasintro.dakota15regQ10a;

run;

proc format;

value Reformat

0='No Impact'

1='Some Impact'

2='Great Impact';

run;

proc GLM data=sasintro.dakota15regQ10a;

class NQ10a1 region;

level NQ10a1='Changing crop prices';

model NQ10a1=region;

format NQ10a1 reformat.;

run;

proc GLM data=sasintro.dakota15regQ10a;

class NQ10a2 region;

Level Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)';

model NQ10a2=region;

format NQ10a2 reformat.;

run;

proc GLM data=sasintro.dakota15regQ10a;

class NQ10a3 region;

Level Q10a3='Availability of crop and revenue insurance policies';

model NQ10a3=region;

format NQ10a3 reformat.;

run;

proc GLM data=sasintro.dakota15regQ10a;

class NQ10a4 region;

Level NQ10a4='Availability of drought-tolerant seed';

model NQ10a4=region;

format NQ10a4 reformat.;

run;

proc GLM data=sasintro.dakota15regQ10a;

class NQ10a5 region;

Level NQ10a5='Developments in pest management practices, including pest management seed traits';

model NQ10a5=region;

format NQ10a5 reformat.;

run;

proc GLM data=sasintro.dakota15regQ10a;

class NQ10a6 region;

Level NQ10a6='Improved crop yields (other than seed related traits)';

model NQ10a6=region;

format NQ10a6 reformat.;

run;

proc GLM data=sasintro.dakota15regQ10a;

class NQ10a7 region;

Level NQ10a7='Development of more efficient cropping equipment';

model NQ10a7=region;

format NQ10a7 reformat.;

run;

proc GLM data=sasintro.dakota15regQ10a;

class NQ10a7 region;

Level NQ10a7='Development of more efficient cropping equipment';

model NQ10a7=region;

format NQ10a7 reformat.;

run;

proc GLM data=sasintro.dakota15regQ10a;

class NQ10a8 region;

Level NQ10a8='Labor availability problems';

model NQ10a8=region;

format NQ10a8 reformat.;

run;

proc GLM data=sasintro.dakota15regQ10a;

class NQ10a9 region;

Level NQ10a9='Improving wildlife habitat';

model NQ10a9=region;

format NQ10a9 reformat.;

run;

proc GLM data=sasintro.dakota15regQ10a;

class NQ10a10 region;

Level NQ10a10='Changing weather /climate patterns';

model NQ10a10=region;

format NQ10a10 reformat.;

run;

/\* Q10a related latest regression \*/

proc format;

value Impact

1='No Impact'

2='Slight Impact'

3='Some Impact'

4='Quite a bit of Impact'

5='Great Impact';

run;

proc GLM data=sasintro.dakota15clean;

class Q10a1 region;

level Q10a1='Changing crop prices';

model Q10a1=region;

format Q10a1 impact.;

run;

proc GLM data=sasintro.dakota15clean;

class Q10a2 region;

Level Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)';

model Q10a2=region;

format Q10a2 impact.;

run;

proc GLM data=sasintro.dakota15clean;

class Q10a3 region;

Level Q10a3='Availability of crop and revenue insurance policies';

model Q10a3=region;

format Q10a3 impact.;

run;

proc GLM data=sasintro.dakota15clean;

class NQ10a4 region;

Level Q10a4='Availability of drought-tolerant seed';

model Q10a4=region;

format Q10a4 impact.;

run;

proc GLM data=sasintro.dakota15clean;

class Q10a5 region;

Level Q10a5='Developments in pest management practices, including pest management seed traits';

model Q10a5=region;

format Q10a5 impact.;

run;

proc GLM data=sasintro.dakota15clean;

class Q10a6 region;

Level Q10a6='Improved crop yields (other than seed related traits)';

model Q10a6=region;

format Q10a6 impact.;

run;

proc GLM data=sasintro.dakota15clean;

class Q10a7 region;

Level Q10a7='Development of more efficient cropping equipment';

model Q10a7=region;

format Q10a7 impact.;

run;

proc GLM data=sasintro.dakota15clean;

class Q10a7 region;

Level Q10a7='Development of more efficient cropping equipment';

model Q10a7=region;

format Q10a7 impact.;

run;

proc GLM data=sasintro.dakota15clean;

class Q10a8 region;

Level Q10a8='Labor availability problems';

model Q10a8=region;

format Q10a8 impact.;

run;

proc GLM data=sasintro.dakota15clean;

class Q10a9 region;

Level Q10a9='Improving wildlife habitat';

model Q10a9=region;

format Q10a9 impact.;

run;

proc GLM data=sasintro.dakota15clean;

class Q10a10 region;

Level Q10a10='Changing weather /climate patterns';

model Q10a10=region;

format Q10a10 impact.;

run;

/\* Q10a related regression analysis extra not related \*/

/\*creating region numeric\*/

data sasintro.dakota15num;

set sasintro.dakota15;

if Region='East North Dakota' then Region=1;

if Region='Central North Dakota' then Region=2;

if Region='North Central South Dakota' then Region=3;

if Region='Central South Dakota' then Region=4;

if Region='East Central South Dakota' then Region=5;

if Region='North East South Dakota' then Region=6;

if (Q10a1=1) then NQ10a1=0;

if (Q10a1=2) or (Q10a1=3) then NQ10a1=1;

if (Q10a1=4) or (Q10a1=5) then NQ10a1=2;

if (Q10a2=1) then NQ10a2=0;

if (Q10a2=2) or (Q10a2=3) then NQ10a2=1;

if (Q10a2=4) or (Q10a2=5) then NQ10a2=2;

if (Q10a10=1) then NQ10a10=0;

if (Q10a10=2) or (Q10a10=3) then NQ10a10=1;

if (Q10a10=4) or (Q10a10=5) then NQ10a10=2;

if (Q10a7=1) then NQ10a7=0;

if (Q10a7=2) or (Q10a7=3) then NQ10a7=1;

if (Q10a7=4) or (Q10a7=5) then NQ10a7=2;

if (Q10a6=1) then NQ10a6=0;

if (Q10a6=2) or (Q10a6=3) then NQ10a6=1;

if (Q10a6=4) or (Q10a6=5) then NQ10a6=2;

if (Q10a3=1) then NQ10a3=0;

if (Q10a3=2) or (Q10a3=3) then NQ10a3=1;

if (Q10a3=4) or (Q10a3=5) then NQ10a3=2;

if (Q10a5=1) then NQ10a5=0;

if (Q10a5=2) or (Q10a5=3) then NQ10a5=1;

if (Q10a5=4) or (Q10a5=5) then NQ10a5=2;

if (Q10a8=1) then NQ10a8=0;

if (Q10a8=2) or (Q10a8=3) then NQ10a8=1;

if (Q10a8=4) or (Q10a8=5) then NQ10a8=2;

if (Q10a9=1) then NQ10a9=0;

if (Q10a9=2) or (Q10a9=3) then NQ10a9=1;

if (Q10a9=4) or (Q10a9=5) then NQ10a9=2;

if (Q10a4=1) then NQ10a4=0;

if (Q10a4=2) or (Q10a4=3) then NQ10a4=1;

if (Q10a4=4) or (Q10a4=5) then NQ10a4=2;

run;

proc print data=sasintro.dakota15num;

run;

proc format;

value regroup

0='No Impact'

1='Some Impact'

2='Great Impact';

run;

/\*proc format;

value geografic

1 ='East North Dakota'

2='Central North Dakota'

3='North Central South Dakota'

4='Central South Dakota'

5='East Central South Dakota'

6='North East South Dakota';

run; \*/

proc logistic data=sasintro.dakota15num;

label

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

class NQ10a1 NQ10a2 NQ10a3 NQ10a4 NQ10a5 NQ10a6 NQ10a7 NQ10a8 NQ10a9 NQ10a10 region / param=ref;

model Region = NQ10a1 NQ10a2 NQ10a3 NQ10a4 NQ10a5 NQ10a6 NQ10a7 NQ10a8 NQ10a9 NQ10a10 /rsquare;

format NQ10a1 regroup. NQ10a2 regroup. NQ10a3 regroup. NQ10a4 regroup. NQ10a5 regroup. NQ10a6 regroup.

NQ10a7 regroup. NQ10a8 regroup. NQ10a9 regroup. NQ10a10 regroup.;

run;

proc logistic data=sasintro.dakota15num;

label CaseID='State'

Q10a1='Changing crop prices'

Q10a2='Changing prices in input markets (seed, fertilizer, chemicals, etc.)'

Q10a3='Availability of crop and revenue insurance policies'

Q10a4='Availability of drought-tolerant seed'

Q10a5='Developments in pest management practices, including pest management seed traits'

Q10a6='Improved crop yields (other than seed related traits)'

Q10a7='Development of more efficient cropping equipment'

Q10a8='Labor availability problems'

Q10a9='Improving wildlife habitat'

Q10a10='Changing weather /climate patterns';

class NQ10a1 NQ10a2 NQ10a3 NQ10a4 NQ10a5 NQ10a6 NQ10a7 NQ10a8 NQ10a9 NQ10a10 CaseID / param=ref;

model CaseID = NQ10a1 NQ10a2 NQ10a3 NQ10a4 NQ10a5 NQ10a6 NQ10a7 NQ10a8 NQ10a9 NQ10a10 /rsquare;

format NQ10a1 regroup. NQ10a2 regroup. NQ10a3 regroup. NQ10a4 regroup. NQ10a5 regroup. NQ10a6 regroup.

NQ10a7 regroup. NQ10a8 regroup. NQ10a9 regroup. NQ10a10 regroup. CaseID State.;

run;

/\* Are there land use changes reported by farmers during the past 10 year

in the context of farmers expanding, contracting, or remaining the same size

(in terms of acres operated) during the past 10 yeras?\*/

/\*\* question 5a\*\*/

proc format;

value Currentacres

1 = 'Fewer acres than 10 years ago (by over 10%)'

2 = 'No change or a minor change'

3 = 'More acres than 10 years ago (by over 10%)';

proc freq data=sasintro.dakota15;

label CaseID='State'

Q5a ='Cropland acres operated';

tables Q5a\*CaseID / norow nocum;

format Q5a Currentacres. CaseID State.;

run;

/\*\* question 5b\*\*/

proc format;

value Currentacres

1 = 'Fewer acres than 10 years ago (by over 10%)'

2 = 'No change or a minor change'

3 = 'More acres than 10 years ago (by over 10%)';

proc freq data=sasintro.dakota15;

label CaseID='State'

Q5b ='Pasture/rangeland acres operated';

tables Q5b\*CaseID / norow nocum;

format Q5b Currentacres. CaseID State.;

run;