

---

# 23

---

## *Model Building with Big Complete and Incomplete Data*

---

### **Appendix 23.A NMIS**

---

```
libname ca 'c:\0-CCA_PCA';  
  
PROC MEANS data=ca.CCA_PCA nmiss;  
var X2-X24;  
run;
```

---

### **Appendix 23.B Testing CCA Samsizes**

---

```
data ca.CCA_PCA;  
set ca.CCA_PCA;  
/* trial and error for different subsets of variables with small NMIS */  
CCA_SAMSIZE_ X11_X13X19X21=NMIS (of X11, X12, X13, X19, X21);  
CCA=.;  
if CCA_SAMSIZE_ X11_X13X19X21 eq 0 then CCA=1;  
if CCA_SAMSIZE_ X11_X13X19X21 ne 0 then CCA=0;  
run;
```

```
PROC FREQ ca.CCA_PCA;  
table CCA_SAMSIZE_ X11_X13X19X21 CCA;  
run;
```

---

## Appendix 23.C CCA-CIA Datasets

---

```
data ca.COMPLETES ca.INCOMPLETES;  
set ca.CCA_PCA;  
if CCA=1 then output ca.COMPLETES;  
if CCA=0 then output ca.INCOMPLETES;  
run;
```

---

## Appendix 23.D Ones and Zeros

---

```
data ca.INCOMPLETES;  
set ca.INCOMPLETES;  
  
array X(7) X14 X15 X18 X20 X21 X22 X23;  
array XX(7) XX14 XX15 XX18 XX20 XX21 XX22 XX23;  
do i = 1 to 7;  
if X(i)=. then XX(i)=1; else XX(i)=0;  
drop i;  
end;  
run;
```