

## SACMEQ III Imputation Rules.

### 1. Basic Rules for Pupil Questionnaire

#### **Type P1: Use the Mean**

If missing is less than 15% at class level, use the class mean,

If missing is greater than or equal to 15% at class level and less than 15% at school level, use the school mean,

If missing is greater than or equal to 15% at school level and less than 15% at district level, use the district mean,

If missing is greater than or equal to 15% at district level and less than 15% at region level, use the region mean,

If missing is greater than or equal to 15% at region level and less than 15% at national level, use the national mean,

If missing is greater than or equal to 15% at national level there is no imputation.

PQ#03, PQ#04, PQ#09, PQ#10

#### **Type P2: Use the Mode**

If missing is less than 15% at class level, use the class mode,

If missing is greater than or equal to 15% at class level and less than 15% at school level, use the school mode,

If missing is greater than or equal to 15% at school level and less than 15% at district level, use the district mode,

If missing is greater than or equal to 15% at district level and less than 15% at region level, use the region mode,

If missing is greater than or equal to 15% at region level and less than 15% at national level, use the national mode,

If missing is greater than or equal to 15% at national level there is no imputation.

PQ#03, PQ#04, PQ#09, PQ#10, PQ#11, PQ#13.01, PQ#13.02, PQ#13.03, PQ#13.04, PQ#13.05, PQ#13.06, PQ#13.07, PQ#13.08, PQ#13.09, PQ#13.10, PQ#13.11, PQ#13.12, PQ#13.13, PQ#13.14, PQ#15, PQ#16, PQ#17, PQ#18, PQ#19, PQ#20, PQ#25, PQ#26, PQ#29, PQ#30, PQ#31.1, PQ#31.2, PQ#31.3, PQ#31.4, PQ#31.5, PQ#31.6, PQ#33, PQ#34.1, PQ#34.2, PQ#34.3, PQ#35, PQ#41, PQ#45, PQ#48, PQ#49, PQ#50, PQ#51, PQ#52, PQ#53, PQ#54, PQ#55, PQ#56, PQ#58, PQ#59, PQ#60, PQ#61, PQ#62, PQ#65,

#### **Type P3: If missing, use the negative (= "1")**

PQ#08.1, PQ#08.2, PQ#08.3, PQ#08.4, PQ#08.5, PQ#08.6, PQ#08.7, PQ#08.8, PQ#08.9, PQ#14.01, PQ#14.02, PQ#14.03, PQ#14.04, PQ#14.05, PQ#14.06, PQ#14.07, PQ#14.08, PQ#14.09, PQ#14.10, PQ#14.11, PQ#14.12, PQ#14.13, PQ#14.14, PQ#14.15, PQ#14.16, PQ#14.17, PQ#14.18, PQ#14.19, PQ#14.20, PQ#14.21, PQ#14.22, PQ#14.23, PQ#14.24,

*SACMEQ III Imputation Rules : Pupil Questionnaire*

PQ#14.25, PQ#14.26, PQ#14.27, PQ#14.28, PQ#14.29, PQ#14.30, PQ#14.31, PQ#22.1, PQ#22.2, PQ#22.3, PQ#22.4, PQ#22.5, PQ#22.6, PQ#24.0, PQ#24.1, PQ#24.2, PQ#24.3, PQ#24.4, PQ#27.0, PQ#27.1, PQ#27.2, PQ#27.3, PQ#31.0, PQ#32.01, PQ#32.02, PQ#32.03, PQ#32.04, PQ#32.05, PQ#32.06, PQ#32.07, PQ#32.08, PQ#32.09, PQ#32.10, PQ#32.11, PQ#32.12, PQ#32.13, PQ#36, PQ#37.1, PQ#37.2, PQ#37.3, PQ#37.4, PQ#38.1, PQ#38.2, PQ#38.3, PQ#38.4, PQ#39.1, PQ#39.2, PQ#39.3, PQ#39.4, PQ#39.5, PQ#40.1, PQ#40.2, PQ#43.1, PQ#43.2, PQ#43.3, PQ#43.4, PQ#43.5, PQ#46.01, PQ#46.02, PQ#46.03, PQ#46.04, PQ#46.05, PQ#46.06, PQ#46.07, PQ#46.08, PQ#46.09, PQ#46.10, PQ#47.1, PQ#47.2, PQ#47.3, PQ#47.4, PQ#47.5, PQ#47.6, PQ#57.01, PQ#57.02, PQ#57.03, PQ#57.04, PQ#57.05, PQ#57.06, PQ#57.07, PQ#57.08, PQ#57.09, PQ#57.10, PQ#57.11, PQ#57.12, PQ#57.13, PQ#57.14, PQ#57.15, PQ#57.16, PQ#57.17, PQ#57.18, PQ#57.19, PQ#57.20, PQ#57.21, PQ#57.22, PQ#57.23, PQ#63, PQ#64.1, PQ#64.2, PQ#64.3, PQ#64.4, PQ#64.5, PQ#64.6, PQ#64.7, PQ#64.8, PQ#64.9

**Type P4: If missing, use 0 (zero)**

PQ#07.1, PQ#07.2, PQ#21, PQ#23, PQ#28.1, PQ#28.2, PQ#28.3, PQ#28.4, PQ#28.5, PQ#28.6, PQ#28.7, PQ#28.8

**Type P5: If missing, use the Pupil Name Form information**

PQ#02, PQ#05, PQ#06, PQ#01

## 2. Basic Rules for Teacher Questionnaire

Imputations are done separately for English Teacher and Math Teacher.

For those who have an English Teacher, apply the 15% rules starting the District level

For those who have a Math Teacher, apply the 15% rules starting the District level

If the same teacher teaches English and Math, but been imputed by Type T1 or T2, then the value for the English teacher is used.

### **Type T1: Use the Mean**

If missing is less than 15% at district level, use the district mean,

If missing is greater than or equal to 15% at district level and less than 15% at region level, use the region mean,

If missing is greater than or equal to 15% at region level and less than 15% at national level, use the national mean,

If missing is greater than or equal to 15% at national level there is no imputation.

TQ#02, TQ#06, TQ#07, TQ#08, TQ#15, TQ#16, TQ#17, TQ#38

### **Type T2: Use the Mode**

If missing is less than 15% at district level, use the district mode,

If missing is greater than or equal to 15% at district level and less than 15% at region level, use the region mode,

If missing is greater than or equal to 15% at region level and less than 15% at national level, use the national mode,

If missing is greater than or equal to 15% at national level there is no imputation.

TQ#03, TQ#04, TQ#05, TQ#09, TQ#10, TQ#13.1, TQ#13.2, TQ#18, TQ#22, TQ#24.0, TQ#25, TQ#28, TQ#29, TQ#30, TQ#33.1, TQ#33.2, TQ#35, TQ#36, TQ#37, TQ#40

### **Type T3: If missing, use the negative (= "1")**

TQ#12.1, TQ#12.2, TQ#12.3, TQ#12.4, TQ#12.5, TQ#12.6, TQ#12.7, TQ#12.8, TQ#12.9, TQ#14.01, TQ#14.02, TQ#14.03, TQ#14.04, TQ#14.05, TQ#14.06, TQ#14.07, TQ#14.08, TQ#14.09, TQ#14.10, TQ#14.11, TQ#14.12, TQ#14.13, TQ#14.14, TQ#14.15, TQ#14.16, TQ#14.17, TQ#14.18, TQ#19.1, TQ#19.2, TQ#19.3, TQ#19.4, TQ#19.5, TQ#20.1, TQ#20.2, TQ#20.3, TQ#20.4, TQ#20.5, TQ#23, TQ#24.1, TQ#24.2, TQ#24.3, TQ#24.4, TQ#24.5, TQ#24.6, TQ#26.1, TQ#26.2, TQ#26.3, TQ#27, TQ#31, TQ#32, TQ#34.01, TQ#34.02, TQ#34.03, TQ#34.04, TQ#34.05, TQ#34.06, TQ#34.07, TQ#34.08, TQ#34.09, TQ#34.10, TQ#34.11, TQ#34.12, TQ#34.13, TQ#34.14, TQ#34.15, TQ#34.16, TQ#34.17, TQ#34.18, TQ#34.19, TQ#34.20, TQ#34.21, TQ#34.22, TQ#34.23, TQ#34.24, TQ#39.01, TQ#39.02, TQ#39.03, TQ#39.04, TQ#39.05, TQ#39.06, TQ#39.07, TQ#39.08, TQ#39.09, TQ#39.10, TQ#39.11, TQ#39.12, TQ#39.13, TQ#39.14, TQ#41

### **Type T4: If missing, use 0 (zero)**

TQ#11, TQ#21.01, TQ#21.02, TQ#21.03, TQ#21.04, TQ#21.05, TQ#21.06, TQ#21.07, TQ#21.08, TQ#21.09, TQ#21.10, TQ#21.11, TQ#21.12

### **Type T5: If missing, use the Pupil Name Form information**

TQ#01

### 3. Basic Rules for School Head Questionnaire

For those who have a School Head, apply the 15% rules starting the District level

#### **Type S1: Use the Mean**

If missing is less than 15% at district level, use the district mean,

If missing is greater than or equal to 15% at district level and less than 15% at region level, use the region mean,

If missing is greater than or equal to 15% at region level and less than 15% at national level, use the national mean,

If missing is greater than or equal to 15% at national level there is no imputation.

SQ#05, SQ#08, SQ#09, SQ#10.2, SQ#11.2, SQ#12, SQ#13

#### **Type S2: Use the Mode**

If missing is less than 15% at district level, use the district mode,

If missing is greater than or equal to 15% at district level and less than 15% at region level, use the region mode,

If missing is greater than or equal to 15% at region level and less than 15% at national level, use the national mode,

If missing is greater than or equal to 15% at national level there is no imputation.

SQ#02, SQ#03, SQ#06, SQ#07, SQ#15.01, SQ#15.02, SQ#15.03, SQ#15.04, SQ#15.05, SQ#15.06, SQ#15.07, SQ#15.08, SQ#15.09, SQ#15.10, SQ#15.11, SQ#15.12, SQ#15.13, SQ#15.14, SQ#15.15, SQ#15.16, SQ#15.17, SQ#15.18, SQ#16.01, SQ#16.02, SQ#16.03, SQ#16.04, SQ#16.05, SQ#16.06, SQ#16.07, SQ#16.08, SQ#16.09, SQ#16.10, SQ#17.01, SQ#17.02, SQ#17.03, SQ#17.04, SQ#17.05, SQ#17.06, SQ#17.07, SQ#17.08, SQ#17.09, SQ#17.10, SQ#17.11, SQ#18, SQ#20, SQ#22, SQ#23, SQ#24, SQ#27.1, SQ#27.2, SQ#29, SQ#30, SQ#31, SQ#34, SQ#36, SQ#37

#### **Type S3: If missing, use the negative (= "1")**

SQ#10, SQ#11, SQ#19.01, SQ#19.02, SQ#19.03, SQ#19.04, SQ#19.05, SQ#19.06, SQ#19.07, SQ#19.08, SQ#19.09, SQ#19.10, SQ#19.11, SQ#19.12, SQ#19.13, SQ#19.14, SQ#19.15, SQ#19.16, SQ#19.17, SQ#19.18, SQ#19.19, SQ#19.20, SQ#19.21, SQ#19.22, SQ#19.23, SQ#19.24, SQ#19.25, SQ#19.26, SQ#19.27, SQ#19.28, SQ#19.29, SQ#19.30, SQ#19.31, SQ#19.32, SQ#19.33, SQ#19.34, SQ#19.35, SQ#21.01, SQ#21.02, SQ#21.03, SQ#21.04, SQ#21.05, SQ#21.06, SQ#21.07, SQ#21.08, SQ#21.09, SQ#21.10, SQ#21.11, SQ#21.12, SQ#21.13, SQ#21.14, SQ#25, SQ#26, SQ#28.01, SQ#28.02, SQ#28.03, SQ#28.04, SQ#28.05, SQ#28.06, SQ#28.07, SQ#28.08, SQ#28.09, SQ#28.10, SQ#28.11, SQ#28.12, SQ#28.13, SQ#28.14, SQ#28.15, SQ#28.16, SQ#28.17, SQ#28.18, SQ#28.19, SQ#28.20, SQ#28.21, SQ#28.22, SQ#28.23, SQ#28.24, SQ#32, SQ#33.01, SQ#33.02, SQ#33.03, SQ#33.04, SQ#33.05, SQ#33.06, SQ#33.07, SQ#33.08, SQ#33.09, SQ#33.10, SQ#33.11, SQ#33.12, SQ#33.13, SQ#33.14, SQ#38.01A, SQ#38.01B, SQ#38.01C, SQ#38.01D, SQ#38.01E, SQ#38.02A, SQ#38.02B, SQ#38.02C, SQ#38.02D, SQ#38.02E, SQ#38.03A, SQ#38.03B, SQ#38.03C, SQ#38.03D, SQ#38.03E, SQ#38.04A, SQ#38.04B, SQ#38.04C, SQ#38.04D, SQ#38.04E, SQ#38.05A, SQ#38.05B, SQ#38.05C, SQ#38.05D, SQ#38.05E, SQ#38.06A, SQ#38.06B, SQ#38.06C, SQ#38.06D, SQ#38.06E, SQ#38.07A, SQ#38.07B, SQ#38.07C, SQ#38.07D, SQ#38.07E, SQ#38.08A, SQ#38.08B, SQ#38.08C, SQ#38.08D, SQ#38.08E, SQ#38.09A, SQ#38.09B, SQ#38.09C, SQ#38.09D, SQ#38.09E, SQ#38.10A, SQ#38.10B, SQ#38.10C, SQ#38.10D, SQ#38.10E, SQ#38.11A, SQ#38.11B, SQ#38.11C, SQ#38.11D, SQ#38.11E, SQ#38.12A, SQ#38.12B, SQ#38.12C, SQ#38.12D, SQ#38.12E, SQ#38.13A, SQ#38.13B, SQ#38.13C, SQ#38.13D, SQ#38.13E, SQ#38.14A, SQ#38.14B, SQ#38.14C, SQ#38.14D, SQ#38.14E, SQ#38.15A, SQ#38.15B, SQ#38.15C, SQ#38.15D, SQ#38.15E, SQ#39

*SACMEQ III Imputation Rules : School Head Questionnaire*

**Type S4: If missing, use 0 (zero)**

SQ#35.01A, SQ#35.01B, SQ#35.01C, SQ#35.02A, SQ#35.02B, SQ#35.02C, SQ#35.03A, SQ#35.03B, SQ#35.03C, SQ#35.04A, SQ#35.04B, SQ#35.04C, SQ#35.05A, SQ#35.05B, SQ#35.05C, SQ#35.06A, SQ#35.06B, SQ#35.06C, SQ#35.07A, SQ#35.07B, SQ#35.07C, SQ#35.08A, SQ#35.08B, SQ#35.08C

**Type S5: If missing, use the Pupil Name Form information**

SQ#01, SQ#04

## 4. Basic Rules for School Information Booklet

### **Type S1: Use the Mean**

If missing is less than 15% at district level, use the district mean,

If missing is greater than or equal to 15% at district level and less than 15% at region level, use the region mean,

If missing is greater than or equal to 15% at region level and less than 15% at national level, use the national mean,

If missing is greater than or equal to 15% at national level there is no imputation.

SI#1.1, SI#1.2, SI#1.3, SI#1.4, SI#1.5, SI#1.6, SI#1.7, SI#1.8, SI#16, SI#20

### **Type S3: If missing, use the negative (= "1")**

SI#13, SI#15

### **Type S4: If missing, use 0 (zero)**

SI#14, SI#17.1, SI#17.2, SI#17.3, SI#18.1A, SI#18.1B, SI#18.2A, SI#18.2B, SI#18.3A, SI#18.3B, SI#19.1, SI#19.2, SI#19.3, SI#19.4, SI#3.1, SI#3.2, SI#3.3, SI#3.4, SI#3.5, SI#4.1, SI#4.2, SI#4.3, SI#4.4, SI#4.5, SI#4.6, SI#5.01A, SI#5.01B, SI#5.01C, SI#5.02A, SI#5.02B, SI#5.02C, SI#5.03A, SI#5.03B, SI#5.03C, SI#5.04A, SI#5.04B, SI#5.04C, SI#5.05A, SI#5.05B, SI#5.05C, SI#5.06, SI#5.07A, SI#5.07B, SI#5.07C, SI#5.08A, SI#5.08B, SI#5.08C, SI#5.09A, SI#5.09B, SI#5.09C, SI#5.10A, SI#5.10B, SI#5.10C, SI#5.11A, SI#5.11B, SI#5.11C, SI#5.12, SI#6, SI#7.1, SI#7.2, SI#8

### **Type S5: If missing, use the Pupil Name Form information**

SI#10.1, SI#10.2, SI#11, SI#12.1C, SI#12.1P, SI#12.2C, SI#12.2P, SI#12.3C, SI#12.3P, SI#12.4C, SI#12.4P, SI#12.5C, SI#12.5P, SI#2.1, SI#2.2, SI#2.3, SI#2.4, SI#2.5, SI#3.6, SI#4.7, SI#5(B), SI#5(D), SI#5(E), SI#9.1, SI#9.2

## 5. Basic Rules for School Form

**Type S5: If missing, use the Pupil Name Form information**

SFCLSES, SFNBOY5, SFNGIRL5, SFENR5, SFNBOY6, SFNGIRL6, SFENR6, SFNBOY7, SFNGIRL7, SFENR7,  
SFTMALE5, SFTFMAL5, SFTTOT5, SFTMALE6, SFTFMAL6, SFTTOT6, SFTMALE7, SFTFMAL7, SFTTOT7, SFPUPG6,  
SFCLAG6, SFRDGTG6, SFMATTG6, SFHLTTG6, SFPUP