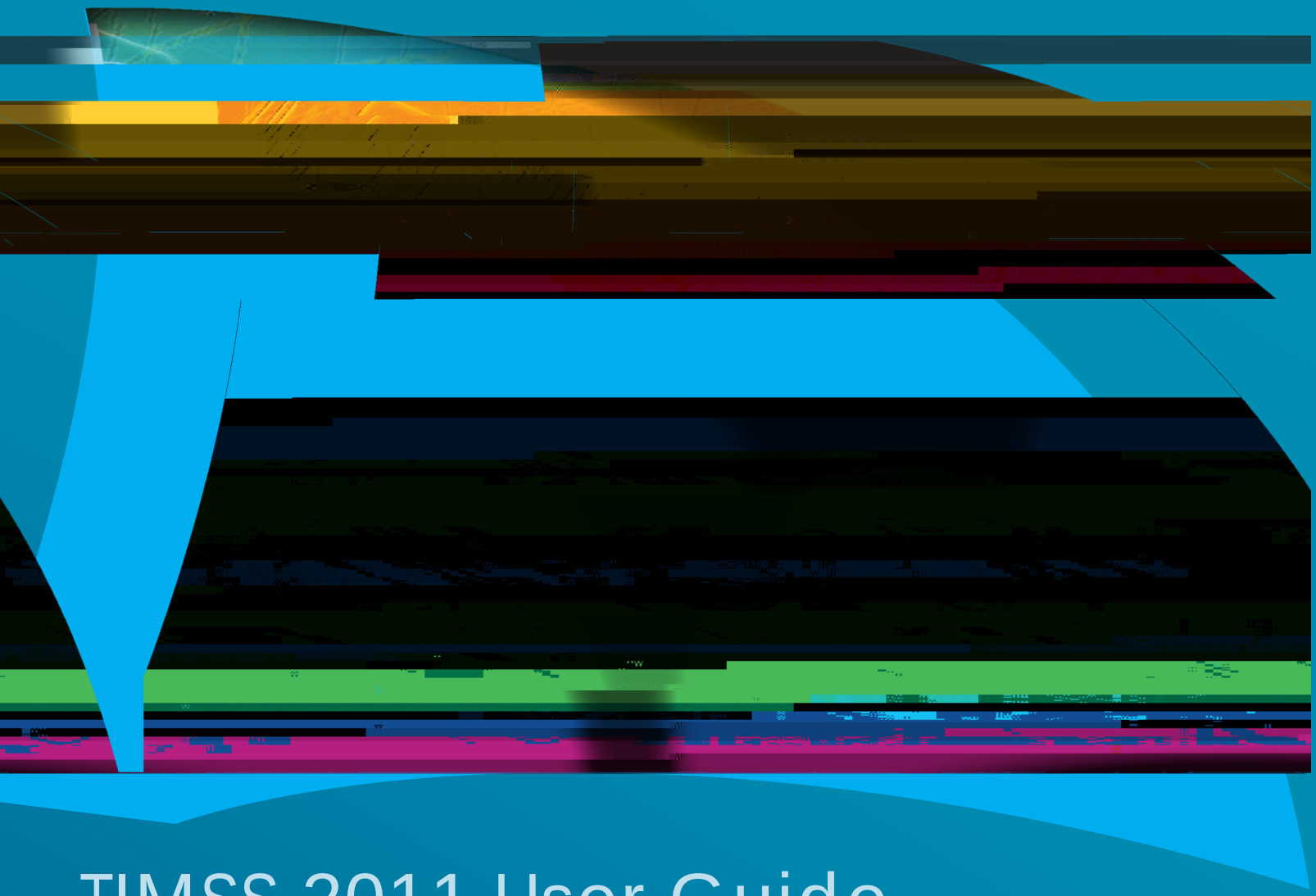


TIMSS 2011 User Guide for the International Database

Supplement 3

Variables Derived from the Student, Home, Teacher, and School Questionnaire Data

C © I e a a A c a e E a a Ed ca a
Ac e e e ( )

U e G de e I e a a Da aba e
Ed ed b P e e F , A a A a, a d Gab e e M. S a c

P b e : I e a a S d Ce e,
L c Sc Ed ca , B C e e
a d
I e a a A c a e E a a Ed ca a Ac e e e ( )

L b a C e Ca a Ca d N be :

F e a ab c ac :
I e a a S d Ce e
L c Sc Ed ca
B C e e
C e H ,
U ed S a e

e : +
a : +
e- a : @bc.ed
.bc.ed

B C e e a e a , a a eac e e .
P ed a d b d e U ed S a e .

Derived Variable Naming Convention

Section 1

Fourth Grade – Student Questionnaire

Section 2

Fourth Grade – Home Questionnaire

Derived Variable Name: ASDHOCCP	Variable Label: Parents' Highest Occupation Level	Fourth Grade

Ti le f In e na i nal Re E hibi

[illegible] ; C [illegible]

Re L ca i n

[illegible] 4.1, 4.2;

[illegible] 4.1, 4.2

P ced e

B [illegible] :

[illegible] ? ([illegible] -20, A B 20A, A B 20B)

[illegible] : " [illegible] "; " [illegible] "; "C [illegible] "; " [illegible] "; " [illegible] "; "C [illegible] "; " [illegible] "; " [illegible] "; "C [illegible] "; " [illegible] "; " [illegible] "; " [illegible] "

C [illegible] :

1 ("C [illegible] ", " [illegible] ", [illegible] ") = [illegible]

2 ("[illegible] ") = [illegible]

3 ("C [illegible] ") = C [illegible]

4 ("[illegible] ", "C [illegible] ", [illegible] ") = [illegible]

5 ("[illegible] ") = [illegible]

6 ("[illegible] ") = [illegible]

7 ("[illegible] ") = [illegible]

[illegible] A B 20A [illegible] A B 20B [illegible]

1= [illegible], 2= [illegible] B [illegible], 3=C [illegible], 4= [illegible], 5= [illegible], 6= [illegible], 7= [illegible] A [illegible]

Derived Variable Name: ASDHEDUP	Variable Label: Parents' Highest Education Level	Fourth Grade

B

Derived Variable Name: ASDHAPS	Variable Label: Student Attended Preschool	Fourth Grade

Ti le f In e na i nal Re E hibi

Re L ca i n

4.10;

4.9

P ced e

D CED 0? -04_(A B 04A)

CED 0>? -04 (A B 04B)

1 (A B 04A = " " A B 04B = "3 ") = 3

2 (A B 04A = " " A B 04B = "B 2 3 " "2 ") = 3

3 (A B 04A = " " A B 04B = "1 ") = 1

4 (A B 04A = " ") = D

1=3 , 2= 3 1 , 3=1 , 4=D A

Section 3

Derived Variable Name: ATDM0	Variable Label: Teachers Majored in Ed and Math	Fourth Grade

Derived Variable Name: ATDG01	Variable Label: Teachers Years of Experience	Fourth Grade

B_ -01 (A B 01):
B
( )

1 (A B 01 >= 20) = 20 ,
2 (A B 01 >= 10 A B 01 < 20) = A 10 B 20 ,
3 (A B 01 >= 5 A B 01 < 10) = A 5 B 10 ,
4 (A B 01 < 5) = 5

Derived Variable Name: ATDM12NU		Fourth Grade

Derived Variable Name: ATDM12DA	Variable Label: Teachers Prepared to Teach Data	Fourth Grade

Ti le f In e na i nal Re E hibi

F

Re L ca i n

7.9

P ced e

B :

? .

-12C_ :

(A B 12CA),

D (A B 12CB),

D (A B 12CC)

:" ";" ";" ";"

1). 4).

C –(C 2)

C ( ) 1).

Derived Variable Name: ATDS11LI	Variable Label: Teachers Prepared to Teach Life Science	Fourth Grade

P ced e

B [illegible] :

[illegible] ? [illegible]

[illegible] -11A_- :

[illegible] (A B 11AA),

[illegible] (A B 11AB),

[illegible] (A B 11AC),

[illegible] (A B 11AD),

C [illegible] (A B 11AE),

[illegible] (A B 11AF)

[illegible] : " [illegible] "; " [illegible] "; " [illegible] "; " [illegible] "

C [illegible] –(C [illegible] 2) [illegible]

C [illegible] ([illegible]) [illegible] –(C [illegible] 1).

Derived Variable Name: ATDS11PH	Variable Label: Teachers Prepared to Teach Physical Sci	Fourth Grade

Ti le f In e na i nal Re E hibi

F

Re L ca i n

7.9

P ced e

B :

? -11B_ :

(A B, 11BA),
C (A B, 11BB),
F (A B, 11BC),
F (A B, 11BD),
C (A B, 11BE),
(A B, 11BF),
E (A B, 11B),
F (A B, 11B)
:" "; "; "; "

C –(C 2)
C ( ) –(C 1).

Derived Variable Name: ATDS11ES	Variable Label: Teachers Prepared to Teach Earth Science	Fourth Grade

Ti le f In e na i nal Re E hibi

F

Re L ca i n

7.9

P ced e

B :

? .

-11C_- :

E (A B, 11CA),

C E (A B, 11CB),

. (A B, 11CC),

F . (A B, 11CD),

E (A B, 11CE),

D E (A B, 11CF)

F 'E . (A B, 11CA, A B, 11CB, A B, 11CC, A B, 11CD, A B, 11CE, A B, 11CF), ' –
(1). ' –(4).

C –(C 2)

C ' ( ) –(C 1).

Derived Variable Name: ATDMHW	Variable Label: Mathematics Instructional Hours per Week	Fourth Grade

Derived Variable Name: ATDM0 NU	Variable Label: Pct Students Taught Number Topics	Fourth Grade

Ti le f In e na i nal Re E hibi

[illegible]

Re L ca i n

[illegible] 8.8

P ced e

B[illegible]:

[illegible] C [illegible]

[illegible]

[illegible]-07A_-

C [illegible] (A B[illegible]07AA),

A [illegible] (A B[illegible]07AB),

C [illegible] (A B[illegible]07AC),

A [illegible] (A B[illegible]07AD),

C [illegible] (A B[illegible]07AE),

A [illegible] (A B[illegible]07AF),

[illegible] (A B[illegible]07A),

[illegible] (A B[illegible]07A)

[illegible]:"[illegible]";"[illegible]";"[illegible]"

F [illegible]–(C [illegible] 1)

[illegible]–(C [illegible] 2).

[illegible]

C [illegible]

Derived Variable Name: ATDM0 GE	Variable Label: Pct Students Taught Geo and Meas Topics	Fourth Grade

B_ [illegible] :
[illegible] C [illegible]

[illegible] ∟-07B_- :
[illegible] (A B∟07BA),
C [illegible] (A B∟07BB),
[illegible] (A B∟07BC),
E [illegible] (A B∟07BD),
[illegible] (A B∟07BE),
[illegible] (A B∟07BF),
F [illegible] (A B∟07B)
[illegible] :"∟ [illegible]";"∟ [illegible]";" [illegible] "

Derived Variable Name: ATDM0 DA	Variable Label: Pct Students Taught Data Topics	Fourth Grade

B[illegible]:
[illegible] C [illegible]

[illegible]-07C_- :
[illegible] (A B_07CA),
D[illegible] (A B_07CB),
D[illegible] (A B_07CC)
[illegible]:"[illegible]";"[illegible]";"[illegible]"

FB[illegible] C [illegible]

Derived Variable Name: ATDS06PH	Variable Label: Pct Students Taught Phy Sci Topics	Fourth Grade

Section 4

Fourth Grade – School Questionnaire

Derived Variable Name: ACDG03	Variable Label: School Composition by Student Backgd	Fourth Grade

Ti le f In e na i nal Re E hibi d L Re

C E B_

P ced e

B_ :

A ? C -3 (ACB 03A _ ACB 03B)

: "0 10%"; "11 25%"; "26 50%"; " _ 50%"

1 (ACB 03A <=2 ("0 10% "11 25%") _ ACB 03B >=3 ("26 50%"; " _ 50%")) = A_

D. _

3 (ACB 03A >=3 ("26 50%"; " _ 50%") _ ACB 03B <= 2 ("0 10% "11 25%")) =

D. _ A_

2 (A .) = A_ D. _

Derived Variable Name: ACDGENS	Variable Label: Students Having Early Numeracy Skills	Fourth Grade

Ti le f In e na i nal Re E hibi

Re L ca i n

5.7

P ced e

1 (A > 3.25) = 75% E
2 (2.5 < A <= 3.25) = 51-75% E
3 (1.75 <= A <= 2.5) = 25-50% E
4 (A < 1.75) = 25% E

1= 75% E , 2= 51-75% E , 3= 25-50% E , 4= 25% E

Derived Variable Name: ACDG09	Variable Label: School Library Books	Fourth Grade

Ti le f In e na i nal Re E hibi

Re L ca i n

5.13;

5.12

P ced e

D ? C -09 (ACB 09)

: " "; " "

A ( )? (ACB 09A)

: "250 "; "251-500"; "501-2,000"; "2,001-5,000"; "5,001-10,000"; " 10,000"

A :

1 (ACB 09=1 (" ") ACB 09A>4 ("5,001-10,000" "5,001-10,000")) = 5,000 B .

2 (ACB 09=1 (" ") ACB 09A=3 4 ("501-2,000" "2,001-5,000")) = 501-5,000 B .

3 (ACB 09=1 (" ") ACB 09A<3 ("250 " "251-500")) = 500 B .

4 (ACB 09=2 (" ")) =

1= 5,000 B ., 2= 500-5,000 B ., 3= 500 B . , 4=

Derived Variable Name: ACDGCMP	Variable Label: Computer Availability for Instruction	Fourth Grade

P ced e

B_ :

2011 .?, C -02 (ACB 02)
( )

.?, C -07 (ACB 07)
( )

C

1 (=< 2.5) = 1 C 1-2,
2 (> 2.5 _ < 5.5) = 1 C 3-5,
3 (>=5.5) = 1 C 6 ,
4 (ACB 07 = 0) =

Derived Variable Name: ACDG06HY	Variable Label: Total Instructional Hours per Year	Fourth Grade

Section 5

Eighth Grade – Student Questionnaires

Derived Variable Name: BSDG0_S	Variable Label: Number of Home Study Supports	Eighth Grade

Ti le f In e na i nal Re E hibi

E ; C E

P ced e

B :

D ?

-05D/ -05D (B B 05D),
-05E/ -05E (B B 05E)
: " "; "

0 (B B 05D = " " B B 05E = " ") =

1 ((B B 05D = " . " B B 05E = " ") (B B 05D = " " B B 05E = " . ")) = E

2 (B B 05D = " . " B B 05E = " . ") = B

Derived Variable Name: BSDGEDUP	Variable Label: Parents' Highest Education Level	Eighth Grade

B [illegible] :
[illegible] ([illegible]) [illegible] ([illegible])? [illegible] -06A/ [illegible] -06A [illegible] -06B/ [illegible] -06B (B [illegible] 06A, B [illegible] 06B)
[illegible] : "D [illegible] "; " [illegible] < CED [illegible] 1 [illegible] 2>"; "< CED [illegible] 2>"; "< CED [illegible] 3>"; "< CED [illegible] 4>"; "< CED [illegible] 5 >"; "< CED [illegible] 5 [illegible] >"; "B [illegible] < CED [illegible] 5 [illegible] >"; " [illegible] "

C [illegible] :
1 (" < CED [illegible] 5 [illegible] >" [illegible] "B [illegible] < CED [illegible] 5 [illegible] >") = F [illegible]
2 ("< CED [illegible] 4>" [illegible] "< CED [illegible] 5 >") = F [illegible] E [illegible]
3 ("< CED [illegible] 3>") = F [illegible]
4 ("< CED [illegible] 2>") = F [illegible]
5 (" [illegible] < CED [illegible] 1 [illegible] 2>" [illegible] "D [illegible] ") = F [illegible] D [illegible]
[illegible]
6 (" [illegible] ") = [illegible]

[illegible] ([illegible]) 2 [illegible] B [illegible] B [illegible] 7 06A [illegible] B [illegible] B [illegible] 06B [illegible] 5 [illegible] 7

Derived Variable Name: BSDBWKHW	Variable Label: Weekly Time Spent on Biology Homework	Eighth Grade

Ti le f In e na i nal Re E hibi

Re L ca i n

8.31

P ced e

B_ :

? 33AB (B BB33AB)
: "E _ "; "3 4 _ "; "1 2 _ "; "I _ _ "; " "

? 33BB (B BB33BB)
: "L _ _ "; "1 15 "; "16 30 "; "31 60 "; "61 90 "; "L _ 90 "

B BB33AB _ :
1 ("E _ ") = 5
2 ("3 4 _ ") = 3.5
3 ("1 2 _ ") = 1.5
4 ("I _ _ _ ") = 0.5
5 (" ") = 0

B BB33BB _ :
1 ("L _ _ ") = 0
2 ("15 ") = 8
3 ("16-30 ") = 23
4 ("31-60 ") = 45
5 ("61-90 ") = 75
6 ("L _ 90 ") = 105

B BB33AB _ B BB33BB

A :
B BB33AB _ B BB33BB >= 180 (3) = "3 L "
B BB33AB _ B BB33BB > 45 A D < 180 (3) = "L _ _ 45 L
B I _ 3 "
B BB33AB _ B BB33BB <= 45 = "45 L I "

1=3 L , 2=L _ 45 L I _ 3 , 3=45 L I

Derived Variable Name: BSDPWKHW	Variable Label: Weekly Time Spent on Physics Homework	Eighth Grade

P ced e

B_ : :

? 33AE (B B 33AE)
: "E _ "; "3 4 _ "; "1 2 _ "; "I _ _ "; "

? 33BE (B B 33BE)
: "L _ "; "1 15 "; "16 30 "; "31 60 "; "61 90 "; "L _ 90 "

B B 33AE _ :
1 ("E _ ") = 5
2 ("3 4 _ ") = 3.5
3 ("1 2 _ ") = 1.5
4 ("I _ _ ") = 0.5
5 (") = 0

B B 33BE _ :
1 ("L _ ") = 0
2 ("15 ") = 8
3 ("16-30 ") = 23
4 ("31-60 ") = 45
5 ("61-90 ") = 75
6 ("L _ 90 ") = 105

L B B 33AE _ B B 33BE.

A :
B B 33AE _ B B 33BE >= 180 (3) = "3 L "
B B 33AE _ B B 33BE > 45 A D < 180 (3) = "L _ 45 L .
B I _ 3 "
B B 33AE _ B B 33BE <= 45 = "45 L I "

VARIABLES DERIVED FROM THE

Section 6

Eighth Grade – Mathematics Teacher Questionnaire

Derived Variable Name: BTDG01	Variable Label: Teachers Years of Experience	Eighth Grade

B_ -01 (B B 01):
B
( )

1 (B B 01 >= 20) = 20 ,
B (B B 01 >= 10 B B 01 < 20) = A 10 B 20 ,

Derived Variable Name: BTDM30NU	Variable Label: Teachers Prepared to Teach Number	Eighth Grade

Ti le f In e na i nal Re E hibi

F

Re L ca i n

7.10

P ced e

B :

?

-30A_ :

C (B B 30AA),
C (B B 30AB),
C (B B 30AC),
(B B 30AD),
(B B 30AE)
:" ";" ";" ;"

F (B B 30AA, B B 30AB, B B 30AC, B B 30AD, B B 30AE), " (1). (2). C 2) .C (C 1).

Derived Variable Name: BTDM30GE	Variable Label: Teachers Prepared to Teach Geometry	Eighth Grade

Ti le f In e na i nal Re E hibi

F

Re L ca i n

7.10

P ced e

B :

? .

-30C_- :

B :

(B B 30CA),

C (B B 30CB),

(B B 30CC),

(B B 30CD),

C (B B 30CE),

(B B 30CF)

:" ";" ";" ";" "

C –(C 2) .C

( ) –(C 1).

Derived Variable Name: BTDM30DA	Variable Label: Teachers Prepared to Teach Data	Eighth Grade

Derived Variable Name: BTDMHW	Variable Label: Mathematics Instructional Hours per Week	Eighth Grade

Ti le f In e na i nal Re E hibi

[illegible]

Re L ca i n

[illegible] 8.7

P ced e

B[illegible]:

[illegible] ?[illegible] ∟-17AB (B̲ B∟17A, B̲ B∟17B)

([illegible])

C [illegible]:

[illegible] (B̲ B∟17A) [illegible] B̲ B∟17B [illegible] 60,

[illegible] (B̲ B∟17B) [illegible] B̲ B∟17A,

[illegible] B̲ B∟17B [illegible] 60, [illegible] B̲ B∟17A.

[illegible]

Derived Variable Name: BTDM23AL	Variable Label: Pct Students Taught Algebra Topics	Eighth Grade

Ti le f In e na i nal Re E hibi

Re L ca i n

8.9

P ced e

B :

C

-23B_ :

(B B 23BA),

(B B 23BB),

(B B 23BC),

(B B 23BD),

(B B 23BE)

:"";"";"

F B –(C 1)

–(C 2).

C "" ( ) .

Derived Variable Name: BTDM23GE	Variable Label: Pct Students Taught Geometry Topics	Eighth Grade

Ti le f In e na i nal Re E hibi

[illegible]

Re L ca i n

[illegible] 8.9

P ced e

B[illegible]:

[illegible] C [illegible]

[illegible]-23C_- :

B[illegible]:

[illegible] (B B⌞23CA),

C [illegible] (B B⌞23CB),

[illegible] (B B⌞23CC),

[illegible] (B B⌞23CD),

[illegible] C[illegible] (B B⌞23CE),

[illegible] (B B⌞23CF)

[illegible]:"[illegible]";"[illegible]";"[illegible]"

F[illegible] B[illegible]–(C[illegible] 1)

[illegible]–(C[illegible] 2).

[illegible]

C[illegible]"[illegible]"[illegible]([illegible])[illegible]

Derived Variable Name: BTDM23DA	Variable Label: Pct Students Taught Data Topics	Eighth Grade

B_

Section 7

Eighth Grade – Science Teacher Questionnaire

Derived Variable Name: BTDG01	Variable Label: Teachers Years of Experience	Eighth Grade

Derived Variable Name: BTDS29ES	Variable Label: Teachers Prepared to Teach Earth Science	Eighth Grade

Derived Variable Name: BTDSHW	Variable Label: Science Instructional Hours per Week	Eighth Grade

Ti le f In e na i nal Re E hibi

[illegible]

Re L ca i n

[illegible] 8.7

P ced e

B[illegible]:

[illegible] ? [illegible] -17AB (B B 17A, B B 17B)
([illegible])

C [illegible]:

[illegible] (B B 17A) [illegible] B B 17B [illegible] 60,
[illegible] (B B 17B) [illegible] B B 17A,
[illegible] B B 17B [illegible] 60, [illegible] B B 17A.
[illegible]

Derived Variable Name: BTDBHW	Variable Label: Biology Instructional Hours per Week	Eighth Grade

Ti le f In e na i nal Re E hibi

Re L ca i n

8.7

P ced e

B

C

F

Derived Variable Name: BTDCHW	Variable Label: Chemistry Instructional Hours per Week	Eighth Grade

Ti le f In e na i nal Re E hibi

Re L ca i n

8.7

P ced e

B

C

F

Derived Variable Name: BTDPHW	Variable Label: Physics Instructional Hours per Week	Eighth Grade

B [illegible] :
[illegible] ? [illegible] -17AB (B B 17A, B B 17B)
([illegible])

C [illegible] :
[illegible] :

Derived Variable Name: BTDEHW Eighth Grade

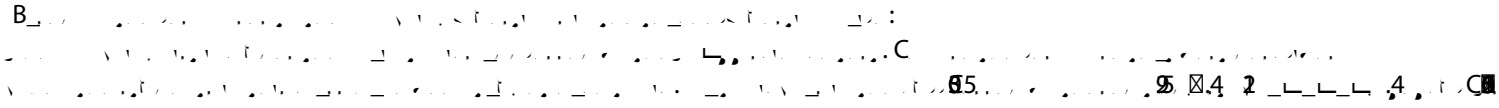
Derived Variable Name: BTDS22BI	Variable Label: Pct Students Taught Biology Topics	Eighth Grade

Derived Variable Name: BTDS22CH		Eighth Grade

Derived Variable Name: BTDS22PH

Eighth Grade

Derived Variable Name: BTDS22ES	Variable Label: Pct Students Taught Earth Sci Topics	Eighth Grade



Derived Variable Name: BCDGCMP	Variable Label: Computer Availability for Instruction	Eighth Grade

Ti le f In e na i nal Re E hibi

C A

Re L ca i n

5.15;

5.14

P ced e

B :

2011 ?, C -02 (BCB 02)
( )

?, C -07 (BCB 07)
( )

C

1 (=< 2.5) = 1 C 1-2
2 (> 2.5 _ <5.5) = 1 C 3-5
3 (>=5.5) = 1 C 6
4 (ACB 07 = 0) =

1=1 C 1-2, 2=1 C 3-5, 3=1 C 6 , 4= C
A

Derived Variable Name: BCDG06HY	Variable Label: Total Instructional Hours per Year	Eighth Grade

B_ :

? C -06A (BCB 06A)
( )

? C -06B_ (BCB 06BA, BCB 06BB)
( )

1: C :
(BCB 06BA) BCB 06BB 60,

Derived Variable Name: BCDG06	Variable Label: Number of Days per Week for Instruction	Eighth Grade

Ti le f In e na i nal Re E hibi

Re L ca i n

8.7;

8.7

P ced e

B :

?, C -06C (BCB 06C)
: "6 _ . "; "5 1/2 _ . "; "5 _ . "; "4 1/2 _ . "; "4 _ . "; "

C , BCD 06, BCB 06C :
1 ("6 _ . ") = 6
2 ("5 1/2 _ . ") = 5.5
3 ("5 _ . ") = 5
4 ("4 1/2 _ . ") = 4.5
5 ("4 _ . ") = 4
6 (" ") = 3

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International S