



Longitudinal Survey Data – “Move It Forward”

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HRS Overview

- Longitudinal Survey
- Complex Multi-Sectional Instrument
- Over an one hour long interview per participant
- 25,000 participants / every two years
- Participants age range above age 50
- More than 350 variables from previous wave data
- Seven mode and language combinations

dg

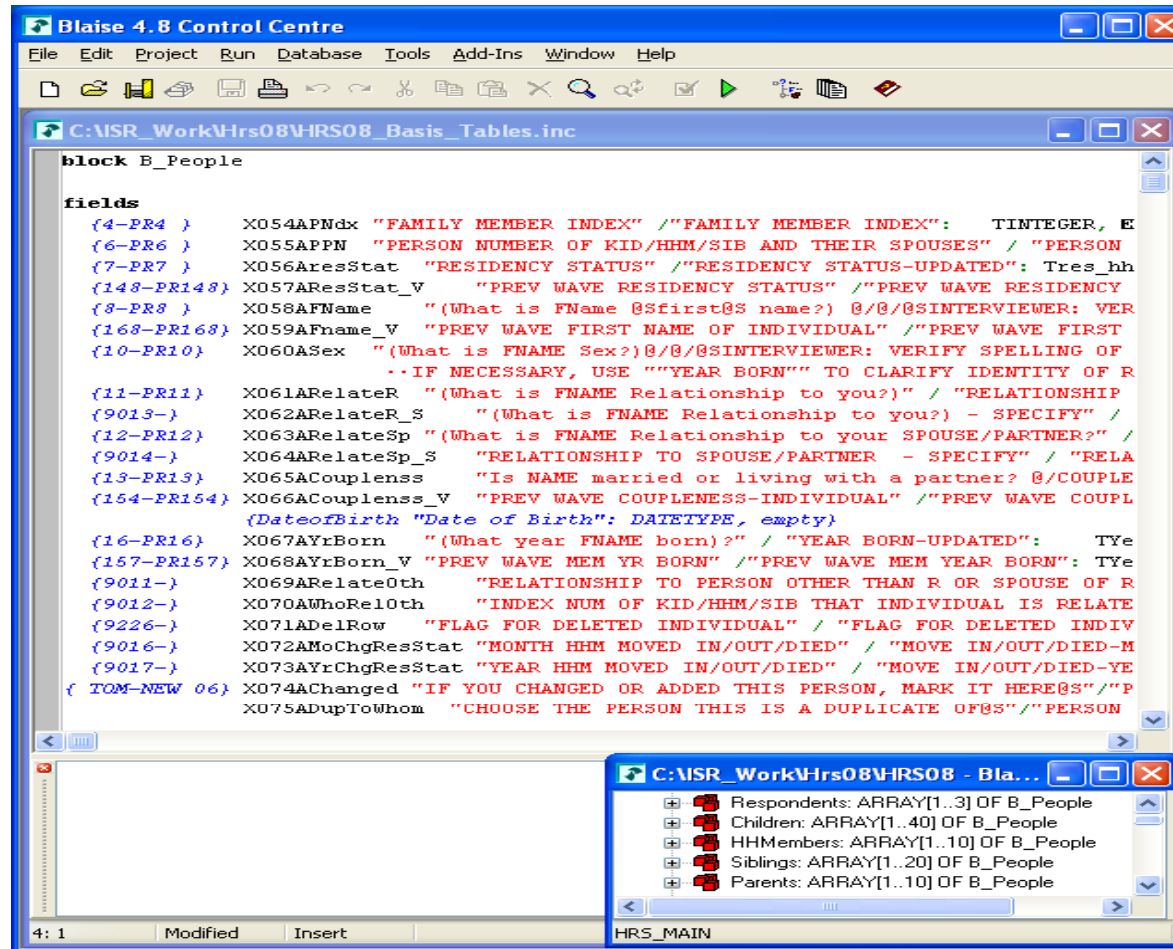


HRS Preload Process - History

- Data collected from a prior wave is presented and confirmed or updated
- Data was loaded into one location (structure)
- Changed data at that original location



Preload Block Structure



The screenshot displays the Blaise 4.8 Control Centre interface. The main window shows the file `C:\ISR_Work\Hrs08\HRS08_Basis_Tables.inc` with the following code:

```
block B_People

fields
{4-PR4 } X054APNdX "FAMILY MEMBER INDEX" /"FAMILY MEMBER INDEX": TINTEGER, E
{6-PR6 } X055APPN "PERSON NUMBER OF KID/HHM/SIB AND THEIR SPOUSES" / "PERSON
{7-PR7 } X056AresStat "RESIDENCY STATUS" /"RESIDENCY STATUS-UPDATED": Tres_hh
{148-PR148} X057AresStat_V "PREV WAVE RESIDENCY STATUS" /"PREV WAVE RESIDENCY
{8-PR8 } X058AFName "(What is FName @Sfirst@S name?) @/@@SINTERVIEWER: VER
{168-PR168} X059AFname_V "PREV WAVE FIRST NAME OF INDIVIDUAL" /"PREV WAVE FIRST
{10-PR10} X060ASex "(What is FName Sex?)@/@@SINTERVIEWER: VERIFY SPELLING OF
..IF NECESSARY, USE ""YEAR BORN"" TO CLARIFY IDENTITY OF R
{11-PR11} X061ARelateR "(What is FName Relationship to you?)" / "RELATIONSHIP
{9013-} X062ARelateR_S "(What is FName Relationship to you?) - SPECIFY" /
{12-PR12} X063ARelateSp "(What is FName Relationship to your SPOUSE/PARTNER?)" /
{9014-} X064ARelateSp_S "RELATIONSHIP TO SPOUSE/PARTNER - SPECIFY" / "RELA
{13-PR13} X065ACouplenss "Is NAME married or living with a partner? @/COUPLE
{154-PR154} X066ACouplenss_V "PREV WAVE COUPLENESS-INDIVIDUAL" /"PREV WAVE COUPL
{DateofBirth "Date of Birth": DATETIME, empty}
{16-PR16} X067AYrBorn "(What year FName born)?" / "YEAR BORN-UPDATED": Tye
{157-PR157} X068AYrBorn_V "PREV WAVE MEM YR BORN" /"PREV WAVE MEM YEAR BORN": Tye
{9011-} X069ARelateOth "RELATIONSHIP TO PERSON OTHER THAN R OR SPOUSE OF R
{9012-} X070AWhoRelOth "INDEX NUM OF KID/HHM/SIB THAT INDIVIDUAL IS RELATE
{9226-} X071ADelRow "FLAG FOR DELETED INDIVIDUAL" / "FLAG FOR DELETED INDIV
{9016-} X072AMoChgResStat "MONTH HHM MOVED IN/OUT/DIED" / "MOVE IN/OUT/DIED-M
{9017-} X073AYrChgResStat "YEAR HHM MOVED IN/OUT/DIED" / "MOVE IN/OUT/DIED-YE
{ TOM-NEW 06} X074AChanged "IF YOU CHANGED OR ADDED THIS PERSON, MARK IT HERE@S"/"P
X075ADupToWhom "CHOOSE THE PERSON THIS IS A DUPLICATE OF@S"/"PERSON
```

The bottom right window shows the structure of the `B_People` block:

- Respondents: ARRAY[1..3] OF B_People
- Children: ARRAY[1..40] OF B_People
- HHMembers: ARRAY[1..10] OF B_People
- Siblings: ARRAY[1..20] OF B_People
- Parents: ARRAY[1..10] OF B_People



HRS Households



More HRS households



My family



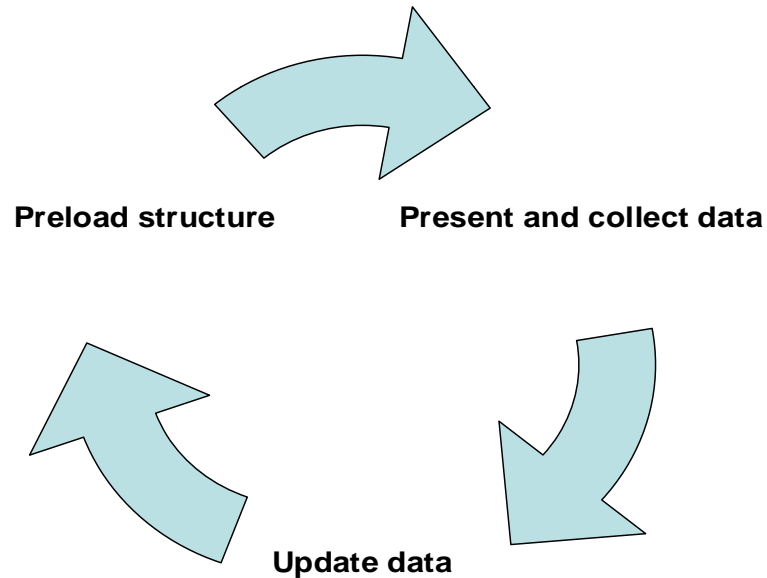
Block Replicated 83 times

- 3 Respondents (current Respondent, current Spouse or Partner, any new Spouse or Partner)
- 40 Children and spouses with room for any new children if the Respondent recoupled
- 10 Household members who are not offspring
- 20 Siblings and
- 10 Parents



HRS Preload Process - History

Original data flow



Early “write it back” process

- The more fields we had the slower the application became
- Would not compile at all



Problem with the updating process

- Selective checking
- Gates
- KEEP Statements

- Example: Are you married?



Were you married last time?

Part 1:

```
IF (Respondents[1].X065ACouplenss= MARRIED OR
    Respondents[1].X065ACouplenss= PARTNERED_VOL)) THEN
    A020TSameSpP_A.Keep {Keeps the data values when the
                        field goes off the route}

    A022_.keep
    IF A020TSameSpP_A = empty then {only ask if empty}
        A020TSameSpP_A {Is Clara still your wife?}
        If A020TSameSpP = NO then
            Respondents[1].X065ACouplenss := OTHER
        Endif
    Endif
Endif
```



Are you married now?

Part 2:

IF A026_Rmarried <> empty {stop lock out when X065 gets assigned below}

or

(piBA_HHX024_RelwHH_V = yes and
(**Respondents[1].X065ACouplenss= OTHER OR**
A020TSameSpP_A = NO)) THEN
A026_Rmarried

If A026_Rmarried = Yes then

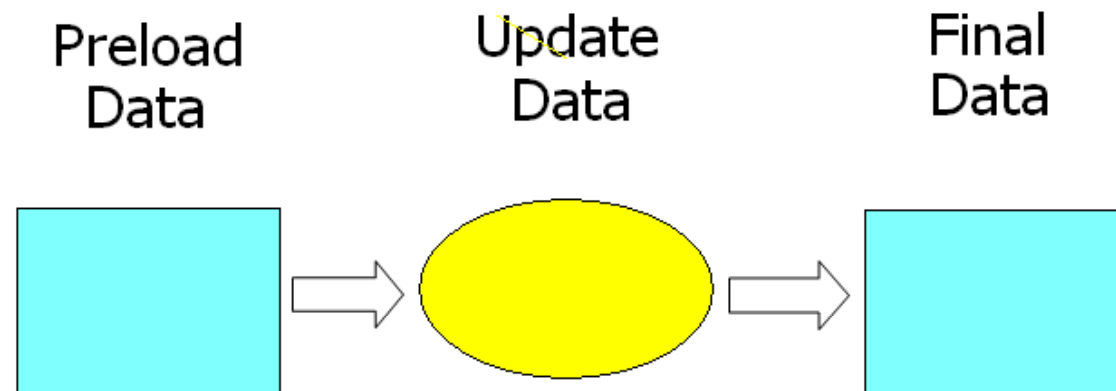
Respondents[1].X065ACouplenss := MARRIED

Endif



How To Fix The Problem

Move it forward



“Move it forward” philosophy

- Replicate the structure
- Move the data forward into a block that has not been altered.
 - *PRELOAD_Respondents* -> *Respondents*
- Preload now means preload – never updated



We now need less code

Part 1:

```
IF Preload_Respondents[1].X065ACouplenss = MARRIED OR  
  Preload_Respondents[1].X065ACouplenss = PARTNERED_VOL THEN  
  A020TSameSpP_A  
  If A020TSameSpP = NO then  
    BA_Respondents[1].X065ACouplenss := OTHER  
  Endif  
ENDIF
```

Part 2:

```
IF Preload_Respondents[1].X065ACouplenss = OTHER OR  
  A020TSameSpP_A = NO THEN  
  A026_Rmarried  
  If A026_Rmarried = Yes then  
    BA_Respondents[1].X065ACouplenss := MARRIED  
  Endif  
ENDIF
```

{Final Location}

```
Respondents[1].X065ACouplenss := BA_Respondents[1].X065ACouplenss
```



Why was the roster section rewritten?

- Difficult to manage code
- Problems with the selective checking mechanism
- The code became hard to understand
- With any change, the whole instrument needed to be fully re-tested
- Ensure that data was not dropped “off the route” and lost
- Ensure that we did not unintentionally overwrite data
- Problems between sections with the way the code was written
- Changing the route in the roster adversely affected the logic in later sections. These effects were observed in other family data sections



Benefits

- Better management of the selective checking mechanism
- Final data location helps to simplify problems between sections
- Easier code readability
- Confident that we can modify those areas of code



Future plans

- Plan to re-write the section that collects children transfer data
- Plan to re-write other sections, as needed



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Questions

Thank You

