



Using paradata to monitor interviewers' instrument navigation behavior and inform instrument technical design: A case study from a national household survey in Ghana

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Multiregional and Multicultural Contexts (3MC)

Overview

- Background and instrument
- How does the instrument design affect instrument navigation by the interviewers?
- How does instrument navigation affect interview length?
- Some observations & next steps

Ghana Socioeconomic Panel Study

- Revisit panel households at 3-4 year intervals for 20 years.
 - Sponsored by Economic Growth Center (EGC) at Yale University
 - Carried out by the Institute for Statistical, Social and Economic Research (ISSER) at the University of Ghana.
- First wave (baseline) was completed on ***paper*** between October 2009 and February 2010.
- Second wave was conducted on ***Computer-Assisted Personal Interviewing (CAPI)*** between March-December 2014.
 - Collaborated with Survey Research Center (SRC) at University of Michigan.
- 334 enumeration areas country-wide. Sample size of 5009 households, with approximately 18,000 individuals. Also sample size of 500 split-off households were tracked and interviewed between January-June 2015.
- Interviews are **NOT digital recorded** for quality monitor purpose





Challenges from Paper to CAI

- Transition from complex grid designs on paper to a computer assisted interview (CAI) instrument.
- Need to have total flexibility to jump in/out from different sections of the instrument (depending on the availability of the respondents)
- Need to track real-time status of interviewing progress on multiple respondents within the same instrument.



Section 1: Household Information

Part B2: Household Roster

Part B2: Household Roster

Member ID	6a. Name	6b. Nicknames, Other Names	7. Sex (M/F)	8. Age (If age less <1, record 0)	9. Relationship to HH Head (see codes to the right of the page)	10. Marital Status (see codes)	11. Current Cell Phone Number
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

CODES FOR Q.9

1 – Household Head
2 – Spouse
3 – Child
4 – Grandchild
5 – Parent/ Parent-in-law
6 – Son/Daughter-in-law
7 – Other relative
8 – Adopted/Foster/Stepchild
9 – House help
10 – Non-relative

CODES FOR Q.10

1 – Never Married
2 – Consensual union
3 – Betrothed
4 – Married
5 – Separated
6 – Divorced
7 – Widowed



Section	2. members of the HH	3. HH assets	4. HH production	5. non-farm enterprise	11. consumption module
1. Who in the household is most knowledgeable about?	family history, relatives and spouses that don't live in household	land holdings, farm tools, animals, financial assets, household durables	plots, crops, interaction with village officials/ organizations	non-farm business ventures, costs, revenues, employees, assets	how much food the family eats, household bills
2. Name	_____	_____	_____	_____	_____
3. ID number	ID ____	ID ____	ID ____	ID ____	ID ____
4. Date & time for Individual Interview: dd.mm / time	____/____/____	____/____/____	____/____/____	____/____/____	____/____/____
5. Checkpoint: Interview Complete?	____/____/____	____/____/____	____/____/____	____/____/____	____/____/____
1. Yes 2. No Initials and date when the interview was completed	____	____	____	____	____
interview was completed					

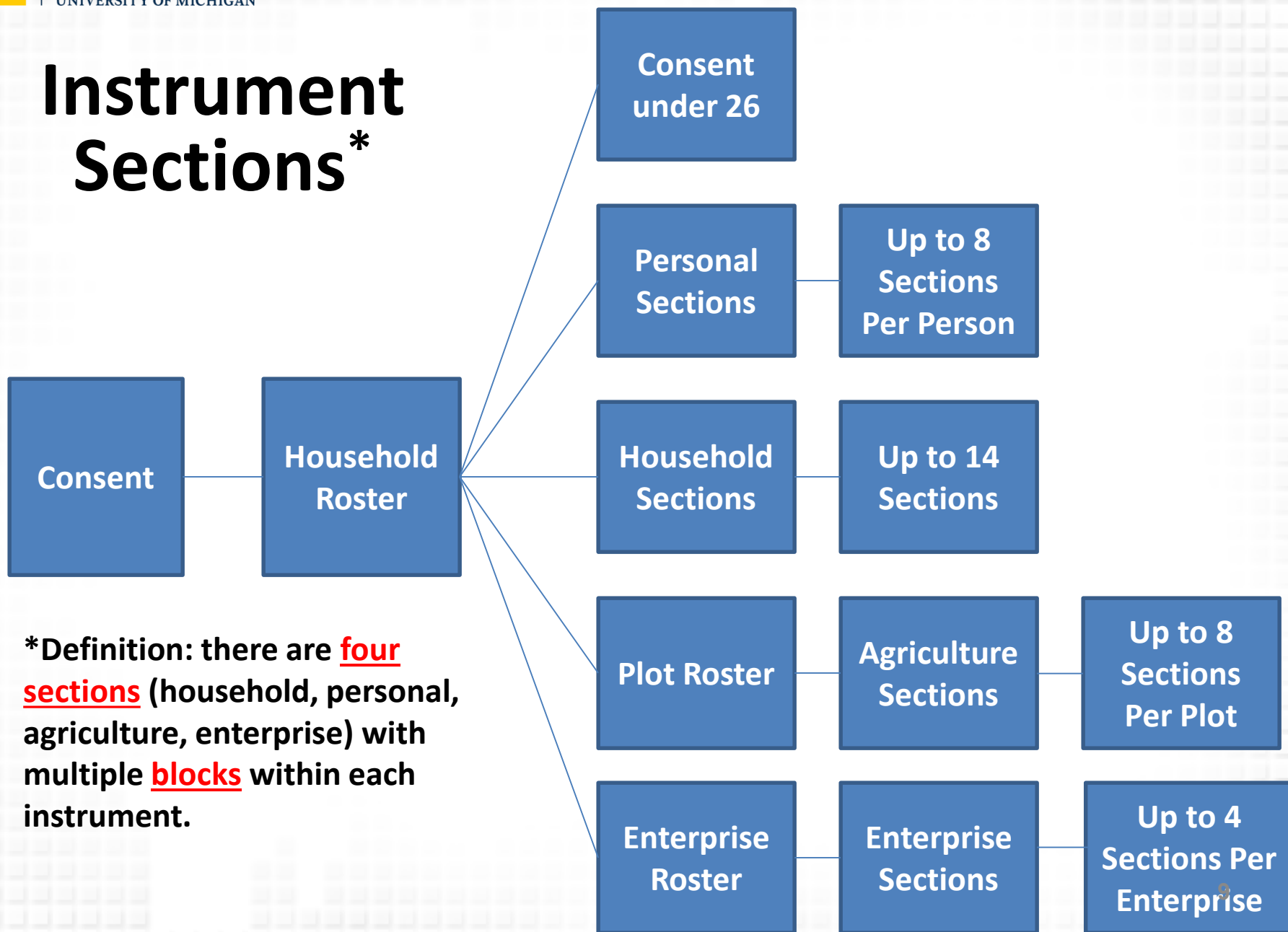
(ii.) *Limited respondent Modules* Enumerator: each of the following sections must be asked to the head of the household, the spouse, and one person RANDOMLY chosen. Please schedule an interview date with these selected household members. Record your initials date and when the interview was completed.

1. Write the names on pieces of papers for the household head to select:

Section 10. Psych/Personality	Head	Spouse	Randomly chosen individual
6. ID number	ID ____	ID ____	ID ____
7. Name	_____	_____	_____
8. Date & time for Individual Interview : dd.mm/time	____/____/____	____/____/____	____/____/____
9. Checkpoint: Section 10, Psychology/Personality complete?	____	____	____
1. Yes 2. No Initials and date when the interview was completed	____	____	____



Instrument Sections*



*Definition: there are four sections (household, personal, agriculture, enterprise) with multiple blocks within each instrument.



Consent Has Completed

Blaise 4.8 Data Entry - c:\blproj\ghana_p\work\householdsurvey

Forms Answer Help

HOUSEHOLD SURVEY

Survey Status

S0Consent Forms		
S01A: Consent	<u>Done</u>	S01B3: Consent for Under 26 ----n/a----
Rosters		
S01B2: Household Roster	<u>Not Started</u>	

Not all sections have been completed! Please select a section and continue the survey.

Case Complete ☐

iwcomplete 101012055 iwcomplete

Household Roster Has Completed

Blaise 4.8 Data Entry - c:\blproj\ghana_p\work\householdsurvey

Forms Answer Help

HOUSEHOLD SURVEY Person Status

Survey Status

<i>S0Consent Forms</i>			
S01A: Consent	<u>Done</u>	S01B3: Consent for Under 26	<u>Not Started</u>
<i>Rosters</i>			
S01B2: Household Roster	<u>Done</u>	Person Sections	<u>Not Started</u>
S04: Plot Roster	<u>Not Started</u>	Plot Sections	----n/a----
S05: Non-Farm Enterprise Roster	<u>Not Started</u>	Non-Farm Enterprise Sections	----n/a----
<i>Household Level Sections</i>			
S02B: Non-Resident Spouses	<u>Not Started</u>	S03Ai: Animals	<u>Not Started</u>
S02A: Non-Resident Relatives	<u>Not Started</u>	S03Aii: Tools	<u>Not Started</u>
S10C: Social Networking	<u>Not Started</u>	S03Aiii: Durable Goods	<u>Not Started</u>
S10D: Information Seeking	<u>Not Started</u>	S03Bi: Borrowing	<u>Not Started</u>
S11: Household Consumption	<u>Not Started</u>	S03Bii: Lending	<u>Not Started</u>
S12: Housing Characteristics	<u>Not Started</u>	S03Biii: Out-Transfers	----n/a----
S04NN: Gathering	<u>Not Started</u>	S03Biv: In-Transfers	----n/a----
		S03Bv: Savings	<u>Not Started</u>

Not all sections have been completed! Please select a section and continue the survey.



Blaise 4.8 Data Entry - c:\blproj\ghana_p\work\householdsurvey

Forms Answer Help

HOUSEHOLD SURVEY Person Status

Name	Background	Employment	Education	Migration	Health	Womens Health	Mens Health	Children	Pysch/Social
SAMUEL KANGA SNR (SNR)	<u>Not Started</u>	<u>Not Started</u>	<u>Not Started</u>	<u>Not Started</u>	<u>Not Started</u>	---n/a---	<u>Not Started</u>	---n/a---	<u>Not Started</u>
SAMUEL KANGA JNR (JNR)	<u>Not Started</u>	<u>Not Started</u>	<u>Not Started</u>	<u>Not Started</u>	<u>Not Started</u>	---n/a---	<u>Not Started</u>	---n/a---	<u>Not Started</u>
RAMAT DOMSON	<u>Not Started</u>	<u>Not Started</u>	<u>Not Started</u>	<u>Not Started</u>	<u>Not Started</u>	<u>Not Started</u>	---n/a---	---n/a---	---n/a---
NENYA HANGAH	<u>Not Started</u>	<u>Not Started</u>	<u>Not Started</u>	<u>Not Started</u>	<u>Not Started</u>	---n/a---	<u>Not Started</u>	<u>Not Started</u>	<u>Not Started</u>

Blaise 4.8 Data Entry - c:\blproj\ghana_p\work\householdsurvey

Forms Answer Help

HOUSEHOLD SURVEY **Person Status**

Survey Status

SOConsent Forms

S01A: Consent	<u>Done</u>	S01B3: Consent for Under 26	<u>Not Started</u>
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Rosters

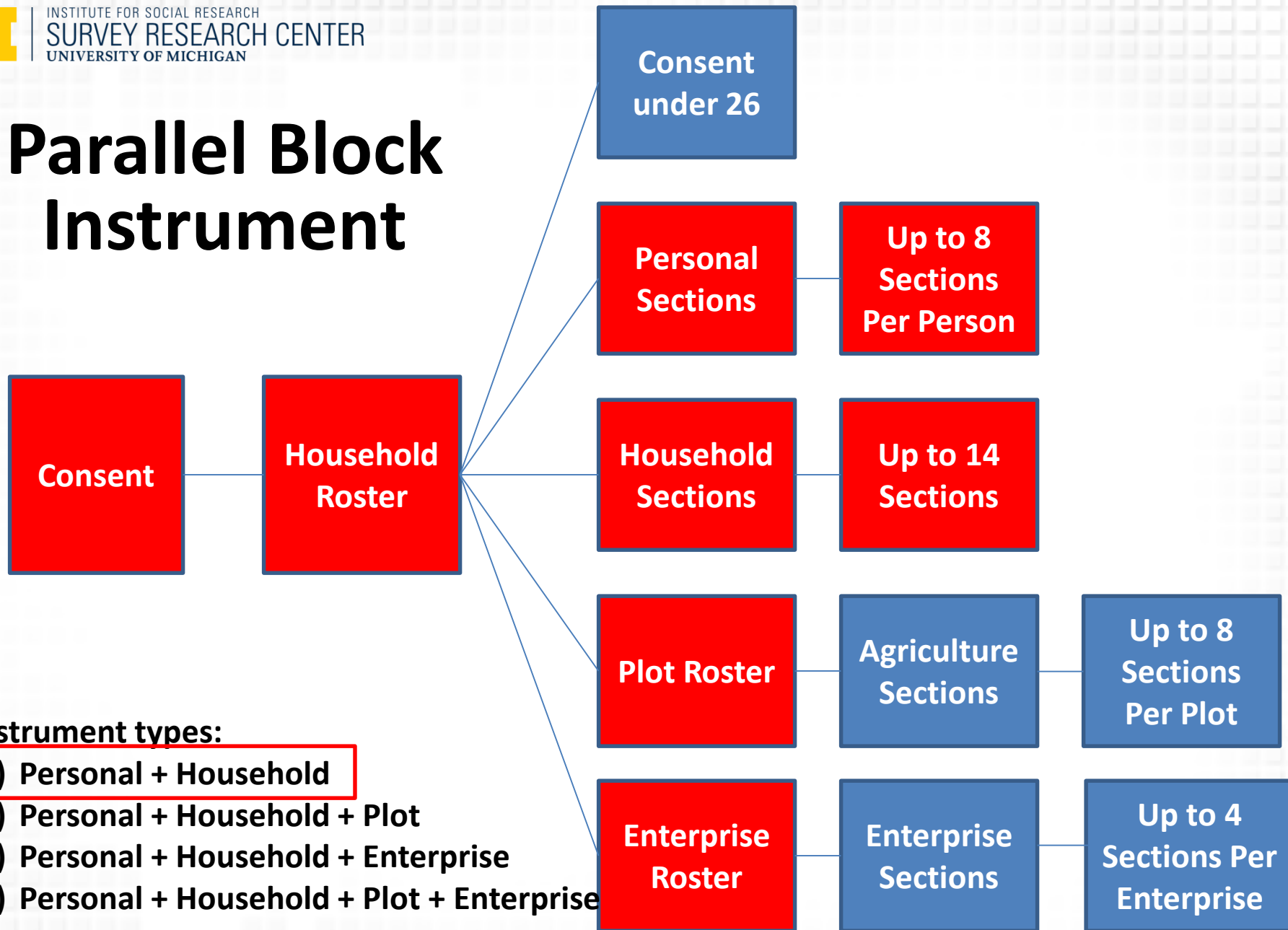
S01B2: Household Roster	<u>Done</u>	Person Sections	<u>Not Started</u>
S04: Plot Roster	<u>Not Started</u>	Plot Sections	---n/a---
S05: Non-Farm Enterprise Roster	<u>Not Started</u>	Non-Farm Enterprise Sections	---n/a---

Household Level Sections

S02B: Non-Resident Spouses	<u>Not Started</u>	S03Ai: Animals	<u>Not Started</u>
S02A: Non-Resident Relatives	<u>Not Started</u>	S03Aii: Tools	<u>Not Started</u>
S10C: Social Networking	<u>Not Started</u>	S03Aiii: Durable Goods	<u>Not Started</u>
S10D: Information Seeking	<u>Not Started</u>	S03Bi: Borrowing	<u>Not Started</u>
S11: Household Consumption	<u>Not Started</u>	S03Bii: Lending	<u>Not Started</u>
S12: Housing Characteristics	<u>Not Started</u>	S03Biii: Out-Transfers	---n/a---
S04NN: Gathering	<u>Not Started</u>	S03Biv: In-Transfers	---n/a---
		S03Bv: Savings	<u>Not Started</u>

Not all sections have been completed! Please select a section and continue the survey.

Parallel Block Instrument



Instrument types:

- (1) Personal + Household
- (2) Personal + Household + Plot
- (3) Personal + Household + Enterprise
- (4) Personal + Household + Plot + Enterprise



Survey Status

SOConsent Forms

S01A: Consent	<u>Done</u>	S01B3: Consent for Under 26	<u>Not Started</u>
---------------	-------------	-----------------------------	--------------------

Rosters

S01B2: Household Roster	<u>Done</u>	Person Sections	<u>Not Started</u>
S04: Plot Roster	<u>Done</u>	Plot Sections	----n/a----
S05: Non-Farm Enterprise Roster	<u>Done</u>	Non-Farm Enterprise Sections	----n/a----

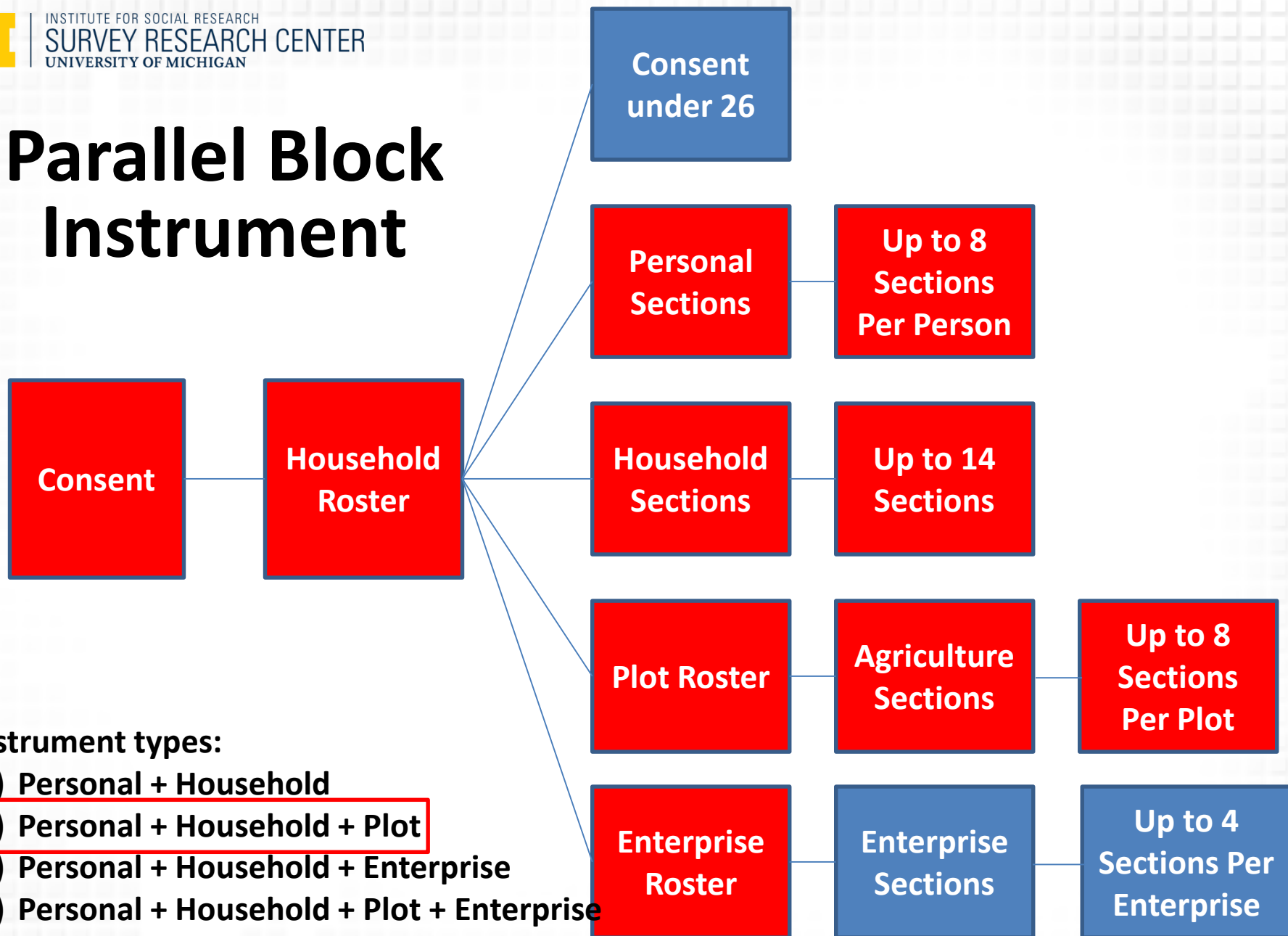
Household Level Sections

S02B: Non-Resident Spouses	<u>Not Started</u>	S03Ai: Animals	<u>Not Started</u>
S02A: Non-Resident Relatives	<u>Not Started</u>	S03Aii: Tools	<u>Not Started</u>
S10C: Social Networking	<u>Not Started</u>	S03Aiii: Durable Goods	<u>Not Started</u>
S10D: Information Seeking	<u>Not Started</u>	S03Bi: Borrowing	<u>Not Started</u>
S11: Household Consumption	<u>Not Started</u>	S03Bii: Lending	<u>Not Started</u>
S12: Housing Characteristics	<u>Not Started</u>	S03Biii: Out-Transfers	----n/a----
S04NN: Gathering	<u>Not Started</u>	S03Biv: In-Transfers	----n/a----
		S03Bv: Savings	<u>Not Started</u>

Not all sections have been completed! Please select a section and continue the survey.

Case Complete

Parallel Block Instrument



Instrument types:

- (1) Personal + Household
- (2) Personal + Household + Plot
- (3) Personal + Household + Enterprise
- (4) Personal + Household + Plot + Enterprise



Blaise 4.8 Data Entry - c:\blproj\ghana_p\work\householdsurvey

Forms Answer Help

HOUSEHOLD SURVEY Person Status Agriculture

Plot Name	Plot Info	Land Tenure	Tractors	Seeds	Labour	Harvest
PLOT1	<u>Not Started</u>	---n/a---	---n/a---	---n/a---	---n/a---	---n/a---
PLOT2	<u>Not Started</u>	---n/a---	---n/a---	---n/a---	---n/a---	---n/a---

Blaise 4.8 Data Entry - c:\blproj\ghana_p\work\householdsurvey

Forms Answer Help

HOUSEHOLD SURVEY Person Status Agriculture

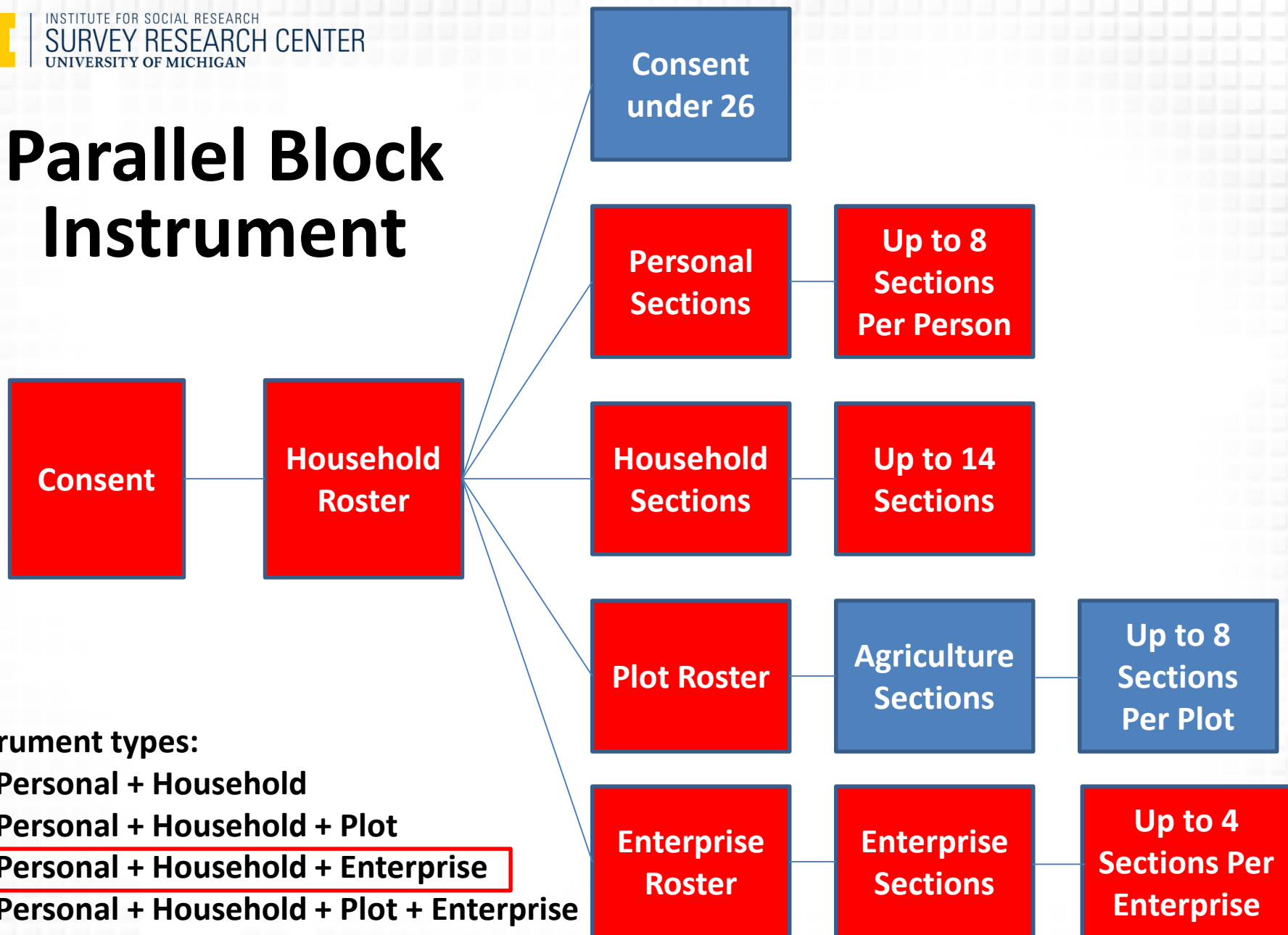
Survey Status

SOConsent Forms			
S01A: Consent	<u>Done</u>	S01B3: Consent for Under 26	<u>Not Started</u>
Rosters			
S01B2: Household Roster	<u>Done</u>	Person Sections	<u>Not Started</u>
S04: Plot Roster	<u>Done</u>	Plot Sections	<u>Not Started</u>
S05: Non-Farm Enterprise Roster	<u>Not Started</u>	Non-Farm Enterprise Sections	---n/a---
Household Level Sections			
S02B: Non-Resident Spouses	<u>Not Started</u>	S03Ai: Animals	<u>Not Started</u>
S02A: Non-Resident Relatives	<u>Not Started</u>	S03Aii: Tools	<u>Not Started</u>
S10C: Social Networking	<u>Not Started</u>	S03Aiii: Durable Goods	<u>Not Started</u>
S10D: Information Seeking	<u>Not Started</u>	S03Bi: Borrowing	<u>Not Started</u>
S11: Household Consumption	<u>Not Started</u>	S03Bii: Lending	<u>Not Started</u>
S12: Housing Characteristics	<u>Not Started</u>	S03Biii: Out-Transfers	---n/a---
S04NN: Gathering	<u>Not Started</u>	S03Biv: In-Transfers	---n/a---
		S03Bv: Savings	<u>Not Started</u>

Not all sections have been completed! Please select a section and continue the survey.



Parallel Block Instrument



Instrument types:

- (1) Personal + Household
- (2) Personal + Household + Plot
- (3) Personal + Household + Enterprise**
- (4) Personal + Household + Plot + Enterprise



Forms Answer Help

HOUSEHOLD SURVEY Person Status Enterprise Status

Enterprise Name	Basic Info	Assets	All Employees	Four Important Employees
ABC	<u>Not Started</u>	<u>Not Started</u>	<u>Not Started</u>	<u>Not Started</u>
EFG	<u>Not Started</u>	<u>Not Started</u>	<u>Not Started</u>	<u>Not Started</u>

Forms Answer Help

HOUSEHOLD SURVEY Person Status Enterprise Status

Survey Status

SOConsent Forms

S01A: Consent	<u>Done</u>	S01B3: Consent for Under 26	<u>Not Started</u>
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Rosters

S01B2: Household Roster	<u>Done</u>	Person Sections	<u>Not Started</u>
S04: Plot Roster	<u>Done</u>	Plot Sections	----n/a----
S05: Non-Farm Enterprise Roster	<u>Done</u>	Non-Farm Enterprise Sections	<u>Not Started</u>

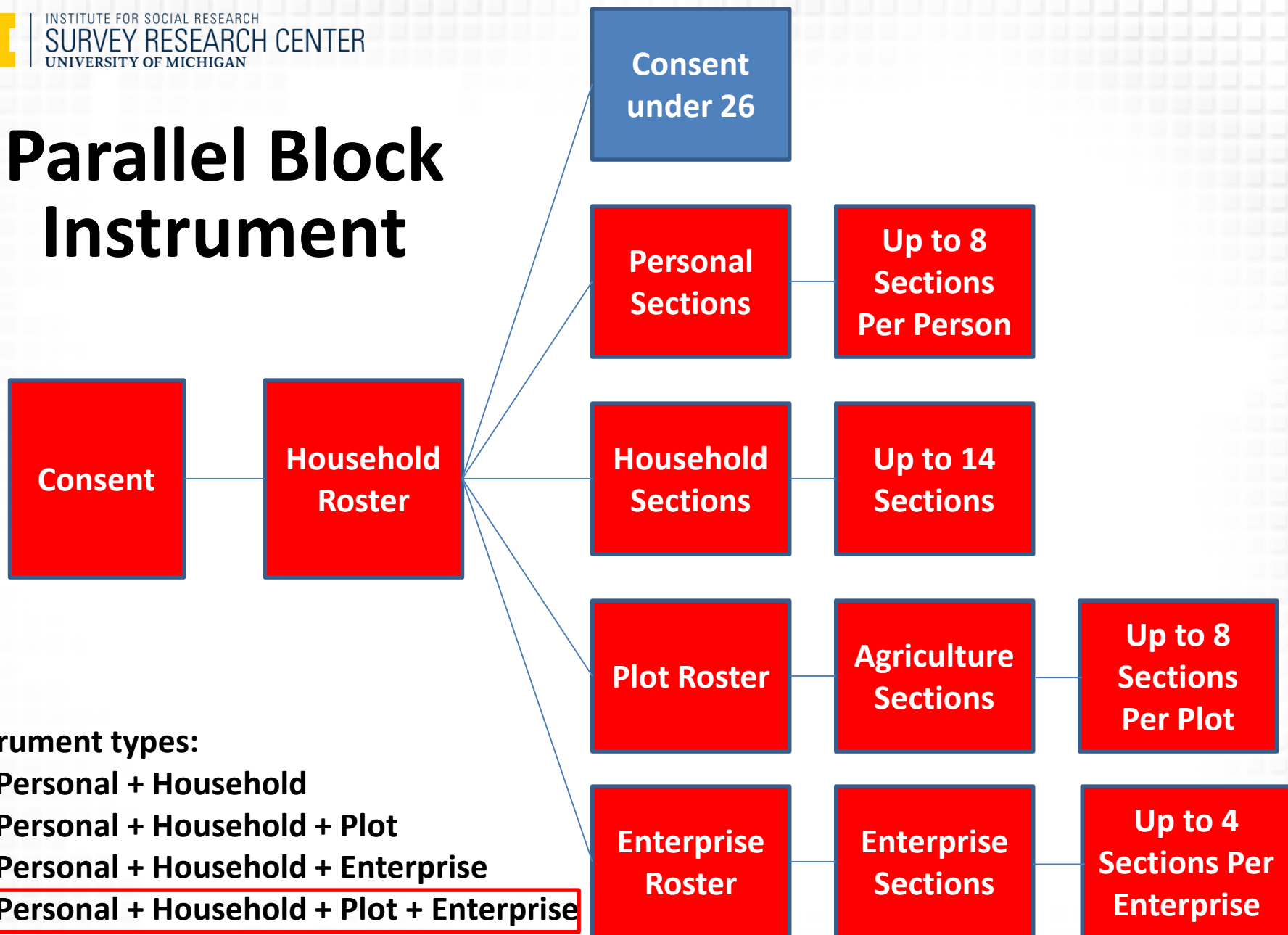
Household Level Sections

S02B: Non-Resident Spouses	<u>Not Started</u>	S03Ai: Animals	<u>Not Started</u>
S02A: Non-Resident Relatives	<u>Not Started</u>	S03Aii: Tools	<u>Not Started</u>
S10C: Social Networking	<u>Not Started</u>	S03Aiii: Durable Goods	<u>Not Started</u>
S10D: Information Seeking	<u>Not Started</u>	S03Bi: Borrowing	<u>Not Started</u>
S11: Household Consumption	<u>Not Started</u>	S03Bii: Lending	<u>Not Started</u>
S12: Housing Characteristics	<u>Not Started</u>	S03Biii: Out-Transfers	----n/a----
S04NN: Gathering	<u>Not Started</u>	S03Biv: In-Transfers	----n/a----
		S03Bv: Savings	<u>Not Started</u>

Not all sections have been completed! Please select a section and continue the survey.

Case Complete

Parallel Block Instrument



Instrument types:

- (1) Personal + Household
- (2) Personal + Household + Plot
- (3) Personal + Household + Enterprise
- (4) Personal + Household + Plot + Enterprise**



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Forms Answer Help

HOUSEHOLD SURVEY Person Status Enterprise Status Agriculture

Name	Background	Employment	Education	Migration	Health	Womens Health	Mens Health	Children	Pysch/Social
ADAM K (AK)	Started	Done	Done	Done	Started	---n/a---	Not Started	---n/a---	Not Started
AMINA A (MINA)	Not Started	Not Started	Not Started	Not Started	Not Started	Not Started	---n/a---	---n/a---	Not Started
ABDUL A	Not Started	Not Started	Not Started	Not Started	Not Started	---n/a---	Not Started	---n/a---	Not Started
TAKLIDOW A	Not Started	Not Started	Not Started	Not Started	Not Started	---n/a---	Not Started	Not Started	---n/a---
YUSSIF A	Done	---n/a---	Not Started	---n/a---	Not Started	---n/a---	---n/a---	Not Started	---n/a---
LAILATU A	Done	---n/a---	---n/a---	---n/a---	Not Started	---n/a---	---n/a---	Not Started	---n/a---

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Forms Answer Help

HOUSEHOLD SURVEY Person Status Enterprise Status Agriculture

Survey Status

S0Consent Forms

S01A: Consent	Done	S01B3: Consent for Under 26	Done
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Rosters

S01B2: Household Roster	Done	Person Sections	Started
S04: Plot Roster	Done	Plot Sections	Done
S05: Non-Farm Enterprise Roster	Done	Non-Farm Enterprise Sections	Not Started

Household Level Sections

S02B: Non-Resident Spouses	Not Started	S03Ai: Animals	Done
S02A: Non-Resident Relatives	Not Started	S03Aii: Tools	Started
S10C: Social Networking	Started	S03Aiii: Durable Goods	Started
S10D: Information Seeking	Done	S03Bi: Borrowing	Not Started
S11: Household Consumption	Not Started	S03Bii: Lending	Done
S12: Housing Characteristics	Not Started	S03Biii: Out-Transfers	---n/a---
S04NN: Gathering	Done	S03Biv: In-Transfers	---n/a---
		S03Bv: Savings	Done



“Master” Dashboard

Blaise 4.8 Data Entry - c:\blproj\ghana_p\work\householdsurvey

Forms Answer Help

HOUSEHOLD SURVEY Person Status Enterprise Status Agriculture

Survey Status

S0Consent Forms

S01A: Consent	<u>Done</u>	S01B3: Consent for Under 26	<u>Not Started</u>
---------------	-------------	-----------------------------	--------------------

Rosters

S01B2: Household Roster	<u>Done</u>	Person Sections	<u>Not Started</u>
S04: Plot Roster	<u>Done</u>	Plot Sections	<u>Not Started</u>
S05: Non-Farm Enterprise Roster	<u>Done</u>	Non-Farm Enterprise Sections	<u>Not Started</u>

Household Level Sections

S02B: Non-Resident Spouses	<u>Not Started</u>	S03Ai: Animals	<u>Not Started</u>
S02A: Non-Resident Relatives	<u>Not Started</u>	S03Aii: Tools	<u>Not Started</u>
S10C: Social Networking	<u>Not Started</u>	S03Aiii: Durable Goods	<u>Not Started</u>
S10D: Information Seeking	<u>Not Started</u>	S03Bi: Borrowing	<u>Not Started</u>
S11: Household Consumption	<u>Not Started</u>	S03Bii: Lending	<u>Not Started</u>
S12: Housing Characteristics	<u>Not Started</u>	S03Biii: Out-Transfers	----n/a----
S04NN: Gathering	<u>Not Started</u>	S03Biv: In-Transfers	----n/a----
		S03Bv: Savings	<u>Not Started</u>

Not all sections have been completed! Please select a section and continue the survey.

“Benefits” of this design

- Interviewers have a high-level of autonomy with respect to interview navigation.
- Interviewers are able to:
 - switch respondents easily.
 - jump to any section of questionnaire quickly.
- Development of a questionnaire “Dashboard” to show the status of all the questionnaire sections and all the respondents within the household.

Questions for the design...

- How does instrument design affect instrument navigation?
 - **Instrument parallel blocks**: four instruments (household, personal, agriculture, enterprise) with multiple sections/blocks within each instrument.
- How does instrument navigation affect interview length?
 - **Order of interview initiation**
 - **Movements between blocks**

By using keystroke data (Paradata)

Timestamps

Hours:Minutes:Seconds:Thousands of a second

Case ID in Blaise database

"1/17/2012 9:00:06:304 AM", "Enter Form:1", "Key:3975053020 " ← **Sample ID**

"1/17/2012 9:00:06:304 AM", "Metafile name:C:\blproj\HRS2012\work\HRS12.bmi"

"1/17/2012 9:00:06:304 AM", "Metafile timestamp:Friday, January 06, 2012 1:08:04 PM" ← **Start IW**

"1/17/2012 9:00:06:304 AM", "WinUserName:14554015" ← **Interviewer ID**

"1/17/2012 9:00:06:304 AM", "DictionaryVersionInfo:0.0.0.0"

...

"1/17/2012 9:00:12:702 AM", "Enter Field:SecA.StartInterview.A007TRALive_A", "Status:Normal", "Value:"

"1/17/2012 9:00:13:965 AM", "(KEY:)1[ENTR]" ← **Time of first keystroke**

"1/17/2012 9:00:14:276 AM", "Action:Store Field Data", "Field:SecA.StartInterview.A007TRALive_A"

"1/17/2012 9:00:14:328 AM", "Leave Field:SecA.StartInterview.A007TRALive_A", "Cause:Next Field", "Status:Normal", "Value:1"

...

"1/17/2012 9:02:51:681 AM", "Enter Field:SecJ.WORKSTATUS.J005MCurrEmpStatus[1]", "Status:Normal", "Value:"

"1/17/2012 9:02:55:971 AM", "(KEY:)15[BACK][BACK]5[ENTR]"

"1/17/2012 9:03:03:209 AM", "Action:Store Field Data", "Field:SecJ.WORKSTATUS.J005MCurrEmpStatus[1]"

"1/17/2012 9:03:03:256 AM", "Leave Field:SecJ.WORKSTATUS.J005MCurrEmpStatus[1]", "Cause:Next Field", "Status:Normal", "Value:5"

...

"1/17/2012 9:13:24:923 AM", "Enter Field:IWComplete", "Status:Normal", "Value:"

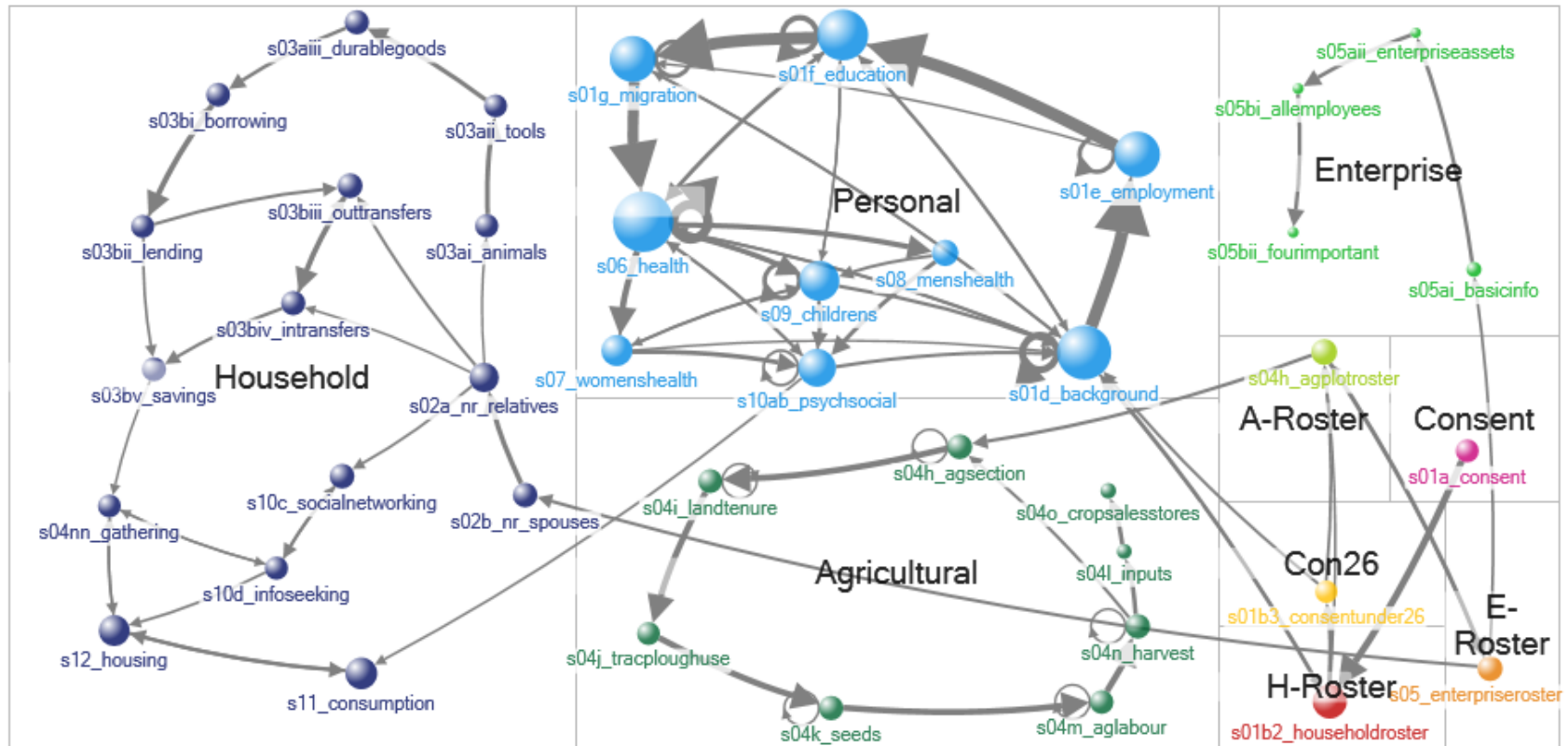
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"1/17/2012 9:13:29:650 AM", "Action:Store Field Data", "Field:IWComplete"

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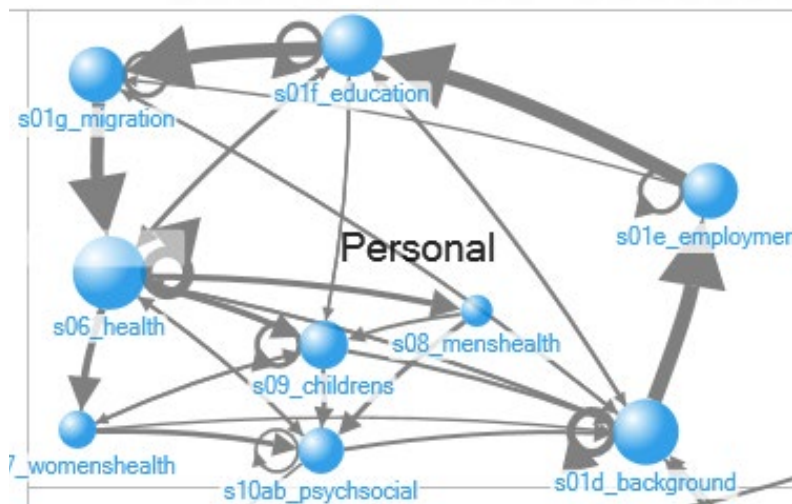
"1/17/2012 9:13:30:056 AM", "Leave Field:IWComplete", "Cause:Exit", "Status:Normal", "Value:1"

"1/17/2012 9:13:30:056 AM", "Leave Form:1", "Key:3975053020 "



Most Common Block Moves All Types

- Edge Weight (number of times a move occurred) ≥ 500
- Movement within sections dominates
- Exceptions are rosters and Personal to Household



Blaise 4.8 Data Entry - c:\blproj\ghana_p\work\householdsurvey

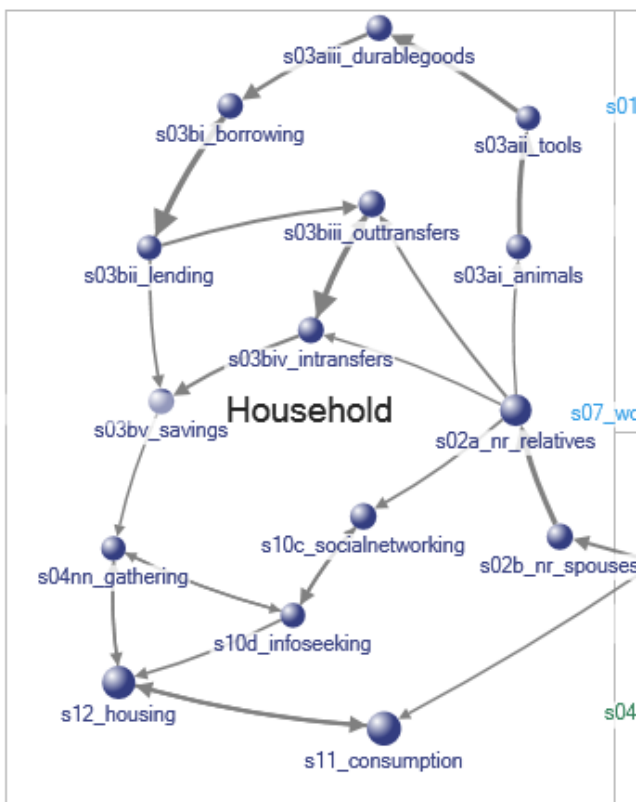
Forms Answer Help

HOUSEHOLD SURVEY Person Status Enterprise Status Agriculture

Name	Background	Employment	Education	Migration	Health	Womens Health	Mens Health	Children	Pysch/Social
ADAM K (AK)	Started	Done	Done	Done	Started	---n/a---	Not Started	---n/a---	Not Started
AMINA A (MINA)	Not Started	Not Started	Not Started	Not Started	Not Started	Not Started	---n/a---	---n/a---	Not Started
ABDUL A	Not Started	Not Started	Not Started	Not Started	Not Started	---n/a---	Not Started	---n/a---	Not Started
TANLIDOW A	Not Started	Not Started	Not Started	Not Started	Not Started	---n/a---	---n/a---	Not Started	---n/a---
YUSSIF A	Done	---n/a---	Not Started	---n/a---	Not Started	---n/a---	---n/a---	Not Started	---n/a---
LAILATU A	Done	---n/a---	---n/a---	---n/a---	Not Started	---n/a---	---n/a---	Not Started	---n/a---

Most Common Block Moves All Types

- Tendency to move laterally or within the same questionnaire content
- Optional sections introduce multiple, common paths



HOUSEHOLD SURVEY

Person Status Enterprise Status Agriculture

Survey Status

S0Consent Forms

S01A: Consent

Done

S01B3: Consent for Under 26

Done

Rosters

S01B2: Household Roster

Done

Person Sections

Started

S04: Plot Roster

Done

Plot Sections

Done

S05: Non-Farm Enterprise Roster

Done

Non-Farm Enterprise Sections

Not Started

Household Level Sections

S02B: Non-Resident Spouses

Not Started

S03Ai: Animals

Done

S02A: Non-Resident Relatives

Not Started

S03Aii: Tools

Started

S10C: Social Networking

Started

S03Aiii: Durable Goods

Started

S10D: Information Seeking

Done

S03Bi: Borrowing

Not Started

S11: Household Consumption

Not Started

S03Bii: Lending

Done

S12: Housing Characteristics

Not Started

S03Biii: Out-Transfers

----n/a----

S04NN: Gathering

Done

S03Biv: In-Transfers

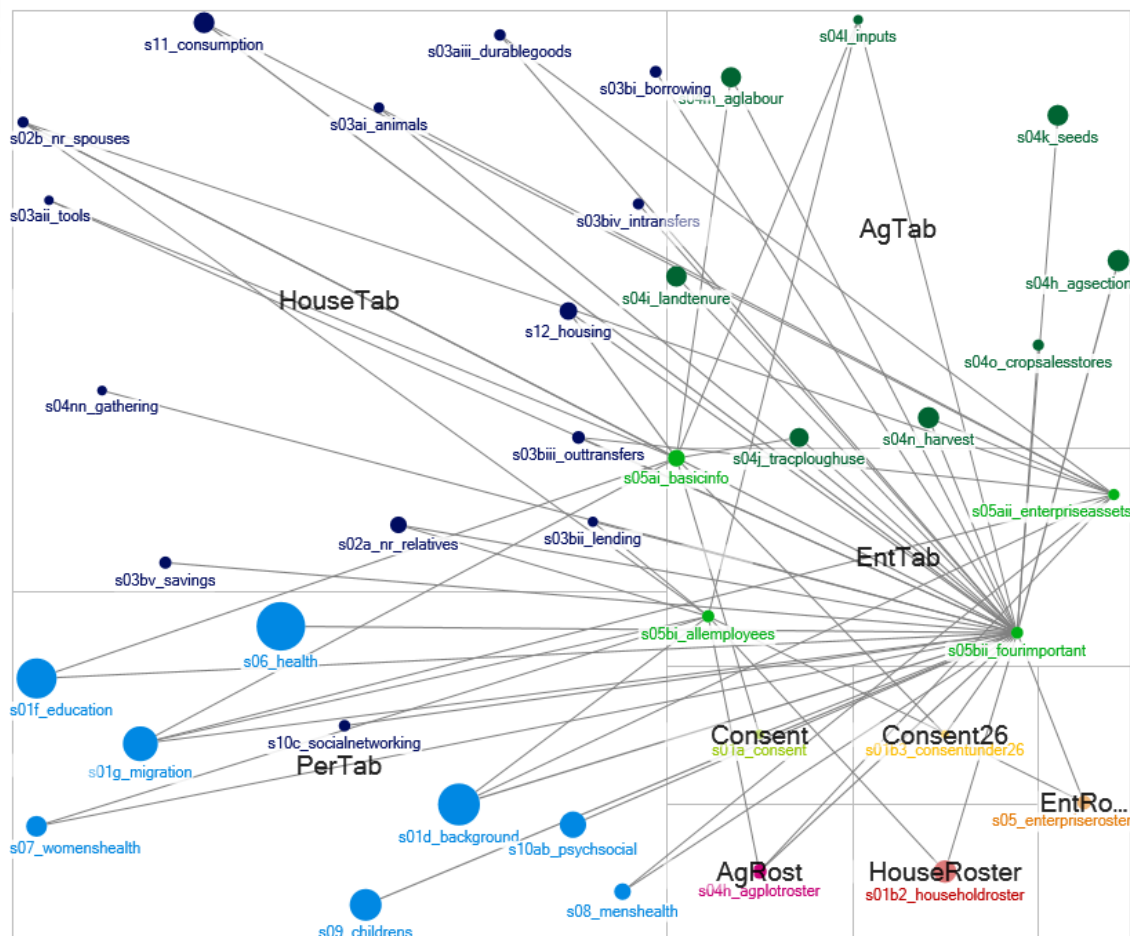
----n/a----

S03Bv: Savings

Done

Most Common Block Moves All Types

- Tendency to work down the columns
- Non-resident Relatives and Consumption introduce multiple common paths



Moving Out of a Section

- Type 4 interviews showing moves out of the Enterprise section
- “fourImportant” block has most exit moves

Instrument Parallel Blocks

- We should have some instructions about the optimal interviewing paths for the desired navigation
 - The parallel blocks programming needs to match with the optimal navigation design
 - The **interviewer training** needs to emphasize the design and avoid “jump around too much”

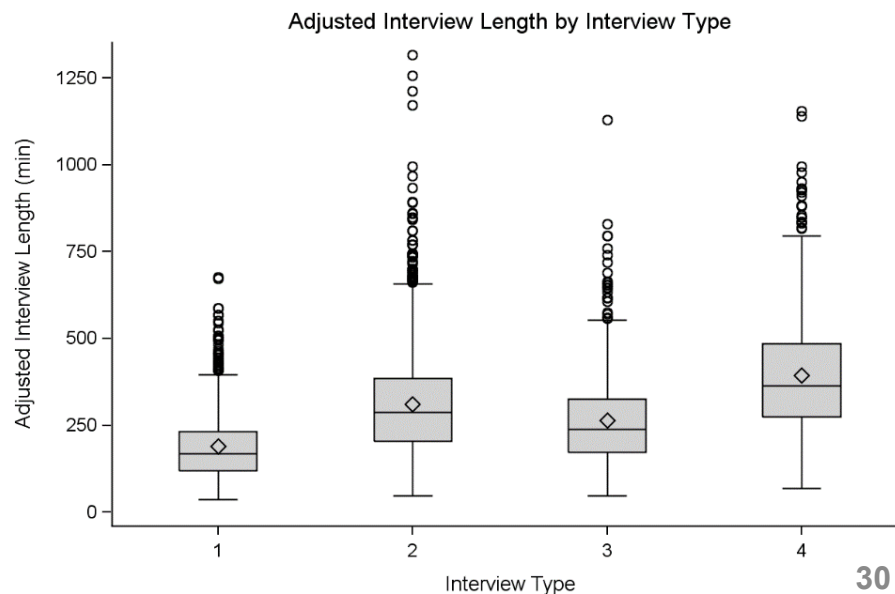
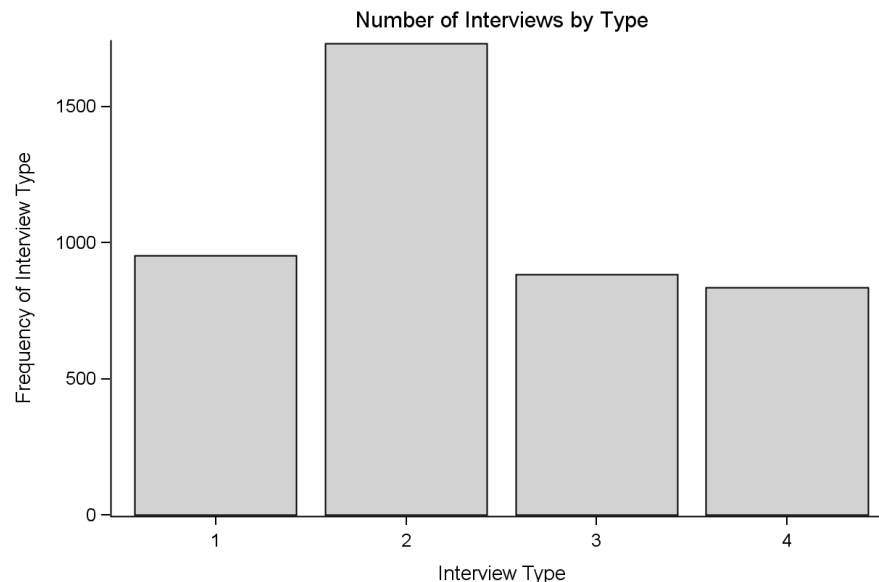
- How does instrument navigation affect interview length?
 - Order of interview initiation
 - Movements between blocks

N = 4223 interviews

- Type 1) Personal + Household
- Type 2) Personal + Household + Plot
- Type 3) Personal + Household + Enterprise
- Type 4) Personal + Household + Plot + Enterprise

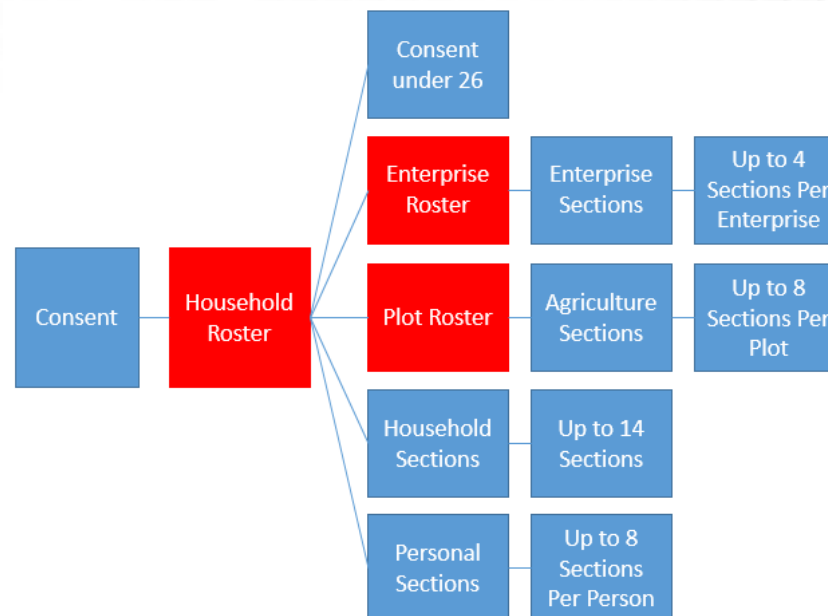
Interview Length

- **Adjusted mean 290 (+/- 156) minutes**
- **Ranged from ~30 minutes to 22 hours**
- **Type 4 longer than all others ($P < 0.05$)**
- **Type 1 shorter than all others ($P < 0.05$)**
- **Type 2 & 3 not different**

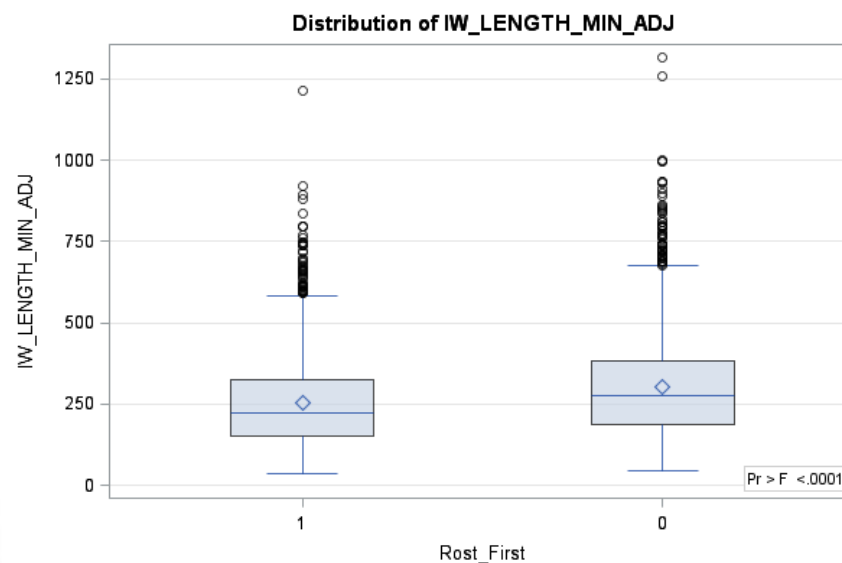


Order of Section Entry

- Split sample into two groups:
 - Completed rosters first**
 - Others**
- T-test comparison of IW length



- Rosters-first group showed significantly lower interview lengths
 - Ave **Roster First**: 257.3
 - Ave Others: 280.3
 - $P < .0001$

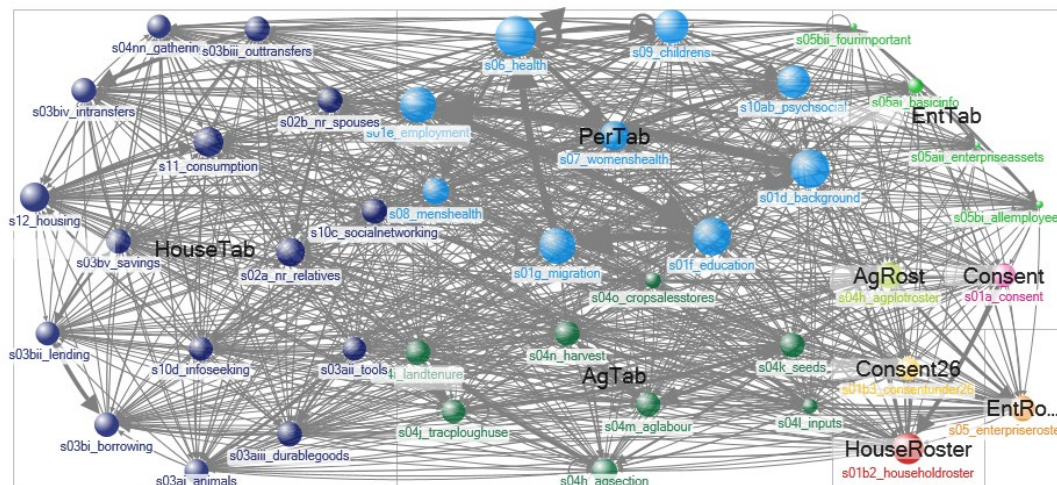


Some Observations (Roster-First)

- Region (10):
 - Only 2 regions; no significant differences in four regions.
- HH Type (1-4):
 - Only HH without any or with both agriculture/enterprises sections.
- HH size (1-17):
 - Single-person HH; no significant differences in HH size = 2 or 3.
- Team leadership (23):
 - Only in 8 teams; no significant differences in 4 teams.

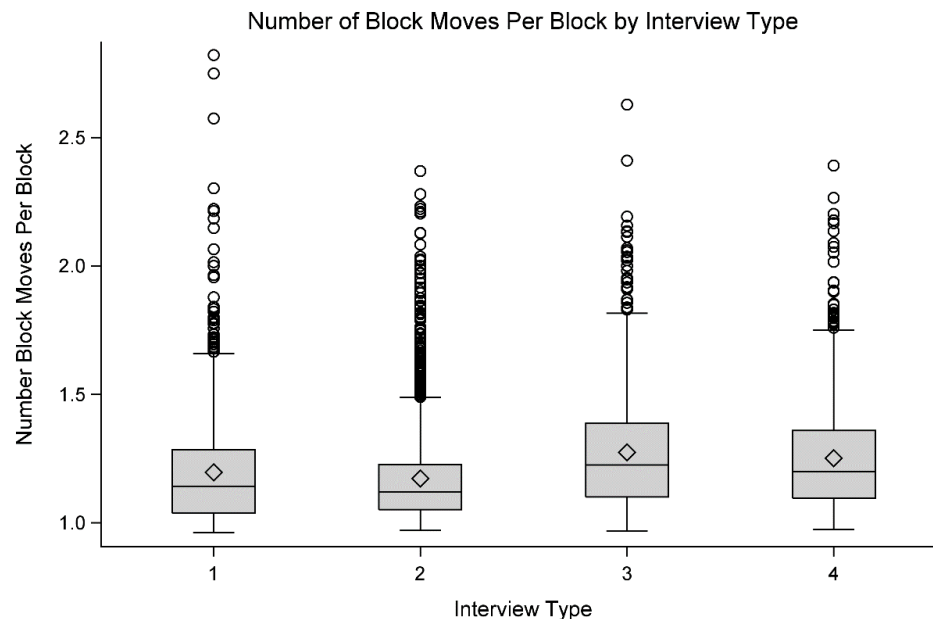
Number of Block Moves Per Block

- On a per household basis
- Average 52 blocks per household
- Average Block Moves per Block is 1.21
- Min = 1, Max = 2.82 (for all types)



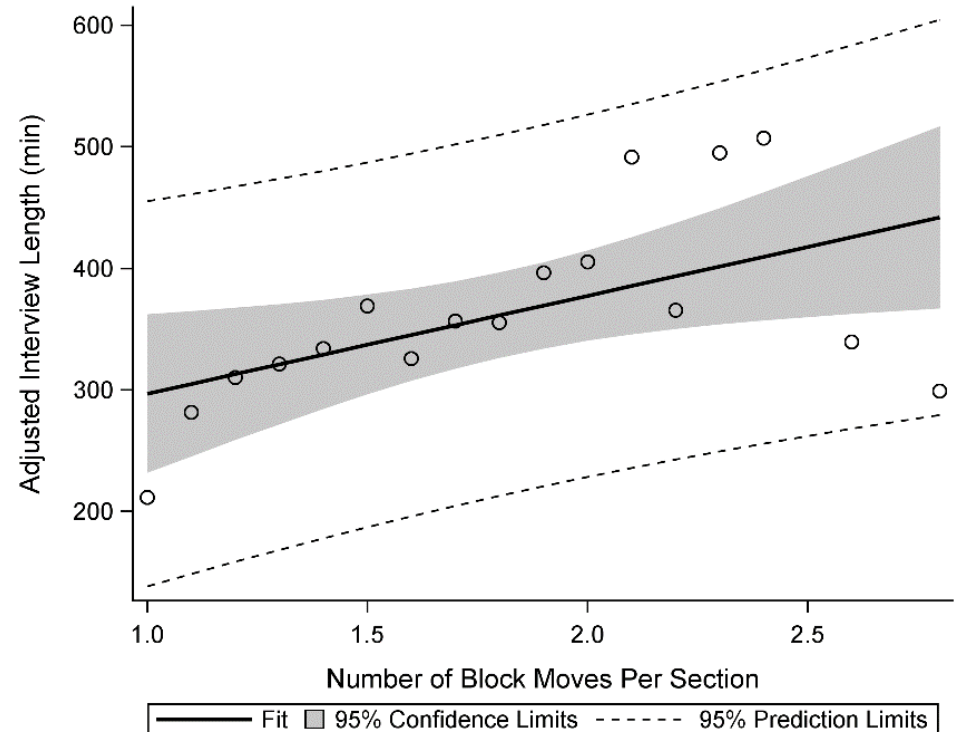
Differences by Interview Type

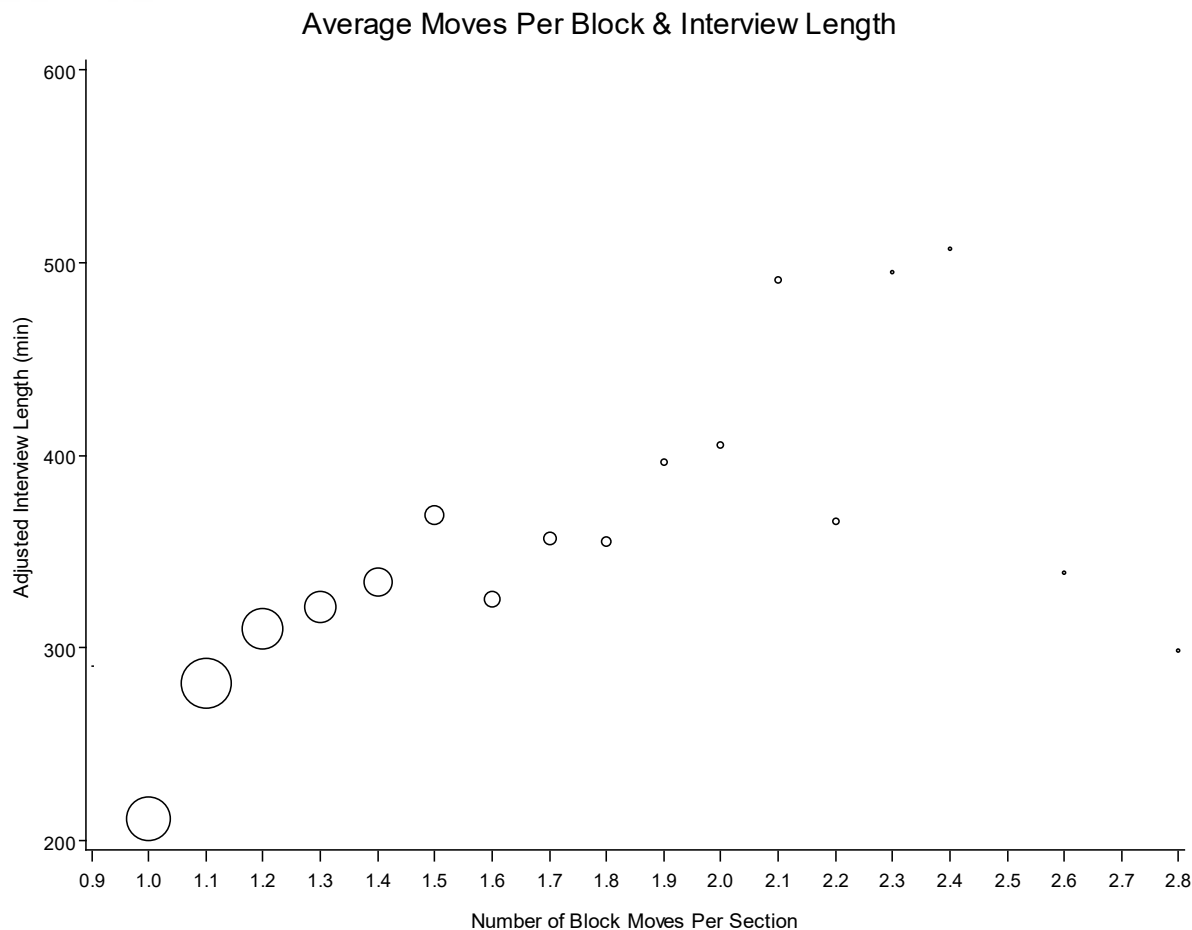
- Less movement in Type 2 (Plot only, $P < .05$)
- Type 3 (Enterprise only) more movement than Type 1/2 ($P < 0.05$), trending toward more than Type 4



Interview Length & Number Block Moves Per Block

- Interview length increases with increasing movement between blocks
- $IW \text{ Length} = 80.6 * \text{MovesPerBlock} + 216$
- $P = .028$; $R^2 = 0.302$; $\text{Adj } R^2 = 0.255$
- Non-linear relationship?





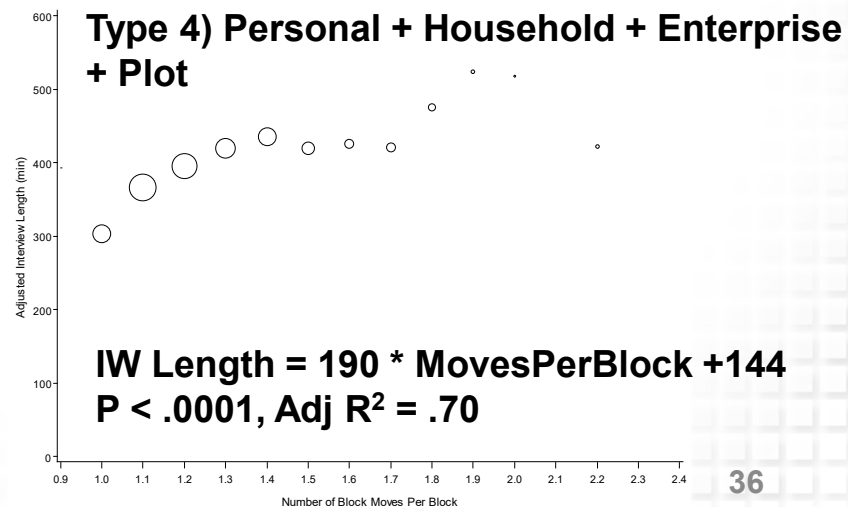
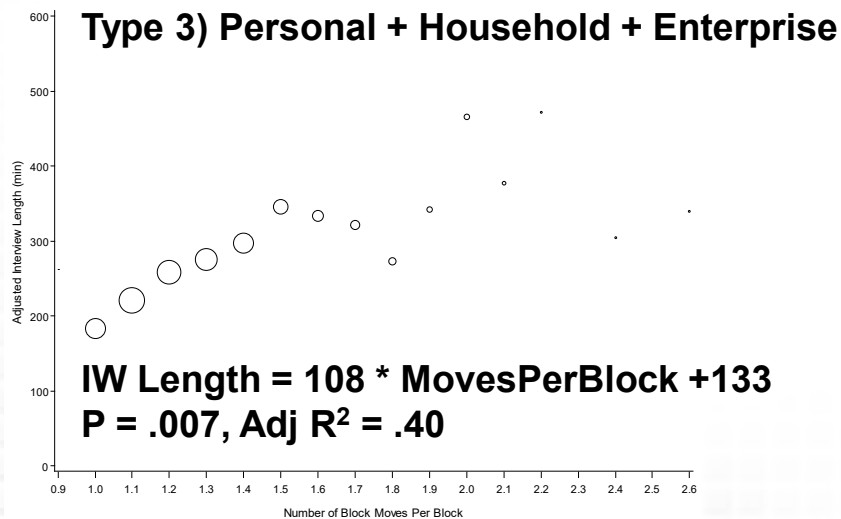
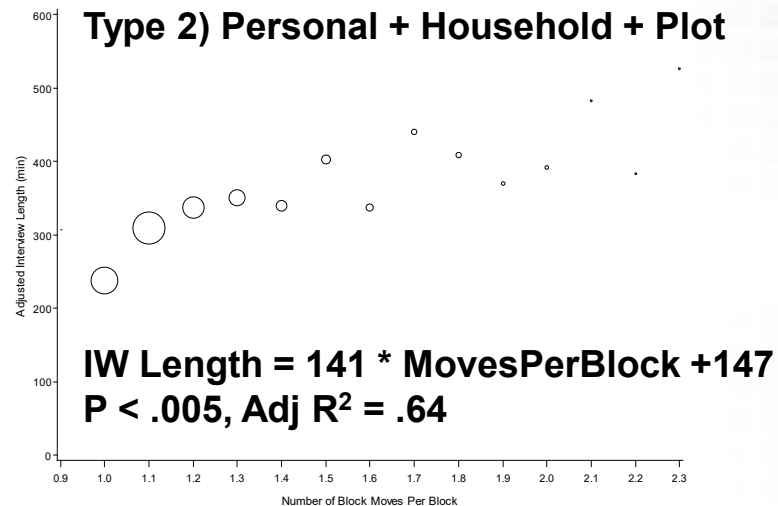
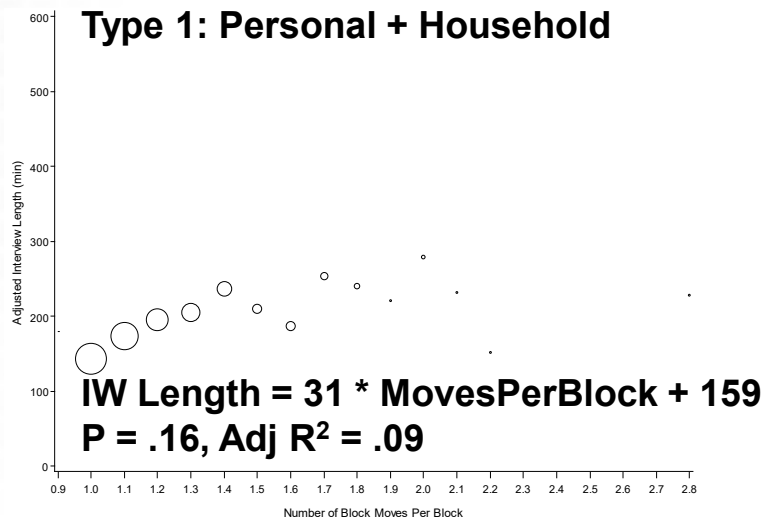
Interview Length & Number of Block Moves Per Section

Number interviews ranges from N = 1277 to 2

Interviews are clustered under 1.5 Block Moves Per Section



Interview Length & Number Block Moves Per Block By Type



Some Observations (Block Moves)

- Movement between blocks are with a cost
- Interview length increases with increasing movement between blocks
- Some movements are explainable with the instrument design but others are unsure --- why

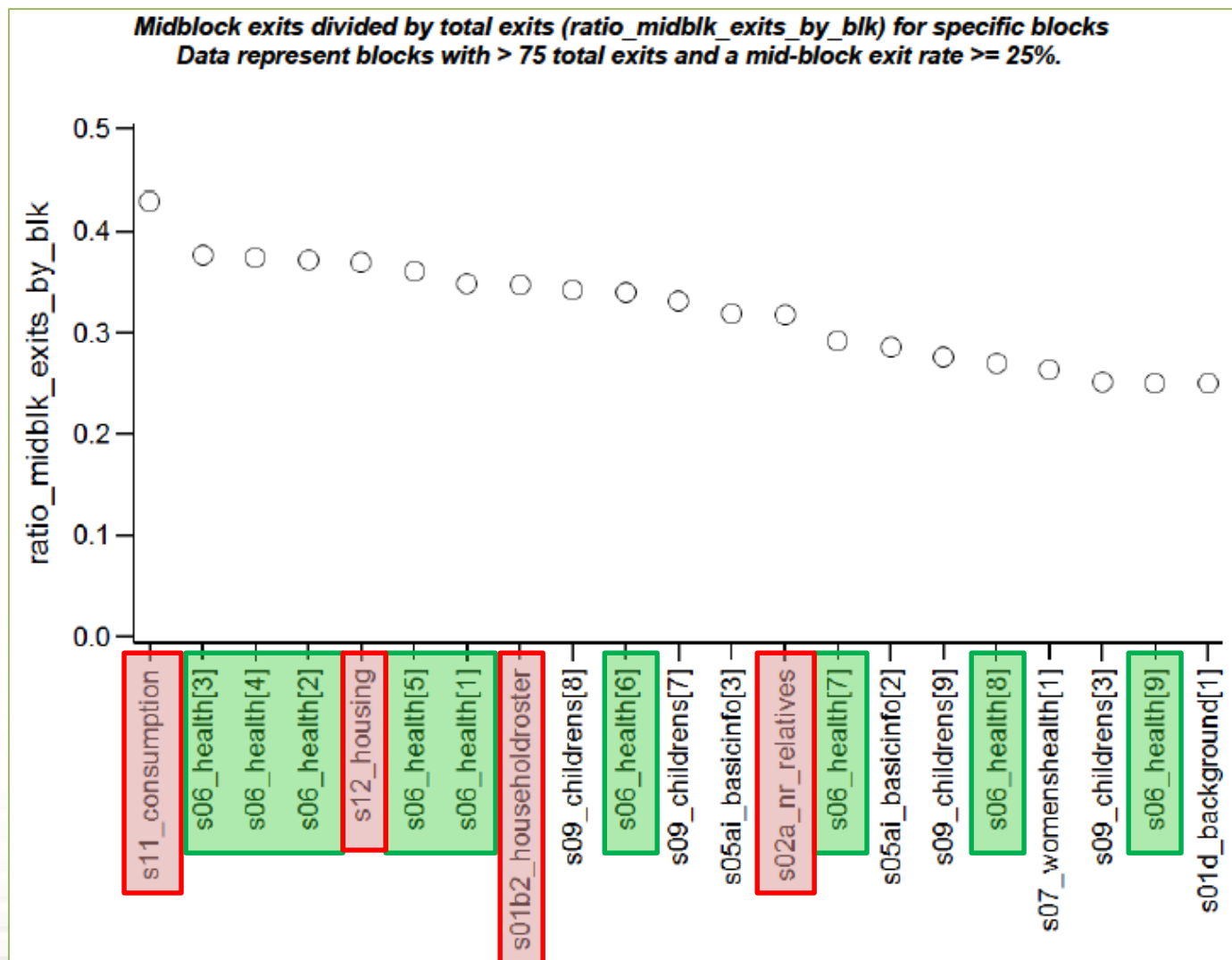


What else we look into?

- Other paradata usage examples:
 - By block
 - By lwer
 - By question
 - By respondent
 - By time/lw order

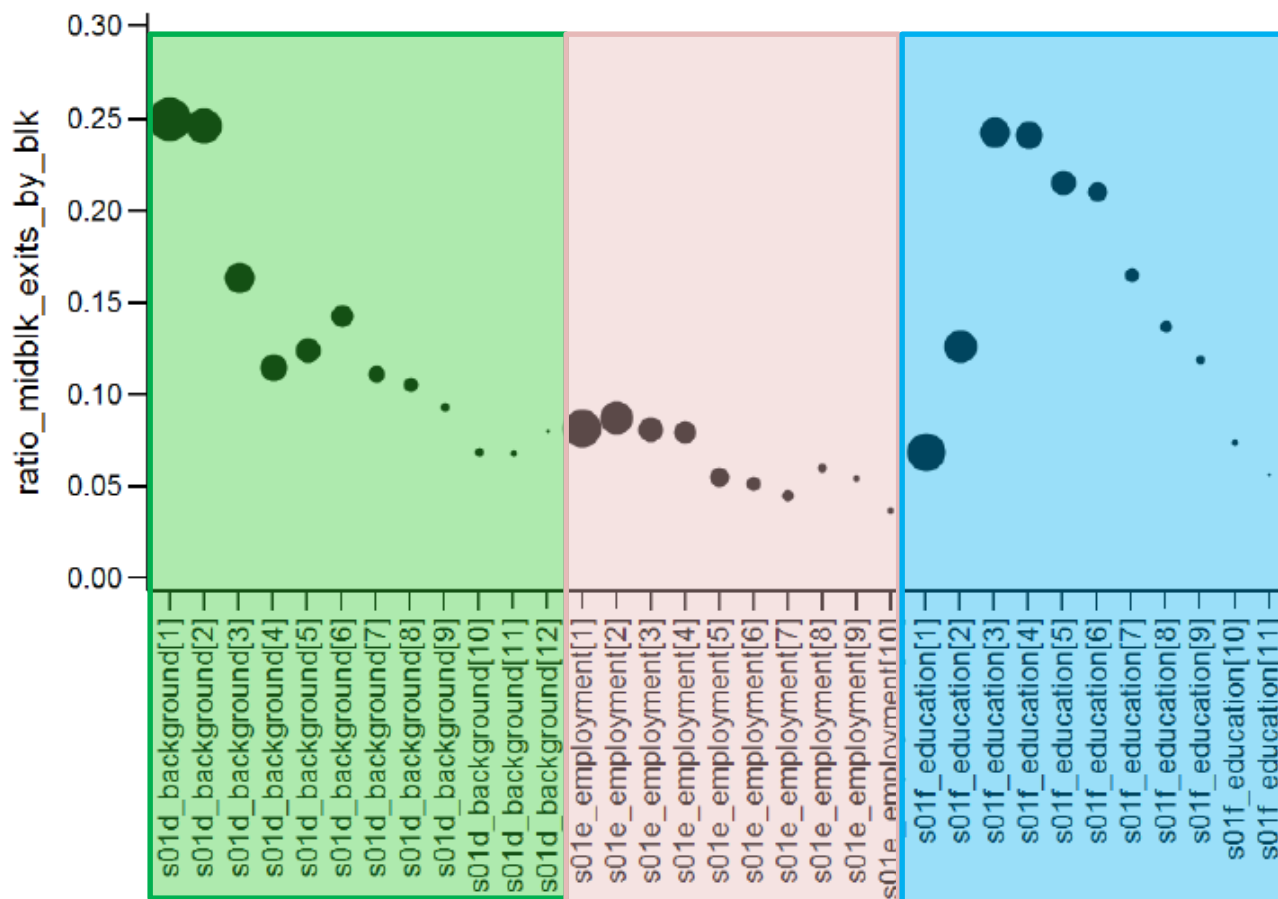


Midblock Exits (by block)



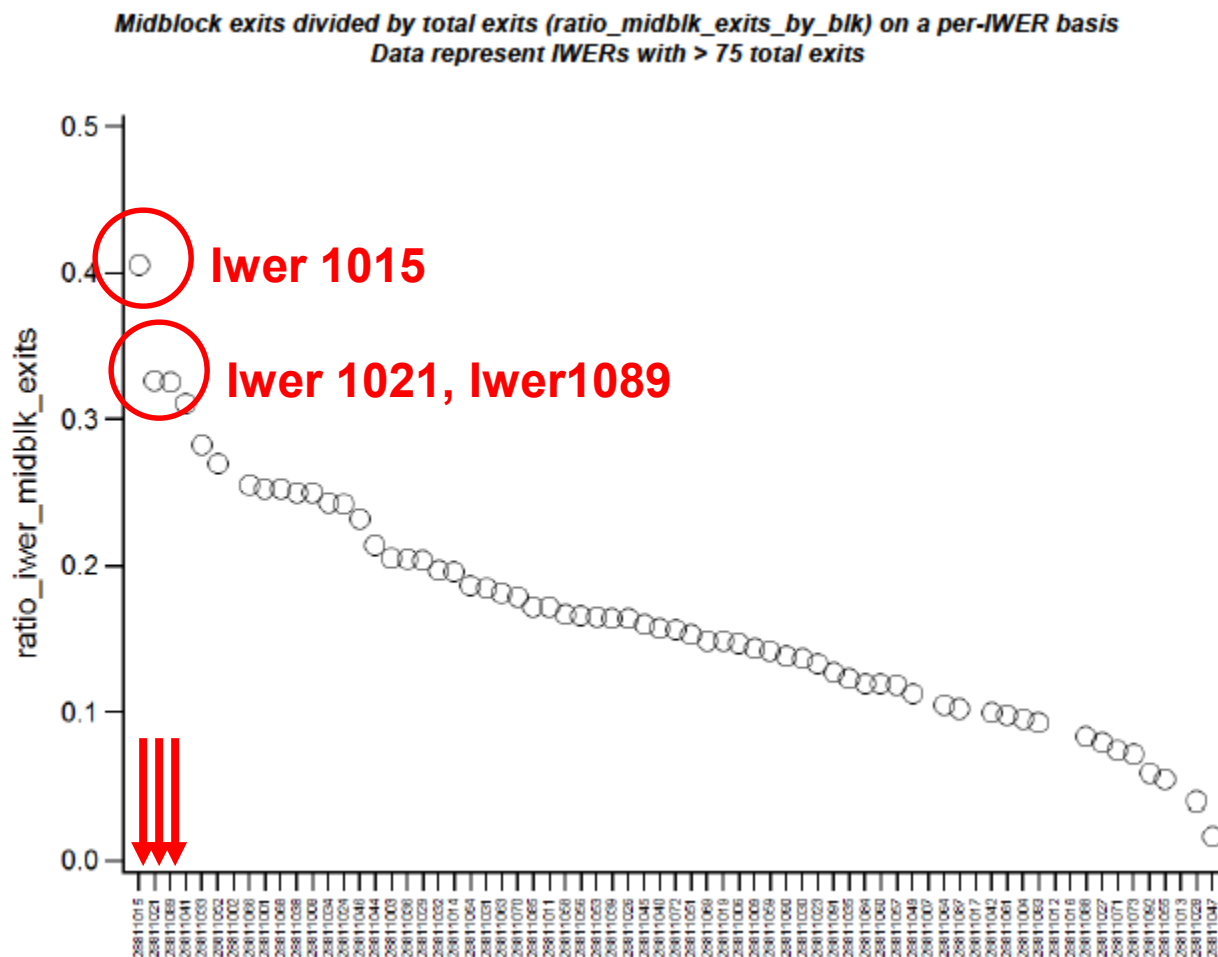
Midblock Exits (by block by person)

*Midblock exits divided by total exits (ratio_midblk_exits_by_blk) for specific, enumerated blocks
Larger bubbles indicate more exit events.*



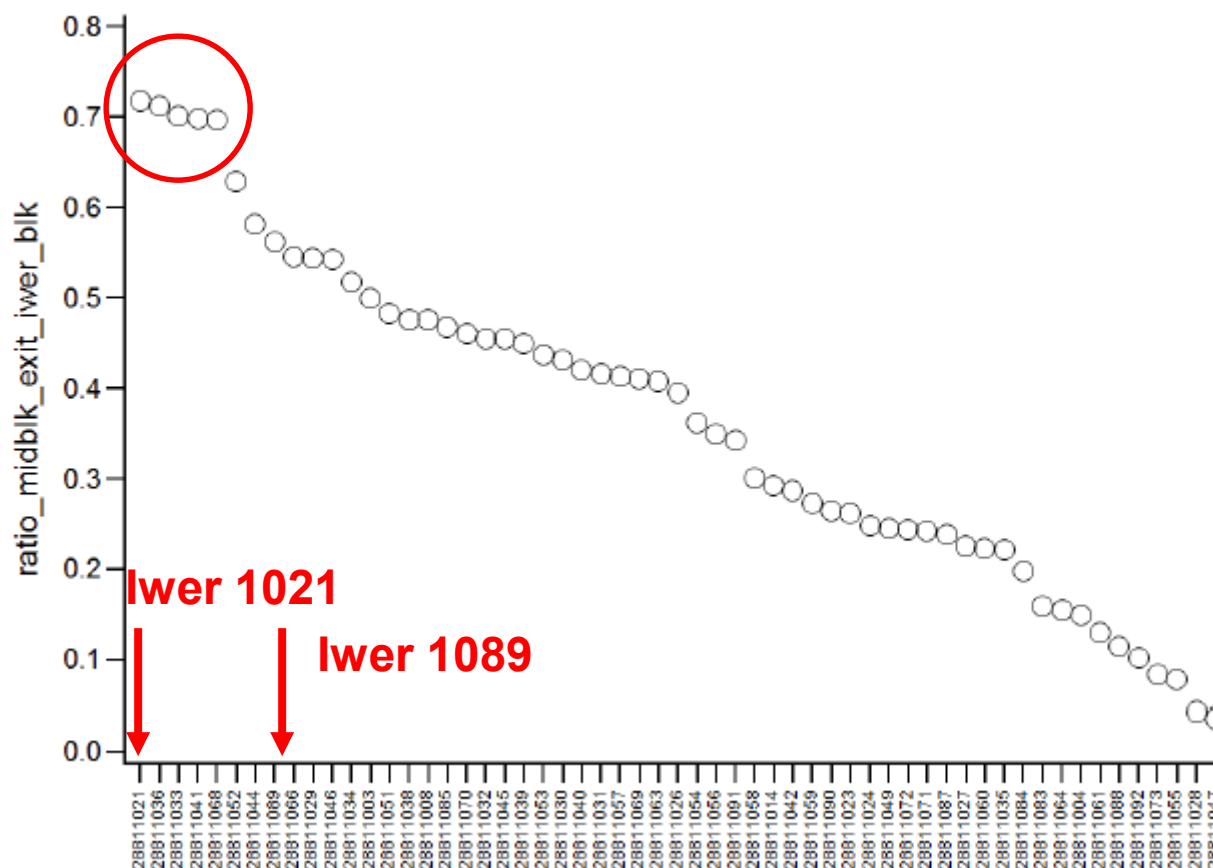


Midblock Exits – Overall (by Iwer)



Midblock Exits (by Iwer) - Consumption

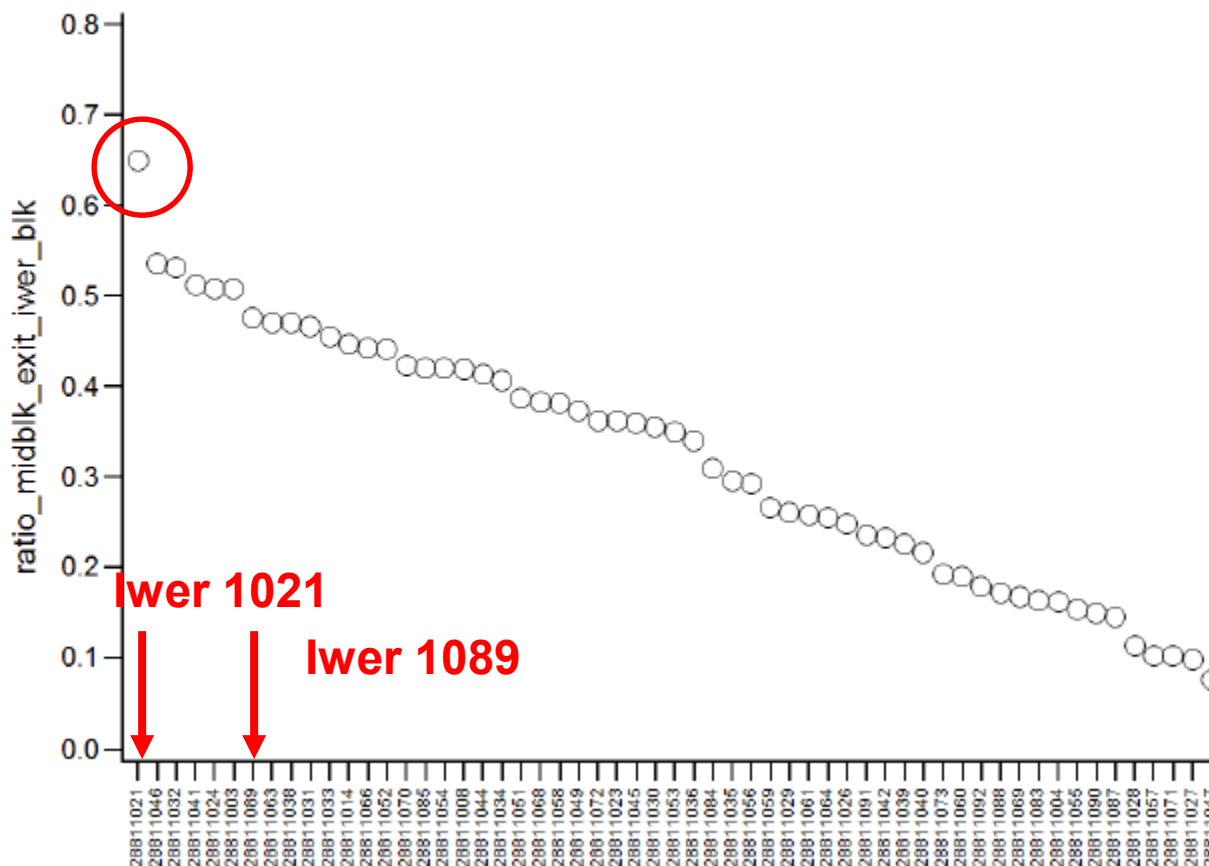
*Midblock exits divided by total exits (ratio_midblk_exit_iwer_blk) per IWER for the s11_consumption block
Data represent IWERs with > 20 total exits*





Midblock Exits (by Iwer) - Health

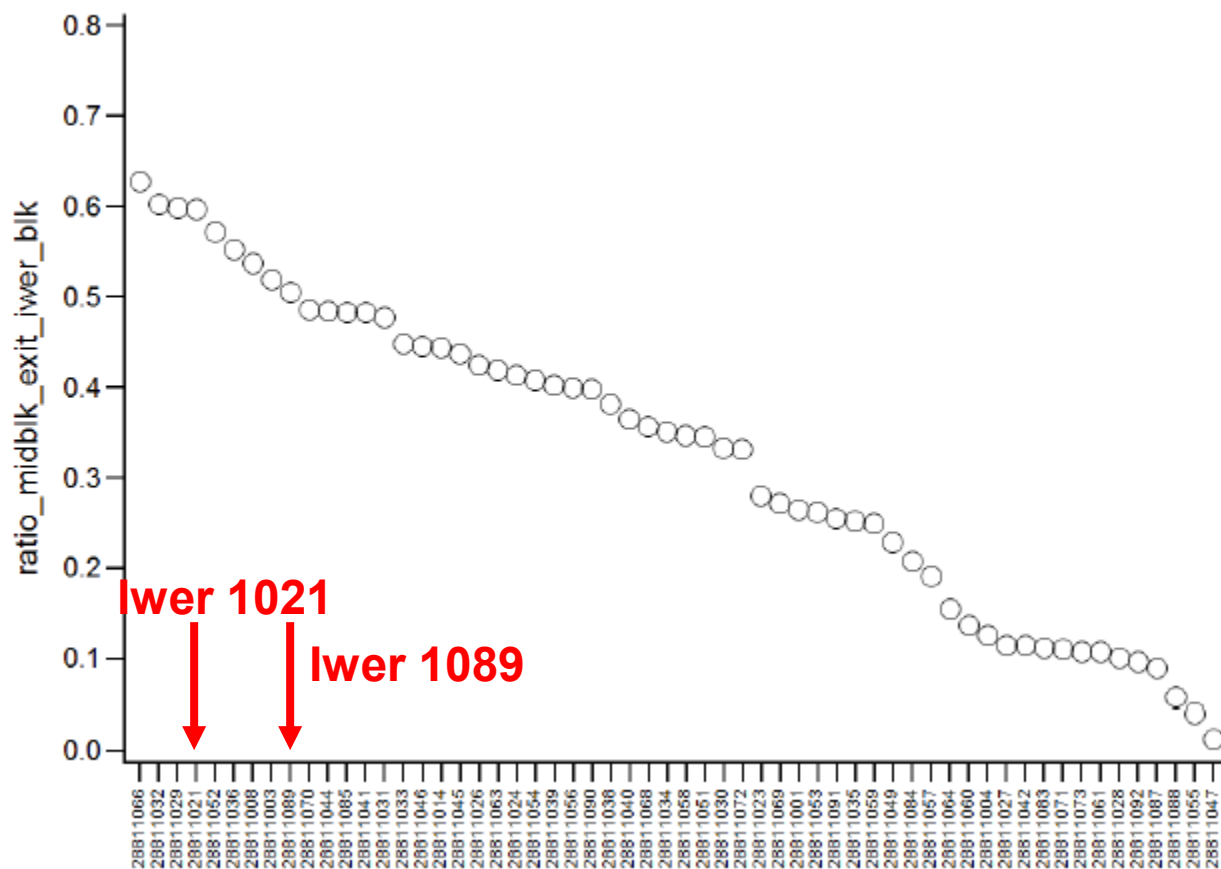
*Midblock exits divided by total exits (ratio_midblk_exit_iwer_blk) per IWER for the s06_health[1] block
Data represent IWERS with > 20 total exits*





Midblock Exits (by Iwer) - Housing

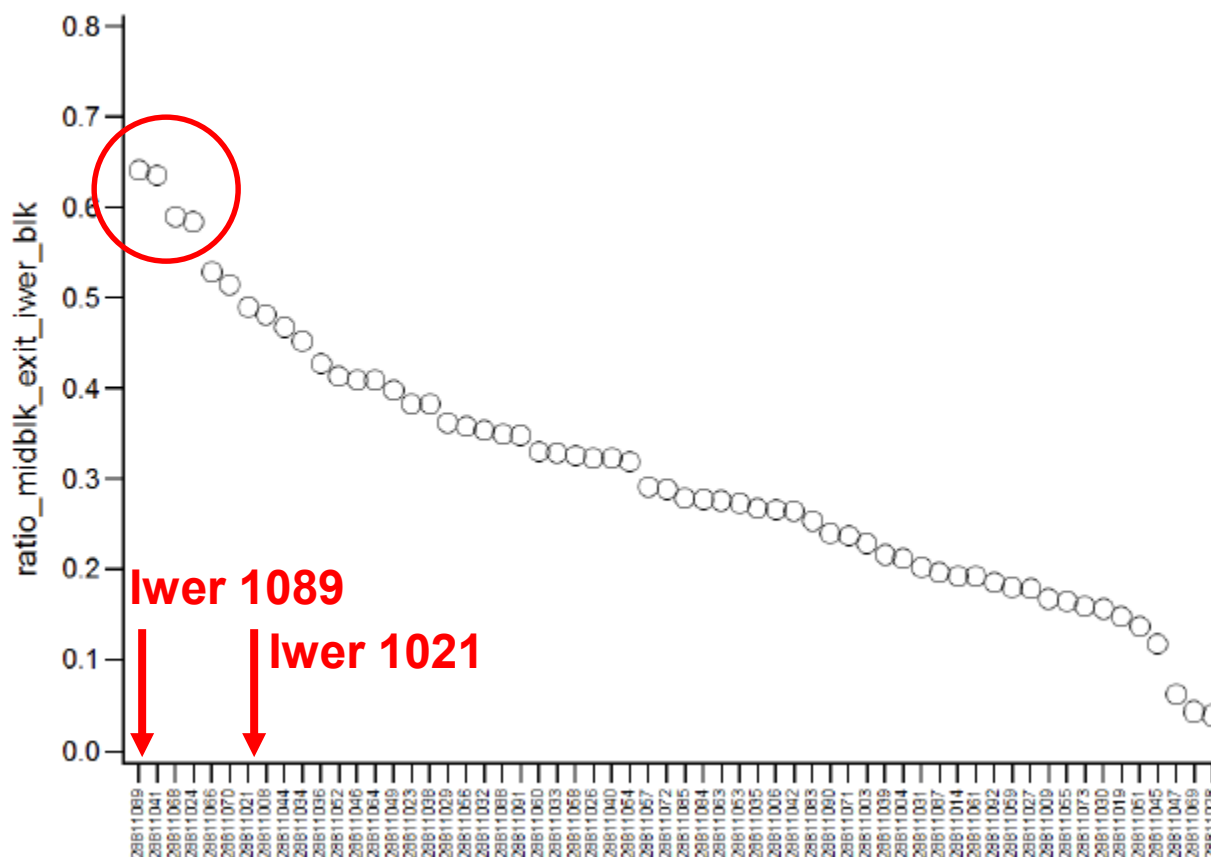
*Midblock exits divided by total exits (ratio_midblk_exit_iwer_blk) per IWER for the s12_housing block
Data represent IWERS with > 20 total exits*





Midblock Exits (by Iwer) – HH Roster

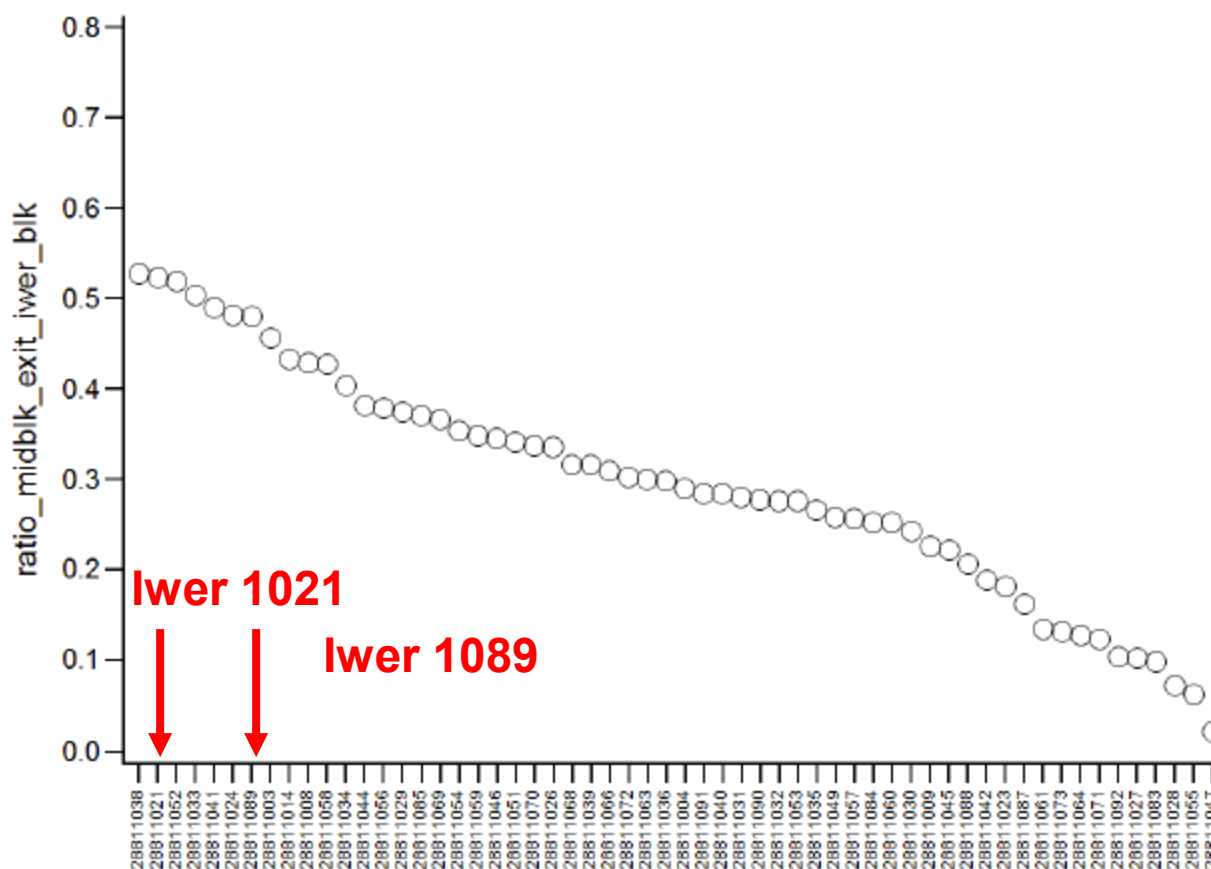
*Midblock exits divided by total exits (ratio_midblk_exit_iwer_blk) per IWER for the s01b2_householdroster block
Data represent IWERs with > 20 total exits*





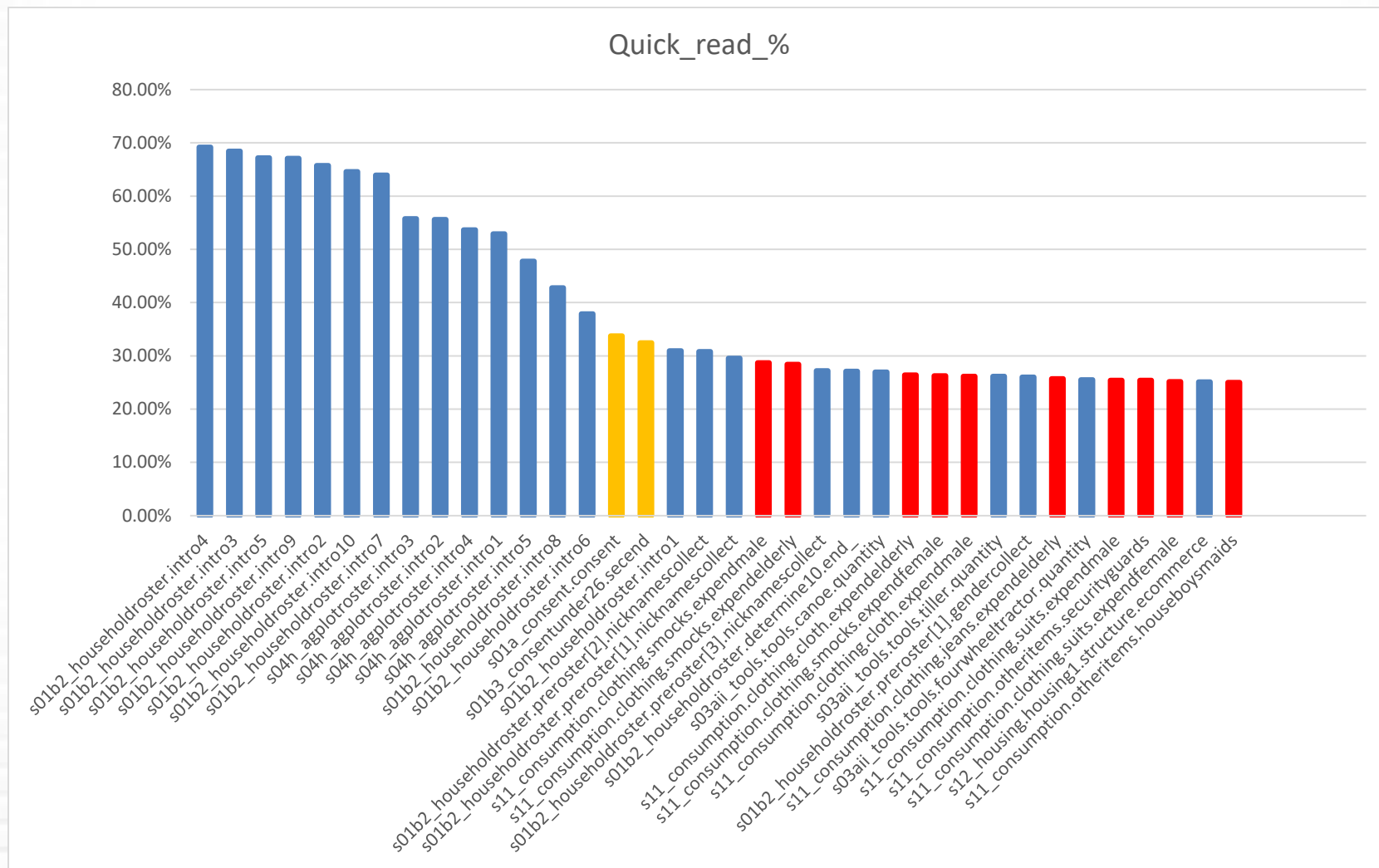
Midblock Exits (by Iwer) – Non Resident Relatives

*Midblock exits divided by total exits (ratio_midblk_exit_iwer_blk) per IWER for the s02a_nr_relatives block
Data represent IWERS with > 20 total exits*



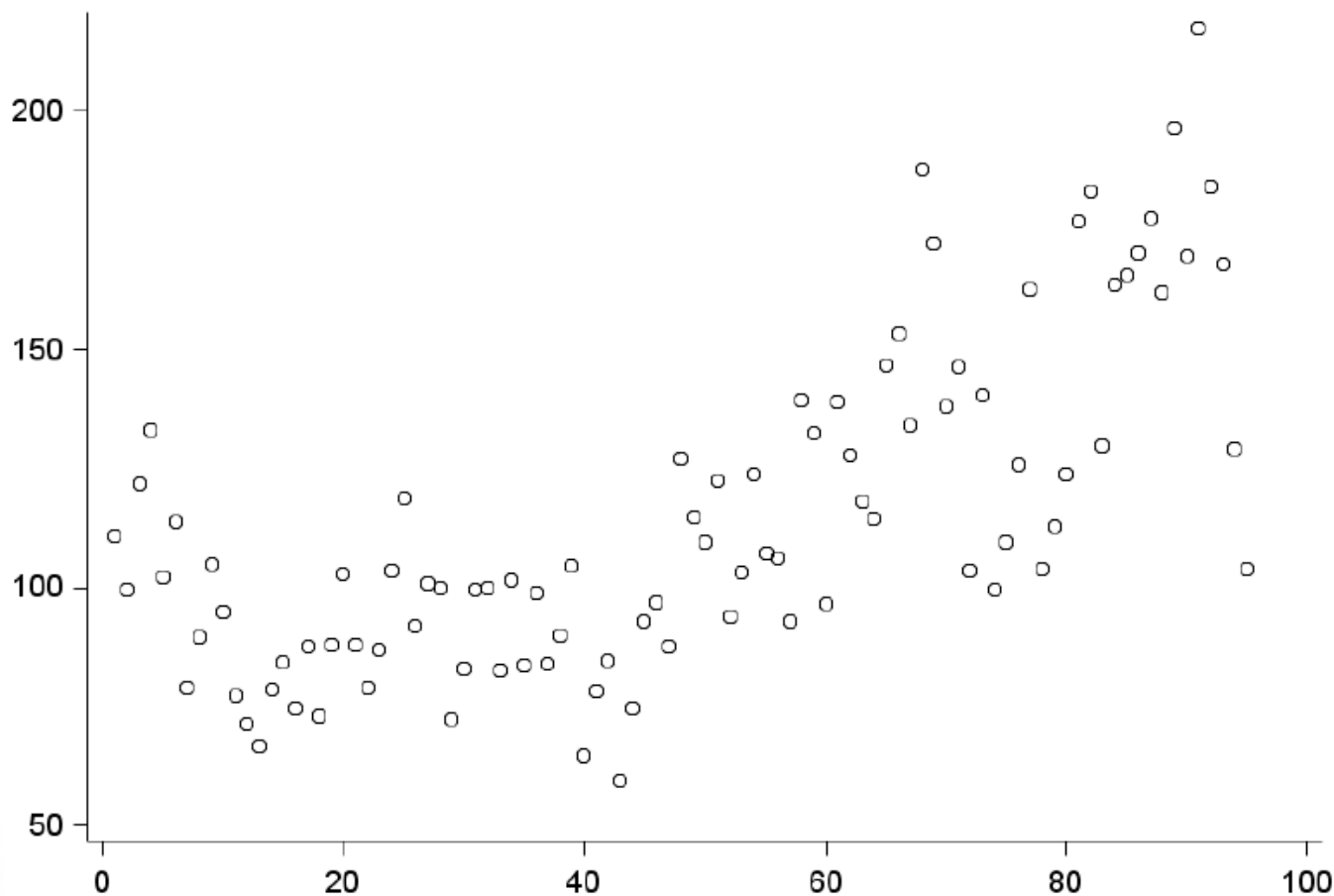


QC – Quick Read





Average # of Questions Read < 1 second by the lw Order



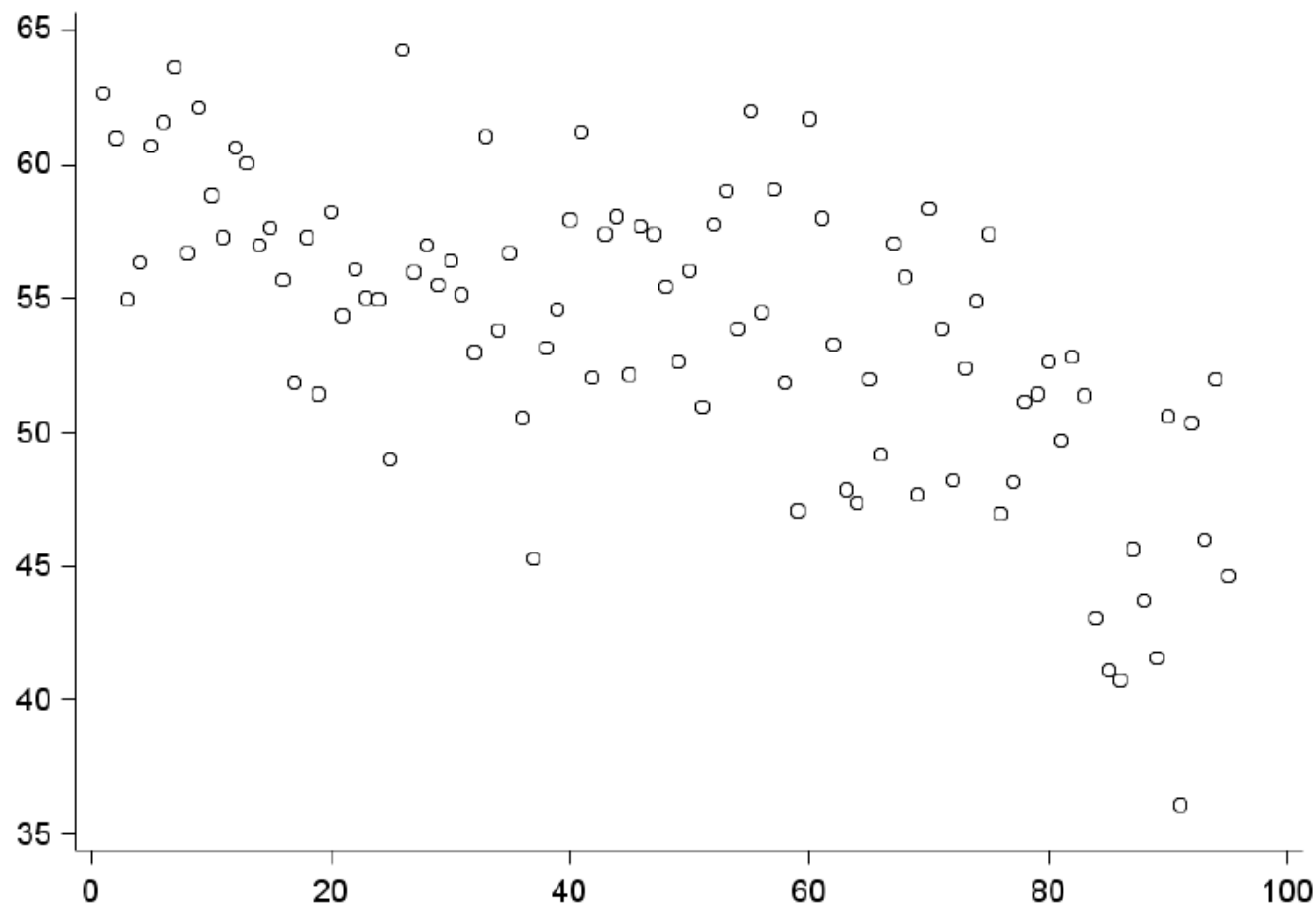


QC – Response Changes

*Response changes divided by total responses (ratio_resp_chg_by_blk) for specific blocks
Data represent blocks with > 100 responses and a response change rate \geq 3%.*



Average # of Response Changes by the 1w Order



Next Steps

- Link the block movement data with interviewer level.
- Identify “sensitive” QC indicators (e.g., data discrepancies).
- Who answered the lw.
- Interviewers debriefing.
- Apply all the lessons we learned in this wave to next wave instrument design

Acknowledgements

- Contributors from Yale University and Institute for Statistical, Social and Economic Research (ISSER) at the University of Ghana

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Thank You!

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