Introduction to Longitudinal Family Planning Data from PMA

April 26th, 2022

10am – 11:30am Central Time

Webinar Outline

- Introduction to IPUMS PMA
- Sample Design of the Longitudinal Panel
- How to create a data file online
- Understanding the data format
- Basic longitudinal analysis

Zoom Logistics

- **Webinar is being recorded** & will be posted
- Will post written **Q&A document** and **Stata code** following webinar
- **Real-time closed captions** are being generated
  - Turn on/off by clicking “CC” button in Zoom controls
- Send **questions about Zoom directly to host** (IPUMS)
- Submit **content questions using Q&A tool**

IPUMS: WHAT WE DO

What is IPUMS?

IPUMS provides census and survey data from around the world integrated across time and space. IPUMS **integration and documentation** makes it easy to study change, conduct comparative research, merge information across data types, and analyze individuals within family and community context. Data and services available **free of charge.**

U.S. Census and American Community Survey microdata from 1850 to the present. Learn More

VISIT SITE

Current Population Survey microdata including basic monthly surveys and supplements from 1962 to the present. Learn More

VISIT SITE

World's largest collection of census microdata covering over 100 countries, contemporary and historical. Learn More

VISIT SITE

Health survey data for Africa and Asia, including harmonized data collections for DHS and PMA. Learn More

VISIT SITE

Tabular U.S. Census data and GIS boundary files from 1790 to the present. Learn More

VISIT SITE

Tabular and GIS data from population, housing, and agricultural censuses around the world. Learn More
Find additional spatial population & environmental data in IPUMS Terra.

VISIT SITE

Historical and contemporary time use data from 1930 to the present. Learn More

VISIT SITE

Historical and contemporary U.S. health survey data from NHIS (1963-present) and MEPS (1996-present). Learn More

VISIT SITE

Survey data on the science and engineering workforce in the U.S. from 1993 to the present. Learn More

VISIT SITE

IPUMS.ORG

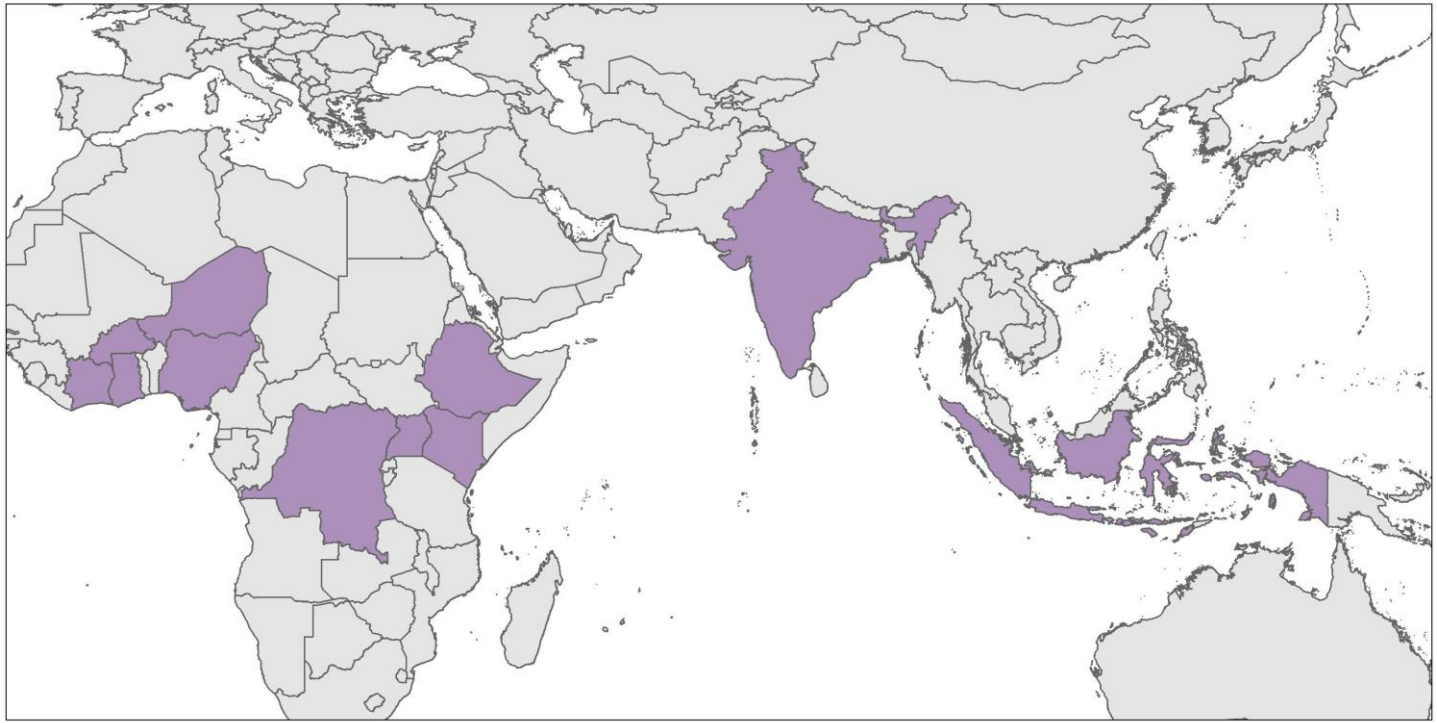
Performance Monitoring for Action

- High frequency, recent surveys on **family planning, sexual and reproductive health** since 2013
- Currently 9 countries in **Africa and Asia** (initially 11)
- Designed to monitor progress towards FP2020 goals
- Data collected by a team at Johns Hopkins University
- Funded by the Bill & Melinda Gates Foundation

180+ SAMPLES · 6000+ VARIABLES · 2 MILLION RECORDS

IPUMS PMA

PMA Countries



Sample Design - Core

- Multistage stratified cluster sampling
- Small areas were randomly selected (EA)
  - ~200 households
- Households are randomly selected (~35 per EA)
  - Household survey
  - Survey for all females 15 to 49

Survey types

- Household and female surveys
- Service delivery points
- Maternal and Newborn Health panel
- Client exit interview
- Nutrition

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IPUMS PMA

- Harmonize codes and variable names
- Document variables
- Disseminate custom data files in multiple formats
- Add calculated fields
- Link longitudinal records

DATA ANALYSIS HUB

April 15, 2021
Matt Gunther

FORMATTING MIGRATION RECALL DATA FOR LONGITUDINAL ANALYSIS

MIGRATION DATA DISCOVERY DATA MANIPULATION PIVOT_LONGER REGEX

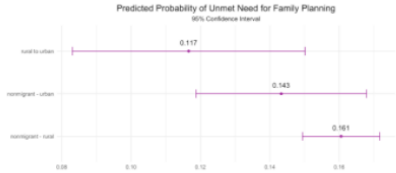
Use tidyr::pivot_longer to reshape wide data into a long format.

April 2, 2021
Matt Gunther

UNMET NEED FOR FAMILY PLANNING AFTER INTERNAL MIGRATION

MIGRATION PMA PUBLICATIONS SVYGLM BOOTSTRAPS

Summary and source code from a recent article using



CATEGORIES

- Articles (11)
- across (1)
- bootstraps (1)
- Data Analysis (1)
- Data Discovery (3)
- Data Manipulation (5)
- dotwhisker (1)
- Importing Data (1)
- Individuals in Context (6)
- ipumsr (1)
- join (2)
- Mapping (1)
- Migration (2)
- New Data (1)
- pivot_longer (2)
- PMA Publications (1)

NEW PANEL DESIGN

Overview of Panel Design

- **Open** panel of women of childbearing age over 3 years
- Contraceptive and fertility dynamics
- Overlapping contraceptive calendar
- Additional households sampled for cross-sectional subsample

Panel membership

- All women aged 15-49 in sampled households
- Move out/move in
- Age out/age in

Cross-section Subsample

Household attrition > 10% in an EA

New households sampled

Data Collection

	2019		2020												2021										
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Burkina Faso		Phase 1												Phase 2												
Cote d'Ivoire											Phase 1												Phase 2			
DRC		Phase 1											Phase 2													
Rajasthan (India)										Phase 1													Phase 2			
Kenya	Phase 1												Phase 2													
Niger														Phase 1												
Nigeria		Phase 1												Phase 2												
Uganda											Phase 1												Phase 2			

Available on IPUMS!

Not publicly available yet

Weights

- Cross sectional
  - Female level, normalized (**FQWEIGHT**)
  - Household level, normalized (**HQWEIGHT**)
  - De-normalized population-weighted (**POPWT**)
- Longitudinal
  - Female level, normalized (**PANELWEIGHT**)

Lost to Follow-up

- Dwelling
  - replaced or destroyed
- Household
  - whole household moved out of study area
- Household Roster
  - woman moved out of study area or died
- Female
  - refused or was unavailable

Types of Missing Data

- **Record linked**
  - Panel member found but not interviewed
  - Phase 2 data NIU code
- **Record not linked**
  - Phase 2 data missing/blank/NA
- **New panel member**
  - Phase 1 data missing/blank/NA
- **Household members**
- **Variables not available**

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CROSS_SECTION

ADD TO CART | CHANGE SAMPLES

Observation is in the cross-sectional sample

Group: Technical variables

CODES | DESCRIPTION | COMPARABILITY | UNIVERSE | AVAILABILITY | QUESTIONNAIRE TEXT

Codes and Frequencies

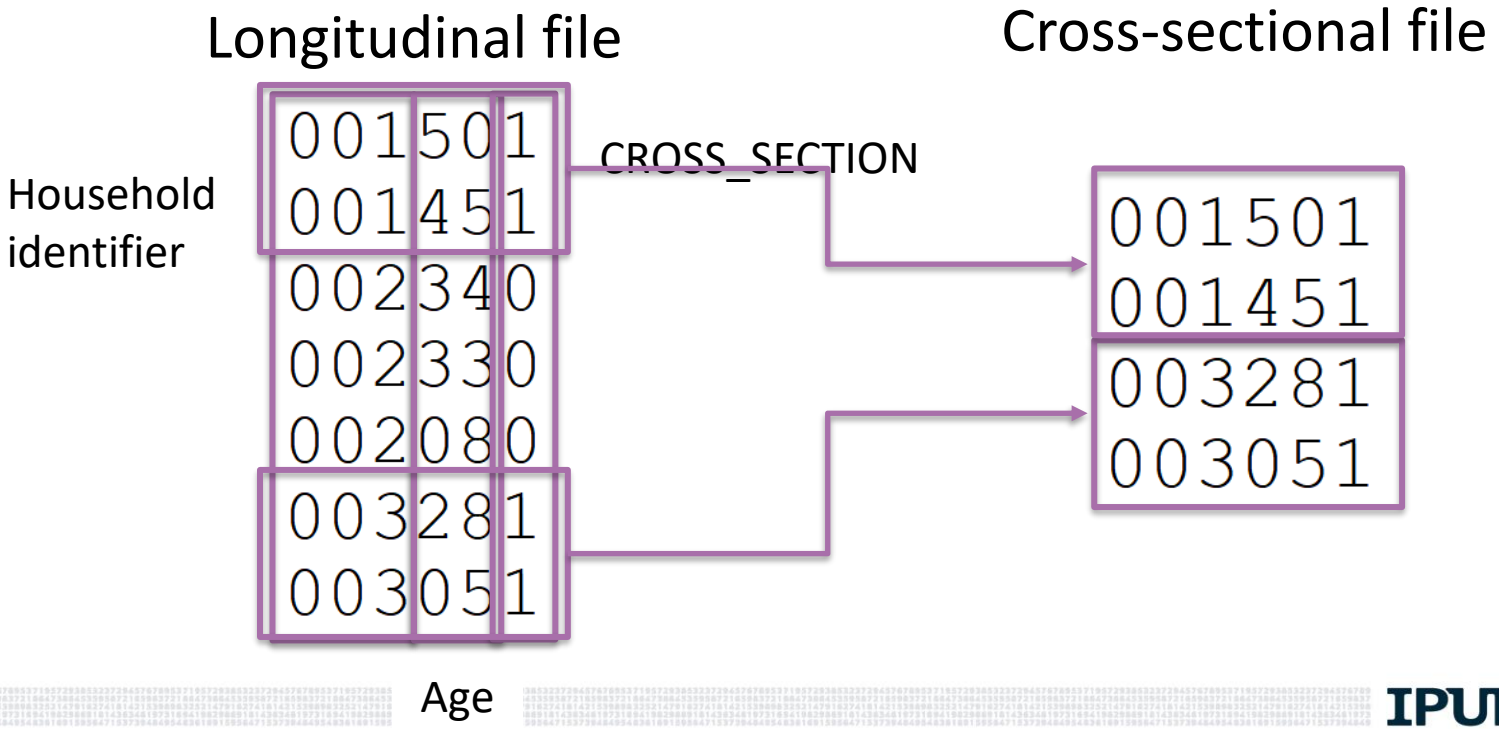
(•) Category availability view
( ) Case-count view (Unavailable for longitudinal samples)

(•) Female Respondents
( ) Female Respondents and Household Members
( ) Female Respondents and Female Non-respondents
( ) All Cases (Respondents and Non-respondents to Household and Female Questionnaires)

An 'X' indicates the category is available for that sample

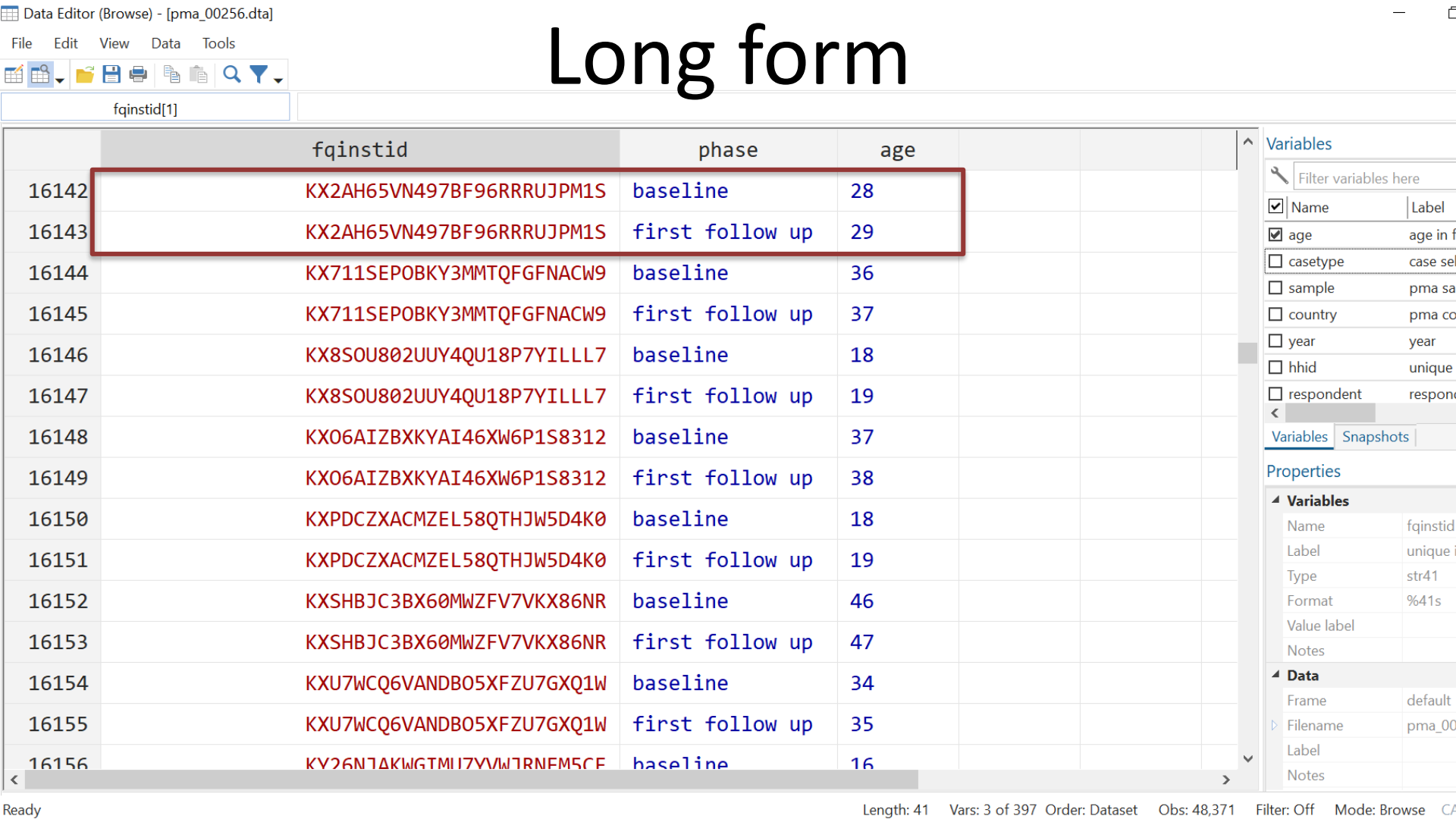
		LONGITUDINAL SAMPLES					
Code	Label	BURKF 20 - 21	CONDR 19a - 20a	CONDR 19b - 20b	KENYA 19 - 20	NIGERA 19a - 20a	NIGERA 19b - 20b
00	No	/	/	/	/	/	/
01	Yes	/	/	/	/	/	/

Cross-section Subsample



CREATING A CUSTOM DATA FILE

Long form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File Edit View Data Tools
fqinstid[1]
fqinstid phase age
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16143 KX2AH65VN497BF96RRRUJPM1S first follow up 29
16144 KX711SEPOBKY3MMTQFGFNACW9 baseline 36
16145 KX711SEPOBKY3MMTQFGFNACW9 first follow up 37
16146 KX8SOU802UUY4QU18P7YILLL7 baseline 18
16147 KX8SOU802UUY4QU18P7YILLL7 first follow up 19
16148 KXO6AIZBXKYAI46XW6P1S8312 baseline 37
16149 KXO6AIZBXKYAI46XW6P1S8312 first follow up 38
16150 KXPDCZXACMZEL58QTHJW5D4K0 baseline 18
16151 KXPDCZXACMZEL58QTHJW5D4K0 first follow up 19
16152 KXSHBJC3BX60MWZFV7VKX86NR baseline 46
16153 KXSHBJC3BX60MWZFV7VKX86NR first follow up 47
16154 KXU7WCQ6VANDBO5XFZU7GXQ1W baseline 34
16155 KXU7WCQ6VANDBO5XFZU7GXQ1W first follow up 35
Variables
Filter variables here
Name Label
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Value label
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Filename pma_00
Label
Notes
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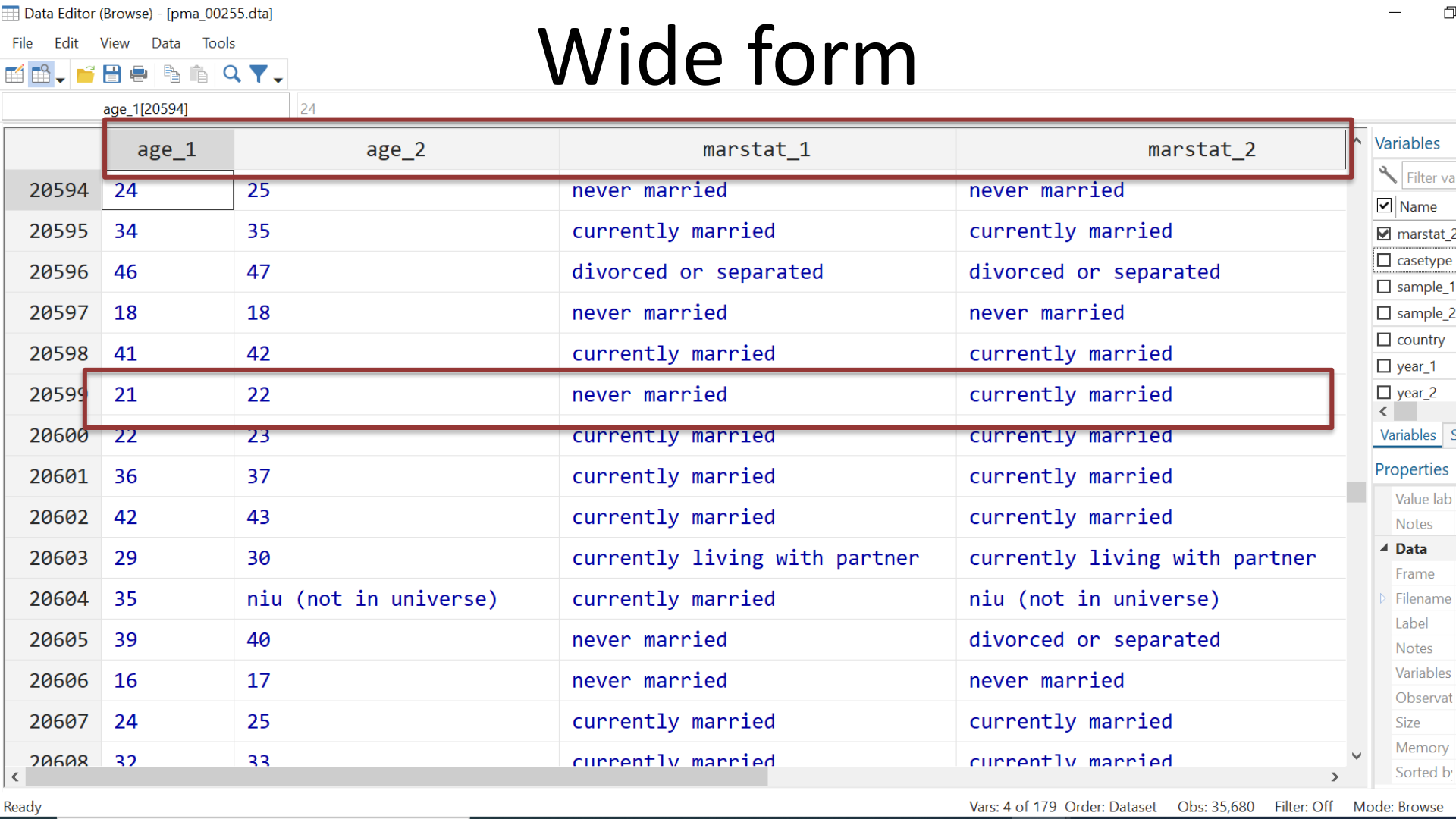
Length: 41 Vars: 3 of 397 Order: Dataset Obs: 48,371 Filter: Off Mode: Browse


Data Editor (Browse) - [pma_00255.dta]
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Wide form
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24
age_1 age_2 marstat_1 marstat_2
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20599 21 22 never married currently married
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20602 42 43 currently married currently married
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20604 35 niu (not in universe) currently married niu (not in universe)
20605 39 40 never married divorced or separated
20606 16 17 never married never married
20607 24 25 currently married currently married
Variables
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PMA.IPUMS.ORG

LONGITUDINAL ANALYSIS

Mark your calendars!

Did the COVID-19 pandemic impact contraceptive use? An Introduction to Longitudinal Analysis using PMA Data

MAY 18TH, 2022 9:00 ET
@IPUMS OR @PM4ACTION

User Support

IPUMS@UMN.EDU

Other Resources

Z.UMN.EDU/PMA_SUPPORT
Z.UMN.EDU/PMA_LONG

Webinar recording, Stata code, and Q&A will be posted at **ipums.org/support/tutorials**

Thanks for listening!

ANY QUESTIONS?