

Data Comparability Issues in AHTUS and MTUS

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Comparability Outline

- General principals
- Why diary format matters
- Why coding strategy matters
- Diary quality differences
- Sample variations
- Issues related to exercises
- General discussion of findings of participants

General Principals

- Always read documentation
- Ensure the unweighted cell size of all groups in your model have at least 30 diaries from at least 30 different individual participants
- Treat any small difference with marginal statistical significance with caution
- If in doubt, run results separately on individual surveys as well as across groups of surveys

Why Diary Format Matters

- More flexible instruments which accommodate different completion strategies better capture more diverse reporting of behaviours
- Instrument design shapes how people think about what they report
 - Focus on activity differs from moment in time
 - Seeing your account as it unfolds matters
 - Right-side (later in diary) columns tend to have higher non-response

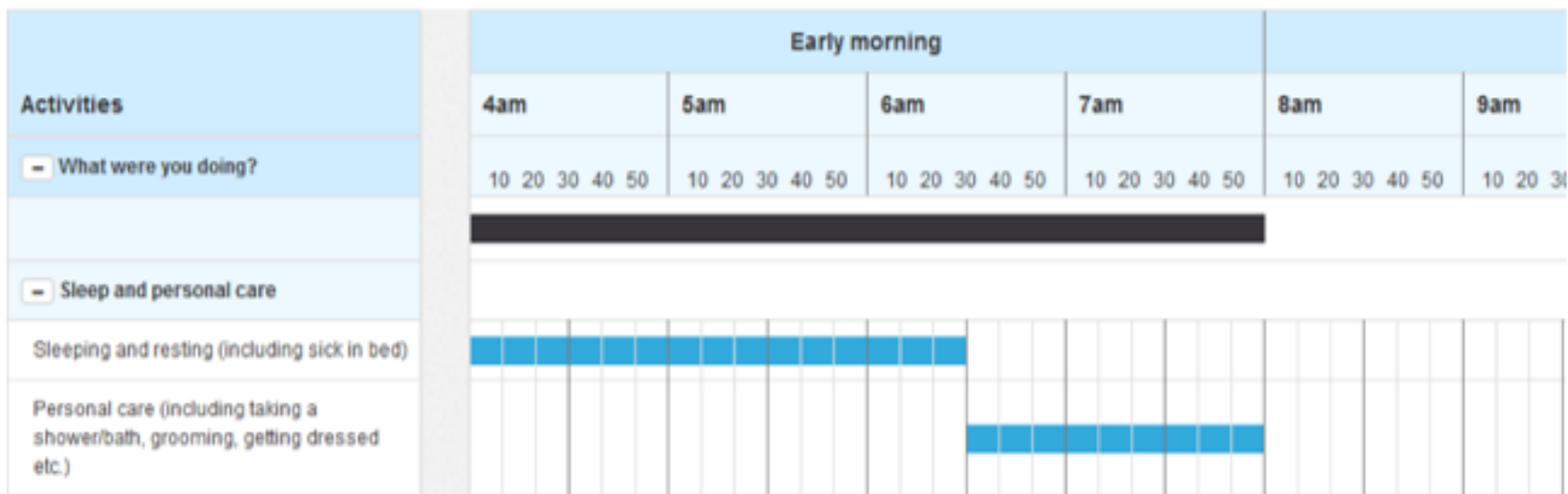
Millennium Cohort Study

- Follows lives of approximately 19,000 children born between 2000-2002 in the UK
- Five waves completed: 9 months, 3, 5, 7, and 11 years. Age 14 wave currently in the field
- Multidisciplinary focus: child development, behaviour, health, poverty, employment, well being
- Linked with administrative data: education records, birth records, medical records
- This wave introduced a time diary & activity monitor (accelerometer): new survey elements in age 14

Millennium Cohort Study

- Fieldwork took place from late 2014-late 2015
- Paper and Web diaries allowed people to start at any point in the diary day, work forward or backward, and work from any field to any other field
- App diaries required people to work forward, though participants could go back and add events during their entry process.
- App diaries required participants to enter an activity first when starting a new event, though people could enter the same activity from the previous event to then change another field

Web



App

08:39

What were you doing at 4:00am?

Please select one option only

Sleep and personal care

School, homework, and education

Paid or unpaid work

Chores, housework, and looking after people or animals

Eating and drinking ✓

≡ < NEXT >

08:39

What were you doing at 4:00am?

Please select one option only

Sleeping and resting (including sick in bed)

Personal care (including taking a shower/bath, grooming, getting dressed etc.)

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08:39

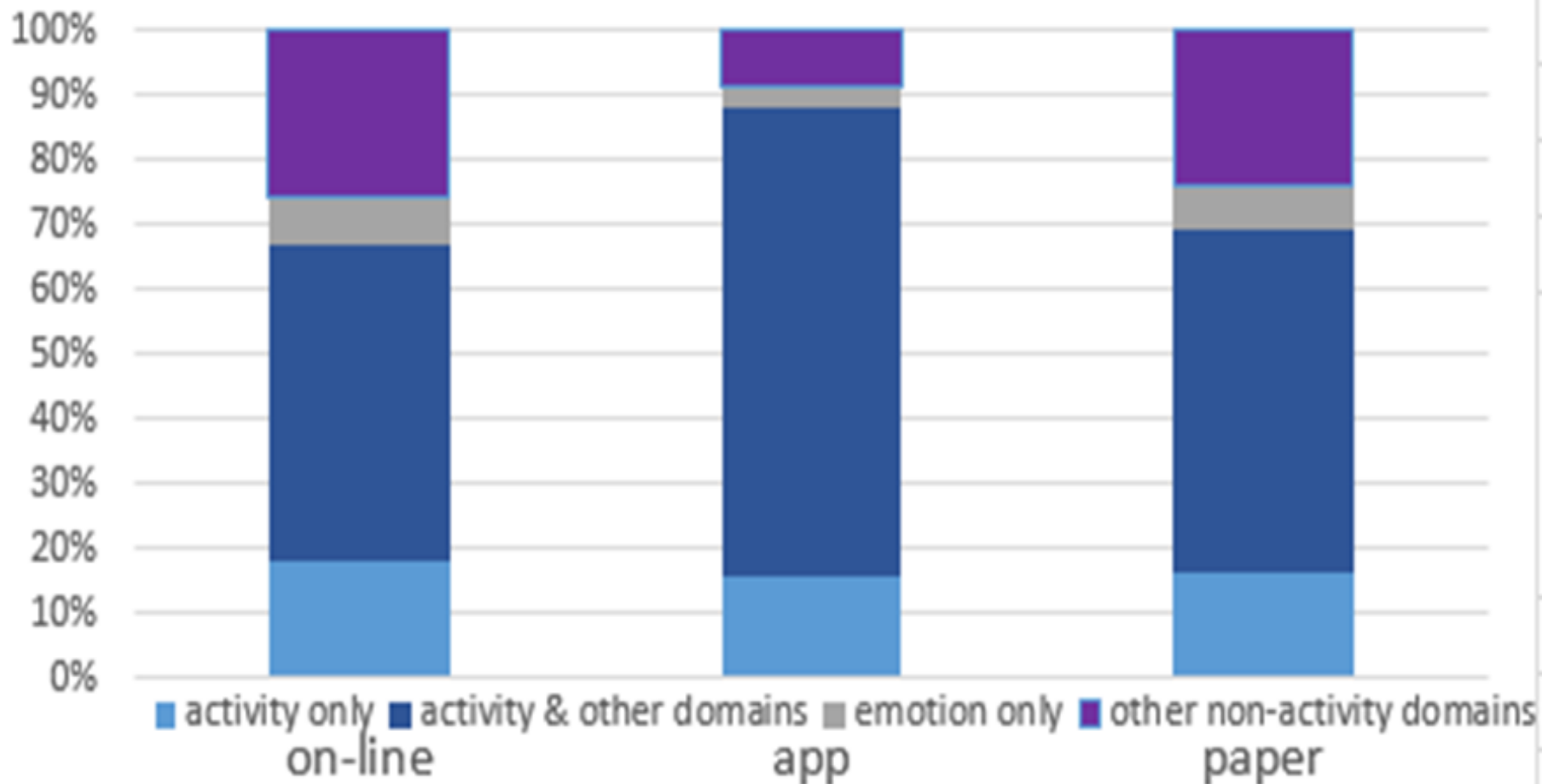
What time did you finish sleeping and resting?

06	58
07	59
08	00
09	01
10	02

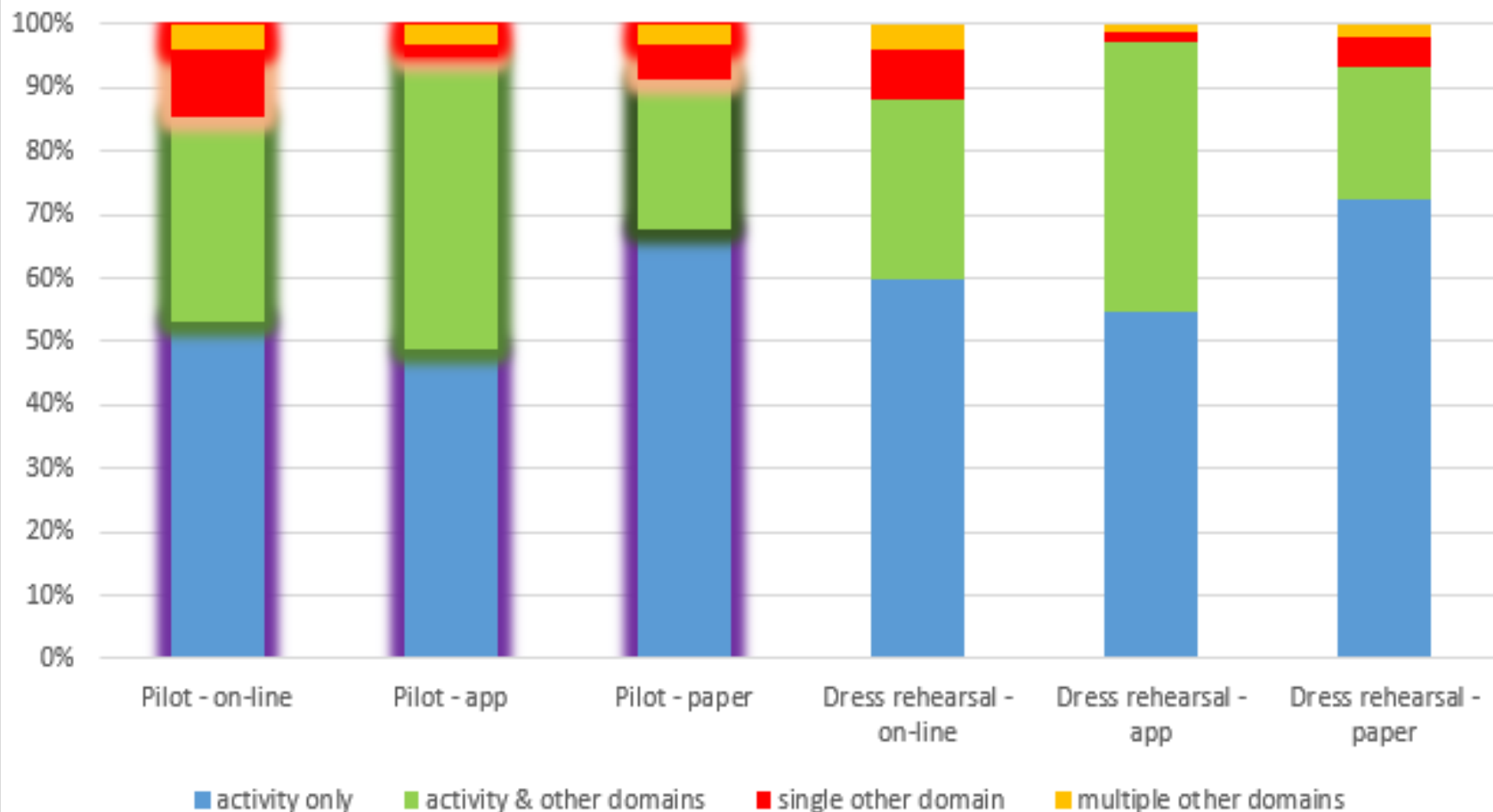
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2014-15 UK Aged 14 MCS

% of episodes by diary mode



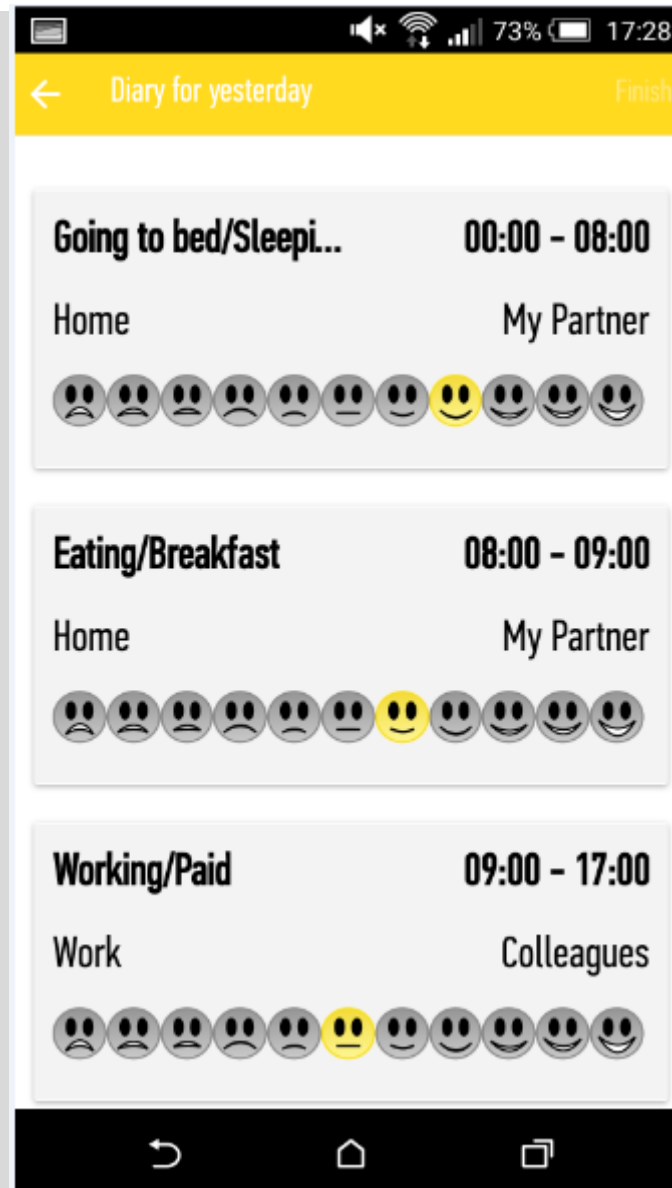
Domains of diaries generating episodes



Cross-National Issues

- Most (though not all) European surveys in the MTUS follow the paper or web instrument format which focussed the mind on a time period rather than a precise time
- Most USA and Canadian surveys focus on the start time of events
- As a consequence, European surveys generally capture more changes of event context
- USA and Canadian surveys capture more short duration activities – though as more countries shift to app diaries, more will collect short activities

Happiness Research Organisation app diaries show that you can start from any point, see your account as it unfolds, and have minute level event change in the app format – apps are more flexible than phone interviews



Cross-National Issues

- Most USA and Canadian surveys take place over the phone (mixed mode 2015 Canadian survey had web diaries as well as phone interviews)
- Unlike the MCS diaries, where participants can see their entries, phone interview participants cannot see their entries, just hear their record read back to them
- Phone surveys overall collect fewer episodes and less change in context reporting than alternatives
- Phone surveys are more flexible than paper for allowing more context categories – though app and web diaries also accommodate more categories

Immediate Feedback Matters

- More national surveys include good in-built prompting and auto-correction in CATI, CAPI and App scripts; many paper surveys collected by interviewers who reviewed the diaries – immediate feedback and review improves diary quality (completeness of diary domains, number of episodes, includes basic activities, range of events)
- Some surveys did not have same feedback, collected lower quality data

- Own words diaries & prompted completion of more detailed code frames collect greater activity and context variety, + more episodes
- Prism of code frame shapes activity reporting
- Examples & instructions also shape reporting
- Volunteering in AHTUS –
 - 1965-66 – union, political, religious, other
 - 1975-76; 1985; 1992-94; 1994-95; 1998-99; 2000-01 – union, political, religious, fraternal, child/family, other
 - ATUS – 28 activities, for whom unspecified

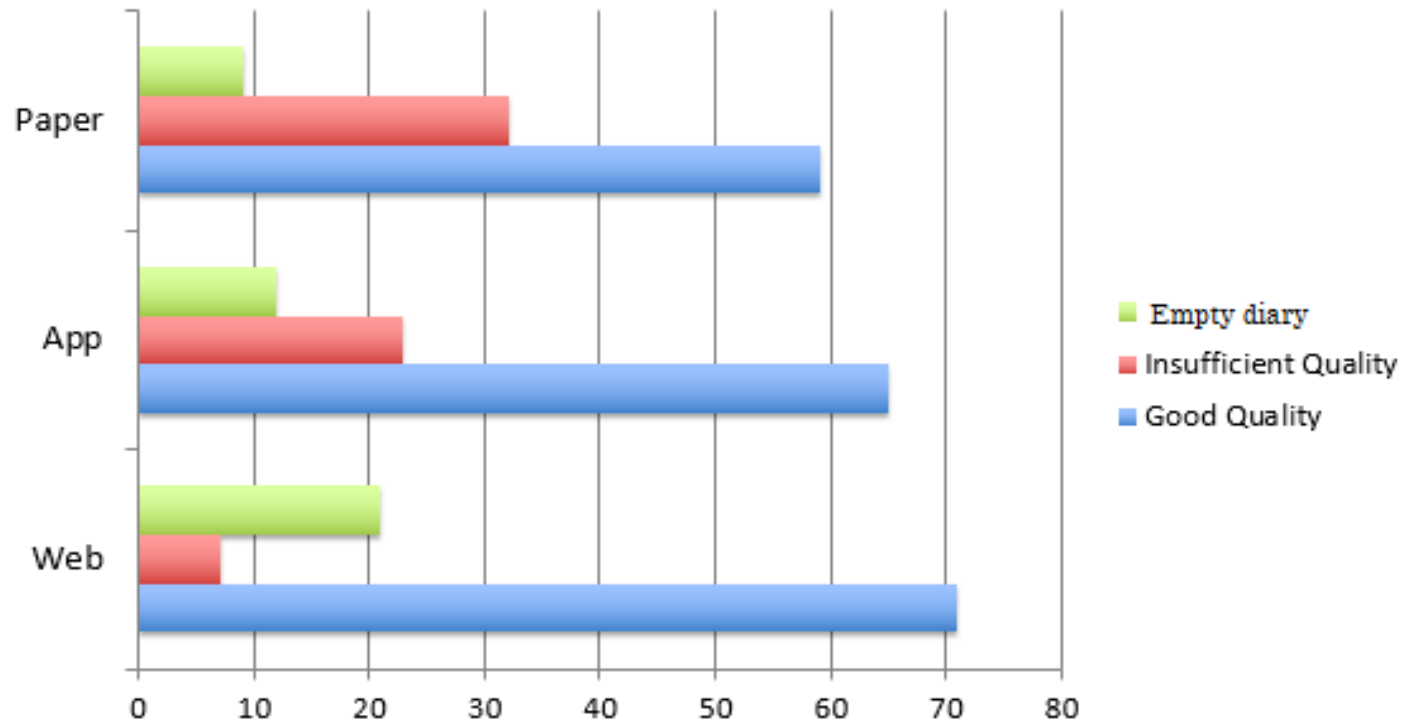
Diary / Response Quality

- Variations in response /non-response between surveys can affect reporting of some activities
- Diary quality matters which affect reporting
 - Over-reporting (sleep, TV, paid work) in low episode diaries and diaries from people who did not perform care lacking 2+ basic activities (some form of sleep or rest; eating or drinking; personal care or personal care services; travel or exercise)
 - Under-reporting of unrecorded activities

Diary / Response Quality

- Missing activity and context time matter, more in some cases than in others, consider variations across groups with care
- When simplifying sequences, think carefully about how you treat reported and missing time
- Consider who fully completed diaries (with more and with less detail) as well as who partially completed diaries, and who did not return diaries – this differs by survey

Diary Quality after full diary processing (%)



- Good quality diary threshold: less than 90 minutes missing activity time, 7 episodes, 3 out of 4 main daily activities reported
- No information: Blank diary returned/submitted
- Bars Denote Percentages

- When surveys collect multiple diaries from the same people, activities which people do every day (sleep, eating, personal care) appear with the same frequency as in surveys collecting one diary per person
- Less frequent activities appear more often when each participant completes more dairies
 - Participation in volunteering time higher in 7 day Netherlands & UK surveys than other surveys
- Multiple people completing diaries in the same household allows study of the dynamics in the household, but also increases the influence of preferences of individuals

Sample Variations

- Some surveys have specific populations – Szalai 1965-66 surveys sampled households with at least one member aged 18-60 employed in an industry other than agriculture
- This means the activities of people not included in those households or done by younger and older people are under-represented and activities of people in this age range / these households are over-represented
 - comparing TV time from 1965-66 with later years problematic

- Even when the documentation does not suggest sample variations, always good to check the distributions between groups of interest (couples & singles, parents & children, employed people of different occupation groups, people with or without children, or in different health status groups)
- If you find basic variations in time use between the same demographic group, check for variations in data collection (different timing, differential selection of week and weekend days) as an explanation first

Over to you

Questions arising from the
exercises and individual
exploration of IPUMS Time Use
data

Thank you

Comments & feedback welcome

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