

# The American Time Use Survey

## Future Work

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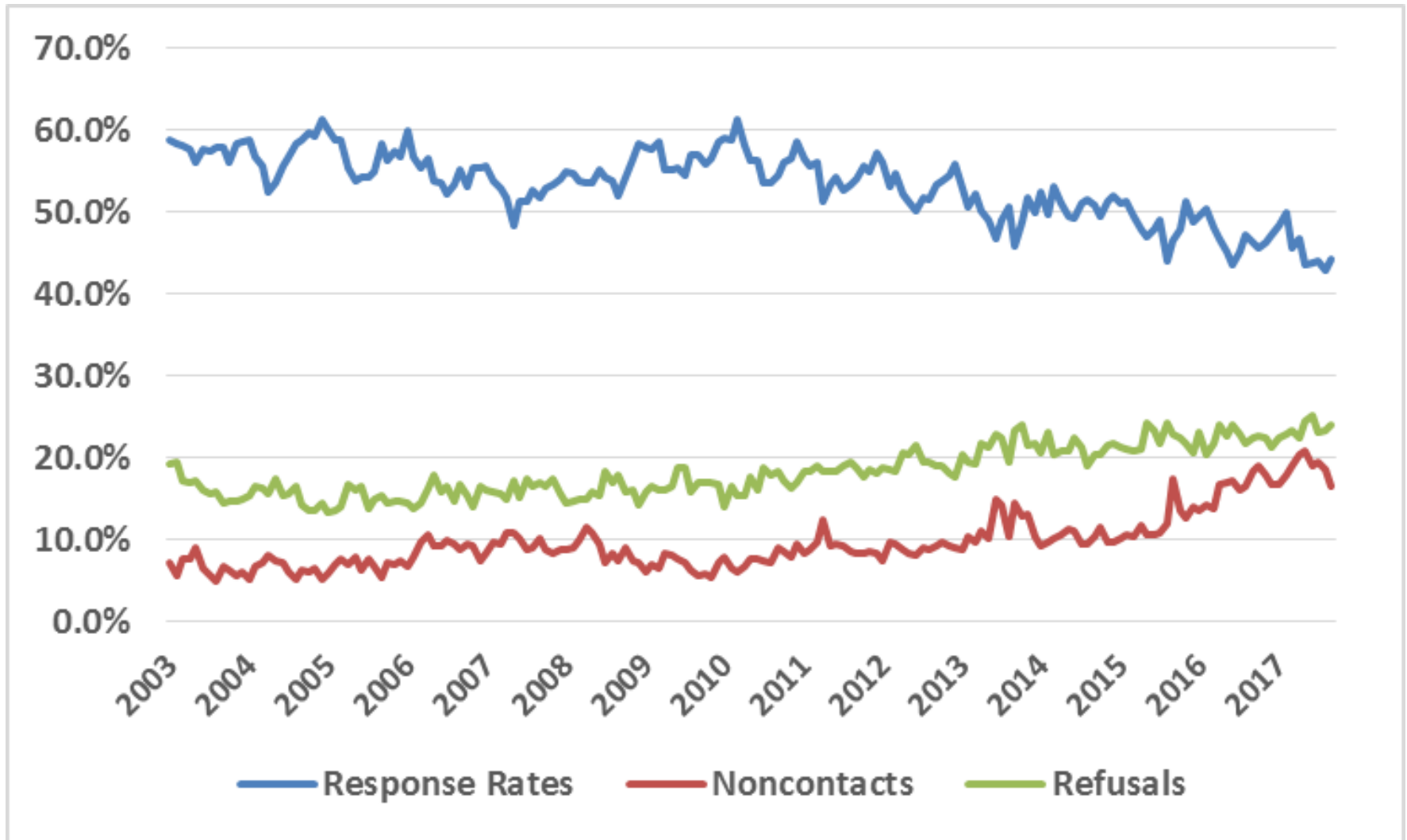
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# Response Rates, 2003 - present



# Response rate calculation

Completes

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Completes + Refusals + Noncontacts +  
Other + Unknown Eligibility

# Initial contact

- Individuals selected for ATUS are mailed info about the survey
  - ▶ Letter appealing for participation
  - ▶ Brochure about the survey
  - ▶ Some people receive a debit card incentive



# Improving survey response

- Efforts to improve information about the survey
- Efforts to improve contact
- Efforts to understand survey response and nonresponse



# Improving survey information

- Mailed materials revised
  - ▶ To convey the importance of the survey and answer common questions
  - ▶ To incorporate survey results
  - ▶ To show a variety of people doing everyday activities
- Respondent website created
- Interviewer training

# Reducing noncontact

- Call time of day examined and adjusted
- Incentive expansions
  - ▶ Non-working phone numbers are converted to incentive cases
  - ▶ Target difficult to reach populations
  - ▶ Expected result: a 1.5 percent increase in the number of interviews completed annually

# Call time grid

## Call Times

🕒 Make at least one call attempt in each Time Slot

Weekdays	Saturdays	Sundays
9 AM – 11:59 AM	9 AM – 10:59 AM	11 AM – 12:59 PM
12 PM – 2:59 PM	11 AM – 12:59 PM	1 PM – 2:59 PM
3 PM – 4:59 PM	1 PM – 2:59 PM	3 PM – 3:59 PM
5 PM – 6:59 PM	3 PM – 4:59 PM	4 PM – 4:59 PM
7 PM – 7:59 PM	5 PM – 6:59 PM	5 PM – 6: 59 PM
8 PM – 8:59 PM	7 PM – 8:59 PM	7 PM – 8:59 PM

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# Reducing noncontact

- Analysis of returned mail (2005-07)
  - ▶ Mail was undeliverable for:
    - 9 percent of incentive cases
    - 4 percent of non-incentive cases
  - ▶ Mail returned for many reasons
  - ▶ Receipt of mailed info positively correlated with response
  - ▶ Addresses associated with incentive cases now undergo additional review before materials are sent

# Understanding response and nonresponse

- Can movers be accurately identified from U.S. Postal Service info stamped on returned mail?
  - ▶ Evidence movers were being assigned case outcome codes of: *noncontact*, *other*, or *unknown eligibility*
  - ▶ Properly accounting for movers could increase reported response rates by up 1.2 percent

# Understanding response and nonresponse

- Response Analysis Survey (2004)
- Cell phone analysis (2009-10)
  - ▶ Are interviewers calling cell phones? Yes, 36 percent of the time
  - ▶ If so, does this affect survey response?
    - Yes, noncontact is higher for cell phone numbers than landline numbers
    - However, refusal rates are similar

# Researching web collection

- ATUS response rates are falling
- Tight budgets
- Could the addition of a web collection mode boost survey response and reduce costs?



# Westat study

- Literature review – Studies from Canada, Denmark, Netherlands
- Design Proposal
- Comparability report
- Mock-up of an instrument for collecting time diary info via the web
- No data were collected



# Literature review

- Little research on web-collected diaries
  - ▶ Time-use data collected via the web is of similar quality to data collected by phone and paper
- Literature on web collection
  - ▶ Web surveys achieve lower response than other modes
  - ▶ Web has higher breakoff rates than CATI, especially for complex surveys

# Survey design proposal

- Sequential mixed-mode: web collection followed by CATI
  - ▶ Use CPS data to group respondents by likelihood of responding via web
  - ▶ Mail survey info, a token incentive, and a request to respond via web
  - ▶ Call to remind respondents
  - ▶ Convert to CATI at different times during 8-week fielding period, depending on assigned group

# Design consideration: Use CPS dependent data?

- Include CPS dependent data, as the CATI instrument does?
  - ▶ Secure log-in requirements were a barrier when tried in other household surveys, especially when logging in using a mobile device
  - ▶ Including CPS data in an ATUS collection instrument may be a turn-off to some ATUS respondents



# Design consideration: How much detail to collect in the diary?

- Collect activity verbatims or have respondents identify their activities on a list?
- Capture activities for fixed time periods (e.g., 15-minute increments) versus allow any range of time?
- Should we continue to ask, Who?, Where?, and secondary childcare times?
- Include probes within the diary?

# Design consideration: Mobile devices

- Web data collection means that respondents will be completing the survey on different types of devices with different screen sizes
- Limited screen space on smartphones can make it difficult to perform some survey tasks such as complex grids

# Other web collection design considerations

- Should we allow web respondents to report their activities in real time?
- What is the optimal timing, number, and type of contacts for communicating with potential respondents?
- What is the best sequencing for converting selected individuals from web to CATI?

# Web collection concerns: Major change to ATUS

- Incorporating Web collection would likely require an overhaul of the ATUS
  - ▶ Require simplification
  - ▶ Possibly affect our ability to add modules
  - ▶ Eliminate use of dependent CPS data in data collection

# How might ATUS be impacted?

- Data quality: Unknown
  - ▶ Could improve if respondents reply in real-time on the Web
  - ▶ Interviewer role in data quality is not clear
- Survey response: Positive impact
  - ▶ Hold at current levels or improve
- Survey cost: Unknown

# How might ATUS be impacted?

- Respondent burden: Positive impact, especially if survey is simplified and shortened
- ATUS products: Negative impact
  - ▶ Potential loss in comparability within a given year and compared to previous years
  - ▶ Potential breaks in thousands of data series
  - ▶ Less data for research

# Web Collection Instrument Layout

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Please select or enter a description of your main activity on Wednesday, February 4 at 6 : 00 AM ? Summary of my activity on February 4

Work

[CLICK HERE for activity list](#)

Working at main job

Select Activity

Or

Enter Description  Search

Time	Activity	
4 : 00 AM	Sleeping	
5 : 00 AM	Eating and Drinking	
6 : 00 AM		

How long did you spend on this activity?

Start time: 6 : 00 AM

Stop time:  :  AM

Or

Enter Length:  minutes

Who was with you during this activity?

John Doe

Jimmy Doe

Parents

Other non household family member under 18

Other non household family member over 18

Friends

Neighbors

Other non household children under 18

Other non household adults over 18

Boss or manager

People I supervise

Co-workers

Customers

Where were you during this activity?

Next Activity  Clear

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**ATUS Activity List**

- Sleeping
- Eating and Drinking
  - Eating or Drinking – meals, snacks, drinks
  - Food and kitchen preparation
  - Kitchen and food clean-up
- Socializing, Relaxing, and Leisure
  - Watching TV
  - Socializing and communicating with others
  - Reading for personal interest
  - Relaxing/thinking
  - Computer use
  - Playing games
  - Arts and entertainment
- Personal Care
  - Grooming
  - Health-related self-care
  - Personal, private activities
  - Personal care emergencies
- Work
  - Working at main job
  - Working at other jobs
  - Work-related activity
  - Other income generating activity

# Summary of Diary Day



Here is a summary of your activity on Wednesday, February 4. Please verify that this information is correct. You may add, delete, or edit activity by clicking the buttons on the left.

	Start Time	End Time	Activity
  	4:00 AM	7:00 AM	Sleeping
Add Activity ->			
  	7:00 AM	7:30 AM	Personal Care
  	7:30 AM	8:00 AM	Eating and Drinking
  	8:00 AM	8:30 AM	Travel
  	8:30 PM	12:00 PM	Work
  	12:00 PM	5:00 PM	Eating and Drinking
  	5:00 PM	5:30 PM	Travel
  	5:30 PM	6:30 PM	Eating and Drinking
  	6:30 PM	9:30 PM	Watching TV
  	9:30 PM	10:00 PM	Personal Care
	10:00 PM	4:00 AM	Sleeping

Submit





# Summary Question Screen

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 **BUREAU OF LABOR STATISTICS**

You indicated that Jimmy Doe was awake between 7:00 AM and 8:00 PM.

Please indicate during which times or which activities during that time period Jimmy Doe was in your care by checking the box on the right.

Time	Activity	Jimmy Doe in your care?
7:00 AM	Personal Care	<input type="checkbox"/>
7:30 AM	Eating and Drinking	<input type="checkbox"/>
8:00 AM	Travel	<input type="checkbox"/>
8:30 PM	Work	<input type="checkbox"/>
12:00 PM	Eating and Drinking	<input type="checkbox"/>
5:00 PM	Travel	<input type="checkbox"/>
5:30 PM	Eating and Drinking	<input type="checkbox"/>
6:30 PM	Watching TV	<input type="checkbox"/>

# Other Considerations - Probing

- Follow-ups can be asked in two locations
  - ▶ Asked as respondent completes the diary
    - May help train respondent not to make mistakes
    - Could add burden to data entry task if too many probes are used – resulting in more breakoffs
  - ▶ Asked on the summary screen
    - Doesn't interrupt the flow of the instrument
    - Some probes are only relevant after the diary is completed (e.g. probes for missing eating and drinking)
    - Respondent may have made some preventable mistakes that could have been caught earlier

# Other Considerations – Changes to Activity Classification

- Drop boxes or search fields can be used
  - ▶ Analyzed data to identify most prevalent activities
    - Some categories may need to be reorganized
    - Cognitive testing and card sorting would be helpful

# Data Comparability

## ■ Measurement error

- ▶ Are there differences in data quality (e.g. item nonresponse, number of activities reported, etc.) across modes?
- ▶ Are there differences in socially desirable reporting
- ▶ Can use covariates from CPS frame to model out differences in coverage and nonresponse

# Contact Information

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