Electronically Mediated Employment: Designing new questions and assessing data quality

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Outline

- Background
- Developing new questions: outreach & cognitive testing
- Problems with the questions
- Recoding the data
- Next steps



Current Population Survey (CPS)

- Monthly household labor force survey
- Periodic contingent worker supplement (CWS)
 - February 1995, 1997, 1999, 2001, and 2005; with new update for May 2017
 - ▶ Data on contingent (temporary) work and alternative employment arrangements (main job)
- Capture emerging new work arrangement
 - ► Electronically Mediated Employment (EME)



New questions

- 4 new questions added to May 2017 CWS
- Constraints:
 - ► Time & funding
- Developing new questions:
 - Outreach
 - Cognitive testing
 - Consulted outside experts
 - Incorporating feedback at each step



In-person electronically mediated employment: 2 questions

Q1. Some people find short, IN-PERSON tasks or jobs through companies that connect them directly with customers using a website or mobile app. These companies also coordinate payment for the service through the app or website.

For example, using your own car to drive people from one place to another, delivering something, or doing someone's household tasks or errands.

Does this describe ANY work you did LAST WEEK?

Q1a. Was that for your main job, your second job or other additional work for pay?

Online electronically mediated employment: 2 questions

Q2. Some people select short, ONLINE tasks or projects through companies that maintain lists that are accessed through an app or a website. These tasks are done entirely online, and the companies coordinate payment for the work.

For example, data entry, translating text, web or software development, or graphic design.

Does this describe ANY work you did LAST WEEK?

Q2a. Was that for your main job, your second job or other additional work for pay?



New questions

- After developing new questions:
 - ► Training interviewers
 - Programming instrument
 - ► Testing instrument
 - **▶** Estimation
 - ▶ Editing



Evaluating the data

- BLS performed extensive review of the data, including:
 - Monitoring taped interviews
 - Reviewing information available only on the confidential microdata file

Determined the new questions did not work as intended



Problem: false positives

- Most "yes" answers were clearly incorrect
 - Many people had jobs inconsistent with electronically mediated work
 - ► Many people said they had done their work in person and entirely online for the same job
- Some people said "yes" to these questions if they used a computer or mobile app in their job



False positives: examples

People said they had used a website or app to connect with customers and were paid through that website for the following jobs:

- Vice president of a major bank
- Manager of a fast food restaurant
- Local police officer
- Surgeon at a large hospital



False positives: examples

People said they had done electronically mediated work **entirely online** for the following jobs:

- Medical assistant administering medication to patients
- ► Hair stylist
- Railroad engineer
- Front desk clerk at a motel



What went wrong?

- The questions may have been too complicated
 - Questions were long
 - ► Multiple concepts were included in a single question
 - Questions included examples that may have misled respondents



Now what?

- What can we do with the new data?
 - Figured out the extent of the problem
 - ► Manually recoded data using details available only on the confidential microdata file
 - Teams of five, reading info and recoding, compared results at end
 - Evaluated new "recoded" estimates
 - For transparency, BLS released both the recoded and as-collected data

Impact of BLS recoding process

	Electronically mediated workers					
	Recoded			Collected		
	Total	In person	Online	Total	In person	Online
Number of workers (in thousands)	1,609	990	701	5,057	3,021	2,969
Percent of total employed	1.0	0.6	0.5	3.3	2.0	1.9

Source: Current Population Survey (CPS), Bureau of Labor Statistics (BLS).

BLS does not recommend using the data as collected



Where are the data?

- Documentation and communication
 - ► Data highlights
 - Excel tables
 - Frequently Asked Questions
 - ► Commissioner's blog post
 - ► A paper describing the entire data recoding process, estimates, and lessons learned
- Transparency with stakeholders

www.bls.gov/cps/electronically-mediated-employment.htm

Next steps

- Currently have no plans to collect data on electronically mediated work again
- Questions would need to be revised
- Working with the Committee on National Statistics (CNSTAT) for advise on what we should measure in the CWS if we field it again



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