

# Survey Nonresponse

## Trends, Challenges, and Strategies

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*“...there are a significant number of reports of completion rates declining, or where achieving a satisfactory completion rate is becoming increasingly more difficult.”*



# Why the (continued) focus on response?

- The most easily understood metric of survey *production*
- Important for planning, production, and monitoring
  - ▶ i.e., managing and monitoring data collection costs
- They are an *indicator* of the potential for bias
  - ▶ We've gotten really proficient at identifying and adjusting for bias...
  - ▶ Indicator of quality is debatable
    - See: Groves 2006; Groves & Peytcheva 2008; Brick & Tourangeau 2017; Lugtig 2016
- OMB Directive #2 (2006) – 80% threshold



# Nonresponse Trends 2010 and Later

## ■ Trends ~2010 to latest reported period (~2019-~2021)

### Household (n = 9)

(ATUS) American Time Use Survey  
(CPS-Basic) Current Population Survey\*  
(GSS) General Social Survey  
(MEPS) Medical Expenditure Panel Survey\*  
(NCVS) National Crime Victimization Survey\*  
(NHANES) Nat'l Health & Nutrition Exam. Survey  
(NHIS) National Health Interview Survey  
(NSDUH) Nat'l Survey on Drug Use & Health  
(NSFG) Nat'l Survey of Family Growth

### Establishment (n = 7 BLS only)

(ARS) Annual Refiling Survey  
(CES) Current Employment Statistics  
(CPI C&S) Consumer Price Index (Comm. & Svcs)  
(ECI) Employment Cost Index  
(JOLTS) Job Openings & Labor Turnover Survey  
(OEWS) Occ. Employment & Wage Statistics  
(SOII) Survey of Occupational Injuries & Illnesses†

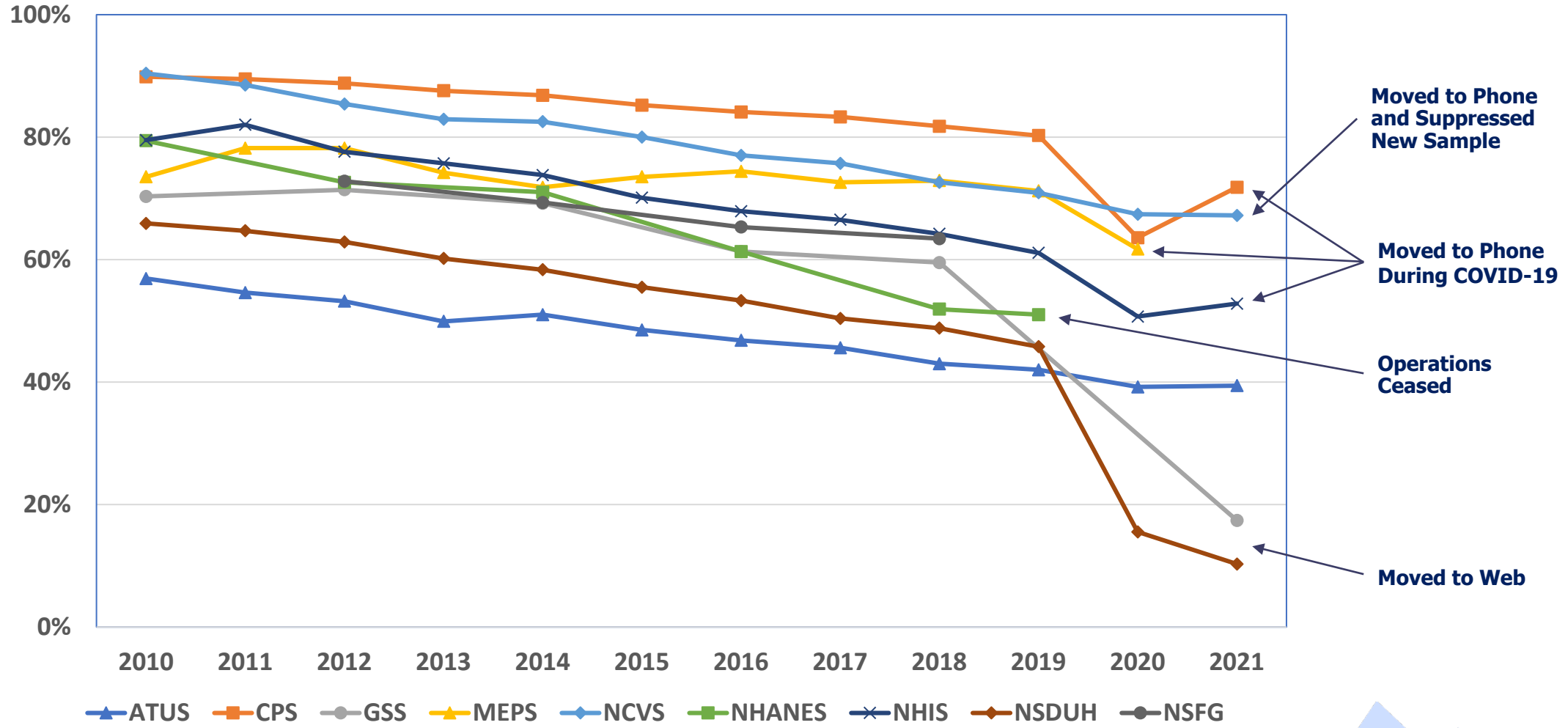
\* For household longitudinal surveys, initial interview response is used (Time or Month in Sample 1).

NCVS: 2017-2021 includes all panel waves (except 2020 where new sample suspended due to COVID-19)

† Participation in this survey is required by law.



# Household Surveys (Federal)



\* GSS is conducted by NORC through NSF grant funding.

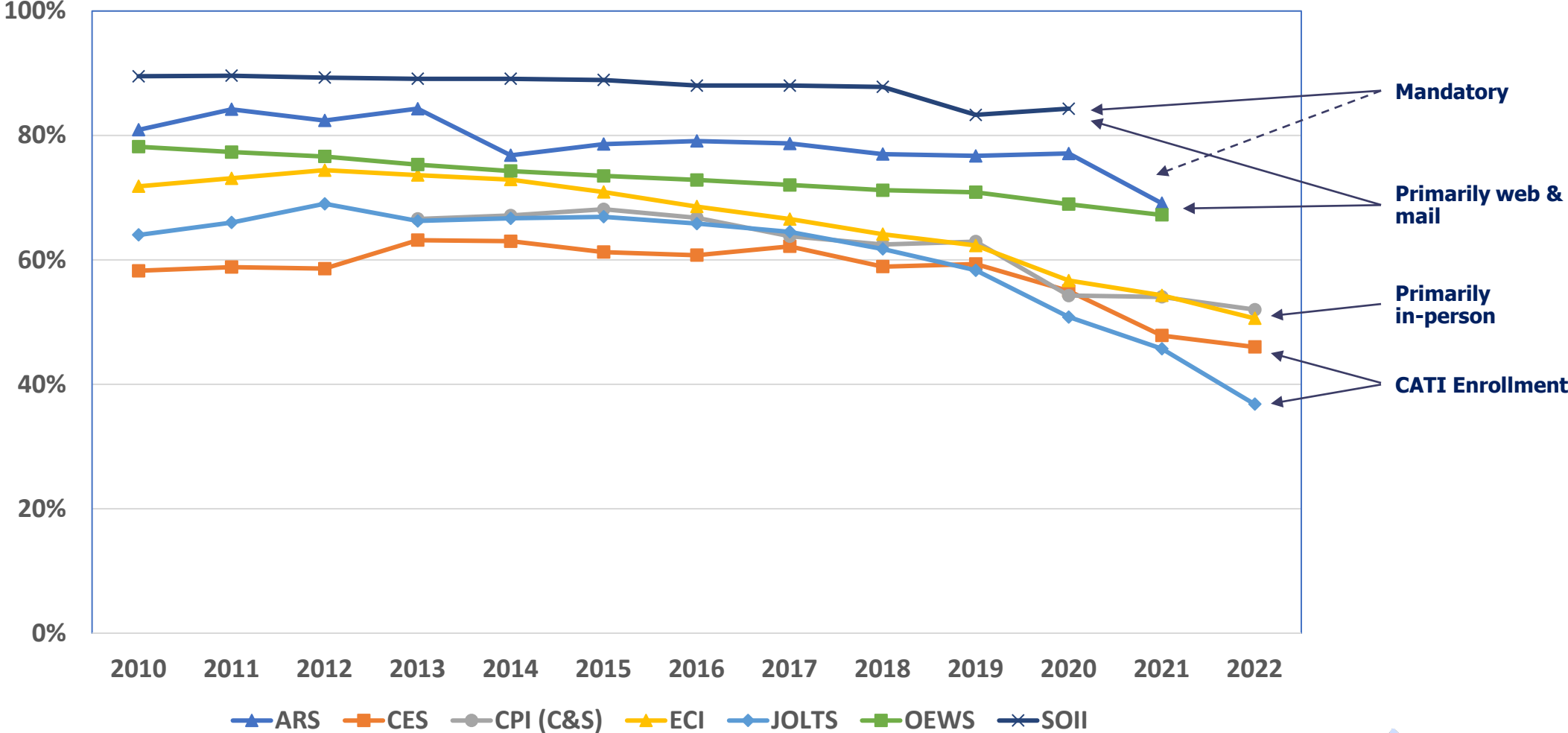


# Rates of Decline (Household)

	RR 2010	RR 2019	Difference (2010-19)	Slope (2010-19)	RR 2021	Difference (2019-21)
ATUS	56.9%	42.0%	-14.9	-1.6	39.4%	-2.6
CPS	89.9%	80.2%	-9.6	-1.1	71.8%	-8.4
GSS	70.3%	59.5%	-10.8	-1.6	17.4%	-42.1
MEPS	73.5%	71.2%	-2.3	-0.5		
NCVS	90.4%	70.9%	-19.5	-2.2	67.2%	-3.7
NHANES	79.4%	51.0%	-28.4	-3.3		
NHIS	79.5%	61.1%	-18.4	-2.3	52.8%	-8.3
NSDUH	65.9%	45.8%	-20.1	-2.3	10.3%	-35.5
NSFG	72.8%	63.4%	-9.4	-1.6		



# Establishment Surveys (BLS)



# Rates of Decline (Establishment)

	RR 2010	RR 2019	Difference (2010-19)	Slope (2010-19)	RR 2021	Difference (2019-21)	RR 2022	Difference (2021-22)
ARS	80.9%	76.7%	-4.2	-0.7	69.1%	-7.6		
CES	58.3%	59.3%	1.1	0.1	47.8%	-11.5	46.0%	-1.8
CPI (C&S)	66.6%	62.9%	-3.6	-0.9	54.1%	-8.9	52.0%	-2.0
ECI	71.8%	62.3%	-9.5	-1.2	54.3%	-8.0	50.6%	-3.7
JOLTS	64.0%	58.3%	-5.7	-0.6	45.7%	-12.6	36.8%	-8.7
OEWS	78.2%	70.9%	-7.3	-0.9	67.2%	-3.6		
SOII	89.5%	83.3%	-6.2	-0.5				





# Comparison: Response Trends

## ■ Household

- ▶ Declines continuous: 1-3%
- ▶ Accelerated by COVID-19
  - Pandemic continued in 2021
- ▶ Sample loss not shown
- ▶ Moving to web: large negative decline
- ▶ 2022 TBD...

## ■ Establishment

- ▶ Declines minor & incidental <1%
- ▶ Accelerated by COVID-19
  - Pandemic changed work: Telework
- ▶ Maintained sample in most
- ▶ Self-administration (web/mail): smaller decline
- ▶ 2022 – continued decline, but some stabilization



# Challenges: What Can We Do?

- Increase sample to maintain analytic pool.
  - ▶ Without increase in RR → increase bias; increase costs; disproportionate burden on those who participate.
- Increase contacts / level of effort.
  - ▶ Increase cost; already increased effort; noncontact → refusal
  - ▶ Telework – for some industries, contact is not at the establishment.
- Increase field / data collection period.
  - ▶ Affects timeliness / relevance of data.
  - ▶ Potential recall issues → decrease in data quality.



# Strategies: What Are We Doing (now)

## ■ Increasing use of Web

- ▶ CE – web expenditure diary; ATUS – web time & activity diary
- ▶ Current Population Survey (CPS) – **adding** self-response web mode.
- ▶ Focus on MIS 2-4, 6-8 (and those identified as likely for web).
  - Other studies have/currently researching: PSID; Add Health; HRS; UKHLS
- ▶ Census/BLS collaborating on experiments to identify optimal contact strategies (timing and mode – mail, email, text messaging).
- ▶ Current focus – reviewing survey content; testing potential changes.
  - Concern with mode effects.

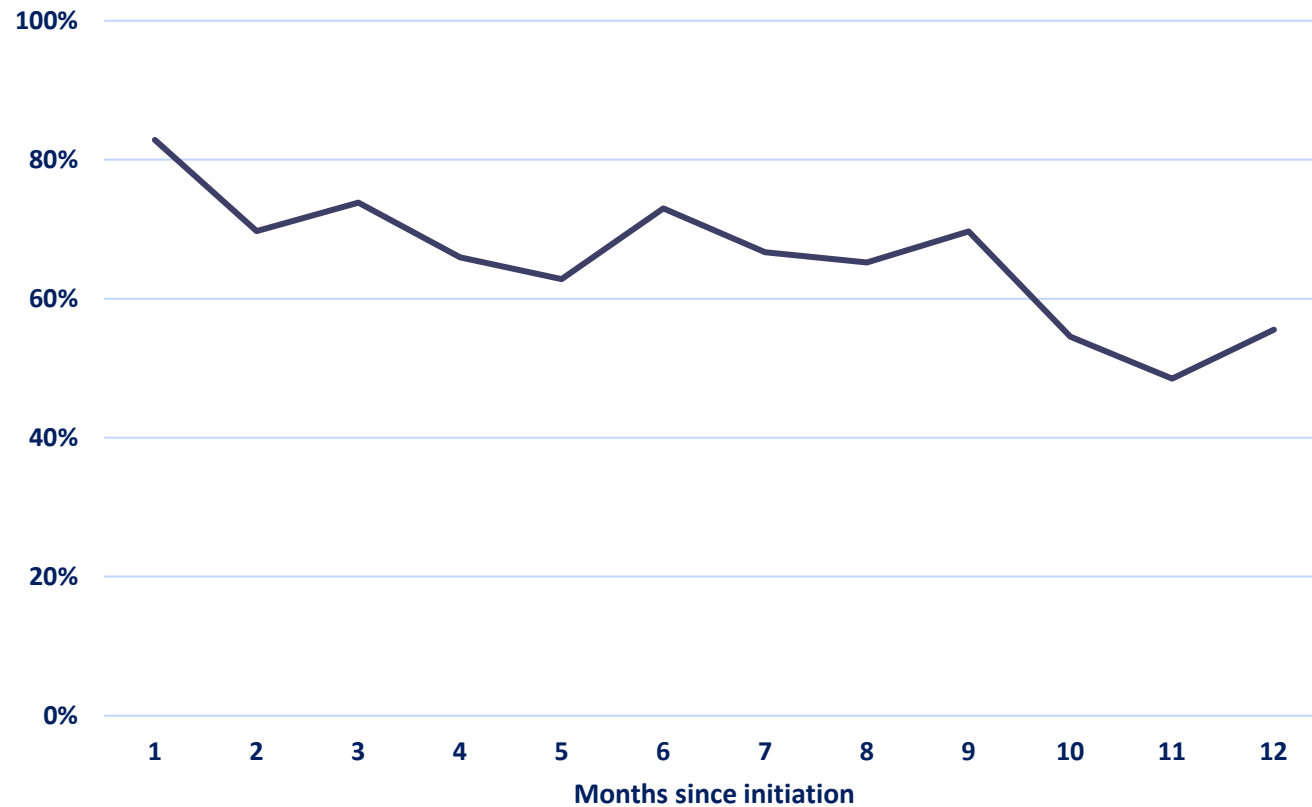
# Strategies - Paradata

## ■ Paradata

- ▶ Using paradata to identify factors affecting survey process
  - Participation, burden, breakoff, etc...
- ▶ FY 21 – inventoried paradata currently available in BLS programs & measures to add as systems are upgraded.
- ▶ International Price Program (IPP) – drop in response between initiation and repricing (Kaplan & Langeland 2020).
  - Focus Groups – time gap between these events problematic.
  - Paradata analysis – empirical evidence.

# IPP – Initiation & Repricing

Response Rates by Time Gap in Months



■ Estimated 11% drop in response propensity with each passing month.



# Strategies – Contact

## ■ Researching Contact Strategies

- ▶ Occupational Employment & Wage Statistics – testing timing and frequency of survey invitations/reminders (Langeland 2022).
- ▶ For those with email contact – increased the number of contacts and reduced the timing between contacts.
  - Existing protocol relied heavily on telephone follow-up.
  - Concern with backfire effect – turning off response due to multiple contacts.
- ▶ Most frequent group increased response by 11 percentage points.
  - Reduced costs – less telephone follow-up.



# Alternative Data Sources

- Administrative/crowd sourced/third party data
  - ▶ Alternative to collecting data from multiple sources.
  - ▶ Consumer Price Index (CPI) – sources data for some items.
    - New vehicle prices; Gasoline Fuel; others in-progress (e.g., Airline; medical)
    - Data still collected as a back-up; dependent upon availability and timeliness of data source.
  - ▶ Challenges
    - Understanding data quality properties of data and source.
    - Data may not match/fit what we want to measure.



# Conclusion

- Declines in response have been affecting surveys across agencies (since well before 2010) - *likely to continue*.
- COVID-19 was more disruptive than observed.
  - ▶ Effects of this disruption continue – we’re still recovering...
  - ▶ Telework may require new methods for contact (for some sectors).
    - During COVID-19 35% of estab. increased telework (50% of U.S. employment)\*
- Is this a matter of concern?
  - ▶ Declines occurred despite efforts to improve response.
  - ▶ Programs continue to measure and evaluate potential for bias.

\* 2021 Business Response Survey: <https://www.bls.gov/brs/data/tables/2021/>





# Contact Information

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