



Using ~~Online Crowdsourcing Platforms~~

Mturk

**to Obtain Information from
Special Populations**

People with College Degrees

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Disclaimer

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Motivations

- Quick turnaround pre-testing
- Cheaper data collection
- Possible complement to traditional questionnaire pre-testing
- First project to test crowdsourcing for questionnaire development and evaluation



Research Questions

1. How successful were we at recruiting and collecting data from college graduates?
2. How closely did the MTurk-recruited population match the college-educated population on key demographics?
3. Did confidentiality pledges affect participation in the survey?
4. How consistently did participants report their income within the survey?



Study Details

- Fielded: December 2017 (3 days)
- Total sample size: 600
- Final number of participants: 578
- Recruited via MTurk
- Link to survey on Mathematica's (contractor) website
- Expected duration: 15 minutes
- Compensation: \$2



HIT Groups (261-280 of 1089)

Show Details Hide Details Items Per Page: 20

Requester	Title	HITs	Reward	Created	Actions
Taisik Hwang	Main Survey 4(~ 30 minutes)	1	\$1.00	15h ago	Preview Quality
Consumer Research Insights Lab	Quick 2-min survey (~ 2 minutes)	6	\$0.20	15h ago	Preview Quality
Tyler Jimenez	Personality and perceptions(~ 10 minutes)	45	\$0.30	15h ago	Preview Accept & Work
Speechpad	Transcribe a Audio File Verbatim A2631940 (Audio length: 21 minutes 7 seconds)	1	\$4.75	16h ago	Preview Quality
Jeong Hyun Lim	How do you feel about AI and Stock Investments?	1	\$0.05	16h ago	Preview Accept & Work
Speechpad	Edit Video Captions A2631470 (Video length: 24 minutes 39 seconds)	1	\$8.87	16h ago	Preview Quality
Michelle	Survey 1 of 6(~ 8 minutes)	3	\$0.25	16h ago	Preview Quality
Michelle	Survey 1 of 6(~ 8 minutes)	3	\$0.25	16h ago	Preview Quality
Michelle	Survey 1 of 6(~ 8 minutes)	4	\$0.25	16h ago	Preview Quality
Spencer Kimball	Répondez à une enquête sur vos opinions NAFTA	2	\$1.00	16h ago	Preview Quality
Spencer Kimball	Answer a survey about your opinions NAFTA	2	\$1.00	16h ago	Preview Quality
The Site Mechanics	Write short social post - video	2	\$0.35	16h ago	Preview Quality
str11223344	Select matching item Class and Type - Soft Goods - Batch ID #21273	1	\$0.05	16h ago	Preview Quality
TurkLab	Questions about survey confidentiality(~ 15 minutes)	1	\$2.00	16h ago	Preview Accept & Work
Description: This is a survey about how survey respondents think and feel about survey confidentiality Time Allotted: 30 Min Expires: 4/14/2018		Qualifications Required ✓ Exc: [79503-78914] has not been granted ✓ Inc: [19-78914] has been granted		None 100	
Qiang Zhou	Answer a short survey about product	11	\$0.10	16h ago	Preview Accept & Work
Benny Mungbean	Survey- 13 quick questions for women about money	1	\$0.25	16h ago	Preview Accept & Work

Questions about survey confidentiality(~ 15 minutes)


Description: This is a survey about how you think and feel about survey confidentiality

Instructions

Go to [Link](#) and follow the study instructions. Note the secret key found at the end of the study which you will need to complete the HIT.

* 1. Enter the SECRET KEY (not your Worker ID) found at the end of the linked survey. Do not add any comment or text here

Pre Qualify for Dozens of TurkPrime Partner HITs by answering the following optional profile questions:

 Give Feedback to Requester

Experiment Details

- Two embedded experiments:
 - Variations in wording of confidentiality pledges (3 versions, across-participants)
 - Variations in questions concerning income (2 versions, within-participant)



National Survey of College Graduates (NSCG)

- Sample size: approximately 135,000
- Data collection contractor: U.S. Census Bureau
- Target population:
 - Bachelor's degree or higher
 - Not institutionalized
 - Younger than 76 years



Q1. How successful were we at recruiting and collecting data from college graduates?

- NSCG: 99.8% with college degree
- MTurk: 95.6 % with college degree
- Screening was remarkably good, but not perfect



Q1. How successful were we at recruiting and collecting data from college graduates?

Highest degree obtained	2015 NSCG (weighted)	MTurk (unweighted)
Bachelor's	63%	75%
Master's	28%	19%
Doctorate	3%	2%
Other professional degree (e.g., MD, DDS, JD)	6%	4%

Q2. How closely did the MTurk-recruited population match the college-education population on age, citizenship, and sex?

Demographic Variable	2015 NSCG (weighted)	MTurk (unweighted)
Average age	47 years	38 years
Women	53%	50%
US citizens, native	85%	96%
US citizens, naturalized	9%	2%
Non-US citizens, permanent resident	3%	1%
Non-US citizens, temporary resident	2%	1%

Q2. How closely did the MTurk-recruited population match the college-education population on race?

Demographic Variable	2015 NSCG (weighted)	MTurk (unweighted)
White only	80.7%	79.0%
Asian only	8.7%	8.1%
Black only	7.7%	9.9%
American Indian / Alaska Native only	0.3%	0.4%
Native Hawaiian / Pacific Islander only	0.5%	0.0%
Multiple races	2.1%	2.7%

Q3: Confidentiality Pledges

- Similar work by BLS and Census in 2016
- Pledge presented at beginning
- Questions about pledge at the end



Q3: Confidentiality Pledges

This information is solicited under the authority of the National Science Foundation Act of 1950, as amended, and the Confidential Information Protection and Statistical Efficiency Act of 2002.

[Treatment] The information you provide will be used for statistical purposes only. Your response will be kept confidential. Your response is voluntary and failure to provide some or all of the requested information will not in any way adversely affect you.



Q3: Treatments (Random assignment to **one** of these)

- Version A: Per the Federal Cybersecurity Enhancement Act of 2015, **Federal information systems** are protected from **malicious activities** through **cybersecurity screening of transmitted data**.
- Version B: Per the Federal Cybersecurity Enhancement Act of 2015, **your data** are protected from **cybersecurity risks** through **screening of the systems that transmit your data**.
- Version C: Per the Federal Cybersecurity Enhancement Act of 2015, **your data** are protected from **cybersecurity risks** through **screening of the Federal information systems that transmit your data**.



Summary of Treatments

Topic	Version A	Version B	Version C
What is being protected	Federal information systems	Your data	Your data
What it is being protected from	Malicious activities	Cybersecurity risks	Cybersecurity risks
How the protection is happening	Cybersecurity screening of transmitted data	Screening of the systems that transmit your data	Screening of the Federal information systems that transmit your data

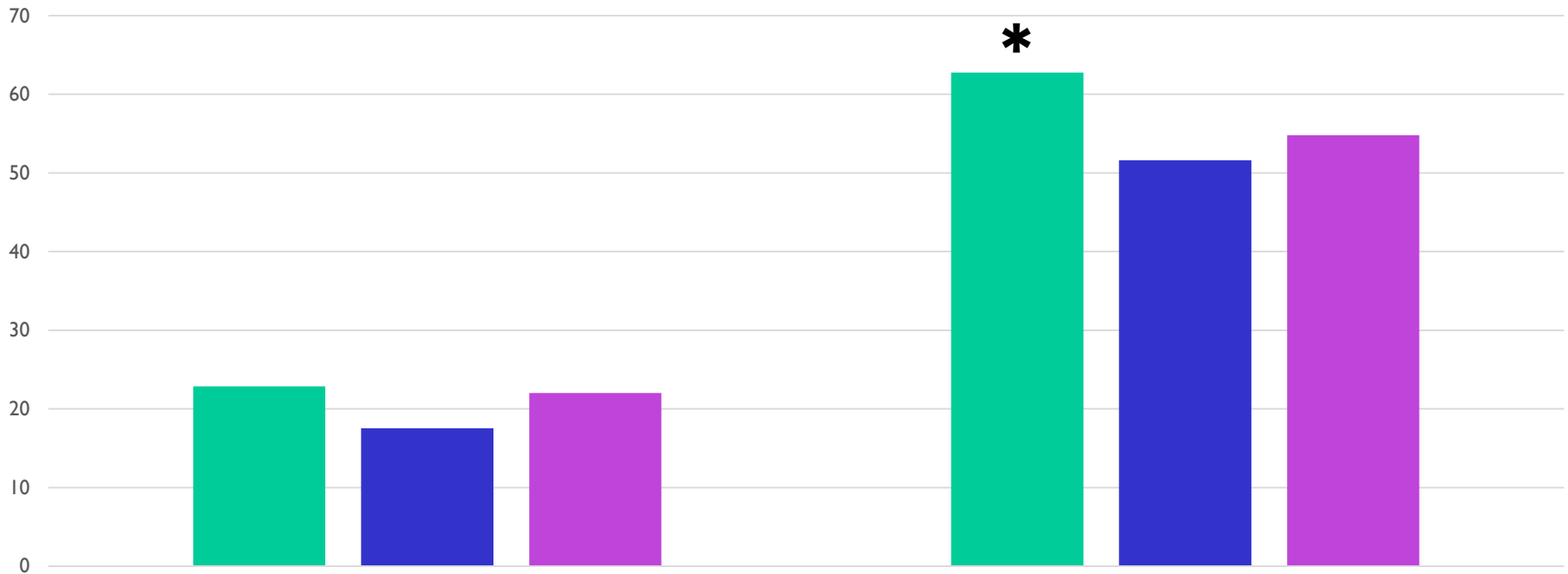


Q3: Did pledge wording affect response quality?

	Version A	Version B	Version C
Number of completes	193	192	182
Overall breakoffs	6	3	2
Survey item non-response	0.5 - 5.5%	0.5 - 6.3%	0.5 - 5%

Concerns and Influence on Participation, by Pledge Version: % Respondents Replying "Yes"

* $p < 0.05$



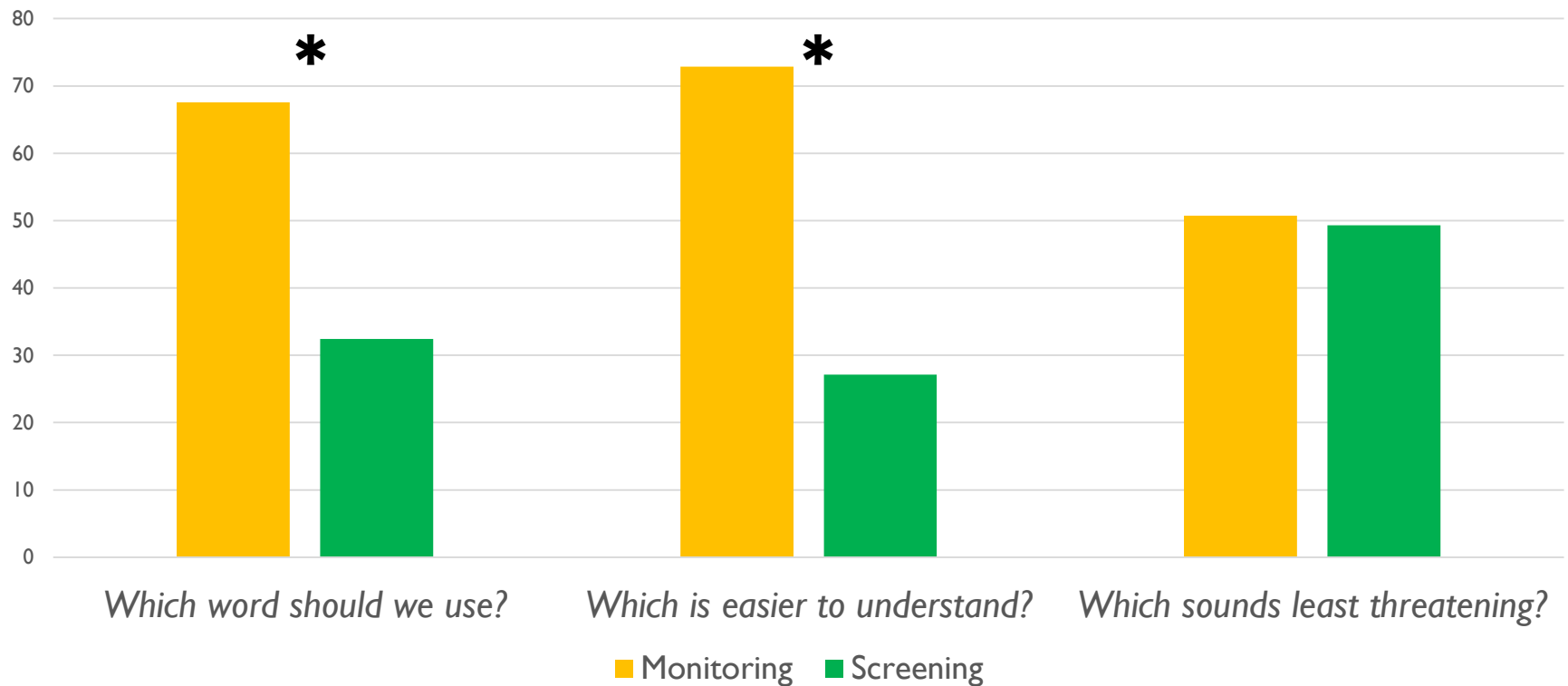
Do you have any concerns about how NCSES would keep your information confidential?

Would NCSES's approach to keeping your information confidential influence your decision to participate in an NCSES survey?

■ Version A ■ Version B ■ Version C

Per the Cybersecurity Enhancement Act of 2015, your data are protected from cybersecurity risks through cybersecurity **[monitoring – OR – screening]** of the systems that transmit your data.

* $p < 0.05$



Q4: How consistently did participants report their income within the survey?

NSCG Version

What is your basic annual earned income on your principal job, before deductions?

Do not include bonuses, overtime, or additional compensation for summertime teaching or research. If you are not salaried, please estimate your earned income, excluding business expenses.

2-Question series

- For your principal job, what is the easiest way for you to report your total earnings BEFORE taxes or other deductions?
(choose 1 of 7 options, including other – specify)
- What is your best estimate of how much you usually earn on the basis indicated in the previous question?
Do not include bonuses, overtime, or additional compensation for summertime teaching or research.

Q4: Income reporting consistency

- Randomized which one came first
- Several other demographic questions in between (to discourage respondents from looking back at earlier responses)



Q4: Income reporting consistency

- 35 (6%) respondents reported annualized earnings that did NOT approximate basic annual earned income

Q4: Problems with income

- Misreporting, e.g., reporting an annual figure, but checking “hourly” frequency
- Two questions are not enough
- Total earnings and basic annual earned income are not necessarily the same

- #ItsComplicated



Operational Matters: OMB

- Generic/umbrella clearance
- Cited work previously conducted by BLS
- Memo plus assorted attachments
- Approval within 2 weeks



Did MTurk Work for NCSES?

- Fast data collection
- High cooperation; few incompletes
- Got people with college degrees
- No apparent patterns of item non-response

- Will NCSES use MTurk again? Yes.



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