

# Ongoing Experimentation in Transition from a National Paper and Pencil Survey to a Multi-Mode Web and Paper and Pencil Survey

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*This presentation is intended to promote the exchange of ideas. The views expressed during the presentation and in presentation materials are part of ongoing research and analysis and do not necessarily reflect the position of the U.S. Department of Education.*

# Agenda

- I. NHES background
- II. Methodological challenges and experiments to address these challenges
  - A. How do we learn which cases should receive what mode?
  - B. Nonresponse bias – how can we increase response from underrepresented groups?
  - C. Mailing materials – how do we study which materials increase response?
  - D. How do we know if we can save money on our mailing strategies without losing response?

# I. NHES BACKGROUND

# What Is the National Household Education Surveys Program (NHES)?

- Sponsored by the National Center for Education Statistics (NCES), within the U.S. Department of Education (ED)
- Measures phenomena not efficiently measured through institutions such as schools
- Cross-sectional survey every 2-3 years, with rotating survey topics
- Adult respondents; most often samples children
- Two-stage with a household-level screener and sampled person-level topical

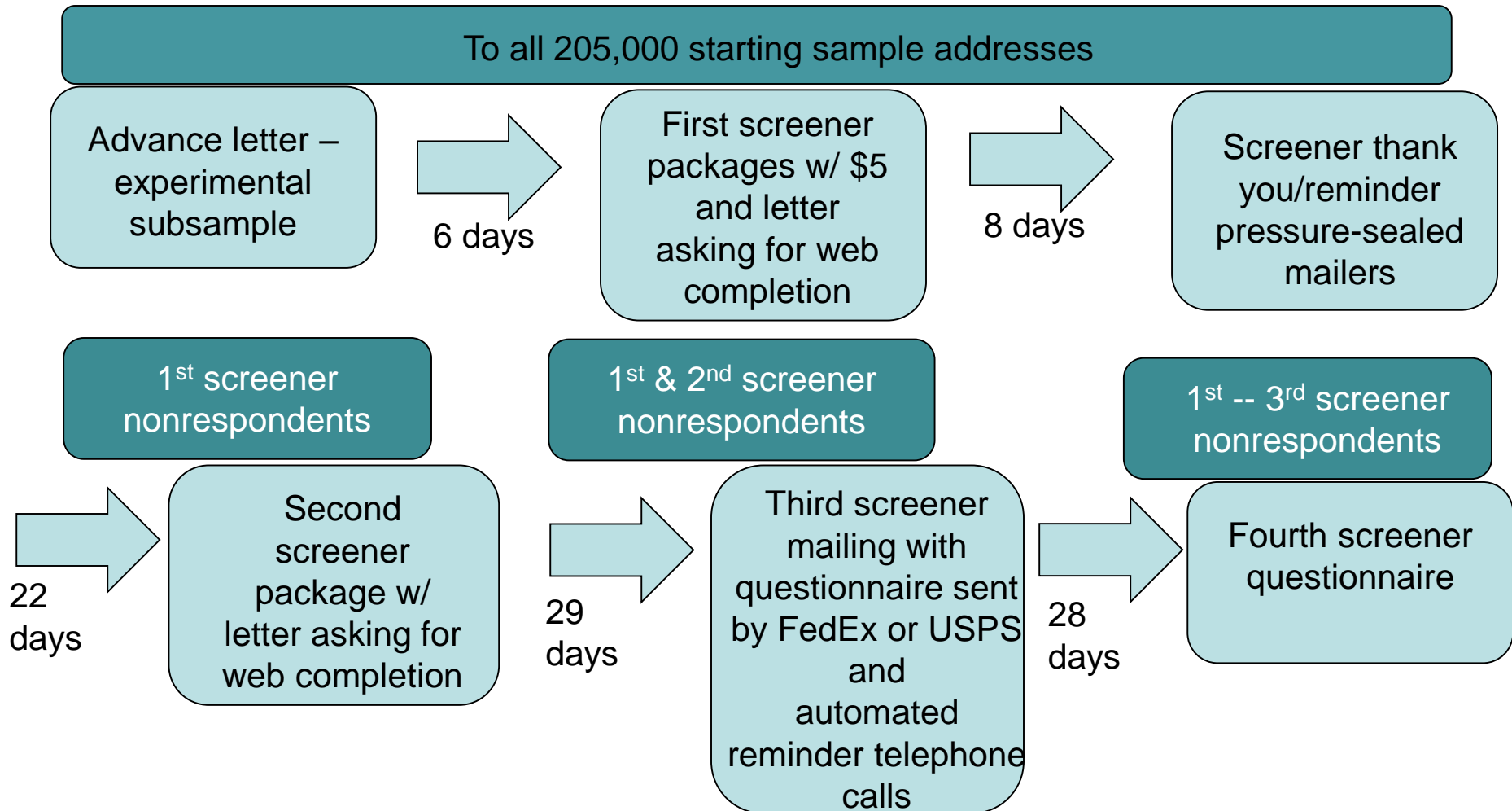
# NHES:2019 Design

- Two web invitations followed by two paper invitations at the screener stage
- Fielding two surveys
  - Early Childhood Program Participation (ECPP) survey (sampling children age 0-6 and not yet in kindergarten)
  - Parent and Family Involvement in Education (PFI) survey (sampling children in K-12 grades or grade equivalent)
- Address-based sample using MSG frame of approximately 205,000 addresses

# NHES:2019 Random Experimental Subsamples

<b>Baseline Condition n=40,000</b>	<b>Targeted Mailings Condition n=15,000</b>	<b>Updated Sequential Mixed Mode Condition n=80,000</b>	<b>Choice-Plus Condition n=30,000</b>	<b>Modeled Mode Condition n=40,000</b>
Replicates 2016 mixed-mode (MM) design	Tests targeted mailings for likely Spanish speaking or Hispanic households	Builds on lessons learned in 2016/2017; tests new contact methods in context of MM design	Tests incentivizing web/inbound telephone response (when offering web and paper concurrently)	Tests targeting some cases for a paper-only protocol

# NHES:2019 Screener-Stage Contact Strategy



# II. METHODOLOGICAL CHALLENGES AND EXPERIMENTS TO ADDRESS THESE CHALLENGES



# Determining Which Cases Receive What Mode

Response rates by mode from NHES:2016 mode experiment

	Early Childhood Program Participation		Parent and Family Involvement in Education	
	Mail-only	Mixed-mode	Mail-only	Mixed-mode
<b> Screener </b>	67.2	62.1	67.2	62.1
<b> Topical </b>	71.5	83.6	72.6	83.3
<b> Overall </b>	48.0	51.9	48.8	51.7

# NHES:2019 Mode Experiments

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# Determining Which Cases Receive What Mode-Continued

- Choice-plus<sup>1</sup> experiment
  - 24,000 cases offered \$10 to complete web survey or in-bound phone survey while offered paper & web
  - 6,000 cases offered \$20
- Modeled mode experiment
  - 36,000 of 205,000 sample addresses
  - 5,400 cases (top 15 percent predicted to need paper) received paper

<sup>1</sup>Biemer, P., Murphy, J., Zimmer, S., Berry, C., Deng, G., Lewis, K. (2018). Using Bonus Monetary Incentives to Encourage Web Response in Mixed-Mode Household Surveys. *Journal of Survey Statistics and Methodology*, Volume 6, Issue 2, 1 June 2018, Pages 240–261, <https://doi.org/10.1093/jssam/smx015>

# Determining Which Cases Receive What Mode - Preliminary Results\*

- Choice-plus \$10 and \$20 groups have higher response rates than the total response rate (47%-48% vs. 37%).
- Modeled mode response rate higher than total response rate (64% vs. 37%)
- Note, results are before a late March third contact using mailing and paper forms

# NHES:2019 Nonresponse Bias Experiment

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# Increasing Response from Underrepresented Groups

- Created “targeted” materials for mailings to addresses modeled to include Spanish speakers
  - 15,000 of 205,000 sample addresses
  - ~3,300 cases of 15,000 received targeted mailings
- Conducted focus groups to create materials

# Increasing Response from Underrepresented Groups- Continued

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El Centro Nacional para Estadísticas de la Educación (NCES por sus siglas en inglés), dentro del Departamento de Educación está autorizado a realizar esta Encuesta Nacional en Hogares sobre Educación (NHES por sus siglas en inglés) por medio de la Reforma a la Ley de las Ciencias de la Educación del 2002 (ESRA 2002, título 20, sección 9543). La Oficina del Censo de Estados Unidos administra esta encuesta voluntaria en nombre de NCES. No hay sanciones si decide no participar en este estudio. Toda la información que brinde puede ser utilizada solo con fines estadísticos y no puede divulgarse ni usarse en forma identificable para ningún otro fin, excepto cuando lo exija la ley (20 U.S.C. 9973 y 6 U.S.C. 1151). De acuerdo con la Ley de Reducción de Papel de 1995, no se requiere que ninguna persona responda a una recopilación de información a menos que muestre un número de control OMB válido. El número de control OMB válido para esta encuesta voluntaria es 1850-0768. El tiempo requerido para completar esta encuesta se estima en un promedio de 3 minutos por respuesta. Incluido el tiempo para revisar las instrucciones, reunir los datos necesarios y completar y revisar la encuesta. Si tiene algún comentario sobre la precisión del tiempo estimado, las sugerencias para mejorar esta encuesta, o cualquier comentario o inquietud con respecto al estado de su presentación individual de esta encuesta, por favor envíe un correo electrónico a: [nhes@census.gov](mailto:nhes@census.gov) o escriba a: Sarah Grady, National Center for Education Statistics (NCES), PCP, 550 12th St., SW, 4th floor, Washington, DC 20202.

NHES-SCRN(TS)  
(09/18/2018)

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Entendemos que no todos los hogares tienen acceso a Internet. Si desea recibir la encuesta en otro formato, tiene alguna pregunta o necesita ayuda adicional, comuníquese con la Oficina del Censo de los EE. UU. llamando al número gratuito 1-888-840-8383. Puede encontrar más información disponible en Internet en: <https://nhes.ed.gov/nhes/>.

Le agradecemos su participación en esta importante encuesta nacional. Esperamos su respuesta.

Ahorramos.

Ron S. Jamlin  
En desarrollo de las funciones y obligaciones  
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Documentos adjuntos

**Aviso sobre la autorización y la confidencialidad de la información**

El Centro Nacional para Estadísticas de la Educación (NCES por sus siglas en inglés), dentro del Departamento de Educación, está autorizado a realizar esta encuesta por medio de la Reforma a la Ley de las Ciencias de la Educación del 2002 (ESRA 2002, título 20, sección 9543). La Oficina del Censo de Estados Unidos administra esta encuesta voluntaria en nombre de NCES. No hay sanciones si decide no participar en este estudio. Toda la información que brinde puede ser utilizada solo con fines estadísticos y no puede divulgarse ni usarse en forma identificable para ningún otro fin, excepto cuando lo exija la ley (20 U.S.C. 9973 y 6 U.S.C. 1151).

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# NHES:2019 Mailing Materials Experiments


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# Studying Which Mailing Materials Increase Response – Opt-out Screener

- 10,000 cases randomly assigned to screenout condition
- 41 percent response in screenout condition vs. 37 percent response in control

\*No survey weights have been generated yet. Differences cited have not been tested for significance.

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## National Household Education Survey

**Are there any children or youth age 20 or younger living in this household?**

*Include small children, foster children, babies, and those living in college housing (if they have no other permanent home).*

Yes

*Thank you. Please open to complete this brief survey.*

No

*You are **FINISHED** with the National Household Education Survey. Please RETURN this survey to us in the enclosed envelope. Thank you for your time.*

The National Center for Education Statistics (NCES), within the U.S. Department of Education, is authorized to conduct the National Household Education Survey (NHES) by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. 9542). The U.S. Census Bureau is administering this voluntary survey on behalf of NCES. There are no penalties should you choose not to participate in this study. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. 9572 and 5 U.S.C. 552). According to the Paperwork Reduction Act of 1996, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this voluntary survey is 1850-0768. The time required to complete this survey is estimated to average 2 minutes per response, including the time to review instructions, gather the data needed, and complete and review the survey. If you have any comments concerning the accuracy of the time estimate, suggestions for improving this survey, or any comments or concerns regarding the status of your individual submission of this survey, please e-mail: [nhes@census.gov](mailto:nhes@census.gov) or write directly to: Sarah Grady, National Center for Education Statistics (NCES), PCF, 550 12th St., SW, 4th floor, Washington, DC 20522.

**NHES-SCRN(O)**  
(09/18/2018)

# Studying How to Save Money on Mailing Strategies Without Losing Response

- FedEx increases response compared to regular mail and priority mail
- FedEx is expensive
- Do we need to expend that money at the 3<sup>rd</sup> screener mailing for everyone?
- Are there households where FedEx at 2<sup>nd</sup> mailing cinches response, avoiding later mail?

# Studying How to Save Money on Mailing Strategies Without Losing Response - FedEx Timing Experiment

- The American Institutes for Research (AIR) developed a model combining response propensity and FedEx cost, and allocated cases with higher joint propensity and FedEx cost to receive FedEx with the 4<sup>th</sup> mailing instead of the 3<sup>rd</sup>
- Cases with lower response propensity and lower FedEx cost received FedEx with the 2<sup>nd</sup> mailing instead of the 3<sup>rd</sup>

# Questions? For more information...

Survey website

<https://nces.ed.gov/nhes/>

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