

# 2020/22 BEGINNING POSTSECONDARY STUDENTS LONGITUDINAL STUDY (BPS:20/22)

## Cognitive and Usability Testing

Volume I

Supporting Statement

OMB # 1850-0803 v. 267

**Submitted by**  
**National Center for Education Statistics**  
**U.S. Department of Education**

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### **Attachments:**

- Attachment I – Recruitment Procedures and Materials
- Attachment II – Eligibility Screening Questions
- Attachment III – Consent to Participate in Research
- Attachment IV – Interview Protocol
- Attachment V – Interview Facsimile

### **Contents**

<b>Submittal-Related Information.....</b>	<b>3</b>
<b>Background.....</b>	<b>3</b>
<b>Design and Context.....</b>	<b>4</b>
<b>Estimated Respondent Burden.....</b>	<b>5</b>
<b>Estimate of Costs for Recruiting and Paying Respondents.....</b>	<b>6</b>
<b>Estimate of Cost Burden.....</b>	<b>6</b>
<b>Cost to Federal Government.....</b>	<b>6</b>
<b>Assurance of Confidentiality.....</b>	<b>6</b>
<b>Schedule for BPS:20/22 OMB requests and related activities.....</b>	<b>6</b>

**Tables**

Table 1. Screening and participant numbers by respondent type.....	5
Table 2. Estimate respondent burden.....	6

## **Submittal-Related Information**

The following material is being submitted under the National Center for Education Statistics (NCES) generic clearance agreement (OMB# 1850-0803), which provides NCES the capability to improve data collection instruments by conducting testing such as usability tests, focus groups, and cognitive interviews, to improve methodologies, survey questions, and/or delivery methods.

This request is to conduct cognitive and usability testing starting in January 2020 in preparation for the 2020/22 Beginning Postsecondary Student Longitudinal Study (BPS:20/22) field test data collection (OMB# 1850-0631), which will begin in March 2021. RTI International will collect BPS:20/22 data on behalf of NCES under contract to the U.S. Department of Education. EurekaFacts is RTI's subcontractor for aspects of the BPS:20/22 cognitive and usability testing.

This submission describes the cognitive and usability testing recruitment, screening, and procedures designed to ensure quality, performance, and reliability of the tested questions and of the overall survey usability. The results will be presented to a Technical Review Panel (TRP) for discussion of potential survey modifications prior to the field test and will be submitted to OMB for review in November 2020 as part of the BPS:20/22 field test data collection request.

The request to perform cognitive and usability testing was approved in December 2019 (OMB # 1850-0803 v. 260). Based on results of recruiting efforts, conducted from January to April 2020, this request includes updates to Volume 1 to add additional recruiting methods and to broaden the timeframe of eligibility. Revisions have been made to the following sections of Volume 1: Design and Context, Estimated Respondent Burden, Estimate of Costs for Recruiting and Paying Respondents, Costs to Federal Government, and Schedule. Changes to attachments I, II, III, and V reflect these additional recruiting methods and updates to the academic year when the subject was first enrolled to accommodate the widened eligibility range.

## **Background**

Students in the BPS:20/22 sample are initially identified in the 2019-20 National Postsecondary Student Aid Study (NPSAS:20). NPSAS:20 is a cross-sectional study that examines the characteristics of students in postsecondary education, with special focus on how they finance their education. BPS:20/22 is the first follow-up survey with a subsample of NPSAS:20 sample members who were identified as first-time beginning college students (FTBs) during 2019-20 academic year. A second BPS follow-up is planned for 2025.

As a longitudinal study, BPS:20/22 is designed to follow a cohort of students who enroll in postsecondary education for the first time during the NPSAS academic year of interest, irrespective of the date of high school completion. The study collects data on student persistence in, and completion of, postsecondary education programs; their transition to employment; demographic characteristics; and changes over time in their goals, marital status, income, and debt, among other indicators. Data from BPS are used to help researchers and policymakers better understand how financial aid influences persistence and completion, what percentages of students complete various degree programs, what early employment and wage outcomes are for certificate and degree attainers, and why students leave postsecondary education.

The cognitive and usability testing described in this submission will allow NCES to test selected survey questions that are either new to this BPS cohort or have been revised from existing questions before their inclusion in the BPS:20/22 field test data collection. The testing of these questions is intended to ensure the quality, performance, and reliability of data elements pertaining to persistence, attainment, and labor market outcomes to support the overarching purpose of BPS. Specifically, this includes questions intended to collect data on respondents' months enrolled in postsecondary education and intensity; education experiences, including academic and social activities; emergency aid; employment history; housing security and homelessness; and food security.

Results from cognitive and usability testing will refine the survey questions, maximize the quality of data collected, and provide information on issues with important implications for the survey design, such as the following:

- The comprehension of certain terms in survey questions, including updated and added terminology;
- The thought processes used to arrive at answers to survey questions;
- Appropriate response categories to questions;
- Sources of burden and respondent stress;
- User interaction with the survey, which has been optimized to adjust to different screen sizes, including smaller mobile devices; and
- Ease of survey navigation on all devices, including desktop, laptop, and mobile devices (tablet or smartphone).

## **Design and Context**

The cognitive and usability testing described in this generic clearance package will be conducted with individuals who have similar characteristics to those in the BPS:20/22 cohort. EurekaFacts staff, who have extensive experience in cognitive and usability testing methodologies, will recruit cognitive and usability testing participants, conduct the interviews, compile interview video and audio recordings, and report the results.

Cognitive and usability testing will be conducted simultaneously using a subset of questions proposed for inclusion in the BPS:20/22 field test survey. For the cognitive testing component of the interviews, respondents will read the questions quietly to themselves and will be asked to "think aloud" as they come up with their responses to each question. They will be prompted by the interviewer to explain the mental steps they took to arrive at the answer. Interviewers will also use "general probing" throughout the duration of the interview when respondents give an indication of difficulty with the question to identify the source of confusion (see Attachment IV for a list of general probes). In addition, "specific probes" will be administered to respondents on targeted questions after the respondent has read the question and provided a response. After a response has been provided and the respondent clicks "Next," a prompt will appear on screen alerting the interviewer and respondent that we are interested in learning more about this question through specific probes. Attachment V provides a list of the targeted survey questions and their specific probes. These three types of probes (i.e., think aloud, general, and specific probes) will

help to identify how respondents understand the questions and formulate their answers to help evaluate and revise question wording as needed.

For the usability testing component of the interviews, interviewers will observe and probe on respondents' ease of navigation through the survey and will debrief respondents following the survey on their overall experience answering questions on their desktop, laptop, or mobile device (as applicable).

A total of 30 respondents will be invited to participate either in-person or remotely, according to respondents' location preference and the type of device the survey is being conducted on. If participating remotely, respondents will be required to have access to a desktop or laptop computer with a high-speed internet connection to establish an audio and video connection with the interviewer.

Remote testing is convenient and flexible for respondents because they can schedule the session to fit their needs and can participate from their home, institution, or other location. It allows respondents to use the survey in a real-world environment rather than in a lab setting. EurekaFacts' web-based remote interviewing/usability solution includes webcam technology, video streaming, and an audio connection to provide real-time, face-to-face interaction between the respondent and interviewer as both view the respondent's screen. This enables the efficacy of self-administered surveys to be evaluated on both the laptop and desktop computers. Respondents who do not have access to a webcam will have one shipped to their address for use during the testing session. After the testing is completed, respondents will return the webcam using postage-paid packaging provided by EurekaFacts.

All interviews will be conducted through an audio connection while both the respondent and interviewer view the survey. Those recruited for usability testing on a mobile device (e.g. tablet or smart phone) will be interviewed at the EurekaFacts facilities in order to assure proper positioning of the camera over their mobile device which will allow the recording of the respondent's actions as they are navigating the survey during the interview. This allows both the interviewer and respondent to view the mobile screen in real-time. Remote observers can log on, watch the respondent's face, listen to the interview, follow the respondent's screen as they complete the survey on their computer or mobile device, and listen to the debriefing. Remote observers will also be able to communicate with each other and the interviewer through e-mail.

The cognitive and usability testing sample will include individuals who first began their postsecondary education since January 1, 2017, and who have similar characteristics as those who will participate in the BPS:20/22 field test data collection (as identified in the eligibility screener; see Attachment II for specific eligibility screener questions). The sample will include both degree and certificate completers, those who left prior to completing a degree, and those still enrolled. Individuals will be recruited from institutions with varied characteristics, including level of degree offered (less-than 2-year, 2-year, and 4-year) and control (public, private not-for-profit, private for-profit). See Table 1 for the expected number of testing participants by respondent type.

Recruits will be identified using two methods, by EurekaFacts, and a supplemental recruitment process using Amazon's MTurk. Both methods of recruiting potential cognitive interview respondents will be conducted using an online recruitment screener containing eligibility criteria questions specific to this study to ensure that participants qualify for the study (see Attachment II for specific eligibility screener questions).

For the first method, recruits will be identified using EurekaFacts database of potential research respondents in the Washington, DC metro area. The database includes information on key demographic criteria, including gender, age, and race/ethnicity, which will be used to diversify the sample within the constraints identified in the previous paragraph. Referrals, advertisements in student newspapers and online forums, and social media postings may also be used to recruit respondents.

Additionally, supplemental recruitment will be conducted by Amazon's MTurk, which will allow NCES to quickly recruit participants by administering the eligibility screener using the online crowdsourcing platform. Based on recommendations from the National Center for Science and Engineering Statistics (NCSES) at the National Science Foundation (NSF), the Bureau of Labor Statistics (BLS), and the National Cancer Institute (NCI) at the National Institutes of Health (NIH), NCES used MTurk successfully to complete an online opinion survey research for the NPSAS:20 survey.

This supplemental recruitment will be conducted by administering the eligibility screener to participants recruited through Amazon's MTurk, also referred to as "workers." "Workers" determined eligible will then be included in EurekaFact's list of prospective participants. The General Social Media Post (see Attachment I) will be posted to MTurk. Qualified "workers" based on MTurk's premium qualifications will be able to view the request upon logging into their worker account. We will use the premium qualifications to recruit respondents based on reported education level and a prior approval rating of 80%. MTurk worker approval ratings are based on the percent of work accepted by other requesters. Approximately 1,200 workers will be screened via the eligibility screener (Attachment II). The screener will require up to 5 minutes to complete. Common practice for MTurk workers is to set a rate based on the federal minimum wage of \$7.25/hour for their participation. Thus, eligibility screener respondents will be paid \$0.60 for a completed screener. This "worker" payment for the MTurk supplemental recruitment screener is considered a typical rate for similar tasks.

Audio and video recordings of each interview will be available to NCES and BPS:20/22 staff at RTI for review. Either during or immediately following the conclusion of each interview, EurekaFacts will code participant responses and organize observations. Upon completion of all interviews, EurekaFacts will analyze the combined data and summarize the common themes and insights from the interviews into a final written report.

**Table 1. Screening and participant numbers by respondent type**

Respondent type	Screened	Testing participants
Currently enrolled	1,072	20
Not currently enrolled	528	10
<b>Total</b>	<b>1,600</b>	<b>30</b>

Attachment I in this submission presents the procedures and materials that will be used for recruitment of testing participants; Attachment II the screening questions that will be used to determine eligibility for cognitive and usability testing; Attachment III the consent forms; Attachment IV the cognitive and usability testing protocol; and Attachment V a facsimile of the survey, including a table listing questions with specific probes.

### Estimated Respondent Burden

To yield 30 completed interviews, we anticipate screening up to 1,600 individuals for eligibility and to ensure that we are achieving the desired distribution of respondent characteristics. The screening process, on average, is estimated to take about 5 minutes per person (see Attachment II). Each cognitive and usability testing session will last a maximum of 60 minutes.

**Table 2. Estimate respondent burden**

Activity	Number of respondents	Number of responses	Minutes per respondent	Maximum total burden hours
Screening	1,600	1,600	5	133
Cognitive and usability interview	30*	30	60	30
<b>Study total</b>	<b>1,600</b>	<b>1,630</b>		<b>163</b>

\* Subset of the screened group.

### Estimate of Costs for Recruiting and Paying Respondents

In order to be able to recruit a representative range of respondents, and to thank them for their time and participation, we will offer prospective participants a \$50 gift card from a major credit card company for completing the 60-minute cognitive interview. Participants of the supplemental MTurk recruitment will be offered \$0.60 as payment for spending approximately 5 minutes to complete the screener, this compensation is based on the federal minimum wage of \$7.25/hour.

### Estimate of Cost Burden

There are no direct costs for respondents.

### Cost to Federal Government

The cost to the federal government for conducting cognitive interviews will be \$86,067 under the EurekaFacts subcontract to RTI. This cost includes recruitment, supplemental recruitment via MTurk, conducting interviews, analyses, report writing, and participant incentives. The supplemental MTurk recruitment is estimated to cost approximately \$1,700 based on an estimated 1,200 potential subjects spending approximately 5 minutes to complete the screener, and other additional fees.

## Assurance of Confidentiality

Cognitive and usability testing respondents will be informed that their participation is voluntary and that:

EurekaFacts and RTI International are carrying out this research for the National Center for Education Statistics (NCES), part of the U.S. Department of Education. NCES is authorized to conduct this study by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543). 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. §9573 and 6 U.S.C. §151).

All respondents will be assigned a unique identifier (ID), which will be created solely for data file management and used to keep all materials for each respondent together. The respondent ID will not be linked to the respondent's name. Respondents will be sent a consent form via e-mail, on which they will need to provide an electronic signature before sending it back to EurekaFacts' office in order to confirm their participation. The signed consent forms will be kept separately from the survey data files for the duration of the study and records, including the audio and video recordings obtained during the administration of this study, will be destroyed after the final report is completed.

## Schedule for BPS:20/22 OMB requests and related activities

EurekaFacts will begin recruiting for the cognitive and usability testing upon receiving OMB clearance, and the testing is scheduled to begin by February 2020. Informed by the testing, a final draft of the survey will be used in a field test with approximately 3,500 sample members, beginning in March 2021.

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Recruit participants	January – May 2020
Conduct cognitive testing	February – May 2020
Finalize revisions to item wording	May – October 2020

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