

Connecting Adults to Success: Evaluation of Career Navigator Training (CATS Study)

Part B: Collection of Information Employing Statistical Methods

May 4, 2022

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B. Collection of information employing statistical methods

Introduction

The Institute of Education Sciences (IES) within the U.S. Department of Education (ED) requests clearance for data collection activities to support a congressionally mandated National Assessment of Adult Education. Specifically, this request covers collection of data to conduct an impact study of training for career navigators—local adult education provider staff who provide services to address the challenges that adult learners face navigating the transition to the workforce and to further education and training. This randomized controlled trial (RCT) study (referred to as Connecting Adults to Success: Evaluation of Career Navigator Training) will compare the education and employment outcomes of learners enrolled in adult education sites whose career navigators receive the study’s training (the treatment group) with the education and employment outcomes of learners enrolled in the business-as-usual sites who are offered the study’s training after the study period (the comparison group).

B1. Respondent universe and sampling methods

For each administrative and primary data source proposed, Exhibit B.1 summarizes the respondent universe, sampling method, and expected response rate. These are also described in more detail following the exhibit.

Exhibit B.1. Respondent universe, sample, and expected response rate for study data sources

| Data source | Respondent | Respondent universe | Type of sample | Sample size | Expected response rate |
| --- | --- | --- | --- | --- | --- |
| Site records from adult education providers  | All study providers covering all study learners | 64  | Census | 64 | 100% |
| Learner consent | All study learners | 33,600 | Census | 33,600 | 100% |
| Learner intake form (learner portion) | All study learners | 28,560 | Census | 28,560 | 85% |
| Learner intake form (staff portion) | Career navigators or learner intake staff at treatment and comparison providers | 180 | Census | 180 | 85% |
| Career navigator baseline surveys | Career navigators at treatment and comparison providers | 180 | Census | 180 | 85% |
| Program director interviews | Program directors at treatment and comparison provider sites | 64 | Census | 64 | 85% |
| End-of-training implementation surveys | Career navigators at treatment providers | 90 | Census | 90 | 85% |
| Data from online/electronic training platforms | One staff member from each training organization to provide records on use of training platform | 2 | Census | 2 | 100% |
| Cost records on providing training | One staff member from each treatment provider to provide records on additional cost components of training | 32 | Census | 32 | 100% |
| Career navigator logs | Career navigators at treatment and comparison providers | 180 | Census | 180 | 85% |
| Administrative records on employment and earnings from National Directory of New Hires (NDNH) | All study learners | 16,000 | Census | 16,000 | 100% |
| Administrative records on educational attainment data from National Student Clearinghouse (NSC), Federal Student Aid Database (FSA), and high school equivalency test providers (e.g., GED TASC and HiSET) | All study learners | 28,560 | Census | 28,560 | 100% |

Note: For the collection of administrative records data, the study team expects to receive submissions for every study learner, but the match rate will not be perfect. The team is interpreting the expected response rate for the NDNH data as the response rate conditional on having a Social Security number (SSN). For education data, the response rate is conditional on having date of birth.

The remainder of this section provides details on the respondent universe and an overview of the sampling methods. Section B2 describes additional details on the sampling methods, and Section B3 presents the expected response rates.

**Adult education provider sites.** The respondent universe will consist of 64 adult education provider sites across five to seven states. The study team will obtain this sample in several stages.

***Identify promising states*.** Based on conversations with adult education directors as part of the interviews conducted under earlier study feasibility work (ICR Reference No. 1850-0947), the study team has preliminary information about some states that do not already have a developed, standardized training program for career navigators but might be interested in adopting one. These states will serve as a starting point for identifying promising states to participate in the evaluation. In addition to those states, the study team will prioritize states that (1) have a large number of providers (from the Office of Career, Technical and Adult Education’s National Reporting System [NRS] public data) and (2) include a substantial number of providers that have career navigators or staff with similar roles.

***Conduct outreach to state directors.*** The study team will hold telephone discussions with state directors in the target states to gauge their interest in the study and in supporting recruitment efforts. Based on this information as well as information from the earlier feasibility work, the study team will identify five to seven states to include in our initial recruitment effort.

***Conduct statewide recruitment activities.*** The study team will leverage the support of state directors in states identified in the previous step and will request that the directors send a letter of endorsement to adult education providers in their state to introduce the study and invite them to a webinar. In addition, the study team will reach out directly to providers identified in the feasibility study conducted under ICR Reference No. 1850-0947 that meet study eligibility criteria (described below). At the end of each meeting, the study team will ask providers to indicate their interest in participating in the study.

***Screen interested adult education providers.*** After each state-level meeting, the study team will follow up with all providers that expressed interest in participation to assess their study eligibility. The study team will also collect information on provider characteristics that will be used for stratification for random assignment. Several criteria will be used to assess whether a provider is suitable for the study:

* Use managed enrollment
* Have at least one dedicated career navigator who provides one-on-one services to learners
* Provide no or limited training for career navigators
* Routinely obtain social security numbers (SSNs) for most learners
* Have enough career navigators so the potential caseload for each navigator is no more than 250 learners

The respondent universe within each provider site will consist of the program director.

**Career navigators.** Based on interviews conducted under ICR Reference No. 1850-0947, the study team estimates the study will include about 180 career navigators (90 treatment and 90 comparison). The respondent universe will consist of career navigators included at the initial training and those who join an adult education provider after the initial training and through July 2024.

**Adult learners.** Based on estimates of the size of adult education providers using two data sources—the National Reporting System for Adult Education and interviews conducted under ICR Reference No. 1850-0947—the study team expects the respondent universe to be 28,560 adult learners who are eligible for career navigator services (which is typically all learners). This figure is inclusive of learners who consent into the study. The respondent universe will include both returning and new learners in all provider sites. Study enrollment will occur between November 2022 and February 2023, including all learners enrolling in adult education classes at participating providers for the January 2023 semester. The study expects 14,280 learners in the sample will receive career navigator services, which are voluntary.

Training organization staff. The study team will coordinate with a staff member at each training organization (Navigating Pathways to Opportunity: Comprehensive Student Supports and The National Career Development Association (NCDA) Facilitating Career Development Training Course) to provide us with records on the career navigators’ use of their online training platforms.

B2. Statistical methods for sample selection and degree of accuracy needed

a. Sample selection

The study team will not use sampling methods; the team will collect data from the census of study learners from each adult education provider who are eligible for career navigation services and consent to participate in the study.

Random assignment of adult education providers to a treatment or control condition will determine which sites are included in the treatment-only data collection activities. After providers are recruited to participate in the study, they will be given the opportunity to indicate a preference for one of the study’s two training programs and be placed into a training group based on their responses. The study team will conduct random assignment separately by training group, assigning half of the providers in each training group to receive the training for their navigators in Fall 2022 (treatment group) and the other half to receive the training once the study period has ended, in Fall 2024 (comparison group). To improve power and promote balance across groups, the study team will also further stratify random assignment by state. Depending on sample size and the characteristics of providers, the study team will also consider stratifying using other characteristics that are correlated with key study outcomes, such as type of provider organization (local education agency, community college, or community-based organization).

b. Estimation procedures

Exhibit B.2 indicates the analysis methods to be used for each research question. To address the research questions, the study team will use three types of analysis methods across the study:

* **Contextual analyses:** Contextual analyses will include several descriptive analyses that will aid in interpreting the impact findings. These analyses will include (1) examining implementation of the training, (2) documenting existing professional development services offered to career navigators, and (3) describing the background characteristics of learners and career navigators. These analyses will rely on administrative records, interviews, and survey data. For measures using continuous scales, the study team will calculate means, percentiles of distributions, and standard deviations to describe central tendency and variation. For categorical scales, the study team will use frequency distributions and percentages.
* **Service receipt analyses:** The service receipt analyses will describe and contrast (1) the career navigator services the treatment and comparison groups receive and (2) the adult education services both groups receive. Understanding the services the comparison group receives will be critical for defining the “counterfactual” for the study. The study team will conduct these analyses using administrative records and career navigator logs. To estimate impacts, the team will use comparison of means and regression analysis, controlling for baseline characteristics of career navigators and learners.
* **Impact analyses:** Impact analyses will focus on estimating the effects of the training on learners’ educational attainment, employment, and earnings. The study team will use regression analyses to compare the education and labor market outcomes between the treatment and comparison groups. To estimate impacts, the study team will regress individual outcomes on whether the individual was at a treatment provider, controlling for baseline characteristics such as demographics and pre-study employment and earnings. Standard errors will be adjusted for the clustering of learners within sites. Additionally, the study team will use regression analysis to understand the circumstances under which the treatment may be most effective. This will allow the team to assess whether the treatment is more effective for individuals with certain characteristics. To do so, the study team will run regression analyses with interactions between treatment and individual characteristics. Outcomes will be measured using administrative data. Individual characteristics will be measured using administrative and survey data.

Exhibit B.2. Types of analyses for each study research question

| Research question | Contextual analyses | Service receipt analyses | Impact analyses |
| --- | --- | --- | --- |
| Primary research questions |
| What are the impacts of providing training to career navigators on learners’ **further education**, including completion of high school equivalency, enrollment in postsecondary education, credit accrual, and credential completion? |  |  | X |
| What are the impacts of providing training to career navigators on learners’ **workforce outcomes**, including employment and earnings? |  |  | X |
| Does providing training to career navigators affect learner **participation in career navigation services, the types of learners served, and the nature of the services provided?** | X | X |  |
| Secondary research questions |
| What are impacts of providing career navigation training on learners’ **basic skills**, including literacy, numeracy, or English language skills? |  |  | X |
| Does providing training to career navigators influence learners’ **persistence in and completion of adult education classes**? |  |  | X |
| How do impacts vary for **subgroups of learners** with different characteristics at program entry, including gender, age, race and ethnicity, and basic skill level, and for learners enrolled in English as a second language (ESL), adult secondary education (ASE), and adult basic education (ABE) programs?  | X |  | X |
| To what extent are impacts on longer-term outcomes explained by impacts on **short-term mediating variables**, including the use of career navigation services, persistence in and completion of courses, and basic skills? |  |  | X |
| What is the **cost-effectiveness** of training for career navigators? | X | X | X |

i. Additional details on regression analyses

To estimate the effect of the career navigation training on the average outcomes of adult learners in the sample, the study team will estimate the following equation:

$Y\_{ijb}^{ }=\sum\_{k=1}^{h}β\_{1,b}S\_{ijb,k}T\_{jb}^{ }\_{ }^{ }+\sum\_{k=1}^{h}β\_{0,b}S\_{ijb,k}+X\_{ijb}^{ }γ+ε\_{ijb}^{ }$ (1)

where $Y\_{ijb}$ is the outcome (for example, earnings or postsecondary school enrollment) for individual $i$ served by provider $j$ in randomization block $b$; $h$ is the number of blocks; $S\_{ijb,k} $is an indicator for whether an individual is in block $k$ (in other words, if $b=k$); $T\_{jb}$ is an indicator of whether provider $j$ in randomization block $b$ was assigned to treatment; $X\_{ijb}$ is a set of baseline covariates that can be at the individual or provider level (for example, demographic characteristics and characteristics of the site); and $ε\_{ijb}$ is a learner-level error term.[[1]](#footnote-2) In this equation, $β\_{1,b}^{ }$ is the intention-to-treat parameter, the impact of having access to career navigation services in block $b$. The study team will estimate an overall treatment effect, $β\_{1}^{ }$, as an average across all blocks. The primary impact analysis will pool the two groups of sites that received training from either of the two training organizations, with exploratory analyses examining separate impacts for each group.

To estimate Equation (1) and the associated standard errors, the study team will use recently developed design-based methods for clustered, blocked designs that offer several advantages to alternative approaches. Following Schochet (2016) and Schochet et al. (2021), the team will estimate impacts using weighted least squares and calculate standard errors that account for clustering using the model residuals. In comparison to other commonly used methods for analyzing clustered designs—such as hierarchical linear model methods and robust cluster standard error (RCSE) methods—the design-based methods make fewer assumptions about the nature of the data and more explicitly account for known information about the experimental and sampling designs (Schochet et al. 2021). In addition, compared to RCSE methods, design-based methods provide more accurate standard errors when there are relatively few clusters. Using these methods, the study team will also conduct standard hypothesis tests and present measures of statistical significance based on *p*-values. The team will implement the estimation using RCT-YES (www.rct-yes.com), a program funded by IES that facilitates cost-effective impact estimation and reporting using design-based methods.

The primary sample for this analysis will be participants who are likely to take up career navigation services based on observable characteristics—the *focal* sample. Relative to analyzing impacts on the full set of participants, focusing on this sample will result in a larger share of learners who are exposed to career navigation and therefore are the most likely to be affected by career navigation services. To identify this sample, the study team will use machine learning methods to estimate the predicted likelihood of using career navigation as a function of baseline variables, including demographic characteristics, education and employment history, assessment scores, and information collected at intake on learners’ goals and staff predictions on the likelihood the learner will use career navigation services. The model will be estimated using the comparison group only and separately by provider. The team will then use the estimated model to subset the sample to the learners in both the treatment and comparison groups who have high predicted probabilities of using career navigation services.

The study team will also use Equation (1) to estimate impacts using the full population of learners at study sites. The full sample will allow the team to investigate the effects of the training on the provision of career navigator services. It will also allow the team to assess the effects of intervention spillover across learners who do and do not receive career navigation services, heterogeneity in treatment effects for learners with a high and low likelihood of using career navigator services, and an overall average effect within a provider site.

c. Degree of accuracy needed

The study sample will include 64 adult education providers, corresponding to about 180 career navigators (90 treatment and 90 comparison). We expect the sample to include 28,560 learners who provide study consent (“full sample”), 14,280 of whom will likely receive career navigation services and enter the focal sample as described in Section B1. Further, we expect about 16,000 learners in the “full sample” and 8,000 learners in the “focal sample” will provide SSNs to the study, which are needed to collect data on the primary employment outcomes. To assess power levels with these study samples, we present minimum detectable effect sizes (MDEs) on key study outcomes measured in standard deviation (SD) units. These MDEs pertain to those who engage with a career navigator (“treatment-on-the-treated” [TOT] estimates) rather than to those offered services (“intention-to-treat” [ITT] estimates).

Using the focal sample of 8,000 learners with available SSNs, the MDE is 0.12 SDs for NDNH earnings and employment (using the pooled sample of sites across the study). These MDEs translate into minimum detectable impacts (MDIs) of $858 for quarterly earnings and 5.6 percentage points for the employment rate (see Exhibit B.3). The focal sample would also allow the study team to detect impacts on the receipt of a high school equivalency credential of 9.2 percentage points and on basic skills test scores of 0.17 standard deviations (see the top panel of Exhibit B.3). Notably, the MDEs for the full sample of 16,000 learners with available SSNs (pertaining to TOT effects) are about 1.5 times larger than for the focal sample (see the bottom panel of Exhibit B.3). This occurs because the full sample ITT impacts are diluted and scaling them into TOT impacts uses less information on service receipt than does the analysis using the focal sample.

Although evidence on the impacts of career navigation is limited, the proposed MDEs are comparable to impacts found for evaluations in which career navigation is a key component of the treatment condition, as well as evaluations of services similar to career navigation. For example, in a rigorous evaluation of an Integrated Education and Training program that included career navigation services, Modicamore et al. (2017) found impacts on employment of 8.5 percentage points and quarterly earnings of $1,053 to $1,875 (depending on the site).[[2]](#footnote-3) The study team’s target MDIs are below these estimates, which is reasonable because the treatment condition in the Modicamore et al. (2017) study included services other than career navigation. Similarly, in an evaluation of a GED preparation program that included career navigation and emphasized college and training preparation, impacts on GED attainment were 30.4 percentage points (Martin and Broadus 2013), well above the current target MDI of 9.2 percentage points. In this study, the comparison group received standard GED preparation services, which suggests the impact arose in part from the inclusion of career navigation services.

**Exhibit B.3.** **Minimum detectable impacts on key learner outcomes for the focal and full samples (64 providers) for the study of training for career navigators**

|  | Minimum detectable impacts | Minimum detectable effects (SD units) |
| --- | --- | --- |
| Outcome | Units | All providers | Subgroup (50 percent sample of providers) | All providers | Subgroup (50 percent sample of providers) |
| Focal sample  |
| NDNH-based quarterly earnings  | Dollars | 858 | 1,235 | 0.12 | 0.18 |
| NDNH-based quarterly employment  | Percentage points | 5.6 | 8.1 | 0.12 | 0.18 |
| Attained a high school equivalency credential  | Percentage points | 9.2 | 13.3 | 0.21 | 0.31 |
| Test scores | SD | 0.17 | 0.24 | 0.17 | 0.24 |
| Full sample  |
| NDNH-based quarterly earnings  |  Dollars | 1,260 | 1,813 | 0.18 | 0.26 |
| NDNH-based quarterly employment  | Percentage points | 8.2 | 11.9 | 0.18 | 0.26 |
| Attained a high school equivalency credential  | Percentage points | 14.4 | 20.8 | 0.33 | 0.48 |
| Test scores | SD | 0.26 | 0.38 | 0.26 | 0.38 |

Note: The MDEs pertain to those who engage with a career navigator (“treatment-on-the-treated” estimates) rather than to those offered services (“intention-to-treat” estimates). Calculations assume 80 percent power and a 5 percent significance level for a two-tailed test, equal probability of assignment to treatment and comparison groups, and an 85 percent response rate for all other outcomes. The full sample contains 28,560 learners total, and 16,000 learners with SSNs for NDNH outcomes. The focal sample contains half as many learners in each group. Other assumptions include the following: (1) intracluster correlation coefficient of 0.02 for employment and earnings, an employment rate of the comparison group of 70 percent, and an SD of quarterly earnings of $7,000 (unpublished calculations; Schochet et al. 2017; Fortson et al. 2017); (2) 25 percent of the comparison group attains a high school equivalency credential within one year (Schochet et al. 2001); (3) intracluster correlation coefficient of 0.08 for test scores and high school equivalency credential attainment and covariates in a regression model will explain 60 percent of the variation in test scores and 35 percent of the variation in all other outcomes; and (4) 80 percent of learners in the focal sample will take up career navigation services and 50 percent of learners in the full sample will take up career navigation services (based on information collected under ICR Reference No. 1850-0947 during the feasibility interviews with program directors).

NDNH = National Directory of New Hires; SD = standard deviation.

Impacts from evaluations of other programs that provide services similar to career navigation can also be used as a benchmark to justify the study’s power levels. For example, an evaluation that provided case management and one-on-one counseling to job seekers found impacts comparable to the current study’s MDIs. The impact on quarterly earnings for adults ranged from about $500 to $1,000 (depending on the data source), and the impact on employment was about 5 percentage points (Fortson et al. 2017). Importantly, the treatment group received an average of one to three hours of these services, which suggests that even relatively short amounts of time can have a positive effect. An evaluation of a coaching program that shares similarities with career navigation found impacts on quarterly earnings and employment of more than $1,059 and 7 percentage points (Bond et al. 2015). The MDE for test scores is similar to impacts on test scores found for job training programs (Glazerman et al. 2000).

The proposed sample sizes will also allow the study team to detect meaningful impacts for subgroups of providers based on which training they selected before random assignment. For instance, with a 50 percent subsample of providers, this study will be able to detect impacts on earnings of $1,235 (versus $858 using all providers). Given the past studies discussed above, the study team expects these MDIs will still allow for detection of impacts for each training in isolation. Similar power issues apply for other subgroups defined by learner characteristics (for example, ESL, ABE, or ASE learners).

d. Unusual problems requiring specialized sampling procedures

The study team does not anticipate any unusual problems that require specialized sampling procedures.

i. Use of periodic (less frequent than annual) data collection cycles to reduce burden

To minimize burden, the study team is planning to collect the study’s data as infrequently as possible while fulfilling the study’s analytic requirements. The team will collect records from adult education providers once per year for two years in 2023 and 2024, and NDNH data once per year for three years in 2023, 2024, and 2025. Similarly, the team will collect FSA data twice (fall 2024 and 2025) during the study period. The team will complete the following data collection activities only once:

* Administer the career navigator baseline survey and collect career navigator training participation forms (fall 2022).
* Administer the end-of training session implementation survey (fall 2022).
* Collect cost records on providing training (fall 2022).
* Conduct program director interviews (fall 2022).
* Collect learner intake forms (winter 2023).

By necessity, the study team will collect other data more frequently:

* To ensure accurate reporting and allow for continuous monitoring, the team will ask career navigators to complete logs each time they complete a session with an adult learner from fall 2022 to summer 2024. Less frequent collection could lead to errors in the logs because career navigators might not remember the adult learner sessions accurately.

B3. Methods to maximize response rates and deal with nonresponse

a. Maximizing response rates

As mentioned in Exhibit B.1, the study team expects a 100 percent response rate on the records from adult education providers, data from online/electronic training platforms, cost records on providing training, and administrative records from NDNH, NSC, FSA, and high school equivalency test providers. The team expects an 85 percent response rate on the learner baseline intake form, career navigator baseline survey, program director interviews, end-of-training implementation survey, and career navigator logs. Across all aspects of data collection, the study team will use strategies that have proved successful on other large-scale IES studies, including the following:

* **Developing and testing web-based surveys to maximize ease of completion and reduce respondent burden.** The study team will follow processes that have proved successful for other web-based data collections. The team will minimize the length of the instrument to gather only key, necessary information. To reduce item nonresponse, the web-based questionnaire may include programmed checks alerting respondents to out-of-range or inconsistent responses they enter. These checks will allow respondents to change their response based on guidance provided on the pop-up screen or leave their answer and continue to the next question. The study team will thoroughly test the instrument for clarity, accuracy, length, flow, and wording.
* **Developing relationships with adult education provider sites**. Each site will have a dedicated liaison who will guide staff and respondents through data collection efforts with an eye toward minimizing burden. The approach to data collection will be tailored to each provider and will take into consideration the technology and staff capacity of each site.

Specific methods for maximizing response rates and minimizing nonresponse in the collection of data in each study component are as follows:

* **Records from adult education providers.** The study team expects a 100 percent response rate because the information collected on participant characteristics and service receipt is required for the National Reporting System for Adult Education.
* **Learner consent.** The study team expects a 100 percent response rate. Only learners who agree to participate in the study will be included in follow-up data collection activities.
* **Learner intake form (learner portion).** The study team expects an 85 percent response rate. Learners will complete the intake form when they consent into the study. This process will be administered in a secure, web-based system that uses drop-down menus and response categories to minimize data entry burden.
* **Learner intake form (staff portion).** The study team expects an 85 percent response rate. Intake staff will complete the staff section of the intake form when they conduct intake with learners. This process will be administered in a secure, web-based system that uses drop-down menus and response categories to minimize data entry burden.
* **Career navigator baseline surveys.** The study team expects an 85 percent response rate. Navigators will complete the 10-minute baseline survey by web. The survey will collect information on basic demographics, education levels and training, experience, tenure at the provider, and types of navigation services typically provided. For the treatment group, the trainer will administer the survey before the career navigator training. For the comparison group, the study team will contact the career navigator by email to request that they complete the survey. The study team will follow up with respondents by email and phone to ensure it reaches response rate targets.
* **Program director interviews.** The study team expects an 85 percent response rate. Adult education provider sites have committed to participating in the program director interview as a condition for being in the study. To minimize interview length and burden, the study team will draw on data collected through IES’s “implementation survey of state directors and local providers” or during recruitment, where available. In addition, some data elements will be collected by email or short web survey before the interview. Trained, experienced research staff, guided by a semi structured protocol, will conduct the interviews.
* **End-of-training implementation surveys.** The study team expects an 85 percent response rate. Trainings will be conducted virtually. Navigators will receive a link to an electronic survey to complete after finishing their last training session. Both the trainer and the study team will remind navigators to complete the survey.
* **Data from online/electronic training platforms.** The study team expects a 100 percent response rate. The career navigators’ online/electronic learning management systems automatically collect information on the completion of training, performance on built-in assessments, and frequency of use. Exporting the data should not cause significant burden on the staff member at each training provider.
* **Cost records on providing training.** The study team expects a 100 percent response rate. The team will already know the price of training because the amount paid to the training organization will represent the cost for providing the training. For additional cost components, the study team will create a simplified form that a staff member at each training provider can complete, either via hard copy or via an online submission.
* **Career navigator logs.** The study team expects an 85 percent response rate. First, data from intake collection will be uploaded into a secure, web-based system so that navigators will not need to input this information and can efficiently find learners’ records by searching for their full name and date of birth. Second, the team will design and train career navigators on a simple interface so that, after locating a learner’s record, navigators can efficiently click on multiple choice response options to complete the log entry. Third, the team will focus on the essential information required for the study. To further maximize compliance with completing the logs, the study team will monitor log entries, especially during the early months of intake, using real-time access to the data. The team will follow up with navigators who have low response rates.

*b. Dealing with nonresponse*

The study team will conduct nonresponse analyses if response rates fall below 85 percent on the collection of administrative records from NDNH and NSC data. The study will compare any available data on the provider site records of adult learners to those of the original sample. If these analyses point to the possibility of nonresponse bias, the study team will construct and use nonresponse weights based on the observable baseline characteristics.

B4. Tests of procedures and methods to be undertaken

To inform data collection activities for which clearance is being requested in this submission, the study team pretested the program director interview protocol and cost worksheet, the career navigator baseline survey, end-of-training implementation survey, learner intake form (staff section), career navigator log, and the adult learner consent and intake form. The purpose of the pretests was to confirm burden and identify questions that were unclear to study respondents or where respondents might have difficulty providing the requested information. For four of the instruments that were pretested, average respondent burden was greater than expected; however, not to the extent that the study team believes would depress response rates. The burden table in Exhibit A.5 of Part A has been adjusted to account for this increase. Across all instruments, pretests findings were used to revise and improve the wording of specific instructions and items. A summary of procedures and findings for each respondent type are described below:

* **Program Directors.** Six adult education program directors tested the program director interview protocol and cost worksheet. The study team asked program directors to review the interview protocol and cost worksheet prior to conducting a debrief interview by phone with the study team. During the debrief interview, interviewers followed a protocol to probe on particular items to be sure the items were phrased clearly and collected accurate information. Respondent burden averaged 45 minutes for the program director interviews, about 15 minutes longer than expected.
* **Career Navigators.** Eightcareer navigators tested the career navigator baseline survey, end-of-training implementation survey, learner intake form (staff section), and career navigator log. The study team asked career navigators to complete the career navigator baseline survey and the end-of-training implementation survey. Completed surveys were emailed back to the study team. After receiving the surveys, the study team reviewed the responses and conducted debrief interviews by phone with each respondent to review any issues they may have encountered. During the debrief interview, interviewers also asked career navigators to review the learner intake form (staff section) and career navigator log. Interviewers followed a protocol to probe on specific questions to be sure the items were phrased clearly and collected accurate information. Respondent burden for the career navigator baseline survey was 30 minutes, 20 minutes longer than expected; 10 minutes for the end-of-training implementation survey, 5 minutes longer than expected; and 3 minutes for the career navigator log, 2 minutes longer than expected.
* **Adult learners.** Five adult learners who are currently enrolled or planning to enroll in adult education programs tested the adult learner consent and intake form. The study team emailed the adult learner consent and intake form directly to respondents to complete through an online survey platform. After the online survey was completed, the study team reviewed the responses and conducted debrief interviews by phone with each respondent to review any issues they may have encountered. Interviewers followed a protocol to probe on specific questions to be sure the items were phrased clearly and collected accurate information.

The study team did not pretest the request for site records from adult education providers, the request for data from online/electronic training platforms, and the request for administrative records from NDNH, NSC, FSA, and high school equivalency test providers. These were not pretested because these forms are closely modeled on forms that have been effectively used for other studies.

After finalizing the instruments, the study team will program the survey instruments for administration via computer-assisted web interviewing methods. Before deployment, the team will test the survey instruments to ensure they function as designed. This will include extensive manual testing for skip patterns, fills, and other logic. To reduce data entry errors, numerical entries will be checked against an acceptable range, and, where appropriate, prompts will be presented for valid but unlikely values. This testing will increase the accuracy of data collected while minimizing respondent burden.

B5. Individuals consulted on statistical aspects of the design

The following individuals were consulted on the statistical aspects of the study:

| **Name** | **Title** | **Telephone number** |
| --- | --- | --- |
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1. The model includes terms for all $h$ blocks and excludes the intercept term. [↑](#footnote-ref-2)
2. For ease of comparison to this study’s outcomes, the study team translated impacts on cumulative earnings through the first and second years to average quarterly earnings during the second year. [↑](#footnote-ref-3)