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POTENTIAL USES OF ADMINISTRATIVE DATASETS TO COMPLEMENT AND INFORM THE NATIONAL TRAINING, EDUCATION, AND WORKFORCE SURVEY (NTEWS)

Final Working Paper

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PROJECT BACKGROUND

The National Center for Science and Engineering Statistics (NCSES), George Washington University's Institute for Public Policy (GWIPP), and the Center for Regional Economic Competitiveness (CREC) partnered to map how administrative data can contribute to statistics on the Skilled Technical Workforce (STW) and Non-Degree Credentials (NDCs). GWIPP and CREC pilot tested a data quality assessment approach which aims to increase the confidence of researchers in utilizing administrative data to study the STW. The GWIPP-CREC team assessed 20 potential datasets, created a metadata repository, and catalogued 350 relevant variables across 15 of those datasets. Twelve administrative datasets were included in a more detailed data quality assessment and six were used to identify opportunities for inter-agency collaboration.

This paper is the first in a series of three papers submitted to NCSES in 2023. Companion papers address "Opportunities to Understand the Skilled Technical Workforce through Improved Administrative Datasets" and "An Exploration of Re-Employment Using the Participant Individual Record Layout."

INTRODUCTION

The Skilled Technical Workforce (STW) is critical to ensuring US industries are prepared to utilize rapidly evolving technologies. Defined by the National Science Board (NSB) as "individuals who utilize science and engineering skills in their jobs but do not have a bachelor's degree"¹, too little is understood about the non-degree training, credentialing, and work experience programs that prepare this group of STEM workers for the important jobs that they fill.

The National Training, Education, and Workforce Survey (NTEWS) represents a valuable and much-needed new source of national statistics on the career pathways for this group of STEM workers. **By leveraging administrative data sources, we expect that statisticians and researchers will be able to conduct more robust analysis on the STW, examining more granular trends.**

Administrative data is collected for programmatic not statistical purposes. As part of our work to better catalogue and understand the availability of administrative data related to the STW, and in anticipation of the release of initial NTEWS results, we have evaluated how administrative data may complement and inform the NTEWS survey results in the generation of new statistics on the training and credentialing of the STW.

¹ National Science Board, "The Skilled Technical Workforce: Crafting America's Science & Engineering Enterprise" (September 2019), <https://www.nsf.gov/nsb/publications/2019/nsb201923.pdf>. The definition for the STW used in this report builds on the definition introduced in Jonathan Rothwell's 2015 publication, "Defining Skilled Technical Work" (<https://dx.doi.org/10.2139/ssm.2709141>) by specifically incorporating science and engineering (S&E) as well as other related occupations.

This paper provides an overview of NTEWS and its origins, provides crosswalks between the NTEWS and nine administrative datasets across six variable categories, and then identifies four ways in which administrative datasets can complement and enhance NTEWS.

BACKGROUND

The National Training, Education, and Workforce Survey (NTEWS) is a federal survey that provides data on education and training credentials² and the individuals who hold them, including non-degree credentials (NDCs) such as industry-recognized certifications and state occupational licenses. The 2022 NTEWS Pilot^{3,4} was sponsored by the National Center for Science and Engineering Statistics (NCSES) in the U.S. National Science Foundation and the National Center for Education Statistics (NCES) in the U.S. Department of Education. The U.S. Census Bureau administers data collection for the survey.

The survey includes the collection of information on educational enrollment and attainment, NDC types (vocational certificates, occupational licenses, and industry-recognized certifications), work experience programs such as apprenticeships and internships, employment characteristics, and demographic characteristics. The survey results will reveal the prevalence of work-related credentials and the relationship between these credentials and employment outcomes, with a particular focus on the Skilled Technical Workforce (STW). For more information, see Table 1.

Table 1. NTEWS Pilot - Key Survey Information⁵

Frequency	Periodic, to be determined.
Initial Survey Year	2022
Target Population	Noninstitutionalized individuals residing in the United States or Puerto Rico, between the ages of 16 and 75 (inclusive), and not enrolled in high school at the time of their NTEWS interview.

² Although NTEWS primarily asks respondents for information regarding their attainment of vocational certificates, licenses, and certifications (in addition to their educational background) we use the term “credential” throughout this report to refer broadly to any formal recognition of education or training attainment (e.g., high school diploma, certificate, degree, etc.) except where otherwise qualified (e.g., “non-degree credential”).

³ The NTEWS is in a pilot phase. Survey methods including data collection and post-collection processing are being evaluated, and comprehensive quality measures are not available. The 2022 NTEWS Pilot data are designated as an experimental statistical product. National Center for Science and Engineering Statistics (NCSES) experimental statistical products are created to benefit users in the absence of other relevant information and are developed using innovative and exploratory methodologies. The NTEWS Pilot data are published to engage data users and other stakeholders in the survey’s development to improve quality for future iterations of the survey. Experimental statistical products may not meet some of NCSES’s quality standards and, as a result, users should assess the utility limitations of these experimental statistics relative to the intended use. More information about the NCSES quality standards is available on the NCSES quality and transparency website: <https://nces.nsf.gov/about/quality-transparency>.

⁴ Update: This survey was in the field April 2022 to October 2022. The results for the 2022 survey cycle were released in January 2025 and made available to the public through the NTEWS web page: <https://nces.nsf.gov/surveys/national-training-education-workforce/2022#data>. Analysis of the data was released in Fall 2025; [New Pilot Data on the Prevalence of Work-Related Credentials among STEM Workers from the National Training, Education, and Workforce Survey | NSF - National Science Foundation](#).

⁵ National Center for Science and Engineering Statistics (NCSES), “Methodology,” National Training, Education, and Workforce Survey (NTEWS) 2022, <https://nces.nsf.gov/surveys/national-training-education-workforce/2022#methodology>.

Table 1. NTEWS Pilot - Key Survey Information⁵

Universe	Approx. 249.8 million individuals
Sample Design	Stratified systematic sample with probability proportional to size
Sampling Frame	Rotating four-panel design that will draw its sample from the American Community Survey (ACS) ⁶ 2 years prior. The 2022 NTEWS drew its sample cases from the 2018 ACS, rather than the 2020 ACS, because of possible coverage errors resulting from the coronavirus pandemic.
Sample Size	Pilot Collection (2022): 43,200. Subsequent cycles: 120,000—returning sample of 25,000 from previous cycle and new sample of 95,000. Returning sample to stop after four cycles.
Key Variables	Employment Status, Occupation, Education Background, Field of degree for highest degree, Credential type, Training or work experience, Demographics

GEMENA ORIGINS

NTEWS has its roots in an initiative that lasted from 2009 through 2017 called the Interagency Working Group on Expanded Measures of Enrollment and Attainment (GEMEnA). GEMEnA consisted of staff from various federal agencies and external stakeholders who worked towards the creation of national, widely agreed-upon measures of employment-oriented education and training and the integration of those measures within existing surveys. GEMEnA focused, specifically, on developing and validating items that could be integrated into federal statistical surveys to provide measures related to the acquisition of NDCs and enrollment in education and training programs designed to equip individuals with workforce skills.⁷

The core set of survey items developed by GEMEnA were the following:

1. Whether an adult has a certification or license;
2. Who provided the certification or license (used to distinguish between certifications and licenses);
3. The subject area of the certification or license;
4. Whether the certification or license is required for the adult's current job.⁸

GEMEnA was successful at ensuring the placement of survey items related to NDC attainment on several surveys, including the Current Population Survey (CPS) and the Survey on Income and Program Participation (SIPP) though none of these surveys include a specific analytical focus on the STW. These surveys allowed the Bureau of Labor Statistics (BLS) and the Census Bureau to provide broad estimates of certification/license attainment by demographic group,

⁶ For more information on sample sizes used for the ACS, see: U.S. Census Bureau, "Sample Size and Data Quality," American Community Survey (ACS), <https://www.census.gov/acs/www/methodology/sample-size-and-data-quality/>.

⁷ National Center for Education Statistics (NCES), "About GEMEnA," Interagency Working Group on Expanded Measures of Enrollment and Attainment, accessed September 1, 2023, <https://nces.ed.gov/surveys/gemena/>.

⁸ NCES, "GEMEnA Validated Core Certification/Licensure Survey Item," Interagency Working Group on Expanded Measures of Enrollment and Attainment, accessed September 1, 2023, <https://nces.ed.gov/surveys/gemena/coreQs.asp>.

occupation, and industry at the national level.⁹ While survey microdata may also be utilized to generate similar estimates at the state level, sample sizes limit the ability to develop reliable estimates for more detailed geographies such as regional labor markets, precluding valuable analysis of regional variations in NDC attainment. Even at the national level sample sizes prevent disaggregation by detailed occupation for key demographic groups—the BLS only provides cross-tabulations for selected groups of occupations—thereby limiting cross-occupational analysis of NDC attainment. Finally, no additional information on NDCs is gathered by these surveys aside from the type of body awarding the credential and whether it is required for the survey participant's job.

As of August 2023, NCES had also integrated similar NDC-related items into existing education surveys, though, again, these did not have an explicit analytical focus on the STW. These included the most recently administered versions of the Education Longitudinal Study (ELS), High School Longitudinal Study (HLSL), National Postsecondary Student Aid Study (NPSAS), and Beginning Postsecondary Students Survey (BPS). Items developed under GEMEnA related to NDC attainment were also placed on the National Survey of Recent College Graduates (NSRCG), managed by NCSES.¹⁰

EVOLUTION FROM ATES

The most targeted survey product to result from the GEMEnA process was the Adult Training and Education Survey (ATES), which was included under the NCES National Household Education Survey (NHES) program as a separate topical survey in 2016.¹¹ The ATES asked a larger number of detailed questions relevant to understanding training and credentialing, aiming to estimate the prevalence of NDCs and to provide information on participation in work experience programs (including apprenticeships, internships, clinical experience, etc.).¹² The respondents were not limited to college graduates but rather included all individuals 16 to 65 who were not enrolled in high school. **For our purposes, it is important to note that the entire non-institutionalized U.S. pre-retirement-age adult STW population was within the ATES sampling frame.**

The ATES was not administered again after it was included as part of the 2016 NHES, with the expectation that the forthcoming NTEWS would collect similar data. As a result, content for the newly developed and recently released NTEWS Pilot draws heavily from the ATES—as well as from the ACS and NSCG—adapting or re-purposing many (although not all) of the items from

⁹ NCES, "Surveys," Interagency Working Group on Expanded Measures of Enrollment and Attainment, accessed September 1, 2023, <https://nces.ed.gov/surveys/gemena/surveys.asp>.

¹⁰ National Science Foundation (NSF), "About the Survey," National Survey of Recent College Graduates, accessed September 1, 2023, <https://www.nsf.gov/statistics/srvyrecentgrads/>. The NSRCG was discontinued by NCSES after the 2013 survey cycle. The recent graduate population and the survey constructs that had been captured by the NSRCG are now included within NCSES's NSCG.

¹¹ NHES utilized a two-stage survey design where households completed an initial screener that gathers basic information on the household and members; sample surveys were then administered to individual members based on their characteristics. Two to three topical surveys were administered each data collection year. See: National Center for Education Statistics, "What is the NHES?" About the NHES, accessed September 1, 2023, <https://nces.ed.gov/nhes/about.asp>.

¹² NCES, "Adult Training and Education," National Household Education Surveys Program (NHES), accessed September 1, 2023, <https://nces.ed.gov/nhes/ates.asp>.

the former instrument.¹³ As a simple comparison, *Table 2* lists sections from the NTEWS instrument side-by-side with corresponding sections from the ATES instrument. While the overall organization and main themes have remained the same from ATES, NTEWS provides additional detail concerning respondents' employment and enrollment in education/training programs. Presumably, this will allow for greater insight into the relationship between NDCs and work—including which types of work different credentials are related to and the extent to which they provide adequate preparation—as well as where and how NDCs are attained along a learner's education and training journey.

A major difference between the ATES and NTEWS is that the latter was explicitly created with the goal of understanding the career pathways of the STW.¹⁴ This leads, in part, to some survey items that are unique to NTEWS compared to ATES. Another distinguishing characteristic of the NTEWS is that it is designed to be administered periodically, with a rotating panel design where a portion of one cycle's respondents are re-surveyed in the next cycle, and where initial sample sizes are expected to increase in future cycles. As opposed to the limited, one-time administration of the ATES, these improvements will allow for the regular and ongoing production of statistics on NDCs and the STW and, if records can be linked across years and individual record units tracked over time, longitudinal analysis as well. For a more detailed comparison of methodologies and designs between ATES and NTEWS, see Appendix A. For the full NTEWS Survey Questionnaire, see Appendix C.

Table 2. Comparing Major Topic Areas Between ATES and NTEWS

ATES ¹⁵	NTEWS ¹⁶
Education	Educational Background
	Enrollment
Certification and Licenses	Licenses and Certifications
Post-Secondary Certificates	Vocational Certificates
Work Experience Programs	Work Experience Programs
Participant Background	Background
Employment	Employment Status
	Current Employment

Despite an expanded scope and some important design and methodological changes, NTEWS still faces some important limitations in being able to fully and usefully account for NDC attainment and STW education and training. **Administrative data can provide detailed, granular information to interpret and fill gaps.**

¹³ NCSES, "NTEWS - Methodology," <https://nces.nsf.gov/surveys/national-training-education-workforce/2022#methodology>.
¹⁴ NCSES, "NTEWS - Methodology," <https://nces.nsf.gov/surveys/national-training-education-workforce/2022#methodology>.
¹⁵ NCES, "Adult Training and Education Survey Questionnaire," accessed September 1, 2023, https://nces.ed.gov/nhes/pdf/ates/2016_ates.pdf.
¹⁶ United States Census Bureau, "2022 National Training, Education, and Workforce Survey Questionnaire," April 20, 2022, https://www2.census.gov/programs-surveys/demo/technical-documentation/ntews/ntews_english_22.pdf.

BRINGING ADMINISTRATIVE DATA INTO FOCUS

With a widespread decline in survey response rates, federal statistical agencies are increasingly examining how administrative data can be used to supplement and enhance statistical survey data, as well as to address limitations like those associated with NTEWS.

Administrative data is generated as part of normal business or bureaucratic processes—e.g., tracking program participants or meeting regulatory and reporting requirements—rather than for explicit statistical purposes. This includes, for example, the information gathered to track potential benefits recipients under the Unemployment Insurance (UI) program. This administrative data can be used by firms and governments to better understand the populations and organizations being served. In partnership with academic researchers, systematic research with administrative data can produce unique insights and provide valuable policy feedback.¹⁷

When administrative data is collected routinely and systematically, it offers advantages and efficiencies over survey data, including more complete population coverage; collection costs that are integrated into other program costs; reduced risks of non-response; and potentially better data quality (although this depends largely on the quality and consistency of the program systems through which data is collected). Recognizing these advantages, the bipartisan Commission on Evidence-Based Policymaking's landmark 2017 report, *The Promise of Evidence-Based Policy Making*, as well as the *Foundations for Evidence-Based Policymaking Act of 2018*, strongly advocated for greater use of secure, privacy-protected administrative data in research and policy development.^{18,19}

Although the GEMEnA process laid the groundwork for understanding how training and credentialing information could be effectively and systematically collected via statistical surveys, there has not been a comparable process addressing related administrative data collection across federal statistical agencies. An early attempt at using administrative data to reveal the complexity of the education and training credential landscape was introduced by Credential Engine through a series of reports starting in 2017. These *Counting Credentials* reports have utilized a variety of administrative data sources to develop an annual count of unique education and training credentials available in the United States. The 2022 report counted more than 1 million unique credentials in the U.S. based on information from 33 different data sources.²⁰ Most of the 1 million credentials are NDCs potentially relevant to the STW (only 22 percent are confirmed degrees).

¹⁷ Shawn Cole et al., eds., *Handbook on Using Administrative Data for Research and Evidence-Based Policy* (Cambridge, MA: Abdul Latif Jameel Poverty Action Lab, 2021), <https://admindatahandbook.mit.edu/book/v1.0/index.html>.

¹⁸ Commission on Evidence-Based Policymaking, "The Promise of Evidence-Based Policymaking" (Washington, DC, September 2017), <https://www2.census.gov/adrm/fesac/2017-12-15/Abraham-CEP-final-report.pdf>.

¹⁹ "Foundations for Evidence-Based Policymaking Act of 2018," Pub. L. No. 115–435 (2019), <https://www.congress.gov/115/plaws/publ435/PLAW-115publ435.pdf>.

²⁰ Credential Engine and Center for Regional Economic Competitiveness, "Counting U.S. Postsecondary and Secondary Credentials" (Washington, DC: Credential Engine, December 2022), https://credentialengine.org/wp-content/uploads/2023/01/Final-CountingCredentials_2022.pdf.

NTEWS AND ADMINISTRATIVE DATASETS: CROSSWALKS BY VARIABLE CATEGORY

NCSES is exploring approaches for making the planned longitudinal NTEWS data available to researchers using a methodology that balances the utility of the data while ensuring the privacy and confidentiality of the information provided by the survey respondents. In anticipation of the NTEWS results, the Center for Regional Economic Competitiveness (CREC) and George Washington Institute of Public Policy (GWIPP) collaborated with NCSES to map existing sources of administrative data related to NDCs and the STW. As part of this project, the team produced a comprehensive metadata repository that identified common data topics and categories across 15 large administrative datasets containing education and training-related information. *Table 3* lists the major variable categories identified for the repository, the total number of variables within each category, as well as the NTEWS instrument section most closely aligned with each. Given the close correspondence between NTEWS sections and these administrative data categories, our analysis of the metadata repository provides us with a starting point for evaluating how specific administrative datasets correspond with NTEWS. We observed how individual fields from administrative datasets may supplement, enhance, or potentially substitute for specific survey items. We found 804 relevant variables from among these administrative datasets.

Table 3. CREC Metadata Categorization of Administrative Datasets vs. NTEWS Categories

Variable Category from Admin Data	Total Variables in Admin Data Category	Related NTEWS Category
Credential, Skill, Service, or Experience Gained	229	Enrollment, credential types (specifically, vocational certificates, occupational licenses, and industry-recognized certifications)
Demographics and Other Participant Background Information	213	Background (Demographic Characteristics)
Output from Credential, Skill, Service, or Experience Gained	152	Questions about credential attainment included in sections on education and credentials
Employment and Wages	127	Employment Status and Characteristics
Classification of Industry, Occupation, Institution, or Employer/Sponsor/Program²¹	83	Questions about "field of study" included in sections on education and credentials

²¹ This category includes Standard Occupational Classification (SOC) code, North American Industry Classification System (NAICS) code, Classification of Instructional Programs (CIP) code, and other taxonomic variables found in administrative data sources, as well as other identifiers for institution, employer, program. Although some of these correspond to the concepts described in other categories (e.g., SOC with Employment and Wages) they have been categorized separately as they are often used for distinct purposes of identification or data linkage.

To narrow the scope of this analysis, however, **we selected nine of the original 15 datasets for direct comparison with NTEWS** based on their importance, relevance, and population coverage. Table 4 lists the nine selected datasets and provides a brief description of each. The full metadata repository, which contains additional detail on these selected datasets, as well as those not selected for this analysis, can be found on the GWIPP website.²²

Table 4. Administrative Datasets Reviewed by CREC for Comparison to NTEWS

Administrative Dataset	Description/Coverage
Certification Finder	Names, certifying organizations, related occupations, and other details for more than 5,700 national occupational certifications. ²³
Eligible Training Provider Performance Results (ETPPR)	A nationally compiled list of nearly 75,000 training and education providers qualified by states to receive money provided under the Workforce Innovation and Opportunity Act (WIOA) to pay for classes/programs. ^{24,25}
Integrated Postsecondary Education Data System (IPEDS)	Aggregated administrative data gathered from institutions eligible to receive federal financial assistance funds as authorized by Title IV of the Higher Education Act of 1965 (as well as from some non-Title IV eligible institutions). Contains enrollment, completion, finance, and other information on over 6,200 institutions. ²⁶
License Finder	Information on over 11,000 occupational licenses, including related occupations, education/exam requirements, and contact information for issuing state agencies across the United States. ²⁷
National Labor Exchange (NLx)	National database of job openings and resumes containing information about job postings from employers; Covers over 200,000 employers, 4 million daily job postings. ²⁸

²² George Washington Institute of Public Policy, "NSF Workforce Data Repository," GW Institute of Public Policy, 2023, <https://gwipp.gwu.edu/administrative-data-repository-skilled-technical-workforce>.

²³ U.S. Department of Labor, Employment Training Administration, "Certification Finder," CareerOneStop, <https://www.careeronestop.org/Toolkit/Training/find-certifications.aspx>.

²⁴ U.S. Department of Labor, Employment Training Administration, "About This Site," TrainingProviderResults.gov, <https://www.trainingproviderresults.gov/#1/about>.

²⁵ Individuals enrolled in WIOA Title I programs are eligible to receive WIOA funding to pay for training (via Individual Training Accounts, or ITAs) if they are unlikely to obtain/retain employment that leads to economic self-sufficiency or higher wages without additional training. For participants to be able to use ITA money to pay for an education or training program, the provider must meet eligibility criteria and performance standards established by a state's Governor and Workforce Board. See 20 CFR Part 680 Subpart C and Subpart D: <https://www.ecfr.gov/current/title-20/chapter-V/part-680/subpart-C>; <https://www.ecfr.gov/current/title-20/chapter-V/part-680/subpart-D>.

²⁶ National Center for Education Statistics (NCES), "About IPEDS," Integrated Postsecondary Education Data System (IPEDS), <https://nces.ed.gov/ipeds/>.

²⁷ U.S. Department of Labor, Employment Training Administration, "License Finder," CareerOneStop, <https://www.careeronestop.org/Toolkit/Training/find-licenses.aspx>.

²⁸ National Association of State Workforce Agencies, "The Power of the NLx," US National Labor Exchange, <https://usnlx.com/about>.

Table 4. Administrative Datasets Reviewed by CREC for Comparison to NTEWS

Administrative Dataset	Description/Coverage
National Student Clearinghouse (NSC)	Longitudinal information on enrollments, completions, and transfers for individual students across multiple institutions of higher education. As opposed to IPEDS, which only reports data by individual institution, data is voluntarily provided to NSC by nearly 3,600 institutions (enrolling 97% of students). ²⁹
Participant Individual Record Layout (PIRL)	Information on individuals participating in the WIOA program (20,356,612 individual records in the PY 2021 Q2 dataset). Includes information on employment pre- and post-training, funding, training/certification outcomes, etc. ³⁰
Postsecondary Employment Outcomes (PSEO)	Links state-provided postsecondary graduate records to employment/wage records to determine post-graduation employment and wages. Involves college/university participants from 27 states, covering 11-87% of each state's graduates. ³¹
Registered Apprenticeship Partners Information and Data System (RAPIDS)	Individual level data for apprenticeship programs in states and territories covering 2,096,113 individuals who participated in apprenticeships in 2022, 25,433 programs/sponsors, and 120,653 occupations covered. ³²

The following analysis examines these nine administrative datasets and variables most closely corresponding to survey items within each section of the NTEWS. Each section below describes the specific ways in which these administrative data might be used—either on their own or through further aggregation, calculation, or analysis—to supplement, enhance, or clarify the information gathered through the NTEWS. Limitations of each dataset and their application to NTEWS are also addressed.

Each section of the paper below corresponds with a section of the NTEWS and includes a table with more detailed NTEWS topic areas appearing as columns. In each row, we describe variables from the selected administrative datasets identified in *Table 4* that are relevant to each detailed NTEWS topic area. Separately, a final section provides additional detail on administrative data related to employer demand (i.e., aggregated statistics on online job postings) and how this data may be relevant to NTEWS. More detailed tables are provided in Appendix B that identify, for each detailed NTEWS topic within a section, an important NTEWS questionnaire item that addresses the topic, relevant variables from the selected

²⁹ National Student Clearinghouse, "StudentTracker," Colleges & Universities, <https://www.studentclearinghouse.org/colleges/studenttracker/>.

³⁰ U.S. Department of Labor, Employment Training Administration, "Workforce Performance Results," Employment and Training Administration (ETA) Performance, <http://www.dol.gov/agencies/eta/performance/results>.

³¹ U.S. Census Bureau, "Post-Secondary Employment Outcomes (PSEO) Help and Documentation," Longitudinal Employer-Household Dynamics, https://lehd.ces.census.gov/data/pseo_documentation.html.

³² U.S. Department of Labor, "Data and Statistics," ApprenticeshipUSA, <https://www.apprenticeship.gov/data-and-statistics>.

administrative datasets, and notes on how data from these sources might complement the data gathered by NTEWS.

EDUCATION AND TRAINING ENROLLMENT/BACKGROUND

The 2022 NTEWS Pilot survey includes questions on current enrollment in an academic institution or technical/trade school, full- or part-time (FT/PT) status, field of study, degree being pursued, as well as education history/background. The full NTEWS questionnaire is reproduced in Appendix C. In this section, we examine complementary administrative data on education and training program enrollment/attainment that is publicly available from colleges and universities, as well as from the public workforce system. We also discuss how this publicly available administrative data may relate to NTEWS data.

Post-secondary educational institutions track individual enrollment and student FT/PT status and report this information in aggregate to the U.S. Department of Education to maintain eligibility for Title IV financial aid funding. The results are published via IPEDS (first row in *Table 5*) by institution/school. Although NTEWS is not designed to provide aggregate statistics on enrollment or degree attainment, related trends from NTEWS (derived from responses to the Enrollment Section questions 22 through 26) could be considered alongside similar trends and statistics from datasets like IPEDS. For example, NTEWS asks respondents whether they are enrolled full-time or part-time, relying on self-reporting to determine status. By contrast, IPEDS provides clear credit hour-based definitions for reporting full-time/part-time status. Trends from this data could complement the self-reported measures from NTEWS for degree-enrolled participants.

At the same time, **there is currently no administrative data on field of study by enrollment that is federally reported by all educational institutions, with IPEDS including field of study only for degree and certificate completion.** Missing information about student intentions, such as when they declare majors, has been a source of frustration for researchers attempting to understand who intends to pursue a degree and who ends up completing the degree. Reporting from NTEWS on field of study for currently enrolled students (question 26) could be used to gain a better understanding of administrative data on enrollments. One challenge will be whether the NTEWS fields of study reported through open-ended responses³³ will correspond to (or can be recategorized based on) the fields of study reported by colleges to NCES (using Classification of Instructional Programs or CIP codes).

The National Student Clearinghouse (NSC) dataset³⁴ (second row in *Table 5*) also contains valuable information about individual students' education history as well as their current enrollment status. **While IPEDS provides aggregate data at the institution level, the NSC dataset includes longitudinal information about individual students and would provide more opportunities to experiment with creating samples of students for comparison to the NTEWS**

³³ The 2022 NTEWS questionnaire used an open-ended question to collect field of study for current enrollment in a degree-seeking program (Q26) and field of study for highest degree (Q30). See Appendix C.

³⁴ This dataset is available for a fee and with explicit partnership agreements. Similar information is collected state-by-state and institution-by-institution under the experimental PSEO program run by U.S. Census Bureau, discussed below in the section on Employment, but there are limited opportunities for researchers to partner with U.S. Census Bureau to access this data.

respondents. The individual records that are linked over time in the NSC dataset account for educational history, enrollment, and attainment in any given year and include demographic information. However, while reporting to IPEDS is mandatory for Title IV funding, reporting to NSC is, despite broad participation, voluntary. As a result, data from some institutions may not be available.

While these first two data sources, IPEDS and NSC, collect their information from the same higher education institutions through similar processes, a third administrative dataset features a very different population frame and data collection process. The Participant Individual Record Layout (PIRL) dataset contains information on almost all participants in public workforce programs, with information from participant intake processes across workforce agencies via state-level client management systems (see third row in Table 5).

PIRL contains information on education history and current/recent training program participation, as well as credentials earned through program completion with field of study. The programs are not limited to academic programs and include workforce training and industry certification courses. As a result, PIRL is relevant to this section of the NTEWS as well as the next section on non-academic credentials.

Table 5. NTEWS EDUCATION TOPICS AND ADMIN DATASET OVERLAP – Select Datasets

Administrative Datasets	NTEWS Concepts/Topics				
	Enrollment Status	Educational Attainment	Education History	Field of Study	Education Relevance/Reason
IPEDS	Fall Enrollment; 12-mo. Unduplicated Headcount; First Time; Full Time/Part Time	Credential Level (Certificate or Degree)	N/A	Award CIP Code	N/A
NSC	Fall Enrollment; Degree-Seeking Status; First-Time; Full Time/Part Time; Enrolled at Other Institution	Highest Level of Credential Earned (Diploma, Certificate, or Degree; Any Institution); Credential Level (Certificate or Degree)	Date of Highest Credential Earned	Current Major/Enrollment CIP; CIP of Highest Credential Earned	N/A
PIRL	School Status at Program Entry; Enrolled During Program	Highest Level of Education/Grade Level Completed at Entry; Type of Credential Earned (Any)	Date Degree Received; Date Credential Earned	Eligible Training Provider CIP Code	N/A

It will be interesting to see the degree to which the NTEWS captures more information than was previously available on academic certificates awarded by non-Title IV institutions and through non-Title IV or non-credit-bearing programs. NTEWS results could be evaluated in comparison to IPEDS or NSC coverage as well as via the workforce system and the PIRL dataset.

NON-ACADEMIC CREDENTIALS

For various non-academic credentials, NTEWS asks the name or field of the credential, who awarded it, how long it took to complete, when it was received, field of study, why the individual chose to get it, whether they use it for their main job, and if they had financial support in obtaining it. These items are gathered both for licenses/certifications and vocational certificates. Due to perceived issues with survey respondents' ability to properly distinguish between certifications and licenses, these two credential types have been grouped together for data collection. However, detailed questions regarding the nature of the credentials may be distinguished through post-collection analysis.

For example, Certification Finder and License Finder are search engines with publicly available datasets for which the unit of analysis is the credential (certification or license, respectively). Both datasets contain detailed information on credential name, level, provider, and related requirements, and can be accessed either via data download or Application Programming Interface (API). **Information from these credential datasets may be helpful in validating responses and distinguishing between credential types reported in the NTEWS or could provide respondents with a tool for appropriate categorization.** See tables 6 and 7 for crosswalks between NTEWS topics and information in these administrative datasets.

Specifically, comparing NTEWS results for NDC name, field, source, finance/cost, and length/renewal to information from these administrative datasets could help analysts distinguish between certifications and licenses in the data. Comparisons between administrative data records from these sources and open response survey results could help with interpreting ambiguous or unfamiliar responses, as well as inform improvements to future survey response options. Or, these datasets could be integrated into the survey response process (via API), allowing respondents to interactively select their credential from a pre-populated list (see Recommendation #2 below).

The PIRL dataset captures some academic programs, as discussed in the previous section of the report. However, the education and credentialing captured in the PIRL dataset also includes non-academic (or non-credit bearing) activity. As a result, the dataset includes many vocational certificates and professional certification training programs that are not captured elsewhere, such as programs at Title IV institutions that are not eligible for Title IV funding. For example, many community colleges offer STW-relevant workforce training that can be captured in this dataset but not in IPEDS or NSC as it is not offered for academic credit. **PIRL's ability to provide not only an administrative map of non-academic credentials and programs, but also the frequency with which they are being earned by participants in the public workforce system, is a unique benefit of the dataset in relation to NTEWS.**

It is important to note, however, that PIRL only reports on credentials funded with the support of a WIOA Individual Training Account. Credit and non-credit training pursued by individuals

without such support will not appear in the dataset and thus PIRL should not be considered to provide a comprehensive overview of all credentials attained by public workforce system participants.

The ETA's Eligible Training Provider Performance Results (ETPPR) dataset, published online at TrainingProviderResults.gov, includes similar information to the PIRL. ETPPR is essentially an aggregation of the PIRL records on training, although the information is collected from training institutions directly, rather than through training participants. The primary unit of analysis is the program offered by the training institution, so this dataset contains more information on the training programs themselves, with less information on the credentials attained and only program-level information on participation and employment outcomes.

Though **PIRL and ETPPR** don't provide the detailed and highly structured credential information we find in Certification Finder and License Finder, they do help to reveal a world of non-academic training that is not otherwise captured and that will **help to validate and interpret information from the NTEWS regarding the availability and completion of programs that lead to certifications, licenses, and vocational certificates.**

Table 6. NTEWS NON-ACADEMIC TOPICS AND ADMIN DATASET OVERLAP – Select Datasets

NTEWS Concepts/Topics							
Admin Datasets	Attainment /Date	Credential Title	Credential Field	Credenti al Source	Finance/ Cost	Length, Renewal, etc.	Relevance/ Reason
Cert. Finder	N/A	Certification Name, Acronym, Description	Certification Type; O*NET Code; NAICS Code	Certifying Organization; Accreditor	N/A	Training/Exp. Required; Exam Requirement ; Renewal Requirement ; Renewal Method	N/A
License Finder	N/A	License Title, Description	Occupation Code; Industry Code	Licensing Authority, Dept. & Div.; Regulatory Board	N/A	Edu, Exp, Cert Reqs.; Renewal, Continuing Ed. Req.; License Description	N/A
ETPPR	Total/Pct. Credential Attainment (within one year)	Program Name; Associated Credential	Program Description; SOC Code; CIP Code	Name and Type of Provider	Out-of-Pocket Costs; Number of Individual Training Accounts (ITA); Total/Average ITA Dollars Received	Program Length in Hours; Program Length in Weeks (Full-Time); Prerequisites	Potential Program Outcome

Table 6. NTEWS NON-ACADEMIC TOPICS AND ADMIN DATASET OVERLAP – Select Datasets

NTEWS Concepts/Topics							
Admin Datasets	Attainment /Date	Credential Title	Credential Field	Credenti al Source	Finance/ Cost	Length, Renewal, etc.	Relevance/ Reason
PIRL	Recognized Credential, Type; Date Attained	N/A	N/A	Eligible Training Provider Name; Private Sector Provider	Pell Grant Recipient; Established ITA; Supportive Service Funding; Needs-Related Payments	N/A	Employment Related to Training

Administrative datasets that primarily include information on academic degrees and certificates may also eventually be useful in identifying non-academic credentials. NCES has explored a voluntary data collection program to collect information on non-credit programs. And the National Student Clearinghouse has launched initiatives to collect information on industry-recognized credentials. PSEO could also be useful in this regard if academic institutions were asked to provide information on non-credit certificate programs for inclusion. Currently PSEO is focused on collecting information on academic degrees and credit-bearing certificates.

Table 7. NTEWS NDC TOPICS AND ADMIN DATASET OVERLAP – Select Datasets

NTEWS Concepts/Topics							
Admin Datasets	Attainment/D ate	Credential Title	Credential Field	Credential Source	Finance/ Cost	Length, Renewal, etc.	Relevance/ Reason
IPEDS	Award Level; Award Year	N/A	CIP Code	Institution Name; Institution Type	Tuition and Fees; Cost of Attendance	Length of Certificate	N/A
NSC	Industry Credentials Earned, Award Dates, Highest Level of Credential Earned	Industry Credential/ Cert Name	N/A	Industry Credential Organization	Pell Grant	Industry Credential Expiration Date	N/A
PSEO	Degree Level; Grad Cohort	N/A	CIP Code	N/A	N/A	Length of Certificate	N/A

WORK EXPERIENCE PROGRAMS

For various “work experience programs” (WEP), including internships, apprenticeships, and other on-the-job training programs, NTEWS asks respondents about the type of work involved, its relation to their main job, the year completed, wage earned during the program, the type of organization/institution that offered the program, and whether mentoring was provided.

Two of the datasets relevant to academic and non-academic training described above, PIRL and ETPPR, also include information on WEP and can be similarly used to validate and benchmark NTEWS WEP results. PIRL and ETPPR variables relevant to work experience are included in *Table 8*. **The information from PIRL and ETPPR may help distinguish different types of work experience programs reported using NTEWS as the two datasets contain a greater level of program-specific detail.** Similarly, the RAPIDS dataset describes apprentices and sponsoring employers whose programs are registered with the U.S. Department of Labor, which requires the program meet certain stipulated requirements in terms of how much classroom and on-the-job training are provided, the wage being paid, etc. **The information from RAPIDS may help distinguish whether NTEWS respondents participated in apprenticeships, internships, clerkships, student teaching, or other WEP.** PIRL, ETPPR, and RAPIDS may all help in understanding the intensity of the programs in terms of duration and content. Similarly, the detail on instructional/class requirements from NTEWS can be compared to the details in the administrative datasets regarding the technical instruction.

Some criteria for identifying a registered apprenticeship may be derived from responses to certain NTEWS items: whether there is a progressive wage, required classroom training, or a company sponsor. That said, the “WEP Source” question could be expanded to include more sources relevant to apprenticeship. For example, reference to “Related Technical Instruction for Apprenticeship” and “On the Job Training” outside of a traditional educational experience—i.e., where the employer is the primary training provider--could help identify apprenticeship participants.

Table 8. NTEWS WORK EXPERIENCE PROGRAM TOPICS AND ADMIN DATASET OVERLAP – Select Datasets

Admin Datasets	NTEWS Concepts/Topics					
	Completion/Date	WEP Field	WEP Source	WEP Wage	WEP Qualifiers	Relevance/Reason
ETPPR	Number/Pct. Program Completers	Program SOC Code; Program CIP Code	Name and Type of Provider	Median Earnings from Program	Program Length; Prerequisites	Potential Program Outcome

Table 8. NTEWS WORK EXPERIENCE PROGRAM TOPICS AND ADMIN DATASET OVERLAP – Select Datasets

Admin Datasets	NTEWS Concepts/Topics					
	Completion/Date	WEP Field	WEP Source	WEP Wage	WEP Qualifiers	Relevance/Reason
PIRL	Training Completed; Type of Work Experience/Training; Pre-/Apprenticeship Program Status; Received On-the-Job Training/Related Technical Instruction (OJT/RTI) Services; Transitional Job Training; Completion Dates	Program SOC Code	Eligible Training Provider Name; Private Sector Provider; RTI Provider Type	N/A	N/A	Employment Related to Training
RAPIDS	Apprentice Count; Expected Completion Date	Program Type; NAICS Code; SOC Code; Occupation Type	Organization Type	Starting/Exit Wage, Journeyman Wage, RTI Wage	N/A	N/A

BACKGROUND/DEMOGRAPHICS

The previous sections discussed the degree to which administrative datasets contain useful information about credentials, training programs, and work experiences. These datasets also include useful information about participant demographics.

The NTEWS asks respondents about their age, sex, race/ethnicity, disability, marital status, language, citizenship, veteran or military status, and residence location (though detailed data on place of residence will be omitted from the public use files). Table 9 shows where relevant demographic and location variables can be found in administrative databases that also contain information about training, credentials, and work experiences.

Table 9. NTEWS DEMOGRAPHICS AND ADMIN DATASET OVERLAP – Select Datasets

Admin Datasets	NTEWS Concepts/Topics					
	Age, Sex, Race/Ethnicity	Disability	Marital Status	Language, Residence/Citizenship	Veteran/Military	Geography
IPEDS	Gender, Race/Ethnicity, Age Category	Pct. of Students with Disability	N/A	N/A	Number Receiving Post-9/11 GI Bill Benefits; Number Receiving DoD Tuition Assistance	State of Residence When Admitted

Table 9. NTEWS DEMOGRAPHICS AND ADMIN DATASET OVERLAP – Select Datasets

Admin Datasets	NTEWS Concepts/Topics					
	Age, Sex, Race/Ethnicity	Disability	Marital Status	Language, Residence/Citizenship	Veteran/Military	Geography
License Finder	N/A	N/A	N/A	N/A	Veteran Status	N/A
NSC	Date of Birth (DOB); Gender; Race/Ethnicity	N/A	N/A	Citizenship Indicator	Veteran Status	N/A
PIRL	DOB; Youth/Senior-Based Programs; Race/Ethnicity; AIAN Programs; Sex	Disability Status; Disability Programs	N/A	English Language Learner (ELL) Programs/Services; ELL at Program Entry	Vet Status; Vet Programs; Transitioning Service Member	State/County /ZIP of Residence; Assigned WIB
RAPIDS	Age; Race/Ethnicity; Sex	Disability Status	N/A	N/A	Veteran Status	County

The inclusion of demographic characteristics in both NTEWS and these administrative datasets could provide opportunities for disaggregated statistics. However, comparisons would be limited to the narrower populations covered by each administrative dataset, rather than being applicable across the entire NTEWS universe. In this way, NTEWS still maintains a unique benefit in providing data that is designed to be nationally representative, as well as providing demographic estimates for populations not covered by existing administrative data sources (i.e., working-age populations that have not participated in formal workforce or higher education systems, but still have relevant NDCs or have participated in other work experience programs).

Researchers are also seeking more information on the family income of students. The percentage of students receiving financial aid at the institution level, for example, is the only measure of student/family income that is available via administrative records we reviewed. It is drawn from Free Application for Federal Student Aid (FAFSA) reporting to NCES IPEDS by each institution. The PIRL is unique amongst the databases reviewed here because it integrates information on participant wages before (and after) they participate in workforce programs.³⁵ More information on student finances collected via the NTEWS and administrative data would be valuable to future research.

EMPLOYMENT

The NTEWS asks about the number of jobs held by the respondent, the number of hours they work, and various questions about their main job including its title, description, industry,

³⁵ Given the nature of the PSEO and NSC data structures, it would be possible for information on income/wages prior to participation in the programs they cover to also be included in these datasets and reported in public data products; however, no such data is currently available.

employer name/address, etc. Similar employment information is also included in several of the administrative datasets discussed in previous sections, as outlined in *Table 10*.

For each of these administrative datasets, the primary (although not sole) data source on employment outcomes is employer-reported wage record information. This information is reported by employers to states for compliance with Unemployment Insurance (UI) program requirements. State agencies will then match this information to credentialing and training records for individuals participating in public workforce and education programs, and submit reports to federal agencies, such as the Department of Labor Employment and Training Administration, resulting in the PIRL and ETPPR datasets. For the PSEO dataset, the U.S. Census Bureau’s Longitudinal Household-Employer Dynamics (LEHD) program matches state UI wage and employment records (supplemented by responses to Census Bureau survey programs and other federal datasets) to education records supplied by participating colleges and universities for individuals who have completed degree and certificate programs.

Table 10. NTEWS EMPLOYMENT TOPICS AND ADMIN DATASET OVERLAP – Select Datasets

Admin Datasets	NTEWS Concepts/Topics						
	Employment/Labor Force Status	Recent Work History	Job Title/ Occupation	Employer/ Industry	Job Activities	Earnings/ Wages	Work Hours
ETPPR	Total/Pct. Exited Employed after Exit; Pct. All Students Employed after Exit	N/A	N/A	N/A	N/A	Aggregate post-training wage outcomes	N/A
PIRL	Employment Status at Entry; Employment After Exit; Employer Retention	Date of Dislocation	Occupation Prior to Entry; Occupation After Exit	Industry Prior to Entry; Industry After Exit	N/A	Total Quarterly Earnings Prior to Entry/After Exit	N/A
PSEO	Employed Graduates	N/A	N/A	Employment Industry	N/A	25/50/75 th Percentile Wages	N/A

The NTEWS demographic results for respondents can be compared in aggregate to information on training, credentialing, and employment from these public workforce and publicly funded education systems, where information on employment has been linked. Another opportunity is to compare the employment results from the NTEWS directly with the employment status and outcomes results in linked administrative records for similar or comparable populations participating in education and training programs.

Table 11 provides an overview of the administrative datasets available to complement the NTEWS Topic of “Employment/Labor Force Status.” The NTEWS asks “are you currently working for pay or profit”. Likewise, some administrative data sources include both credential attainment and employment status. Employment outcomes could be compared for specific

industries, geographies, occupations, and program participation – in aggregate across administrative records and according to the survey response sample. Linking individual NTEWS records to employment and wage records to verify the NTEWS responses would require addressing confidentiality requirements for data sharing and linking records.

Table 11. EMPLOYMENT/LABOR FORCE STATUS DETAIL TABLE

NTEWS Topics	NTEWS Question	Related Administrative Datasets	Administrative Data Topic/Variable Examples	Notes
Employment /Labor Force Status	Are you currently working for pay or profit?	PIRL; ETPPR; PSEO	Employment Status Q1-4 Post-Exit, (PIRL); Total/Percent of Students Employed 2/4Q After Exit (ETPPR); Graduates Employed 1-10yr Post-Grad (PSEO)	Potential to enhance understanding of short-to-long-term employment expectations for credentials; benchmark NTEWS post-completion employment rates (given date of attainment in NTEWS and credential type)

ADMINISTRATIVE DATA ON EMPLOYER DEMAND

Online job postings can also serve as a type of employer-specific administrative data, especially when considered in aggregate using a dataset of millions of postings such as the one compiled by the National Labor Exchange (NLx).³⁶ These postings can provide useful information about demand for job titles/occupations, associated job descriptions—including the education, experience, and skills typically required—and other information about the nature of employment for a given job, such as the shift type or hours worked (i.e., full-time/part-time). **This data from millions of job advertisements could provide broader context for jobs held by NTEWS survey respondents. Job postings could help set parameters for expected responses from survey respondents around job title and associated job activities and shift type**, where employers have included this information (see Table 12).

Table 12. NTEWS TOPICS AND OVERLAP WITH NLx VARIABLES

Admin Datasets	NTEWS Concepts/Topics						
	Employment /Labor Force Status	Recent Work History	Job Title/ Occupation	Employer/ Industry	Job Activities	Earnings/ Wages	Work Hours
NLx	N/A	N/A	Posting Job Title; ONET Code	Posting NAICS Code; Company; Fed Contractor Status	Job Description	Posting Salary Min./Max.	Hours per Week; Shift Type

³⁶ Job postings are also aggregated by several third-party vendors so that summary trends can be observed. We have chosen to consider NLx as a source because it is intended to be publicly accessible.

Information from job postings may also be helpful in comparing information on NTEWS respondents' education to employer expectations for their education levels (Table 13).

Table 13. NTEWS TOPICS AND OVERLAP WITH NLx VARIABLES

Administrative Datasets	NTEWS Concepts/Topics				
	Enrollment Status	Educational Attainment	Education History	Field of Study	Education Relevance/Reason
NLx	N/A	Minimum Education Required	N/A	N/A	Minimum Education Required

Of course, it is important to highlight the limitations of using job postings data. First, job postings are not perfectly representative of job openings for many reasons. For example, a company may post for a job they end up not hiring for, or to solicit applications for future openings. Similarly, job postings do not represent actual jobs, as the requirements and skills stated in postings may not reflect reality (intentionally or otherwise). Despite these limitations, **job postings present a uniquely rich and deep volume of qualitative job information not typically available through other administrative or statistical survey datasets.**

Table 14. DETAIL TABLE – NLx Examples

NTEWS Topics	NTEWS Question	Admin. Data Topic/Variable Examples	Notes
Job Title/ Occupation	What is the name of your MAIN job?	Job Posting Title/ONET Code (NLx)	Compare job titles of respondents to job titles in job posting data and credentials associated with each; use job title classifiers from NLx to code responses.
Employer/ Industry	What is your employer's MAIN BUSINESS OR INDUSTRY?	Job Posting Industry (NLx)	Compare the industries associated with the job titles across survey and job posting datasets
Job Activities	For your MAIN job, what are your most important activities or duties?	Job Description	Could provide additional detail/context for open-ended responses with skills/activities from job description; validate activities associated with titles/credentials
Earnings/ Wages	During the PAST 12 MONTHS, what were your earnings from wages, salary, commissions, bonuses, or tips from your MAIN job?	Job Posting Min./Max. Earnings (NLx)	Compare the min and max earnings associated with the job titles across survey and job posting datasets
Work Hours	During the PAST 12 MONTHS, in the WEEKS WORKED, how many hours did you usually work each WEEK at your MAIN job? ³⁷	Hours per Week, Type of Shift	Compare the hours posted by employers with those reported by survey respondents, by industry or occupation, across survey and job posting datasets

³⁷ The NTEWS question “during the past 12 months, how many hours did you usually work each week at our main job?” may be compared to the “hours of work required” variable from Burning Glass Technologies (BGT) job posting dataset or ascertained from

FINDINGS: WAYS THAT ADMINISTRATIVE DATASETS CAN COMPLEMENT AND INFORM NTEWS

The nation cannot reach a comprehensive understanding of the STW and its education and training without more information on individual career pathways to demonstrate whether and how education, training, and employment are connected. The NTEWS is the first survey to include such detailed questions about training, credentialing, and employment for the STW. The inclusion of questions about employment alongside questions about credentialing is an innovation that improves on the ATEs, CPS, and SIPP collections, which have similar sample sizes and detailed employment questions but far fewer training and credentialing questions.

The NTEWS will fill important gaps in current administrative and survey data collections at the national level and potentially, over time, at the state level. To the extent that NTEWS will employ a rotating cycle design where certain participants are reinterviewed, it also has the potential to create limited longitudinal information on individuals who are or could become part of the STW.

While aggregate statistics from random sample surveys are important, they have their own limitations. Limited sample sizes will likely preclude detailed analysis of regional labor market geographies and detailed responses for small populations.

After a comprehensive review of relevant administrative datasets, we find there are at least **four important ways that administrative data can complement and inform the NTEWS results:**

1. Administrative datasets can be used to **check and enhance the validity** of NTEWS data.
2. Administrative datasets can help **organize and interpret** NTEWS responses and results.
3. Administrative datasets can provide **additional detail/granularity**.
4. Administrative datasets can enable analysis of the **impacts of STW development programs over time**.

Our paper concludes by summarizing each of these approaches, as well as providing an example from each of the administrative datasets we considered. Finally, we address some of the important limitations to using administrative data that should be considered by NCSES and that may be addressed through additional funded research.

1) Administrative datasets can be used to check and enhance the validity of NTEWS data

Survey data is subject to various types of error including unit and item non-response error, measurement error, coverage error, and sampling error. A 2021 study from the National Bureau of Economic Research (NBER) illustrated the potential of linked administrative and

job posting data via the NLx research hub. It is important to note that this is not an exact answer, since the hours required for a job don't equal the hours worked. Additionally, missing data may be an issue, even at the national level, given discrepancies in what information employers include in job postings.

survey data to address growing survey error in key measures such as income, education, and health. The study substituted administrative data for survey data on three government programs and demonstrated how it could be used to improve the measurement of income and poverty in the Current Population Survey (CPS).³⁸ It is worth noting that the success of the 2021 NBER study relied on administrative records that had been scrutinized to avoid fraud and that contained official identifiers that could be used to facilitate data linkage.

Given similar quality assurance and unique identifiers held in common, **we believe administrative data can similarly help to improve the results from the NTEWS through benchmarking and other validity checks.** For example, administrative data may help to verify NTEWS responses regarding training and credentialing where there is nationwide coverage of program participation and completion, as in the case of higher education credentialing through *IPEDS* (at program level), or where there is population coverage via NSC reporting (at individual level), and eventually via PSEO (if coverage continues to increase). Administrative data will be especially important to understand relevant trends for key populations, such as those served by publicly funded education and workforce programs (utilizing *PIRL* and *ETPPR*). In these cases, administrative data can be used to benchmark trends nationwide and state by state, providing an understanding of whether the survey results accurately reflect trends among these special populations.

If efforts to verify survey results are successful, and further quality improvements are made, administrative data may have potential to adequately address and eliminate the need for some questions, thereby reducing respondent burden and survey cost. The *PIRL* provides a potential model for combining information on training and employment to create a deidentified individual record unit public use dataset with nationwide coverage. Another model is demonstrated by the *National Student Clearinghouse (NSC)*, which maintains a dataset with individual record unit information that could be matched and de-identified for public use. Recently, NSC partnered with the Census Bureau and a certification provider in the manufacturing sector to create a novel dataset which matches student information to certification attainment and pre-/post-employment status.³⁹

2) Administrative datasets can help organize and interpret NTEWS responses and results

Our analysis also provides examples of questions in the NTEWS for which responses could be better organized or interpreted using administrative data. For questions about non-academic credentials, the survey may not distinguish a certification from a license, but detailed survey responses can be compared to records from the *Certification Finder* and *License Finder* administrative datasets to distinguish one credential from another. **Administrative datasets**

³⁸ Bruce D. Meyer and Nikolas Miftag, "Combining Administrative and Survey Data to Improve Income Measurement," in *Administrative Records for Survey Methodology*, ed. Asaph Young Chun et al. (Hoboken, NJ: John Wiley & Sons, Ltd, 2021), 297–322, <https://doi.org/10.1002/9781119272076.ch12>.

³⁹ Vanessa Brown et al., "The Impact of Manufacturing Credentials on Earnings and the Probability of Employment" (U.S. Census Bureau, Center for Economic Studies, May 2022), <https://www2.census.gov/ces/wp/2022/CES-WP-22-15.pdf>.

could also help impute missing data where respondents did not have enough information to answer. For example, respondents may not know exactly how often a certification needs to be renewed. With the “name” (or “field”) and source program for the credential, this information may be identified via the *Certification Finder* dataset. Similarly, results for work experience programs can be compared to the detailed participant and program information in the *RAPIDS* dataset on registered apprenticeships, which can help to parse if a program might qualify and if it might be officially registered, as well as providing additional detail such as the time-based or competency-based nature of these programs.

Administrative data can also help rationalize, parse, organize and interpret the responses to certain open-ended questions in the NTEWS, based on information in existing datasets. Open ended questions in NTEWS include:

1. For the MAIN job you wrote in question 7, what are your most important activities or duties? (Current Employment)
2. Thinking about all of your CURRENTLY ACTIVE licenses and certifications, which one do you consider to be your MOST IMPORTANT? (Licenses and Certifications)
3. What kind of work can you do with this license or certification? (Licenses and Certifications)
4. What type of work was your last completed work experience program for? (Work Experience Program)

Administrative data could improve interpretation of responses to these questions and help to improve survey design to gain more accuracy from respondents in the future. To the extent that administrative data already describes the range of options for these questions, they could provide question parameters and response options. For example, *RAPIDS* could demonstrate the variation in work-learn programs registered as apprenticeships to inform future survey design. *Certification Finder*/*License Finder* data could be used to pre-populate an online response platform for selecting a respondent's certification or license. Or, natural language processing (NLP) techniques could use those databases to help associate free-response text with a positively identified certification.

3) Administrative datasets can provide additional detail/granularity

NTEWS will provide insights into the relationship between training, credentialing, and employment on a national scale. There are, however, geographic and population limitations to a nationally representative sample survey such as NTEWS. **One of the most compelling uses of administrative data is to fill gaps in our understanding of trends for key local geographies such as functional labor markets and key demographic groups for which survey results may not be representative.**

This is particularly important as there are expected geographic differences among the distribution of the Science, Technology, Engineering, and Math (STEM) workforce and STW across the U.S. In 2019, a greater proportion of the STEM workforce with a bachelor's degree or higher were employed in coastal states and the Midwest region, with a greater proportion of those without a bachelor's degree being employed in the South and Midwest regions of the

U.S.⁴⁰ With some minor but important improvements, **administrative datasets will be able to provide much more granular detail than nationally representative sample surveys**, allowing us to learn more about demographic groups in key labor markets and across urban and rural areas, while the NTEWS helps to benchmark national trends and progress over time.

Many of the administrative datasets we reviewed have locations in the form of addresses for program sponsors and training providers (this includes *IPEDS*, *ETPPR*, *RAPIDS*, and *NSC*), making it possible to aggregate information about training participants and programs for detailed geographies, including participant demographic information.⁴¹ *PIRL* provides a wealth of education, training, and employment data localized by workforce development areas, sub-state regions that are often well-aligned with economically integrated labor market areas, though not uniformly reported.

4) Administrative datasets can enable analysis of the impacts of STW development programs over time

Efforts to link individual records across administrative datasets with national coverage will be useful in providing additional historical context (the *PIRL* public dataset begins in 2017, and apprenticeship records go back to 1948). Linkages would improve our understanding of trends in detailed geographies and for specific populations in the years ahead. **With administrative datasets, we can better understand whether the NTEWS results are representative of or in alignment with the trends we observe across major U.S. training and employment programs.**

The rich detail in DOL ETA administrative datasets (*PIRL/ETPPR*) and in the Census Bureau's *PSEO*, including employment information, could be used immediately to begin modeling the range and concentration of employment outcomes across apprenticeship, public workforce, and public education programs. We could also identify new trends and policy insights. For example, linkage to restricted-use *PIRL* would tell us whether WIOA helps individuals break into the STW in comparison to similar individuals from the NTEWS.

Using *License Finder* and collaborating with the Analyst Resource Center at DOL ETA (which helps compile the underlying data), researchers could identify which states have a record of individual license attainment over time, then compile and link this data to employment outcomes. Though challenging, identifying and compiling state license rosters would be less complicated than working with more decentralized non-profit and for-profit certification providers to identify individual certification attainment. These and similar efforts could tell us whether accredited and high-quality credentials aid employment, promotion, and retention of the STW. **If survey microdata from NTEWS allows individual responses to be connected over**

⁴⁰ Abigail Okrent and Amy Burke, "The STEM Labor Force of Today: Scientists, Engineers, and Skilled Technical Workers," Science & Engineering Indicators (National Science Board, August 31, 2021), <https://nces.nsf.gov/pubs/nsb20212>.

⁴¹ The Labor Market Information (LMI) Institute produces the [State Certifications and Licenses Data](#) based on questions included in the Current Population Survey (CPS) that measure the frequency of certifications and licenses in each state and the nation. The State Certifications and Licenses Data consist of twelve tables, including state level replicas of the [seven tables](#) the Bureau of Labor Statistics (BLS) produces at the national level, and five additional tables with further breakdowns by occupation, industry, education, race, and sex. This data offers insights about the associations among credential attainment rate, median weekly earnings, and employment probability.

unique observation/reporting periods, resulting datasets could tell us about how credentialing and training might affect employment tenure and re-employment after periods of unemployment.

LIMITATIONS AND CAVEATS

In addition to the potential benefits of considering NTEWS alongside relevant administrative datasets, it is also worth considering the challenges and potential limitations of doing so. First, the populations covered by individual administrative datasets are more limited. As has been mentioned, most of the administrative datasets we have considered in this analysis are purpose-built to cover participants in specific government programs. As a result, they each lack the kind of broad, national coverage for which a survey such as NTEWS is designed. **While it is often possible to link records from multiple administrative datasets to develop more comprehensive coverage, doing so can be effort- and resource-intensive**, requiring stringent data-sharing agreements, secure data storage systems and, sometimes, sophisticated matching algorithms. The LEHD program is one success story in this regard, due to the significant resources, expertise, and relationships maintained by the Census Bureau.

At the same time, the record-level quality of administrative datasets can vary based on the program and its reporting requirements. For example, while the PIRL provides a standardized reporting structure for public workforce data, reporting practices can vary by state, especially with regards to optional data elements. Extra care is warranted, of course, when working with data that is self-reported, such as income. **While many quality issues are known, most of the datasets considered here could benefit from more systematic review and ongoing auditing to determine specific quality issues and how to address them.** If NCSES determines that these administrative datasets are indeed valuable, this sort of audit and review could be a valuable service to important stakeholders in other agencies, helping to improve and streamline programming while improving overall data quality and integration across the federal statistical system to benefit the U.S. innovation and research enterprise.

NEXT STEPS

We found that datasets considered here can add value to the NTEWS process, results, and interpretation. As a new national survey on the Skilled Technical Workforce (STW), NTEWS could provide an exciting new national perspective on key trends that will serve as a guiding force to both structure and leverage administrative dataset utilization and improvement. Though administrative data is rarely collected for this purpose, it is critically important that federal agency teams find ways to leverage it to expand our understanding of talent and talent development systems that strengthen national security and innovation systems.

To generate momentum toward a broader, more robust, and in-depth understanding of the STW, **we recommend that NCSES lead a conversation with other federal agencies and data users (e.g., the National Science Board) to set an agenda for generating priority statistics with administrative data.** This process can help to identify statistics useful for decision-making. Once

priority statistics are identified, data sourcing and data quality issues can be addressed (timeliness, etc.). This work could address how to integrate more demand-side administrative data to understand employment opportunities and outcomes for the STW by investigating how to utilize large job postings and resume datasets as well as employment records. This will be critical to fulfilling the aspirations of the NTEWS in deepening our understanding of the pathways of skilled technical workers across education, training, and employment.



APPENDIX A. MORE DETAIL ON EVOLUTION FROM ATEs

The throughline from ATEs to NTEWS is further evident when considering their similarities in methodology and design. As with the ATEs, NTEWS is a nationally representative survey, in this case of individuals aged 16-75 who are not currently enrolled in high school. (ATEs sample was individuals aged 16-65 not currently enrolled in high school.) However, the NTEWS sample population is further specified to exclude individuals who reside in institutional group quarters such as correctional facilities, psychiatric facilities, and skilled-nursing/hospice facilities. This is a specification that is likely made possible by a further difference in sample frames, with NTEWS sampled from past ACS samples (which identifies institutionalization) and ATEs sampled from a broader list of addresses sold by a commercial vendor. The initial sample size for NTEWS is approximately 43,200 individuals, somewhat fewer than the 47,744 surveyed for ATEs. The NTEWS sample size for 2024 and thereafter is 120,000.

Table A1. Comparing ATEs and NTEWS Survey Design and Methodology

	ATEs ⁴²	NTEWS ⁴³
Population	Individuals ages 16-65 not enrolled in high school.	Individuals ages 16-75 not currently enrolled in high school, not institutionalized.
Sample Frame	List of U.S. addresses purchased from a commercial vendor.	Rotating four-panel design drawn from ACS sample from 2 years prior.
Sample Size	47,744	Initial: 43,200. Subsequent: 120,000—returning sample of 25,000 and new sample of 95,000 next cycle. Returning sample to stop after four cycles.
Response Rate	Overall: 66.4% (Weighted: 73.1%)	Expected: 62.5% ⁴⁴
Frequency	One-time	Periodically (next 2026)
Data Collection Period	8 months (Jan. to Aug. 2016)	6 months (April to Oct. 2022)
Purpose	To capture the prevalence of non-degree credentials (NDCs); learn about work experience programs.	Provide data on the educational and training characteristics of the nation's workforce, with a focus on those in the <u>skilled technical workforce (STW)</u> .
Total Number of Questions	91	83

⁴² National Center for Education Statistics (NCES), "Sample and Methods: Adult Training and Education Survey (ATEs)," September 1, 2023, https://nces.ed.gov/nhes/pdf/ates_infographic.pdf.

⁴³ United States Census Bureau, "Methodology - NTEWS," NTEWS Technical Documentation, April 19, 2022, <https://www.census.gov/programs-surveys/ntews/technical-documentation/methodology.html>; National Center for Science and Engineering Statistics (NCSES), "Methodology - NTEWS," <https://nces.nsf.gov/surveys/national-training-education-workforce/2022>.

⁴⁴ National Science Foundation. Notice, "Agency Information Collection Activities: Comment Request; The National Training, Education, and Workforce Survey.," *Federal Register* 85, no. 74 (April 16, 2020): 21271-73. <https://www.federalregister.gov/documents/2020/04/16/2020-08067/agency-information-collection-activities-comment-request>.

Table A1. Comparing ATEs and NTEWS Survey Design and Methodology

	ATES ⁴²	NTEWS ⁴³
Number of NDC/WEP-Related Questions	44	44
STW Represented	Included	Included
Examples of Similar Questions Related to NDCs/WEPs	<p>What kind of work is your most important certification or license for?</p> <p>Is your most important certification or license required by a federal, state, or local government agency in order to do that kind of work?</p> <p>What wage did you earn during your last completed work experience program?</p>	<p>What kind of work can you do with this MOST IMPORTANT license or certification?</p> <p>Were you LEGALLY required to have your MOST IMPORTANT license or certification in order to work?</p> <p>What wage did you earn as part of your last work experience program?</p>
Examples of Unique Questions Related to NDCs	<p><i>Can your most important certification or license be revoked or suspended for any reason?</i></p> <p><i>What is the name of your third-most important certification or license?</i></p> <p><i>To earn your last post-secondary certificate did you have to complete a minimum number of instructional hours?</i></p>	<p><i>Who issued your MOST IMPORTANT license or certification?</i></p> <p><i>Does your MOST IMPORTANT license or certification need to be renewed?</i></p> <p><i>To obtain your MOST IMPORTANT license or certification, did you have any of the following financial support?</i></p>



APPENDIX B. DETAILED REFERENCE TABLES

Table B1. EDUCATION DETAIL TABLE – select topics

NTEWS Topics	NTEWS Question Number & Alias	Related Administrative Datasets	Administrative Data Topic/Variable Examples	Notes
Enrollment Status	Are you currently enrolled in or taking courses from a college, university, technical or trade school, or other school after high school?	IPEDS, NSC, PIRL	Fall Enrollment, 12mo. Unduplicated Headcount (IPEDS); Fall Enrollment (NSC); School Status at Program Entry, Enrolled During Program (PIRL)	
Educational Attainment	What is the highest degree or level of school that you have COMPLETED?	IPEDS, NSC, PIRL, PSEO	Award Level (IPEDS); Minimum Education Required (NLx); Highest Level of Credential Earned (NSC); Highest Education/Grade Completed at Entry (PIRL); Degree Level (PSEO)	IPEDS doesn't confirm "highest" degree level earned
Education History	In what year did you get your highest degree?	NSC, PIRL, PSEO	Date of Highest Credential Earned (NSC); Date Degree Received (PIRL); Grad Cohort (PSEO)	
Field of Study	What was the field of study for your highest degree?	IPEDS, NSC, PSEO	Award CIP Code (IPEDS); CIP of Highest Credential Earned (NSC); Degree CIP Code (PSEO)	

Table B2. NON-DEGREE CREDENTIALS TABLE DETAIL TABLE

NTEWS Topics	NTEWS Question Number & Alias	Related Administrative Datasets	Administrative Data Topic/Variable Examples	Notes
Attainment /Date	Have you earned a vocational certificate for completing a training program from a college, technical/trade school, or some other school?	ETPPR, IPEDS, NSC, PIRL, PSEO	Total/Pct. Credential Attainment (ETPPR); Award Level (IPEDS); Highest Level of Credential Earned (NSC); Recognized Credential Type (PIRL); Degree Level (PSEO)	Relevance of IPEDS/NSC/PSEO assumes that some awards at the certificate level from post-secondary institutions qualify as vocational certificates/diplomas. Utilizing ETPPR would also require determining provider type as one of those indicated by NTEWS definition.

Table B2. NON-DEGREE CREDENTIALS TABLE DETAIL TABLE

NTEWS Topics	NTEWS Question Number & Alias	Related Administrative Datasets	Administrative Data Topic/Variable Examples	Notes
Attainment /Date	Do you have any CURRENTLY ACTIVE state or industry licenses or professional certifications?	ETPPR, NSC, PIRL	Total/Pct. Credential Attainment (ETPPR); Industry Credentials Earned (NSC); Recognized Credential Type (PIRL)	None of these sources indicate whether credential is currently active unless paired with relevant renewal status variable (e.g., Expiration Date in NSC).
NDC Title	Thinking about all of your CURRENTLY ACTIVE licenses and certifications, which one do you consider to be your MOST IMPORTANT?	Certification Finder, ETPPR, License Finder, NSC	Certification Name (Cert. Finder); Program Name, Associated Credential (ETPPR); License Title (Lic. Finder); Industry Credential/ Certification Name (NSC)	PIRL records whether credential was attained and type, but not title.
NDC Field	What kind of work can you do with this license or certification?	Certification Finder, ETPPR, License Finder	Certification Type, O*Net/NAICS Code (Cert. Finder); Program SOC/CIP Code (ETPPR); License Type, Occupation/Industry Code (Lic. Finder)	Open-ended survey response. ETPPR assumes that program leads directly for license/certification.
NDC Source	Who issued your MOST IMPORTANT license or certification?	Certification Finder, ETPPR, License Finder, NSC, PIRL	Certifying Organization, Accreditor (Cert. Finder); Name and Type of Provider (ETPPR); Licensing Authority, Regulatory Board (Lic. Finder); Industry Credential Organization (NSC); Eligible Training Provider Name (PIRL)	Open-ended survey response. ETPPR/PIRL would only apply in cases where training provider is also the issuer (i.e., does not apply to third-party programs).
Finance/ Cost	To obtain your MOST IMPORTANT license or certification, did you have any of the following financial support?	ETPPR, PIRL	Out-of-Pocket Costs, Number of ITAs (ETPPR); Established ITA, Supportive Service Funding, Needs-Related Payments (PIRL)	While PIRL and NSC provide Pell status, students have historically been unable to use it for short-term training programs.
Length, Renewal, etc.	Does your MOST IMPORTANT license or certification need to be renewed?	Certification Finder, License Finder, NSC	Renewal Requirement, Method (Cert. Finder); Continuing Education Requirement, License Description (Lic. Finder); Industry Credential Expiration Date (NSC)	

Table B2. NON-DEGREE CREDENTIALS TABLE DETAIL TABLE

NTEWS Topics	NTEWS Question Number & Alias	Related Administrative Datasets	Administrative Data Topic/Variable Examples	Notes
Relevance/ Reason	Do you use your MOST IMPORTANT license or certification for your MAIN job?	ETPPR, NLx, PIRL	Potential Program Outcome (ETPPR); Training/Licensing Requirements (NLx); Employment Related to Training (PIRL)	ETPPR may be used to determine and compare potential outcomes of license/certification programs against actual/identified outcomes in NTEWS. PIRL data can be used to validate/confirm relatedness. Both cases rely on subjective evaluation of program staff providing data.

Table B3. WORK EXPERIENCE PROGRAMS DETAIL TABLE

NTEWS Topics	NTEWS Question Number & Alias	Related Administrative Datasets	Administrative Data Topic/Variable Examples	Notes
Completion /Date	Have you ever COMPLETED an internship, apprenticeship, clerkship, externship, residency, clinical experience, student teaching, or similar program?	ETPPR, PIRL, RAPIDS	Number/Pct. Program Completers (ETPPR); Apprenticeship Program Status, OJT/RTI Services, Transitional Job Training (PIRL); Apprentice Count (RAPIDS)	ETPPR only relevant for programs that are explicitly work experience based.
WEP Field	What type of work was your last completed work experience program for?	ETPPR, PIRL, RAPIDS	Program SOC/CIP Code (ETPPR); Program SOC Code (PIRL); Program Type, NAICS/SOC Code, Occupation Type (RAPIDS)	Open-ended survey response. ETPPR only relevant for programs that are explicitly work experience based.
WEP Source	If your last work experience program was completed as part of a formal educational program, did it require that you take classes from: a college, university, technical or trade school, or other	ETPPR, PIRL, RAPIDS	Name and Type of Provider (ETPPR); Eligible Training Provider Name, Private Sector Provider, RTI Provider Type (PIRL); Organization Type (RAPIDS)	ETPPR only relevant for programs that are explicitly work experience based. PIRL would require categorizing providers (aside from RTI providers) based on type.

Table B3. WORK EXPERIENCE PROGRAMS DETAIL TABLE

NTEWS Topics	NTEWS Question Number & Alias	Related Administrative Datasets	Administrative Data Topic/Variable Examples	Notes
	school after high school; a company, association, union, or other provider?			
WEP Wage	What wage did you earn during your last completed work experience program?	ETPPR, RAPIDS	Median Earnings from Program (ETPPR); Starting/Exit Wage, Journeyman Wage, RTI Wage (RAPIDS)	ETPPR only relevant for programs that are explicitly work experience based.
Relevance/ Reason	How related is your last completed work experience program to your MAIN job?	ETPPR, NLx, PIRL	Potential Program Outcome (ETPPR); Training/Licensing Requirements (NLx); Employment Related to Training (PIRL)	ETPPR may be used to determine and compare potential outcomes of work experience programs against actual/identified outcomes in NTEWS. PIRL data can be used to validate/confirm relatedness. Both cases rely on subjective evaluation of program staff providing data.

Table B4. DEMOGRAPHICS DETAIL TABLE

NTEWS Topic	NTEWS Question Number & Alias	Related Administrative Datasets	Administrative Data Topic/Variable Examples	Notes
Age, Sex, Race/Ethnicity	Are you of Hispanic, Latino, or Spanish origin? / What is your race?	IPEDS, NSC, PIRL, RAPIDS	Race/Ethnicity (IPEDS, NSC, PIRL, RAPIDS)	Two separate survey questions, would need to be cross-tabulated to match many other data sources (which provide one variable with both).
Disability	What is the USUAL degree of difficulty you have with SEEING/HEARING/WALKING/LIFTING/CONCENTRATING, REMEMBERING, MAKING DECISIONS?	IPEDS, PIRL, RAPIDS	Pct. of Students with Disability (IPEDS); Disability Status, Disability Programs (PIRL); Disability Status (RAPIDS)	Survey response is a multi-item likert response—would require re-coding/translation to match disability status as identified in other admin data sources.
Marital Status	What is your current marital status?	None	None	None of the administrative data sources we considered included data on marital status.

Table B4. DEMOGRAPHICS DETAIL TABLE


NTEWS Topic	NTEWS Question Number & Alias	Related Administrative Datasets	Administrative Data Topic/Variable Examples	Notes
Language, Residence/ Citizenship	Is English your first language?	PIRL	ELL (English Language Learner) at Program Entry, Received English as Second Language Services	
Veteran/ Military	Have you ever served on active duty in the U.S. Armed Forces, Reserves, or National Guard?	IPEDS, License Finder, NSC, PIRL, RAPIDS	Veteran Status (Lic. Finder, NSC, PIRL, RAPIDS); GI Bill Benefits, DoD Tuition Assistance (IPEDS); Transitioning Service Member (PIRL)	
Geography	Derived from Respondent Address Information	IPEDS, PIRL, RAPIDS	State of Residence when Admitted (IPEDS); State/County/ZIP of Residence (PIRL); State/County/Region (RAPIDS)	



APPENDIX C. 2022 NATIONAL TRAINING, EDUCATION, AND WORKFORCE SURVEY QUESTIONNAIRE


NTEWS 2022 Questionnaire reproduced from original version(English), published by the U.S. Census Bureau: <https://www.census.gov/programs-surveys/ntews/technical-documentation/questionnaires.html> (last revised 4/20/2022).

33012014



2022 National Training, Education, and Workforce Survey

Conducted for the
National Center for Science and Engineering Statistics
and the National Center for Education Statistics by



Please make any name/address changes below: ↗

First Name MI


Last Name

Number and Street

City

State Zip Code

Form NTEWS-61 (10-06-2021)





THE NATIONAL TRAINING, EDUCATION, AND WORKFORCE SURVEY

INSTRUCTIONS

People can participate in different types of education and training. Sometimes education and training programs result in a credential. High school diplomas and college degrees are types of credentials. Other types of credentials include vocational certificates, professional certifications, and licenses. This survey asks about your education and if you have any of these credentials. The survey also asks about your job. We want to hear from you even if you do not have a job.

- Directions for completing the survey are provided with each question.
- Follow all appropriate skip instructions after marking a box. If no skip instruction is provided, you should continue to the next question.
- If you have any questions or concerns, please email us at ntews@census.gov or call us toll-free at 1-888-329-5903.

We really appreciate your help.

The information in this questionnaire is collected under the authority of the National Science Foundation (NSF) Act of 1950, as amended, the America COMPETES Reauthorization Act of 2010, and the Education Sciences Reform Act of 2002. The U.S. Census Bureau is conducting this survey under the authority of Title 13, Section 8 of the United States Code. The Census Bureau is required by law to keep your information confidential and can use your responses for statistical purposes only. The Census Bureau is not permitted to publicly release your responses in a way that could identify you. Federal law protects your privacy and keeps your answers confidential (Title 13, United States Code, Section 9). Per the Federal Cybersecurity Enhancement Act of 2015, your data are protected from cybersecurity risks through screening of the systems that transmit your data. Your response is voluntary, and failure to provide some or all of the requested information will not in any way adversely affect you. Actual time to complete the questionnaire may vary depending on your circumstances but on average, it will take about 15 minutes. If you have any comments on the time required for this survey, please send them to the Reports Clearance Officer, Office of the General Counsel, National Science Foundation, 2415 Eisenhower Ave., Alexandria, VA 22314.



Employment Status

1. Are you currently working for pay or profit?

If you are temporarily absent from a job because you are on vacation, out sick, on maternity leave, etc., please answer "Yes."

1 Yes → Go to question 5

2 No

2. (If No) Did you look for work during the last 4 weeks?

1 Yes

2 No

3. What is your MAIN reason for not working?

Mark one answer.

1 Retired

2 On layoff due to the coronavirus pandemic

3 On layoff for reasons unrelated to the coronavirus pandemic

4 Student

5 Family responsibilities due to the coronavirus pandemic (e.g., childcare, eldercare)

6 Family responsibilities unrelated to the coronavirus pandemic

7 Chronic illness or permanent disability

8 Suitable job not available

9 Do not need or want to work

10 Other – specify ↴

4. When did you last work for pay or profit?

LAST WORKED MONTH YEAR

0 ← Mark this box if you have NEVER worked for pay or profit.

If you are not currently working, go to question 22.

If you are currently working, go to question 5.



Current Employment

5. How many jobs do you have?

If you are self-employed, count work with multiple customers, clients, or businesses as one job.

NUMBER OF JOBS

6. During the PAST 12 MONTHS, how many hours did you usually work each WEEK across ALL jobs?

NUMBER OF HOURS WORKED

7. What is the name of your MAIN job?

If you have more than one job, answer for the job in which you work the MOST hours.

For example: fourth-grade teacher, entry-level plumber, web developer, etc.

NAME OF MAIN JOB

The next few questions ask about the MAIN job you wrote in question 7. Please answer for just that job.

8. For the MAIN job you wrote in question 7, what are your most important activities or duties?

For example: instruct and evaluate students and create lesson plans; assemble and install pipe sections and review building plans for work details; design, create, and modify websites; etc.

ACTIVITIES OR DUTIES

9. During the PAST 12 MONTHS (52 weeks), did you work EVERY week at the MAIN job you wrote in question 7?

Count paid vacation, paid sick leave, and military service as work.

1 Yes → **Go to question 11**

2 No

10. (If No) During the PAST 12 MONTHS (52 weeks), how many WEEKS did you work at the MAIN job you wrote in question 7?

Include paid time off and weeks when you worked for only a few hours.

NUMBER OF WEEKS

11. During the PAST 12 MONTHS, in the WEEKS WORKED, how many hours did you usually work each WEEK at the MAIN job you wrote in question 7?

NUMBER OF HOURS WORKED

12. During the PAST 12 MONTHS, what were your earnings from wages, salary, commissions, bonuses, or tips from the MAIN job you wrote in question 7?

Report the amount before deductions for taxes, bonds, dues, or other items.

EARNINGS



13. For the MAIN job you wrote in question 7, please rate your satisfaction with this job's...

Mark one answer for each item.

	Very satisfied	Somewhat satisfied	Somewhat dissatisfied	Very dissatisfied	Does not apply
	↓	↓	↓	↓	↓
1 Wage or salary.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
2 Benefits.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
3 Job security....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
4 Opportunities for advancement..	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
5 Physical working conditions.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>

14. How would you rate your overall satisfaction with the MAIN job you wrote in question 7?

Mark one answer.

- 1 Very satisfied
- 2 Somewhat satisfied
- 3 Somewhat dissatisfied
- 4 Very dissatisfied

15. For the MAIN job you wrote in question 7, are you self-employed?

- 1 Yes
- 2 No → Go to question 18

16. (If Yes) Which one of the following best describes your self-employment?

Mark one answer.

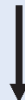
- 1 Self-employed in a NON-INCORPORATED business, professional practice, or farm
- 2 Self-employed in an INCORPORATED business, professional practice, or farm

17. What is your MAIN BUSINESS OR INDUSTRY — that is, what does your business make or do?

Include the main activity, product, or service you provide.

For example: web design, management consulting, childcare, landscaping, etc.

BUSINESS OR INDUSTRY



Go to question 20



18. For the MAIN job you wrote in question 7, which one of the following best describes your employer at this job?

Mark one answer.

- 1 FOR-PROFIT company or organization
- 2 NON-PROFIT organization (including tax-exempt and charitable organizations)
- 3 LOCAL GOVERNMENT (e.g., city, county, school district)
- 4 STATE GOVERNMENT (including state colleges and universities)
- 5 U.S. MILITARY SERVICE, ACTIVE DUTY, or COMMISSIONED CORPS (e.g., USPHS, NOAA)
- 6 FEDERAL GOVERNMENT (e.g., civilian employee)
- 7 Other – specify ↴

19. What is your employer's MAIN BUSINESS OR INDUSTRY — that is, what does this employer make or do?

Include the main activity, product, or service provided at the location where you work.

For example: elementary school, residential construction, microprocessor chip production, etc.

BUSINESS OR INDUSTRY

20. Is this business or industry mainly:

Mark one answer.

- 1 Manufacturing?
- 2 Wholesale trade?
- 3 Retail trade?
- 4 Other (agriculture, construction, service, government, etc.)?

21. What is the name and address of the business or employer for the MAIN job you wrote in question 7?

If your EMPLOYER HAS MORE THAN ONE LOCATION, report the location where you work.

If you work for a CONTRACTING OR CONSULTING COMPANY, report the name of that company, not the client organization.

Name

Department/Division

City

State/Territory

Zip Code



Enrollment	Educational Background
<p>22. Are you currently enrolled in or taking courses from a college, university, technical or trade school, or other school after high school?</p> <p>1 <input type="checkbox"/> Yes</p> <p>2 <input type="checkbox"/> No → Go to question 27</p> <p>23. (If Yes) Are you currently enrolled full-time or part-time? <i>Mark one answer.</i></p> <p>1 <input type="checkbox"/> Full-time</p> <p>2 <input type="checkbox"/> Part-time</p> <p>24. Are you currently enrolled in a degree program?</p> <p>1 <input type="checkbox"/> Yes</p> <p>2 <input type="checkbox"/> No, but I plan to transfer to a degree program.</p> <p>3 <input type="checkbox"/> No, and I do not plan to transfer to a degree program. → Go to question 27</p> <p>25. What degree are you working toward? <i>Mark one answer.</i></p> <p>1 <input type="checkbox"/> Associate degree (e.g., AA, AS)</p> <p>2 <input type="checkbox"/> Bachelor's degree (e.g., BA, BS)</p> <p>3 <input type="checkbox"/> Master's degree (e.g., MA, MS, MEng, MEd, MSW, MBA)</p> <p>4 <input type="checkbox"/> Professional degree beyond a Bachelor's degree (e.g., MD, DDS, DVM, LLB, JD)</p> <p>5 <input type="checkbox"/> Doctorate degree (e.g., PhD, EdD)</p> <p>6 <input type="checkbox"/> Other – specify ↴ <input style="width: 100%; height: 20px;" type="text"/></p> <p>26. What is your primary field of study? FIELD OF STUDY <input style="width: 100%; height: 20px;" type="text"/></p>	<p>27. What is the highest degree or level of school that you have COMPLETED? <i>Mark one answer.</i></p> <p>1 <input type="checkbox"/> Elementary, middle, or high school, but no high school diploma or alternative high school credential (e.g., GED)</p> <p>2 <input type="checkbox"/> High school diploma</p> <p>3 <input type="checkbox"/> Alternative high school credential (e.g., GED)</p> <p>4 <input type="checkbox"/> Some college credit, no degree</p> <p>5 <input type="checkbox"/> Vocational certificate or diploma</p> <p>6 <input type="checkbox"/> Associate degree (e.g., AA, AS)</p> <p>7 <input type="checkbox"/> Bachelor's degree (e.g., BA, BS)</p> <p>8 <input type="checkbox"/> Master's degree (e.g., MA, MS, MEng, MEd, MSW, MBA)</p> <p>9 <input type="checkbox"/> Professional degree beyond a Bachelor's degree (e.g., MD, DDS, DVM, LLB, JD)</p> <p>10 <input type="checkbox"/> Doctorate degree (e.g., PhD, EdD)</p> <p>28. (If elementary, middle, or high school, but no high school diploma or alternative high school credential) Are you currently enrolled in high school? <i>Do not include programs to earn an alternative high school credential (e.g., GED).</i></p> <p>1 <input type="checkbox"/> Yes → Go to question 77</p> <p>2 <input type="checkbox"/> No → Go to question 33</p> <p>29. In what year did you get your highest degree? <i>If you have more than one highest degree, answer for your most recent one.</i></p> <p>YEAR <input style="width: 40px; height: 20px;" type="text"/></p>




30. What was the field of study for your highest degree?

FIELD OF STUDY

31. Why did you choose to get your highest degree in this particular field of study?

Mark one answer for each item.

- | | Yes | No |
|---|----------------------------|----------------------------|
| 1 It was required for the job I was already doing..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 2 It was required to get a job I wanted..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 3 It allowed me to do more in the job I was already doing..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 4 It allowed me to earn more money..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 5 It allowed me to move up in my job..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 6 It was a new or emerging area in my field..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 7 I was pursuing my passion..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 8 I was exploring potential interest in a new job or field..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 9 Someone recommended this field or job to me..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 10 It was a free or inexpensive opportunity..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 11 Some other reason – specify  | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |

32. Do you use this highest degree for the MAIN job you wrote in question 7?

- 1 I am not currently working.
- 2 Yes
- 3 No

Vocational Certificates

33. Have you earned a vocational certificate or diploma for completing a training program from a community college, technical or trade school, or some other school?


Do not count Associate degrees.

- 1 Yes
- 2 No **→ Go to question 41**

34. (If Yes) Who awarded your MOST RECENT vocational certificate?

If you have more than one vocational certificate, answer for your most recent one.

Mark one answer.

- 1 A high school
- 2 A vocational, trade, or business school
- 3 A community or technical college
- 4 Another college or university
- 5 Somewhere else – specify 

35. How long did it take to complete your MOST RECENT vocational certificate?

Mark one answer.

- 1 2 full-time school weeks or less (50 hours or less of instruction)
- 2 More than 2 weeks but less than 3 months of full-time schooling (51 to 299 hours of instruction)
- 3 3 full-time school months, but less than a full-time academic year (300 to 899 hours of instruction)
- 4 1 full-time academic year or more (900 or more hours of instruction)



36. In what year did you get your MOST RECENT vocational certificate?

YEAR

37. What was the field of study for your MOST RECENT vocational certificate?

FIELD OF STUDY

38. Why did you choose to get your MOST RECENT vocational certificate in this particular field of study?

Mark one answer for each item.

	Yes	No
1 It was required for the job I was already doing.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
2 It was required to get a job I wanted.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
3 It allowed me to do more in the job I was already doing.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
4 It allowed me to earn more money.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
5 It allowed me to move up in my job.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
6 It was a new or emerging area in my field.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
7 I was pursuing my passion.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
8 I was exploring potential interest in a new job or field.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
9 Someone recommended this field or job to me.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
10 It was a free or inexpensive opportunity.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
11 Some other reason – <i>specify</i> ↘.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>

39. Do you use your MOST RECENT vocational certificate for the MAIN job you wrote in question 7?

1 I am not currently working.
2 Yes
3 No

40. To obtain your MOST RECENT vocational certificate, did you have any of the following financial support?

Mark one answer for each item.

	Yes	No
1 My own money.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
2 Loans from a spouse, partner, or family member.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
3 Money from a spouse, partner, or family member that does not need to be repaid.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
4 Financial support or reimbursement from an employer.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
5 Loans from the government or private lenders.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
6 Grants or scholarships from someplace other than my employer.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
7 Financial support from a professional association.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
8 Some other financial support – <i>specify</i> ↘.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>



Licenses and Certifications

41. Do you have any **CURRENTLY ACTIVE** state or industry licenses or professional certifications?

For example: teaching license, land surveyor license, nurse midwife certification, ASE master technician certification, Cisco Certified Network Associate (CCNA), etc.

Do not include vendor's licenses or other licenses to operate a business.

1 Yes

2 No → Go to question 68

42. (If Yes) How many **CURRENTLY ACTIVE** licenses and certifications do you have?

If you have the same license in more than one state, count each license separately.

If you earned a certification in order to get a license, count the license and certification separately.

NUMBER OF
LICENSES AND
CERTIFICATIONS

43. Thinking about all of your **CURRENTLY ACTIVE** licenses and certifications, which one do you consider to be your **MOST IMPORTANT**?

Please write out the full name. Do not use abbreviations.

NAME OF LICENSE OR CERTIFICATION

44. What kind of work can you do with this license or certification?

45. Did you get your **MOST IMPORTANT** license or certification for work-related reasons?

1 Yes

2 No



46. Why did you choose to get your MOST IMPORTANT license or certification?

Mark one answer for each item.

- | | Yes | No |
|---|----------------------------|----------------------------|
| 1 It was required for the job I was already doing..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 2 It was required to get a job I wanted..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 3 It allowed me to do more in the job I was already doing..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 4 It allowed me to earn more money..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 5 It allowed me to move up in my job..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 6 It was a new or emerging area in my field..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 7 I was pursuing my passion..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 8 I was exploring potential interest in a new job or field..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 9 Someone recommended this field or job to me..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 10 It was a free or inexpensive opportunity..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 11 Some other reason – specify ↴..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |

47. Were you LEGALLY required to have your MOST IMPORTANT license or certification in order to work?

- 1 Yes
- 2 No

48. Who issued your MOST IMPORTANT license or certification?

Mark one answer.

- 1 City or county government agency (e.g., County Electrical Licensing Board, County Department of Land Use)
- 2 State government agency (e.g., State Board of Education or other state board)
- 3 Federal government agency (e.g., OSHA, FAA)
- 4 Professional or trade association (e.g., American Culinary Federation, CompTIA)
- 5 Business or company (e.g., Xerox, 3M Company)
- 6 Other – specify ↴

49. Does your MOST IMPORTANT license or certification need to be renewed?

- 1 Yes
- 2 No → Go to question 51

50. (If Yes) How often does it need to be renewed?

Mark one answer.

- 1 Every year
- 2 Every two years
- 3 Other – specify ↴



51. In what year did you first get your MOST IMPORTANT license or certification?

YEAR

52. Do you use your MOST IMPORTANT license or certification for the MAIN job you wrote in question 7?

Mark one answer.

- 1 I am not currently working.
- 2 Yes
- 3 No

53. To obtain your MOST IMPORTANT license or certification, did you have any of the following financial support?

Mark one answer for each item.

- | | Yes | No |
|---|----------------------------|----------------------------|
| 1 My own money..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 2 Loans from a spouse, partner, or family member..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 3 Money from a spouse, partner, or family member that does not need to be repaid..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 4 Financial support or reimbursement from an employer..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 5 Loans from the government or private lenders..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 6 Grants or scholarships from someplace other than my employer..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 7 Financial support from a professional association..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 8 Some other financial support – specify ↴..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |

54. To get the skills and knowledge needed for your MOST IMPORTANT license or certification, did you take classes from a college, university, technical or trade school, or other school after high school?

- 1 Yes
- 2 No

55. Did you report having TWO OR MORE CURRENTLY ACTIVE licenses or certifications in question 42?

- 1 Yes → Go to question 56
- 2 No → Go to question 68



You indicated that you have two or more licenses or certifications. The next few questions will be about your **SECOND MOST IMPORTANT** license or certification.

56. Thinking about all of your **CURRENTLY ACTIVE** licenses and certifications you wrote in question 42, which one do you consider to be your **SECOND MOST IMPORTANT**?

Please write out the full name. Do not use abbreviations.

NAME OF LICENSE OR CERTIFICATION

57. What kind of work can you do with this license or certification?

58. Did you get your **SECOND MOST IMPORTANT** license or certification for work-related reasons?

1 Yes

2 No

59. Why did you choose to get your **SECOND MOST IMPORTANT** license or certification?

Mark one answer for each item.

- | | Yes | No |
|---|----------------------------|----------------------------|
| 1 It was required for the job I was already doing..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 2 It was required to get a job I wanted..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 3 It allowed me to do more in the job I was already doing..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 4 It allowed me to earn more money..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 5 It allowed me to move up in my job..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 6 It was a new or emerging area in my field..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 7 I was pursuing my passion..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 8 I was exploring potential interest in a new job or field..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 9 Someone recommended this field or job to me..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 10 It was a free or inexpensive opportunity..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 11 Some other reason – specify ↘..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |

60. Were you **LEGALLY** required to have your **SECOND MOST IMPORTANT** license or certification in order to work?

1 Yes

2 No



61. Who issued your SECOND MOST IMPORTANT license or certification?

Mark one answer.

- 1 City or county government agency (e.g., County Electrical Licensing Board, County Department of Land Use)
- 2 State government agency (e.g., State Board of Education or other state board)
- 3 Federal government agency (e.g., OSHA, FAA)
- 4 Professional or trade association (e.g., American Culinary Federation, CompTIA)
- 5 Business or company (e.g., Xerox, 3M Company)
- 6 Other – specify ↴

62. Does your SECOND MOST IMPORTANT license or certification need to be renewed?

- 1 Yes
- 2 No → Go to question 64

63. (If Yes) How often does it need to be renewed?

Mark one answer.

- 1 Every year
- 2 Every two years
- 3 Other – specify ↴

64. In what year did you first get your SECOND MOST IMPORTANT license or certification?

YEAR

65. Do you use your SECOND MOST IMPORTANT license or certification for the MAIN job you wrote in question 7?

Mark one answer.

- 1 I am not currently working.
- 2 Yes
- 3 No

66. To obtain your SECOND MOST IMPORTANT license or certification, did you have any of the following financial support?

Mark one answer for each item.

	Yes	No
1 My own money.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
2 Loans from a spouse, partner, or family member.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
3 Money from a spouse, partner, or family member that does not need to be repaid.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
4 Financial support or reimbursement from an employer.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
5 Loans from the government or private lenders.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
6 Grants or scholarships from someplace other than my employer.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
7 Financial support from a professional association.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>
8 Some other financial support – specify ↴.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>

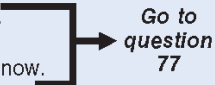

67. To get the skills and knowledge needed for your SECOND MOST IMPORTANT license or certification, did you take classes from a college, university, technical or trade school, or other school after high school?

- 1 Yes
- 2 No



Work Experience Programs

68. Have you ever **COMPLETED** an internship, apprenticeship, clerkship, externship, residency, clinical experience, student teaching, or similar program?

- 1 Yes, I have completed this type of program.
- 2 No, but I am in one now. 
- 3 No, and I am not in one now. 

In the next few questions, we will refer to internships, apprenticeships, and similar programs as “work experience programs.”

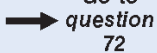
69. What type of work was your last completed work experience program for?

For example: administrative assistant, entry-level plumber, etc.

TYPE OF WORK

70. How related is your last completed work experience program to the MAIN job you wrote in question 7?

Mark one answer.

- 1 I am not currently working. 
- 2 Very related
- 3 Somewhat related
- 4 Not related

71. How often do you use the skills or knowledge that you gained during your last work experience program for the MAIN job you wrote in question 7?

Mark one answer.

- 1 All or most of the time
- 2 Sometimes
- 3 Almost never
- 4 Never

72. In what year did you complete your last work experience program?

YEAR

73. What wage did you earn during your last completed work experience program?

Mark one answer.

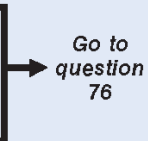
- 1 I was not paid.
- 2 A wage that increased as I gained skills and experience
- 3 A set wage that was lower than the wage of a fully qualified worker
- 4 The same wage as a fully qualified worker



74. Which ONE of the following best describes your last completed work experience program?

Mark one answer.

- 1 It was part of a high school program.
- 2 It was part of a school program after high school.
- 3 It was not part of a formal education program.



75. Did your last completed work experience program require that you take classes from...

Mark one answer for each item.

- | | Yes | No |
|---|----------------------------|----------------------------|
| 1 A college, university, technical or trade school, or other school after high school?..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| 2 A company, association, union, or other provider?..... | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |

76. As part of your last completed work experience program, did you get formal training from a coworker or mentor?

- 1 Yes
- 2 No

Background

77. Are you male or female?

- 1 Male
- 2 Female

78. What is your birthdate?

MONTH	DAY	YEAR
<input type="text"/>	<input type="text"/>	<input type="text"/>

79. Are you of Hispanic, Latino, or Spanish origin?

- 1 Yes
- 2 No

80. What is your race?

Mark all that apply.

- 1 American Indian or Alaska Native
specify tribal affiliation(s)
- 2 Native Hawaiian or other Pacific Islander
- 3 Asian
- 4 Black or African American
- 5 White

81. What is your current marital status?

- 1 Married
- 2 Living in a marriage-like relationship
- 3 Widowed
- 4 Divorced
- 5 Separated
- 6 Never married



82. Is English your first language?1 Yes2 No**83. How well do you need to speak English for the MAIN job you wrote in question 7?***Mark one answer.*1 I am not currently working.2 I need to be able to easily carry on a conversation.3 I need to be able to reply to or ask simple questions.4 I need to be able to use single words or short phrases.5 I do not need to speak English for this job.**84. How well do you need to speak Spanish for the MAIN job you wrote in question 7?***Mark one answer.*1 I am not currently working.2 I need to be able to easily carry on a conversation.3 I need to be able to reply to or ask simple questions.4 I need to be able to use single words or short phrases.5 I do not need to speak Spanish for this job.**85. Have you ever served on active duty in the U.S. Armed Forces, Reserves, or National Guard?***Mark one answer.*1 Never served in the military2 Only on active duty for training in the Reserves or National Guard3 Now on active duty4 On active duty in the past, but not now**86. Are you currently living in the United States or Puerto Rico, another U.S. territory, or are you living in another country?***Mark one answer.*1 United States or Puerto Rico2 Another U.S. territory3 Another country**87. In what U.S. state, U.S. territory, or foreign country were you born?**

U.S. STATE OR U.S. TERRITORY

OR

FOREIGN COUNTRY

88. Are you a U.S. citizen?1 Yes → **Go to question 90**2 No**89. (If non-U.S. citizen) Are you currently a non-U.S. citizen with a...***Mark one answer.*1 Permanent U.S. Resident Visa (Green Card)?2 Temporary U.S. Resident Visa?

This next question will help us better understand the career paths of individuals with different types of limitations.

90. What is the USUAL degree of difficulty you have with...

Mark one answer for each item.

	None ↓	Slight ↓	Moderate ↓	Severe ↓	Unable to do ↓
1 SEEING words or letters in ordinary newspaper (with glasses/contact lenses, if you usually wear them)?.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
2 HEARING what is normally said in conversation with another person (with a hearing aid, if you usually use one)?.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
3 WALKING without human or mechanical assistance or using stairs?.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
4 LIFTING or carrying something as heavy as 10 pounds, such as a bag of groceries?.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
5 CONCENTRATING, REMEMBERING, or MAKING DECISIONS because of a physical, mental, or emotional condition?.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>

91. Because we are interested in how education and employment change over time, we might contact you in the future. To help us contact you, please list an email address and phone numbers where you can be reached.

Email Address

Area code Number
Home Phone Number - -

Area code Number
Cell Phone Number - -

← Mark this box to give consent to receive text messages for follow-up purposes only.



**Thank you for your participation in the National Training,
Education, and Workforce Survey!**

**Please return this questionnaire in the postage-paid envelope provided. If you
have lost the envelope, mail the completed questionnaire to:**

**U.S. Census Bureau
1201 E. 10th St.
Jeffersonville, IN 47132-0001**

**If you have any questions or need assistance, please email us at
ntews@census.gov or call us toll-free at 1-888-329-5903.**

**Results of the National Training, Education, and Workforce Survey will be released
next year and can be found on the National Science Foundation's website at
<https://www.nsf.gov/statistics/srvyntews/>.**

**You are not required to respond to any information collection unless it displays a
valid approval number from the Office of Management and Budget. The approval
number for this survey can be found at the bottom of the front page.**

