

*Caption: 2015 Kessler Foundation Employment and Disability Survey logo with a blue figure of a standing man, a green figure of a standing woman, and a mango figure of a person pushing a wheelchair.*

**Report of Main Findings**

**Kessler Foundation**

**West Orange, NJ**

**June 2015**

**Conducted by**

**The University of New Hampshire**

**Durham, NH**

**Prepared by**

***Andrew J. Houtenville, Ph.D.***

***Associate Professor of Economics and***

***Research Director, Institute on Disability, UNH***

***Vidya Sundar, Ph.D., OTR***

***Assistant Professor, Department of Occupational Therapy, UNH***

***Tracy Keirns, Ph.D.***

***Project Director, UNH Survey Center***

***Andrew Smith, Ph.D.***

***Director, UNH Survey Center and***

***Associate Professor of Practice, Department of Political Science, UNH***

***Kimberly G. Phillips, M.A.***

***Project Director, Institute on Disability, UNH***

***Elaine E. Katz, M.S., CCC-SLP***

***Senior VP of Grants and Communications, Kessler Foundation***

***John O’Neill, Ph.D., CRC***

***Director, Employment and Disability Research, Kessler Foundation***

**Suggested Citation:**

**Kessler Foundation (2015). The Kessler Foundation 2015 National Employment and Disability Survey: Report of Main Findings. West Orange, NJ.**

**Table of Contents**

[**Introduction** 7](#_Toc420659743)

[**Objectives** 8](#_Toc420659744)

[**Methods** 9](#_Toc420659745)

[Survey and Questionnaire Design 9](#_Toc420659746)

[Sample 10](#_Toc420659747)

[Data Collection 11](#_Toc420659748)

[Data Analyses 13](#_Toc420659749)

[**Survey Findings** 13](#_Toc420659750)

[Disability and Employment Status 13](#_Toc420659751)

[Striving to Work 16](#_Toc420659752)

[Preparing for Work 18](#_Toc420659753)

[Searching for Jobs 19](#_Toc420659754)

[Overcoming Barriers during the Job Search 20](#_Toc420659755)

[Overcoming Barriers in the Workplace 21](#_Toc420659756)

[Workplace Accommodations 22](#_Toc420659757)

[Disability in the Workplace 23](#_Toc420659758)

[**Conclusion** 25](#_Toc420659759)

[**Implications** 26](#_Toc420659760)

[**Appendix I: Comparison to the American Community Survey** 27](#_Toc420659761)

[**Appendix II: Demographic and Socio-economic Information** 28](#_Toc420659762)

[**Appendix III: Technical Report for Random Digit Dial Telephone Survey** 29](#_Toc420659763)

[**Appendix IV: References** 35](#_Toc420659764)

**2015 Kessler Foundation National Employment and Disability Survey**

**Executive Summary**

***Synopsis.*** The key finding of the 2015 Kessler Foundation National Employment and Disability Survey is that Americans with disabilities are striving to work. They are working, actively preparing for employment, searching for jobs, seeking more hours, and successfully overcoming barriers in the workplace.

***Objective.*** The Kessler Foundation Employment Survey was designed as a nationally representative, scientifically rigorous, and transparent means of exploring the experiences of Americans with disabilities in finding and maintaining employment.

*Caption: The infographic, titled, “Reframing the Dialogue, Shaping the Future,” depicts the text, “Not Working,” with a green arrow pointing to the words, “Striving to Work,” and “Facing Barriers,” with a blue arrow pointing to the words, “Overcoming Barriers.”*

The Kessler Foundation Employment Survey, conducted by the University of New Hampshire (UNH):

* refocuses the national discourse on employment and disability toward striving to work and overcoming barriers;
* informs the creation of new priorities and programs that address the job search and workplace experiences of people with disabilities; and
* may influence the future of employment for Americans with disabilities.

The Kessler Foundation Employment Survey includes information collected from six subpopulations categorized by their work-related experiences: individuals who are working and not looking for new work (29.9 percent), individuals who are working and are looking for new work (12.7 percent); individuals who previously worked and are looking for work (7.9), individuals who previously worked and are not looking for work (43.6 percent); individuals who never worked and are looking for work (0.8 percent), and individuals who never worked and are not looking for work (5.1 percent).

***Striving for Work.*** People with disabilities are striving to work, as indicated by the 68.4 percent who are currently working, or looking for work, or have worked since the onset of disability. The fact that people with disabilities are striving to work is demonstrated by other findings. Those who are currently employed are working an average of 35.5 hours per week; 60.7 percent work more than 40 hours per week, and 40.6 percent want to work more hours.

***Preparing for Work.*** People with disabilities are actively preparing for employment—another indicator that they are striving for work. Among non-working job seekers, the top three activities used to prepare for work are:

* obtaining medical treatment/rehabilitation (72.7 percent),
* getting other help from friends and family (62.4 percent), and
* going to school/college (47.1 percent).

***Searching for Jobs.*** People with disabilities are actively searching for jobs, yet another way they are striving for work. Among non-working job seekers, the top three approaches used to search for work are:

* looking for and applying for jobs online (76.7 percent),
* through friends or relatives (68.1 percent), and
* contacting employers directly (61.2 percent).

***Overcoming Barriers–Job Search.*** People with disabilities are overcoming barriers when looking for jobs. Non-working job seekers were asked about their experience with barriers in the job search process. The top three barriers they faced are:

* 41.1 percent report not enough education or training, with 38.5 percent of these individuals overcoming this barrier,
* 36.0 percent report employers assuming they can’t do the job, with 32.8 percent of these individuals overcoming this barrier, and
* 25.6 percent report a lack of transportation, with 41.9 of these individuals overcoming this barrier.

The job search barrier most likely to be overcome is family members discouraging them from working, with 10.4 percent reporting this barrier, and 63.1 percent of these individuals overcoming it. The barrier least likely to be overcome is being denied health insurance or other work-related benefits, with 19.8 percent reporting this barrier, and only 16.3 percent of these individuals reporting that they overcame it.

***Overcoming Barriers–In the Workplace.*** Current workers were asked about their experience with barriers in the workplace. The top three barriers they are faced are:

* 16.5 percent report getting less pay than others in a similar job, with 38.6 percent of these individuals overcoming this barrier,
* 15.7 percent report attitudes on the part of their supervisor, with 41.3 percent of these individuals overcoming this barrier, and
* 15.5 percent report attitudes on the part of their coworkers, with 54.5 percent of these individuals overcoming this barrier.

The workplace barrier most likely to be overcome is family members discouraging them from working, with 6.5 percent reporting this barrier, and 64.3 percent of these individuals overcoming it. The barrier least likely to be overcome is lack of job counseling, with 5.5 percent reporting this barrier, and 33.3 percent of these individuals reporting that they overcame it.

***Workplace Accommodations.*** The provision of workplace accommodations is not just a central tenet of the Americans with Disabilities Act, it is an important facet of corporate America’s efforts to attract and keep exceptional and talented employees. Among current workers, the top three accommodations are:

* 28.4 percent report having flexible schedules (flexible start and end times, work at home, taking more breaks),
* 14.0 percent report having modified job duties (reduced hours, light duty, less demanding job tasks), and
* 13.6 percent report building accessibility being addressed.

These findings support the current trends in workplace culture, where flexible work arrangements are valued by all employees. Organizational policies that allow flexible work arrangements and modified job duties have tremendous potential in supporting persons with disabilities in the workplace.

***Methods.*** The Kessler Foundation Employment Survey was conducted using standard, replicable survey practices. A telephone survey was conducted across the United States of randomly selected adults ages 18 to 64 with a self-reported disability. A sample of households was selected using a random digit dialing (RDD) procedure on both landline and cellular telephones. A set of disability questions, based in part on the American Community Survey disability items, and an age question, were used to identify households with at least one adult with a disability aged 18 to 64. Interviews were completed with 3,013 persons. The response rate was 13 percent. Interviews were conducted from October 17, 2014 through April 23, 2015, by the UNH Survey Center and Penn State University Survey Research Center.

***Closing Comments.*** This Executive Summary contains only the major findings of the 2015 Kessler Foundation Employment & Disability Survey. The full report, available at KesslerFoundation.org, contains many more powerful and insightful statistics and analyses. Many more analyses are planned for these data. In the coming years, a de-identified person-level data file and corresponding codebook will be released to the public. All are also invited to use the survey instrument and even take the survey online at [www.ResearchOnDisability.org/KesslerSurvey](http://www.ResearchOnDisability.org/KesslerSurvey). Please let us know if you find this survey to be useful in your work. Look for updates on Twitter #KFSurvey15.

# **Introduction**

Kessler Foundation in partnership with the University of New Hampshire conducted the 2015 National Employment and Disability Survey (KFNEADS) to examine the unique ways in which people with disabilities strive to seek and maintain employment. The long-standing employment gap between people with and without disabilities is well-documented (Yelin & Trupin 2003; Houtenville, Brucker, & Lauer, 2014). Disparities exist in employment rates, earnings, and labor force participation among persons with and without disabilities and among persons experiencing different types of disabilities. For those who are employed, jobs tend to be of shorter tenure, part-time, at or below minimum wage, and with little opportunity to advance in a career path (Siperstein, Parker and Drascher, 2013).

Research findings point to two main factors that contribute to the persistence of these employment disparities. On the supply-side of the labor market, the findings indicate that Social Security policy may encourage large numbers of people with disabilities into income-support programs, and such programs may not foster and support full-time work (Houtenville et al., eds. 2009; Autor & Duggan 2006; Stapleton & Burkhauser, eds. 2003). On the demand-side of the labor market, research indicates that there is a belief among employers that people with disabilities cannot do the job because of the “nature of the work” (Domzal, Houtenville, & Sharma 2008; Houtenville & Kalargyrou, 2012).

However, in perhaps the most advanced analysis, Burkhauser, Butler, and Weathers (2001) and Burkhauser, Butler, and Gumus (2004), utilizing a longitudinal survey, found that workplace accommodations helped keep people with disabilities in their jobs and from moving onto Social Security programs, both of which have a positive influence on employment outcomes for people with disabilities. Accommodations were defined broadly to include providing equipment, transportation, training for new skills, as well as job modifications and various changes to the timing of work hours and breaks.

Given the multitude of factors that have an impact on employment outcomes of people with disabilities, current and up-to-date national information is needed to develop programs and policies to support employment pursuits of people with disabilities. Current literature in the field is often narrowly focused on employment disparities and the barriers causing those disparities. Federal surveys are helpful in documenting the unemployment rate, poverty and certain other indicators of disparities among people with disabilities but tell us very little about the experiences unique to people with disabilities. We envision that the 2015 KFNEADS will strategically complement and supplement the Federal surveys by offering insight into the unique experiences of people with disabilities.

To this end, 2015 KFNEADS delves into the experiences of people with disabilities and identifies the strategies they use to find and maintain employment. In addition to contributing to the existing body of evidence on disparities and barriers, the 2015 KFNEADS documents innovative ways people with disabilities ***strive to work and overcome employment-related barriers***. In doing so, it is anticipated that the survey will inform the field as it looks to develop innovative and sustainable approaches to improve lives and employment outcomes of people with disabilities.

# **Objectives**

Consistent with the Kessler Foundation mission to improve the lives of people with disabilities, the ultimate objective of the survey is to gather timely information that will assist in reducing the long-standing employment disparities between people with and without disabilities. This not only means increasing the number of people with disabilities who have jobs but also improving the quality of these jobs and advancing the workplace environment. The immediate objectives of the survey are to utilize scientifically rigorous and transparent methods with a nationally representative sample to

* refocus the national discourse away from “employment disparity” towards “striving to work” and from “facing barriers” to “successfully overcoming barriers,”
* inform the creation of new priorities and programs of intervention that address the job search and workplace experience of people with disabilities, and
* positively influence the future of employment for Americans with disabilities.

It is important to recognize two key aspects of these objectives. First, these objectives are structured around the premise that people with disabilities, much like their peers without disabilities, are motivated to seek and sustain employment. The 2015 KFNEADS does not conform to negative portrayals of persons with disabilities as individuals who are uninterested in work, dependent on Social Security, or passive victims of discrimination. In other words, by pursuing these objectives, the survey will look beyond the common pitfalls such as Social Security program enrollment or workplace discrimination and document the things people with disabilities are actively doing as they **strive to work.**

Second, by asking survey respondents about the strategies used by themselves and their employers to support them in their workplace, the survey will, to some degree, overcome one of the largest barriers in disability research, which is to solicit information about employers. Employers are typically reluctant to use work hours to answer surveys or allow employees to answer surveys while at work. By focusing on strategies used and deemed successful, it is anticipated that the 2015 KFNEADS will further programs, policy and research by documenting the role of employers in hiring, retaining and supporting qualified and talented employees with disabilities.

# **Methods**

## Survey and Questionnaire Design

The 2015 KFNEADS was designed as a telephone survey of households in all 50 states in the U.S. The primary goals of the survey were to use a nationally representative sample and scientifically rigorous, transparent methods to investigate the ways in which people with disabilities strive to work and overcome barriers. The questionnaire was developed by a team of researchers at the University of New Hampshire in consultation with Kessler Foundation and an advisory board. The survey was approved by the University of New Hampshire Institutional Review Board. Beta testing of the questionnaire was conducted by the UNH Survey Center with persons with disabilities and their family members as proxy respondents.

Potential respondents were screened for the presence of disability in the household. The screening questions included a modified version of the disability questions from the American Community Survey (ACS) and six additional questions about physical and cognitive difficulties. A comparison of disability prevalence between the 2015 KFNEADS and the ACS is included in Appendix I. Subsequent sections of the questionnaire focused on employment status, health and disability onset, employment history, job search experiences, barriers at work, strategies used to overcome barriers at work and workplace accommodations.

## Sample

The survey targeted households that included at least one person between the ages 18 to 64 and experiencing a disability or health condition. The sampling frame for the survey included households with a landline telephone and/or cell phone. A random digit dial (RDD) frame sample from 50 states was used. Business listings and other non-residential listings were not included in the sampling frame. The telephone numbers obtained were split as roughly 50 percent landline and 50 percent cell phone numbers. The purpose of using a dual sampling frame was to reduce any potential non-coverage bias for households that use cell phones exclusively. Telephone numbers were appended with addresses where available.

An initial pre-screening letter with a self-addressed return envelope was sent to all households in the sampling frame, when a mailing address was available. The pre-screening letter included questions about ages of the members in the household and the presence of any disability or health condition in the household. The purpose of the pre-screening letter was to increase efficiency by screening out households that were not eligible to participate. Households that returned the pre-screening letter and met all the initial eligibility criteria were placed on a higher priority for the survey interview. Households that returned the pre-screening letter and did not meet the eligibility criteria were removed from the calling list. Households that did not return the pre-screening letter were also called. In the event that more than one person in the household had a disability, the individual with the last birthday in the calendar year (not the youngest) was chosen as the target for the survey. Proxy responses were allowed for those who could not complete the telephone interview.

## Data Collection

Trained professional interviewers at the UNH Survey Center and Penn State Survey Research Center conducted the telephone interviews between October 17, 2014, and April 23, 2015. Interviews were completed with 3,013 persons from a sample of 117,871 randomly selected telephone numbers. Twelve partially completed interviews were not included in the final analyses or the report. Overall, 42,328 telephone listings were identified as non-eligible, of which 13,113 households were identified as non-eligible based on age and disability status. Further, 3,977 households were identified as eligible for the survey, but could not be interviewed for various reasons such as refusal, non-English language, and non-response. The following (Table 1) are the survey quality indicators as recommended by the American Association for Public Opinion Research (AAPOR).

**Table 1. Survey Quality Indicators**

|  |  |
| --- | --- |
| **AAPOR response rate**The number of complete interviews with reporting units divided by the number of eligible reporting units in the sample. Response Rate 3 (RR3) is the number of complete interviews divided by the number of interviews (complete plus partial) plus the number of non-interviews (refusal and break-off plus non-contacts plus others) plus all cases of unknown eligibility (unknown if housing unit, plus unknown, other). RR3 estimates what proportion of cases of unknown eligibility is actually eligible. | 13.4 percent |
| **AAPOR Co-operation rate (COOP3)**The proportion of all cases interviewed of all eligible units ever contacted. Cooperation Rate 3 (COOP3) is the number of complete interviews divided by the number of interviews (complete plus partial) plus the number of non-interviews that involve the identification of and contact with an eligible respondent (refusal and break-off plus other). COOP3 defines those unable to do an interview as also incapable of cooperating and they are excluded from the base. | -73.5 percent |
| **AAPOR Refusal rate (REF3)**The proportion of all cases in which a housing unit or the respondent refuses to be interviewed, or breaks-off an interview, of all potentially eligible cases. Refusal Rate 3 (REF3) is the number of refusals divided by the interviews (complete and partial) plus the non-respondents (refusals, non-contacts, and others) | -4.8 percent |

*Source: American Association for Public Opinion Research, 2008*

Of the 3,013 interviews completed, 18 percent were through proxy respondents because the person with the disability was unable to complete the telephone interview. The average interview time was 18 minutes. Of the sample of 3,013 individuals, 48.9 percent were male, 36.4 percent were between the ages 55-64, which was the largest age group represented; 27 percent were 45-54 years old; 15.4 percent were 35-44 years old; 12.4 percent were 25-34 years old and 8.7 percent were 18-24 years old. About 79 percent were White; 16.6 percent were Black. Of the total respondents, 6.7 percent were individuals of Hispanic origin. Many people had some college experience (27.5 percent) or were college graduates (22.1 percent). See Appendix II for detailed demographic information of survey participants.

## Data Analyses

Data analyses were conducted using the Complex Samples Module of IBM SPSS Statistical Software. The data were weighted to account for known biases of telephone surveys. The data in the 2015 KFNEADS were weighted by the number of working-age adults with disabilities and the number of telephone lines within households to equalize the chances that any one working-age adult with a disability would be selected for inclusion. The data were also weighted by respondent sex, age, race, and region of the country. For more information on weighting procedures and sampling error estimation, see the Technical Report in Appendix III. Note that the estimates presented in the findings are based on weighted frequencies.

# **Survey Findings**

## Disability and Employment Status

The 2015 KFNEADS used a comprehensive set of screening questions to identify the presence of disability in a household. Survey respondents were asked about the presence of functional difficulties and limitations due to health and medical conditions. The standard American Community Survey (ACS) disability questions for hearing, vision, ambulatory and cognitive difficulties, the ambulatory and cognitive difficulty questions were supplemented with probing questions. A negative response to the ambulatory and cognitive difficulty questions triggered further questions regarding specific conditions that may cause that difficulty. As a result, potential respondents had extended opportunities to self-identify themselves or someone else in their household as having a functional difficulty. For the purposes of this survey, disability was defined as experiencing a difficulty in one or more of the following areas: hearing; vision; upper limb movement and manipulation; lower limb mobility; and cognition.

**Disability type.** Table 2 shows the percentage of individuals reporting any type of disability. Vision difficulty was the lowest reported at 21.7 percent and cognitive difficulty was the most frequently reported type of disability (63.2 percent). Exploratory analysis of the data indicated that several participants experienced more than one type of disability. Of the total sample, 64.6 percent reported multiple disabilities (23.4 percent had two, and 41.2 percent had three or more). When respondents identified more than one type of disability, they were asked about their most limiting disability, and subsequent survey questions were stemmed based on the most limiting disability. Among the five types of difficulties identified, cognitive difficulty was reported as the most limiting disability by 26.9 percent of people followed by lower limb mobility difficulties.

**Table 2. Disability type (percent)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Hearing | Vision | Lower limbmobility | Upper limbmanipulation | Cognitive | Other |
| Total sample | 24.3 | 21.7 | 49.3 | 48.7 | 63.2 | 34.2 |
| Most limiting disability type | 7.0 | 5.3 | 24.1 | 17.6 | 26.9 | 19.0 |

**Employment status.** For the 2015 KFNEADS, employment status was categorized as currently working, previously worked (but currently not working) and never worked. After determining employment status, each respondent was asked if they were currently looking for a job, resulting in six groups: (1) currently working and not looking for a different job; (2) currently working and looking for a different job; (3) previously worked and currently not looking for a job; (4) previously worked and currently looking for a job; (5) never worked and not looking for a job; and (6) never worked and looking for a job. The largest percentage of individuals in the survey sample was those who previously worked and were currently not looking for jobs (Table 3).

**Table 3. Employment status (percent)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Total | Currentlyworking | Previously worked\* | Never worked |
| Total | 100.0 | 42.6 | 51.5 | 5.9 |
| Looking | 21.4 | 12.7 | 7.9 | 0.8 |
| Not looking | 78.6 | 29.9 | 43.6 | 5.1 |

\*Previously worked and currently not working

An analysis of employment status by the most limiting disability type (Table 4) indicated that people with hearing difficulties were the largest group that was currently working (75.5 percent) followed by those with cognitive difficulties (53.6 percent). Individuals with upper and lower limb mobility issues were less likely to be working currently (but had previously worked).

**Table 4. Employment status among disability subpopulations (percent)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Hearing | Vision | Lower limb mobility | Upper limb manipulation | Cognitive |
| Currently working | 75.5 | 49.9 | 29.6 | 31.6 | 53.6 |
| Previously worked | 21.6 | 46.0 | 64.0 | 65.1 | 39.9 |
| Never worked | 2.9 | 4.1 | 6.4 | 3.2 | 6.5 |

**Onset of disability.**When asked about the time of onset of their disability or health condition, most people indicated that their disability or health condition had started during adult life and at work (49 percent). Further examination of the employment status by the time of onset of disability shows that people who had their disability onset at work and during adulthood were most likely to have been previously employed but not currently working (28.2 percent) (Table 5). People who never worked were most likely to have experienced disability onset during youth (2.8 percent). Finally, among individuals not currently employed, 45.6 percent were previously employed at some point since the onset of their disability or health condition.

**Table 5. Onset of disability or health condition (percent)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Youth(before working) | Adulthood(not at work) | At work | Other |
| Total | 27.2 | 21.6 | 49.0 | 2.1 |
| Currently working | 15.8 | 7.3 | 18.8 | 0.7 |
| Previously worked | 8.6 | 13.6 | 28.2 | 1.1 |
| Never worked | 2.8 | 0.7 | 2.0 | 0.2 |

## Striving to Work

A primary objective of the 2015 KFNEADS was to document ways in which people with disabilities strive to work. The striving to work characteristic of the survey respondents was identified in several ways among various groups of individuals. Table 6 shows that among all people with disabilities, 68.4 percent were striving to work in many different ways. Striving to work is demonstrated through behaviors such as actively looking for work, pursuing training or education programs, preparing for the job market by getting help with resume writing, interviewing etc. Workers with disabilities were the largest group striving to work by maintaining and sustaining their current employment. Individuals who previously worked, those who were looking for work and those who had been employed since the onset of their disability were illustrative of the striving to work concept. Figure 1 shows the different groups of survey respondents who were striving to work.

**Table 6. Individuals with disabilities striving to work (percent)**

|  |  |  |  |
| --- | --- | --- | --- |
| Total | Working | Previously worked | Never worked |
| 68.4 | 42.6 | 25.0 | 0.8 |

**Figure 1 - Striving to work**

*Caption: The infographic depicts five squares—one green, three blue, and one mango—with the text, “Currently working, 42.6 percent,” “Previously employed (since disability onset), looking for work, 6.4 percent,” “Previously employed (not since disability onset), looking for work, 1.5 percent,” “Previously employed (since disability onset), not looking for work, 17.1 percent,” and “Never employed, looking for work, 0.8 percent.” All squares have a grey arrow, pointing to a dark blue center circle, “Striving to Work, 68.4 percent.”*

**Importance of work.** Work is very important to people with disabilities. When asked about the “importance of work,” close to 60.9 percent indicated that work was “very important” to them. Among those currently working, 37.9 percent indicated that work was very important. Among those working and not looking for work, 26.4 percent indicated that work was very important (Table 7).

**Table 7. Percentage for which it is “very important” to work**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | Total | Working | Previously worked | Never worked |
| Total | 60.9 | 37.9 | 21.1 | 1.9 |
| Looking | 18.3 | 11.5 | 6.3 | 0.5 |
| Not looking | 42.6 | 26.4 | 14.8 | 1.4 |

**Hours worked among current and previous workers*.*** Many Americans with disabilities continue to work full-time despite their functional difficulties or age. About 13.6 percent of currently-working Americans with disabilities worked 60 or more hours and another 20.8 percent worked more than 40 but less than 60 hours a week (Table 8). Among individuals who are currently working, about 40.6 percent pointed out that they would like to work more hours, further strengthening our premise that Americans with disabilities are striving to work.

**Table 8. Average hours worked per week among currently working**

|  |  |  |  |
| --- | --- | --- | --- |
| Average | Percent > 40 < 60 | Percent > 60 | Percent wanting more |
| 35.5 | 20.8 | 13.6 | 40.6 |

Table 9 shows that among people who previously worked, there was a marginal difference between the average number of hours worked per week for those who continued working after onset of disability (38.3 hours) and those who have not worked since the onset of disability (39.3 hours). Continued employment since the onset of disability is also an indicator of how people with disabilities strive to work.

**Table 9. Average hours worked per week worked among people who previously worked**

|  |  |
| --- | --- |
| Onset time | Average |
| Since disability onset | 38.3 |
| Not since disability onset | 39.3 |

##

## Preparing for Work

Table 10 shows the approaches being used and the percentage of people reporting use of each approach. Conventional approaches such as obtaining medical or rehabilitation treatment were the most frequently used approach by Americans with disabilities to prepare for a job. Individuals with disabilities also had a strong tendency to rely on informal networks such as family and friends to assist with job search preparation. Pursuing vocational skills or job skills training and obtaining assistive devices and special equipment were the least used approaches.

**Table 10. Approaches used for job preparation among individuals currently not working**

|  |  |
| --- | --- |
|  | Percent use |
| Obtain medical treatment or rehabilitation | 72.7 |
| Get other help from friends and family | 62.4 |
| Go to school or college | 47.1 |
| Get help with resume writing | 42.5 |
| Get computer training | 32.9 |
| Volunteer in an organization to learn some skills | 28.8 |
| Get help with interviewing | 28.4 |
| Go to a vocational training or job skills training program | 25.6 |
| Get an assistive device or special equipment | 22.8 |
| Get help with transportation | 22.5 |
| Something else | 14.8 |

Preparation intensity can be interpreted as another indicator of how Americans with disabilities strive to work. Table 11 shows that the majority of individuals (65.1 percent) reported utilizing three or more approaches to prepare for employment.

**Table 11. Percent using one or more approach to prepare for employment**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Total | 1 | 2 | 3 | 4 | 5 or more |
| 92.2 | 9.0 | 18.0 | 16.4 | 13.0 | 35.7 |

##

## Searching for Jobs

Among individuals who were not currently working, 92.9 percent utilized at least one strategy to search for a job (Table 12). Many individuals (62.4 percent) utilized three or more strategies, suggesting a higher intensity of job search.

**Table 12. Percent using one or more approach to search for jobs**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Total | 1 | 2 | 3 | 4 | 5 or more |
| 92.9 | 13.2 | 17.3 | 25.9 | 18.5 | 18.0 |

Americans with disabilities rely most frequently on online sources (76.7 percent) and familiar informal networks such as family and friends (68.1 percent) to look for jobs (Table 13). Another job search strategy reported by many (61.2 percent) was to contact the employer directly. There was limited use of community and governmental resources such as vocational rehabilitation programs in the actual job search process.

**Table 13. Approaches used to search for jobs among individuals not currently working**

|  |  |
| --- | --- |
|  | Percent use |
| By looking for and applying for jobs online | 76.7 |
| Through friends or relatives | 68.1 |
| By contacting employers directly | 61.2 |
| Through a temporary staffing agency | 25.0 |
| Through a government agency | 23.1 |
| Through local community non-profit agencies | 16.5 |
| Through the state vocational rehabilitation counselors or placement specialists | 15.2 |
| Through a private employment agency | 11.3 |
| Some other agency | 4.9 |

## Overcoming Barriers during the Job Search

Job seekers were asked about the challenges they faced while looking for jobs and whether they succeeded in addressing any of those challenges (Table 14). About 41.1 percent of job seekers expressed that not having enough education or training was a barrier, followed by 36.0 percent who indicated that employers incorrectly assumed that they could not do the job because of their disability. Even though a smaller percentage of individuals experienced discouragement from family members, it was the easiest barrier to overcome. Of the 10.4 percent who experienced this barrier, 63.1 percent were able to negotiate with their family members the importance of working. Lack of transportation, education and training were also easily addressed by job seekers. The barriers that were least likely to be overcome by those who faced them were denial of health insurance or work-related benefits (19.8 percent faced this barrier and only 16.3 percent of these overcame it) and lack of job counseling (21.6 faced the barrier and 23.6 of these individuals overcame it). Current policies under the Affordable Care Act are intended address the lack or denial of employer-based health benefits for people with pre-existing conditions.

**Table 14. Barriers individuals faced and overcame during the search for work (percent)**

|  |  |  |
| --- | --- | --- |
|  | Faced  | Overcame (if faced) |
| Not enough education or training | 41.1 | 38.5 |
| Employers assumed you can't do the job because of your disability | 36.0 | 32.8 |
| Lack of transportation | 25.6 | 41.9 |
| Getting less pay than others in similar job | 21.6 | 28.5 |
| Lack of job counseling | 21.6 | 23.6 |
| Being denied health insurance or other work-related benefits | 19.8 | 16.3 |
| Concern about losing government assistance or benefits | 19.2 | 25.6 |
| Needing special equipment, tools, or accommodations on the job | 17.9 | 24.1 |
| Family discouraged you from working | 10.4 | 63.1 |
| Some other problem | 15.6 | 48.1 |

## Overcoming Barriers in the Workplace

Table 15 presents a summary of barriers faced by people with disabilities at work. At the workplace, lower pay than others in a similar position was the most frequently reported barrier (16.5 percent), followed by negative attitudes on the part of the supervisor (15.7 percent) and co-workers (15.5 percent). Similar to job seekers, workers with disabilities reported negotiating with family members and obtaining transportation as the most frequently overcome barriers (64.3 percent). Barriers relating to lack of workplace accommodations were faced by 11.4 percent; of the individuals who faced this barrier, more than half (57.4 percent) were able to overcome it. Past research suggests that obtaining workplace accommodations is a primary concern for workers with disabilities. The 2015 KFNEADS points to attitudes of supervisors and co-workers, rather than tangible accommodations, as primary concerns.

**Table 15. Barriers individuals faced and overcame at work (percent)**

|  |  |  |
| --- | --- | --- |
|  | Faced  | Overcame (if faced) |
| Getting less pay than others in a similar job | 16.5 | 38.6 |
| Negative attitudes on the part of supervisor | 15.7 | 41.3 |
| Negative attitudes on the part of coworkers | 15.5 | 54.5 |
| Needing special features or accommodations on the job | 11.4 | 57.4 |
| Being denied health insurance or other work-related benefits | 10.8 | 48.0 |
| Employers assumed you can't do the job because of your disability | 9.7 | 48.9 |
| Not enough education or training | 9.6 | 49.1 |
| Concern about losing government assistance or benefits | 9.3 | 42.9 |
| Family members discouraged you from working | 6.5 | 64.3 |
| Lack of transportation | 6.0 | 60.1 |
| Lack of job counseling | 5.5 | 33.3 |
| Some other problem | 9.0 | 47.8 |

## Workplace Accommodations

Workplace accommodations are a proven strategy used to improve job task completion and workplace productivity for people with disabilities (Khan et al., 2009; Nevala, Pehkonen, Koskela, Ruusuvuoru and Anttila, 2014). The use of workplace accommodations was explored among: (1) individuals who were currently working, and (2) individuals who previously worked since the onset of their disability but were not now seeking employment. Fewer than half (47.8 percent) of respondents used some type of accommodations at their workplace. Table 16 shows the types of accommodations used and the percentage of respondents reporting use of each one.

**Table 16. Accommodations used at work by currently or previously employed individuals**

|  |  |
| --- | --- |
|  | Percent use |
| Flexible schedule (flexible start/end times, work at home, more breaks) | 28.4 |
| Modified job duties (reduced hours, light duty, less demanding job tasks) | 14.0 |
| Building accessibility (accessible parking, elevators, modified restrooms) | 13.6 |
| Any kind of help from others in the workplace | 13.4 |
| A personal computer or tablet with adaptations | 7.5 |
| A cell phone or smart phone with specialized features | 6.7 |
| Help with transportation | 6.7 |
| A job coach | 4.8 |
| A personal care attendant or personal assistant | 2.6 |
| Service animal to help with your disability or health condition | 0.7 |
| Some other accommodation or support | 5.1 |

**Workplace accommodations needed by job seekers.** Americans with disabilities looking for work were asked about their need for workplace accommodations, and the findings are summarized in Table 17. Similar to accommodations needed at work by individuals with disabilities currently employed, flexible schedules and modified job duties were the top two accommodations that were identified.

**Table 17. Accommodations individuals looking for employment will need at work**

|  |  |
| --- | --- |
|  | Percent will need |
| Flexible schedule (flexible start/end times, work at home, more breaks) | 49.6 |
| Modified job duties (reduced hours, light duty, less demanding job tasks) | 35.6 |
| Help with transportation | 25.6 |
| A personal computer or tablet with adaptations | 23.9 |
| Any kind of help from others in the workplace | 21.9 |
| A cell phone or smart phone with specialized features | 21.0 |
| A job coach | 20.2 |
| Building accessibility (accessible parking, elevators, modified restrooms) | 18.3 |
| A personal care attendant or personal assistant | 10.3 |
| Service animal to help with your disability or health condition | 5.8 |
| Some other accommodation or support | 5.3 |

**Source of workplace accommodations.** Most respondents (68.4 percent) reported that their employers provided most or all of the supports or accommodations they needed to continue working. Availability of accommodations for current workers was considerably higher (34.8 percent) than accommodations provided to individuals who previously worked (14.9 percent). Table 18 contains a summary.

**Table 18. Self-reported percentage of employers providing most or all needed workplace accommodations**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Total | Working | Previously working |
| Total | 68.4 | 47.6 | 20.8 |
| Looking | 18.7 | 12.8 | 5.9 |
| Not looking | 49.7 | 34.8 | 14.9 |

## Disability in the Workplace

**Job satisfaction.**Overall, 45.3 percent of people who currently or previously worked were highly satisfied with their jobs. Job satisfaction rates, presented in Table 19, were slightly higher among those who previously worked (25.0 percent) in comparison to current workers (20.3 percent).

**Table 19. Percent “highly satisfied” with their current or previous job**

|  |  |  |  |
| --- | --- | --- | --- |
|   | Total | Working | Previously working |
| Total | 45.3 | 20.3 | 25.0 |
| Looking | 10.0 | 4.5 | 5.5 |
| Not looking | 35.3 | 15.8 | 19.5 |

**Career advancement.**Americans with disabilities who were currently employed did not believe that their disability made it difficult for them to advance in their career (Table 20). However, individuals who previously worked perceived disability to be a limiting factor in finding jobs. Among previous workers, 34.8 percent identified their disability as a challenge in finding jobs compared to 8.0 percent of current workers.

**Table 20. Percent believing their disability makes it “very difficult” to find, change, or advance at a job**

|  |  |  |  |
| --- | --- | --- | --- |
|   | Total | Working | Previously working |
| Total | 43.2 | 8.0 | 34.8 |
| Looking | 6.3 | 2.6 | 3.3 |
| Not looking | 36.9 | 5.4 | 31.5 |

**Disability disclosure.**When asked how comfortable they felt discussing their disability or health condition with others at work when necessary, 72.7 percent of currently or previously employed individuals reported they were not uncomfortable doing so. Table 21 shows the percentage within each disability type that is not uncomfortable discussing their condition at the workplace.

**Table 21. Percent willing to discuss their disability with others at work, when necessary**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Hearing | Vision | Lower mobility | Upper mobility | Cognitive |
| 75.2 | 75.8 | 74.8 | 72.4 | 67.5 |

**Acceptance in the workplace.** Most respondents (86.6 percent) reported that they felt accepted at their workplaces. Table 22 shows the percentage within each disability type that felt accepted or supported at work. Individuals with vision difficulties (95.8 percent) were most likely to experience acceptance followed by individuals with hearing difficulties (93.1 percent).

**Table 22. Percent who feels or felt accepted at their current or former workplace**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Hearing | Vision | Lower mobility | Upper mobility | Cognitive |
| 93.1 | 95.8 | 87.2 | 82.9 | 85.6 |

# **Conclusion**

The 2015 KFNEADS was created and administered in an effort to understand the unique experiences of people with disabilities in the workplace. Findings from the survey suggest that people with disabilities are striving to work and overcoming barriers in the job search and at the workplace. In this survey, striving is characterized by actively looking for work, taking steps to prepare for work, wanting to work more hours, sustaining work, and successfully negotiating barriers at work. Even though people with disabilities expressed a strong desire to be working, a considerable portion of the survey respondents was unemployed and uninterested in seeking work – further exploration and research on their experiences is warranted.

Survey respondents, in general, believed that their disability was the primary barrier faced during the job search, job retention, and career advancement. They also relied heavily on informal networks such as family and friends in the community to help with job search and preparation. In keeping with the current trends in the workplace, Americans with disabilities valued and strongly expressed the need for flexible work arrangements including flexible start and end times and the option to work from home. Surprisingly, many individuals were able to use creative strategies such as ride sharing or carpooling to overcome transportation-related issues, which has been cited as a key barrier in past literature (Lubin and Deka, 2012).

People with disabilities are mostly comfortable disclosing their disability when necessary and requesting accommodations at work. Yet, attitudinal barriers reflected both in formal processes and informal social interactions in the workplace seem widely prevalent. The role of supervisors and co-workers is crucial in supporting people with disabilities in the workplace. Twenty-five years after the passing the ADA, we are beginning to see changes in the workplace that uphold the spirit of ADA.

# **Implications**

Findings from the 2015 KFNEADS can be invaluable in the development of programs and policies to support the employment goals of people with disabilities. Future research in this area should be directed towards understanding the experiences of those who choose not to seek employment and the factors that led to their decision, including the role of Social Security programs. Responses to the 2015 KFNEADS clearly reflect a shift in the workplace culture, keeping with the current trends of creating flexible workplace arrangements and inclusive workplaces. While looking for jobs, people with disabilities rely on the natural supports available in their environment, especially family members and friends. Future programs and practices targeting job search efforts of Americans with disabilities should include family members, friends, and other informal support networks. Similarly, at work, co-workers and supervisors hold the key to fostering an inclusive and welcoming workplace environment. Co-workers and supervisors need to be aware, trained, and encouraged to create and maintain an inclusive and diverse workplace culture. Concerted efforts at improving the self-advocacy of people with disabilities, supporting family members and friends in job search efforts, and training of co-workers and supervisors is vital in reshaping the future of Americans with disabilities.

# **Appendix I: Comparison to the American Community Survey**

The 2015 Kessler Foundation National Employment and Disability Survey (KFNEADS) defined disability using questions from the American Community Survey (ACS), plus supplemental items based on the Canadian Survey. Table A1-1 shows a comparison of the share distribution in each for the four categories of disability that the 2015 KFNEADS has in common with the ACS. The categories are not mutually exclusive.

**Table A1-1. Share distribution among disability types (percent)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Hearing | Vision | Ambulatory | Cognitive |
| KFNEADS | 30.6 | 34.0 | 56.6 | 45.1 |
| ACS | 57.1 | 54.1 | 31.0 | 27.1 |

Also, for comparison, Table A1-2 shows the percent currently working by disability type for the disability items that are common to both ACS and the 2015 KFNEADS. These statistics reflect the overall prevalence in the 2015 KFNEADS as opposed to the most limiting disability when a respondent reported more than one difficulty. The overall employment rate was higher among the 2015 KFNEADS sample (45.2 percent compared to 35.6 percent from the ACS). Although the employment rate for individuals with vision and/or hearing difficulties was lower in the 2015 KFNEADS, it was higher than ACS among those with a cognitive disability. Among respondents who answered affirmatively to one or more of the 2015 KFNEADS additional disability items (three cognitive disability-related questions and one extra lower mobility difficulty item), the percent currently working was 42.3 percent.

**Table A1-2. Percent currently working by disability type**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Hearing | Vision | Ambulatory | Cognitive | Any of the 4 |
| KFNEADS | 43.2 | 30.4 | 24.7 | 27.0 | 45.2 |
| ACS | 49.0 | 38.1 | 23.0 | 22.7 | 35.6 |

# **Appendix II: Demographic and Socio-economic Information**

**Table A2-1. Demographic and Socio-economic information (percent)**

|  |  |
| --- | --- |
|  |  |
| Gender |  |
|  | Male | 48.9 |
| Age |
|  | 18-24 | 8.7 |
|  | 25-34 | 12.4 |
|  | 35-44 | 15.4 |
|  | 45-54 | 27.0 |
|  | 55-64 | 36.4 |
| Race |
|  | White | 79.1 |
|  | Black | 16.6 |
|  | Asian | 1.1 |
|  | American Indian / Alaska Native | 1.9 |
|  | Native Hawaiian / Pacific Islander | 0.4 |
|  | Other | 0.8 |
| Ethnicity |
|  | Hispanic | 6.7 |
| Education |
|  | 8th grade or less | 3.2 |
|  | Some high school | 6.0 |
|  | High school diploma or GED | 26.6 |
|  | Technical school | 5.6 |
|  | Some college | 27.5 |
|  | College graduate | 22.1 |
|  | Postgraduate work | 9.0 |
| Income |
|  | < $15,000 | 22.4 |
|  | $15,000 – 29,999 | 18.5 |
|  | $30,000 – 44,999 | 12.0 |
|  | $45,000 – 59,999 | 11.9 |
|  | $60,000 – 74,999 | 10.4 |
|  | $75,000 – 99,999 | 9.4 |
|  | $100,000 or more | 15.4 |
| Received Social Security Income in the last 2 years |
|  | Yes | 36.7 |

# **Appendix III: Technical Report for Random Digit Dial Telephone Survey**

**Sample selection.** The 2015 Kessler Foundation National Employment and Disability Survey (KFNEADS) was a telephone survey of randomly selected working-age adults[[1]](#footnote-1) with a self-reported disability across the U.S. This survey was conducted using a procedure called random digit dialing (RDD), of both landline and cellular telephone.

A sample of households in the area was selected by RDD, which works as follows. First, with the aid of a computer, one of the three digit telephone exchanges that are currently used in the state (e.g., 772) is randomly selected. The computer then randomly selects one of the "working blocks"—the first two of the last four numbers in a telephone number (e.g., 64) and attaches it to the randomly selected exchange. Finally, the computer program then generates a two digit random number between 00 and 99 (e.g., 57) which is attached to the previously selected prefix (772), and the previously selected working block (64) resulting in a complete telephone number, i.e., 772 6457. This procedure is then repeated numerous times by the computer to generate more random numbers, so that we have a sufficient quantity to conduct the survey. The end result is that each household in the area in which there is a telephone has an equally likely chance of being selected into the sample. This procedures is done for both land line and cellular exchanges.

The random sample used in the 2015 KFNEADS was purchased from Scientific Telephone Samples (STS), Foothill Ranch, California. STS screens each selected telephone number to eliminate non-working numbers, disconnected numbers, and business numbers to improve the efficiency of the sample, reducing the amount of time interviewers spend calling non-usable numbers.

Each of these randomly-generated telephone numbers is called by one of our interviewers from a centrally supervised facility at the UNH Survey Center.[[2]](#footnote-2) If the number called is found not to be a residential one, it is discarded and another random number is called. (Approximately forty-five percent of the numbers were discarded because they are found to be businesses, institutions, or not assigned.) If it is a residential number, and the household is eligible to participate (there is at least one member of the household who is 18 to 64 years old and has at least one disability) the interviewer then randomly selects a member of the household who meets the eligibility criteria by asking to speak with the adult between 18 and 64 with a disability currently living in the household who has had the most recent birthday. This selection process ensures that every adult with a disability (between 18 and 64 years of age) in the household has an equally likely chance of being included in the survey. No substitutions are allowed. If, for example, the randomly selected adult with a disability is not at home when the household is first contacted, the interviewer cannot substitute by selecting someone else with a disability who just happens to be there at the time. Instead, he or she must make an appointment to call back when the randomly selected adult is at home. In this way, respondent selection bias is minimized.

**Disability screening.** The criteria for inclusion was based on disability screening questions used in the American Community Survey and the Canadian Survey on Disability. If a household indicated that at least one working-age resident of the household had at least one of the five disability types (vision, hearing, upper mobility, lower mobility, or a cognitive impairment), then the household was eligible. Overall, 13,018 households were identified as not eligible based on age and disability status. In the event the randomly selected working-age adult with an identified disability was unable to answer for themselves, a proxy was selected based on the person in the household with the most knowledge about the selected respondents work experiences. Overall, 18 percent of surveys were completed by a proxy on behalf of the selected working-age adult with a disability.

**When the interviewing was done.** Working-age adults with a disability across the U.S. were interviewed for the 2015 KFNEADS between October 17, 2014, and April 23, 2015. Each selected respondent was called by a professional interviewer from a centrally supervised facility at the UNH Survey Center or Penn State Survey Research Center. Telephone calls during the field period were made between 9:00 AM and 9:00 PM local time. The average interview time was 18 minutes.

**Response rates.** Interviews were completed with 3,013 randomly selected working-age adults with a disability in the U.S. from a sample of 117,871 randomly selected telephone numbers. Using American Association for Public Opinion (AAPOR) Response Rate 3, the response rate for the 2015 KFNEADS was 13 percent. The formula to calculate standard AAPOR response rate is:

$$\frac{I}{\left(I+P\right)+\left(R+NC+O\right)+e\left(UH+UO\right)}$$

I=Complete Interviews, P=Partial Interviews, R=Refusal and break off, NC=Non-Contact, O=Other, e=estimated portion of cases of unknown eligibility that are eligible, UH=Unknown household, UO=Unknown other.

**Weighting of data.** The data have been weighted to account for known biases of telephone surveys. The data in the 2015 KFNEADS are weighted by the number of working-age adults with disabilities and telephone lines within households to equalize the chances that any one working-age adult with a disability would be selected for inclusion. The data are also weighted by respondent sex, age, race, and region of the country.

**Table A-2. Sample demographics: pre- and post-weight**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Characteristics Used in Weighting |  |  | Key Indicator Variables |
|  |  | Pre-Weightpercent | Post-Weightpercent |  |  |  | Pre-Weightpercent | Post-Weightpercent |
| Sex |  |  |  |  | Social Security |  |  |  |
|  | Male | 44.4 | 48.8 |  |  | Yes | 35.3 | 35.8 |
|  | Female | 55.6 | 51.2 |  |  | No | 62.3 | 61.9 |
|  |  |  |  |  |  | Refused | 2.5 | 2.3 |
|  |  |  |  |  |  |  |  |  |
| Age |  |  |  |  | Disability Type |  |  |  |
|  | 18 – 24 | 8.4 | 8.5 |  |  | Vision | 22.0 | 21.7 |
|  | 25 – 34 | 11.3 | 12.1 |  |  | Hearing | 24.7 | 24.2 |
|  | 35 – 44 | 14.3 | 15.0 |  |  | Lower Mobility | 48.2 | 49.1 |
|  | 45 – 54 | 27.5 | 26.5 |  |  | Upper Mobility | 48.1 | 48.6 |
|  | 55 – 64 | 36.3 | 35.6 |  |  | Cognitive | 64.0 | 63.0 |
|  | Refused | 2.2 | 2.3 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Race |  |  |  |  | Employment Status |  |  |  |
|  | White Only | 75.0 | 70.9 |  |  | Currently Working | 42.8 | 42.6 |
|  | Black Only | 11.5 | 15.3 |  |  | Previously Worked | 51.6 | 51.5 |
|  | Other/2 or More Races | 8.1 | 8.9 |  |  | Never Worked | 5.6 | 5.9 |
|  | Refused | 5.4 | 4.9 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Census Region |  |  |  |  | Income |  |  |
|  | Northeast | 17.0 | 15.8 |  |  | Less than $15,000 | 15.3 | 16.8 |
|  | Midwest | 22.9 | 21.8 |  |  | $15,000 - $29,999 | 12.8 | 13.8 |
|  | South | 37.6 | 40.4 |  |  | $30,000 - $44,999 | 9.8 | 9.0 |
|  | West | 20.9 | 20.8 |  |  | $45,000 - $59,999 | 8.8 | 8.9 |
|  |  |  |  |  |  | $60,000 - $74,999 | 7.7 | 7.8 |
|  |  |  |  |  |  | $75,000 - $99,999 | 7.1 | 7.0 |
|  |  |  |  |  |  | $100,000 & Over | 13.0 | 11.5 |
|  |  |  |  |  |  | DK/NA | 25.4 | 25.2 |

**Sampling error.** The 2015 KFNEADS, like all surveys, is subject to sampling error due to the fact that all residents in the area were not interviewed. For those questions asked of five hundred (500) or so respondents, the error is +/-4.4percent. For those questions where fewer than 500 persons responded, the sampling error can be calculated as follows:

$$Sampling Error=\pm 1.96\sqrt{\frac{P\left(1-P\right)}{N}}, $$

where P is the percentage of responses in the answer category being evaluated and N is the total number of persons answering the particular question.

For example, suppose you had the following distribution of answers to the question, "Should the state spend more money on road repair even if that means higher taxes?” Assume 1,000 respondents answered the question as follows:

|  |  |
| --- | --- |
| YES | 47 percent |
| NO | 48 percent |
| DON’T KNOW | 5 percent |

The sampling error for the "YES" percentage of 47 percent would be

$$\pm 1.96\sqrt{\frac{47\left(53\right)}{1000}}=\pm 3.1percent$$

for the "NO" percentage of 48percent it would be

$$\pm 1.96\sqrt{\frac{48\left(52\right)}{1000}}=\pm 3.1percent.$$

and for the "DON'T KNOW" percentage of 5percent it would be

$$\pm 1.96\sqrt{\frac{5\left(95\right)}{1000}}=\pm 1.4percent.$$

In this case we would expect the true population figures to be within the following ranges:

|  |  |
| --- | --- |
| YES | 43.9 percent ‑ 50.1 percent (i.e., 47 percent ±3.1 percent) |
| NO | 44.9 percent - 51.1 percent (i.e., 48 percent ±3.1 percent) |
| DON’T KNOW | 3.6 percent - 6.4 percent (i.e., 5 percent ±1.4 percent) |

# **Appendix IV: References**

Autor, D., & Duggan, M. (2006). *The growth in the social security disability rolls: a fiscal crisis unfolding* (No. w12436). National Bureau of Economic Research.

Burkhauser, R. V., Butler, J. S., & Gumus, G. (2004). Dynamic programming model estimates of Social Security Disability Insurance application timing. *Journal of Applied Econometrics*, *19*(6), 671-685.

Burkhauser, R. V., Butler, J. S., & Weathers, R. R. (2001). How policy variables influence the timing of applications for social security disability insurance. *Soc. Sec. Bull., 64*, 52

Domzal, C., Houtenville, A., & Sharma, R. (2008). *Survey of employer perspectives on the employment of people with disabilities: technical report*. Prepared under contract to the Office of Disability and Employment Policy, US Department of Labor). McLean, VA: CESSI.

Houtenville, A. J. (Ed.). (2009). *Counting working-age people with disabilities: what current data tell us and options for improvement*. WE Upjohn Institute.

Houtenville, A. J., Brucker, D. L., & Lauer, E. A., (2014). Annual Compendium of Disability Statistics: 2014. Durham, NH: University of New Hampshire, Institute on Disability.

Houtenville, A., & Kalargyrou, V. (2012). People with disabilities employers’ perspectives on recruitment practices, strategies, and challenges in leisure and hospitality. *Cornell Hos*pitality Quarterly, 53(1), 40-52.

Lubin, A., & Deka, D. (2012). Role of public transportation as job access mode.*Transportation Research Record: Journal of the Transportation Research Board*, 2277(1), 90-97.

Nevala, N., Pehkonen, I., Koskela, I., Ruusuvuori, J., & Anttila, H. (2014). Workplace Accommodation Among Persons with Disabilities: A Systematic Review of Its Effectiveness and Barriers or Facilitators. *Journal of Occupational Rehabilitation,* 1-17.

Siperstein, G. N., Parker, R. C., & Drascher, M. (2013). National snapshot of adults with intellectual disabilities in the labor force. *Journal of Vocational Rehabilitation, 39*(3), 157-165.

Stapleton, D. C., & Burkhauser, R. V. (Eds.). (2003). *The decline in employment of people with disabilities: A policy puzzle*. WE Upjohn Institute.

Yelin, E. H., & Trupin, L. (2003). Disability and the characteristics of employment. *Monthly Lab. Rev., 126*, 20-31.

1. Adults ages 18 to 64 were included in the survey. [↑](#footnote-ref-1)
2. Twenty percent of calls were conducted from the Penn State Survey Research Center. [↑](#footnote-ref-2)