The adult education (AE) component of the National Household Education Survey (NHES:95) examined the education activities of adults in the United States in 1994-95. Special attention was paid to the types of educational activities in which adults participate and the relationships between adults' participation in AE activities and educational attainment. In the NHES:95, screening interviews were completed with 45,465 households (response rate, 73.3%). Of the 23,969 adults surveyed for the AE component of the NHES:95, 19,722 (80%) completed the interview, thus yielding an overall response rate for the AE interview of 58.6%. Among the main findings of the AE component were the following: approximately 76 million adults (40%) participated in at least 1 AE activity during the 12 months prior to the study; approximately 1 in 5 adults participated in work-related courses, and 1 in 5 participated in personal development courses; approximately 31% of adults participated in only 1 type of educational activity versus 9% who participated in 2 or more different types of activities; and the overall participation rate of college graduates was more than triple the rate of individuals with no high school diploma and nearly twice the rate of individuals with no postsecondary education. (MN)
Forty Percent of Adults Participate in Adult Education Activities: 1994–95

Today, education must serve the needs of adults as well as youths. Adults participate in educational activities to acquire the knowledge and skills necessary to succeed in the workforce and to master emerging technologies, as well as to acquire basic skills, learn English, earn credentials, and enrich their lives. One of the National Education Goals states that "By the year 2000, every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship." This report contains the first release of information from the adult education component of the National Household Education Survey (NHES:95) on the educational activities of adults in the United States in 1994–95. It focuses on the types of educational activities in which adults participate and how this participation is related to their educational attainment.

Some key findings concerning participation in adult education activities are:

- About 76 million adults (40 percent) participated in one or more adult education activities during the 12 months prior to the study.²
- About one-fifth of adults participated in work-related courses, and about the same fraction participated in personal development courses.
- About one in three adults (31 percent) participated in only one type of educational activity; about one in eleven (9 percent) participated in two or more different types of activities.
- The overall participation rate of college graduates was more than three times the rate of those who did not have a high school diploma, and nearly twice the rate of those without any postsecondary education.
Darkenwald and Merriam define adult education as participation in systematic learning activities for the purpose of acquiring new knowledge or skills or changing attitudes or values, by persons who have assumed adult social roles. Adult education is also generally regarded as noncompulsory or postcompulsory education. Within this general perspective, adult education is a diverse arena, and may be defined in a variety of ways. The NHES:95 incorporates a broad approach to the range of activities that may be considered adult education, including six types of educational activities in its definition of adult education. Each course or program was reported in only one category of adult education. The six types were asked in the following order:

- English as a Second Language (ESL) instruction helps adults whose main language is not English to improve their English language skills and learn basic American social skills.

- Adult basic education (ABE) and basic skills courses, GED preparation classes, and adult high school programs focus on helping adults to improve basic reading, writing, and math skills or to prepare for a high school diploma or its equivalent.

- Credential programs deal mainly with formal programs leading to a college or university degree or a postsecondary vocational or technical diploma. Some adults also reported programs leading to other certificates related to qualifications for jobs or licenses. For this report, the definition of adult education participation includes part-time, but not full-time, participation in credential programs.

- Apprenticeship programs provide formal training in occupations in which a participant learns a trade through on-the-job training and other related instruction.

- Work-related courses are those related to a job or career, whether or not respondents had a job when they took the courses. Some examples are courses taken at work, courses taken elsewhere that relate to a job or career, or courses for a license or certification for a job.

- Personal development courses include various types of educational activities that have an instructor and are not included in the categories described above. Some examples are courses related to health, hobbies or sport lessons, computer classes (other than work-related), and Bible study classes.

The participation status of adults was determined by their involvement in one or more of these six types of adult education in the 12 months prior to the interview. Adults who reported that they had participated only as full-time credential seekers are not counted as participants in this analysis.

The NHES:95 was a random-digit-dial (RDD) telephone survey of the civilian, noninstitutionalized population of the 50 states and the District of Columbia, conducted in January through April of 1995. In the adult education component, the population of interest was adults age 16 and older who were not enrolled in elementary or secondary school. Brief descriptions of the study methodology are presented in the Survey Methodology and Data Reliability section of this report.

**Adult Education Participation Rates**

About 76 million adults (40 percent) participated in one or more adult education activities in the 12-month period prior to the survey (table 1). The participation rate in the NHES:91 adult education component was 32 percent, so this represents a substantial increase in participation rates from 1991 to 1995. This growth is consistent with the findings of previous research utilizing adult education data from the Current Population Survey (CPS) from 1969 to 1984, which also showed significant growth over time.

The two types of educational activities in which adults participated most were work-related courses and personal development courses. Table 1 shows the percentages of adults who participated in adult education activities. (The sum of the percentages for each type of adult education is greater than the overall participation rate of 40 percent. This is because some adults participated in more
than one type of adult education, and they appear in percentages for more than one type.) About one-fifth of adults participated in work-related courses, and about the same fraction participated in personal development courses. Other types of educational activities are more specialized and fewer adults took part in them. About 6 percent of adults age 16 and older participated in a credential program on a part-time basis, and only about 1 percent participated in each other type of activity — ABE/GED, ESL, and apprenticeships.

Cross states that "Learning is addictive; the more education people have, the more they want, and the more they will get." The NHES:95 adult education findings support this assertion. The overall adult participation rate is significantly related to educational attainment, and the participation rate increases with each level of education shown (table 1). The overall participation rate of college graduates was more than three times the rate of those who did not have a high school diploma and nearly twice the rate of high school graduates without any postsecondary schooling (figure 1). Participation rates in work-related and personal development courses (which dominate the activities reported) also increased across levels of education from very low rates among those without a high school diploma to much higher rates among those with more education.

Educational attainment is also associated with participation in part-time credential programs, although the rates are much lower than those for work-related or personal development courses. Increasing from less than 1 percent among those with no high school diploma to 11 percent among those with some postsecondary education, the part-time credential participation rate drops off slightly (to 8 percent) for those with a bachelor's degree or more. Among those with some college or vocational/technical school, participation in credential programs may represent continued enrollment.

Participation rates in ABE/GED courses, ESL courses, and apprenticeship programs do not follow this general pattern in relation to educational attainment. ABE/GED courses and programs are specifically designed for those who need assistance with basic skills or who wish to complete a high school diploma or its equivalent. As one might expect, the rate of participation in ABE/GED classes was highest among persons without a high school diploma or its equivalent. There was no relationship between participation in ESL and educational attainment as might be expected, since persons of all educational levels come to the United States and participate in ESL classes. The observed differences in rates of participation in apprenticeship programs are statistically significant, but the range of the estimates (i.e., from less than one percent to two percent) is minimal.

The National Adult Literacy Survey (NALS) reported that 21 to 23 percent of the adult population in the Nation lack proficiency in reading prose, understanding and interpreting documents, and performing quantitative tasks. The NALS also indicated that adults with less than a high school diploma were most likely to lack proficiencies in these three areas. This lack of skill can inhibit the adult's ability to function in a modern and increasingly technical society. Nevertheless, the NHES:95 data show that adults with less than a high school diploma were least likely to participate in adult education activities overall, in credential programs, and in work-related courses, and only 5 percent of these adults participated in adult basic education or GED preparation.

Types of Participation

Some adults participated in only one type of adult education activity in the previous year, whereas others participated in two or more types. Table 2 shows the distribution of adult education activities among the population of adults, classified so that each adult appears in only one category. About one adult in three (31 percent) participated in only one type of adult education in the previous year, and about one in eleven (9 percent) participated in more than one type of activity.
Figure 1.— Percent of adults age 16 and older participating in adult education activity, by educational attainment

![Figure 1: Graph showing the percentage of adults participating in adult education activity by educational attainment.](image)

NOTE: Includes civilian, noninstitutionalized adults age 16 and older, not enrolled in elementary or secondary school.


The percent of adults who participated in one type of activity or in multiple activities increases across education levels (table 2 and figure 2). Thus, we see that not only do more adults with higher education levels participate in any educational activities, but greater proportions participate in multiple types of educational activities. About 15 percent of adults with a bachelor's degree or more education participated in more than one type of activity; this represents about one in four college graduates participating in adult education (15 percent out of the 58 percent of this group that were participants, tables 1 and 2). About 5 percent of those with a high school diploma or equivalent participated in more than one type of activity, which represents about one in six high school graduate participants (5 percent out of the 31 percent who were participants, tables 1 and 2).

Among the types of educational activities adults have participated in, the most common activities were work-related courses only (14 percent of adults) and personal development courses only (12 percent of adults). In addition, 5 percent of adults participated in both of these types of activities. Participation in these two activities, taken separately and in combination, accounts for 31 percent of adults, a large majority of the 40 percent overall participation rate. About 3 percent of adults participated in part-time credential programs only, and only 1 percent or less participated in each of the other individual activities or combinations of activities.

The same set of activities (work-related only, personal development only, and both of these) account for the great majority of adult education activities among adults who have a high school diploma, some postsecondary education, or a bachelor's degree or more education. Among those without a high school diploma, about 3 percent took only ABE/GED classes; however, even in this group,
participation in personal development courses (6 percent) was still more common than participation in basic skills education or GED preparation.

About 2 percent of participants without a high school diploma took some other combination of adult education activities (last row of table 2) than those specifically identified in the table. Because these various other combinations of activities are very rare, they are not shown individually. However, these combinations do include persons who took ABE/GED courses plus some other type or types of adult education.

Summary

In summary, about 40 percent of adults were engaged in one or more types of adult education in the 12-month period prior to the NHES:95. This represents a substantial increase in participation compared to that found in the adult education component of the NHES:91, which showed a 32 percent participation rate. The most prevalent adult education activities were participation in work-related courses and personal development courses. Participation rates overall and for the two leading types of educational activities were strongly associated with the adult’s educational attainment. Only about one in six non-high school graduates participated in any educational activities, compared to nearly six of out ten college graduates. Only 5 percent of those without a high school diploma took courses to improve their basic skills, to prepare for the GED, or to complete a high school diploma during the 12-month period (table 1).

Figure 2.— Percent of adults age 16 and older participating in one type or multiple types of adult education activity, by educational attainment

![Bar Chart]

**Percentage of Adults**

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>One type of activity</th>
<th>Two or more types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than high school diploma</td>
<td>14%</td>
<td>2%</td>
</tr>
<tr>
<td>High school diploma/ equivalent</td>
<td>26%</td>
<td>5%</td>
</tr>
<tr>
<td>Some college, associate's degree, voc/tech diploma</td>
<td>38%</td>
<td>12%</td>
</tr>
<tr>
<td>Bachelor's degree or higher</td>
<td>43%</td>
<td>15%</td>
</tr>
</tbody>
</table>

NOTE: Includes civilian, noninstitutionalized adults age 16 and older, not enrolled in elementary or secondary school.

Survey Methodology and Data Reliability

The 1995 National Household Education Survey (NHES:95) is a telephone survey conducted by the U.S. Department of Education's National Center for Education Statistics (NCES). Data collection took place from January through April of 1995. The sample is nationally representative of all civilian, noninstitutionalized persons in the 50 states and the District of Columbia. This sample was selected using random-digit-dialing (RDD) methods, and the data were collected using computer assisted telephone interviewing (CATI) technology. This section provides a brief description of the study methodology; further details will appear in the forthcoming Adult Education Data File User's Manual of the NHES:95.

The adult education component of the NHES:95, which is the basis of this report, sampled civilian adults who were age 16 and older and not enrolled in elementary or secondary school. A household screener was administered to an adult member of the household to collect the information about each household member required for sampling. Adults who had not completed a high school diploma or its equivalent and adults who had participated in an educational activity in the previous 12 months were sampled at higher rates than other adults. In most households, only one adult was selected for the adult education component. However, up to two adults could be selected if at least one adult in the household did not have a high school diploma or equivalent and had participated in an educational activity in the previous 12 months. Weighting procedures were used to adjust for differences in probabilities of selection.

In the adult education interview, information was collected about educational attainment, participation in a wide range of education activities in the previous 12 months, and labor force participation. The only person who could respond to the adult education interview was the sampled adult him/herself; multiple attempts were made to complete interviews with persons not available at the time of selection. Interviews were conducted in both English and Spanish. This report is based on the 19,722 completed adult education interviews.

While this report focuses on participation in educational activities of adults and educational attainment, other potential uses of the data include an examination of the specifics of participation in six different types of adult education activities, the role of employers as providers and sponsors of educational activities, the reasons adults participate, and barriers to their participation.

Measuring Participation

The measurement of adult education participation is, of course, dependent upon the specific definition of adult education used for the analysis presented in this report. Beyond this, the ways in which questions are asked may lead to differences in the observed responses. The NHES:95 used a specially developed set of questions in an effort to capture the wide range of adult education activities. These questions were modified from the items used in the NHES:91 and were tested in a variety of samples prior to this data collection. As a result, the assessment of change in the participation rates over time could have been due to changes in the questions.

To address this concern, a methodological study was incorporated in the NHES:95. In this study, a supplemental (or "Splice") sample of 3,569 adults was administered the same set of participation questions used in the NHES:91. This permits the comparison of the participation estimates from the NHES:95 adult education interview, the NHES:95 Splice interview, and the NHES:91 adult education interview. The observed participation rates for the NHES:95 adult education and the NHES:95 Splice interviews were both 40 percent. This suggests that the difference between the NHES:91 and NHES:95 observed overall participation rates is due to changes in participation rates over time rather than changes in the questionnaire.

Participation in Credential Programs

Credential-seekers are included in the credential participation rate if they were
enrolled in a credential program on a part-time basis during some or all of the year, regardless of whether they also participated in a credential program on a full-time basis during the same year. Those who participated in a credential program on a full-time basis only are not included as credential participants in this report. Full-time credential-seekers may have also participated in other forms of adult education and, if so, they are included in the rates for those types of adult education and in the overall rate. Finally, adults who participated in a credential program on a full-time basis only and did not participate in any other form of adult education are not counted as participants in adult education. There are an estimated 24.7 million credential seekers (13 percent of adults), as found in the NHES:95. Of these, 13.1 million (7 percent of all adults) participated in a credential program on a full-time, but not part-time, basis and are not included in the credential rate. The adults who reported participating in a credential program on a part-time basis are included as participants, an estimated 11.6 million adults (6 percent of all adults) nationally.

Most full-time credential seekers are "traditional" college students who are 18 to 21 years old, while some are older. Some people regard full-time credential-seeking as traditional schooling rather than adult education. The exclusion of full-time credential-seekers is consistent with previous presentations of data on adult education participation in NCES reports.

Estimates of participation in credential programs are higher than estimates based on institutional reports of enrollment (e.g., those from the Integrated Postsecondary Education Data System, IPEDS). In particular, estimates of participation in credential programs other than college degrees are higher than IPEDS estimates. Respondents included credential programs other than traditional college degrees or postsecondary vocational diploma programs. These include programs leading to certificates or licenses of many kinds, some of which are offered by vocational or technical schools and some of which are offered by businesses, government agencies, churches, or other institutions.

Classifying Types of Adult Education Activities

In the adult education interview, respondents were asked about the many types of educational activities in the following order: English as a Second Language classes, basic skills and GED classes, credential programs, apprenticeships, work-related courses, and personal development courses. Because respondents could not know the types of activities that would be addressed in later sections of the interview, they may have reported activities in the first section of the interview in which they appeared to fit (known as an order effect). In this report, activities are classified according to the way in which they were reported. Alternatively, analysts could classify activities according to the main reason for which the adult participated in the activity (e.g., to earn a credential, improve one's job skills, and personal interest), according to the intensity of the activity (e.g., using length or hours as a criterion), or according to the type of provider (e.g., college, vocational school, business, church, etc.).

Data Reliability

Estimates produced using data from the NHES:95 are subject to two types of error, sampling and nonsampling errors. Nonsampling errors are errors made in the collection and processing of data. Sampling errors occur because the data are collected from a sample rather than a census of the population.

Nonsampling Errors

Nonsampling error is the term used to describe variations in the estimates that may be caused by population coverage limitations and data collection, processing, and reporting procedures. The sources of nonsampling errors are typically problems like unit and item nonresponse, the differences in respondents' interpretations of the meaning of the questions, response differences related to the particular time the survey was conducted, and mistakes in data preparation.
In general, it is difficult to identify and estimate either the amount of nonsampling error or the bias caused by this error. This is particularly problematic in random-digit-dial surveys because so little is known about the sampled telephone numbers. Since nonresponse is an important source of nonsampling error in the NHES:95, a special Technical Report is being prepared to address this issue. The results of this research uncovered no large response biases.

In the NHES:95, efforts were made to prevent nonsampling errors from occurring and to compensate for them where possible. For instance, during the survey design phase, focus groups and cognitive laboratory interviews were conducted for the purpose of assessing respondent knowledge of the topics, comprehension of questions and terms, and the sensitivity of items. The design phase also included a multi-phase field test pretest in which about 550 adult education interviews were conducted.

An important source of nonsampling error for a telephone survey is the failure to include persons who do not live in households with telephones. About 95 percent of all adults age 16 and older live in households with telephones. Estimation procedures were used to help reduce the bias in the estimates associated with excluding the 5 percent of adults who do not live in telephone households.

Response Rates

In the NHES:95, screeners were completed with 45,465 households, with a response rate of 73.3 percent. Of the 23,969 adults sampled for the adult education component, 80 percent (19,722) completed the interview. Thus, the overall response rate for the adult education interview is 58.6 percent (the product of the screeners response rate and the adult education completion rate).

For the adult education interview, item nonresponse (the failure to complete some items in an otherwise completed interview) was very low for most items. The item nonresponse rates for most variables in this report are less than 4 percent. The single exception is an item that is used to determine part-time credential status in the adult’s third credential program. This question applied to only 10 respondents, and 2 had missing values for this item. Items with missing values were imputed using a hot-deck procedure. The estimates included in this report are based on the imputed data.

Sampling Errors

The sample of telephone households selected for the NHES:95 is just one of many possible samples that could have been selected. Therefore, estimates produced from the NHES:95 sample may differ from estimates that would have been produced from other samples. This type of variability is called sampling error because it arises from using a sample of households with telephones, rather than all households with telephones.

The standard error is a measure of the variability due to sampling when estimating a statistic; standard errors for estimates presented in this report were computed using a jackknife replication method. Standard errors can be used as a measure of the precision expected from a particular sample. The probability that a population parameter obtained from a complete census count would differ from the sample estimate by less than 1 standard error is about 68 percent. The chance that the difference would be less than 1.65 standard errors is about 90 percent; and that the difference would be less than 1.96 standard errors, about 95 percent.

Standard errors for all of the estimates are presented in the tables. These standard errors can be used to produce confidence intervals. For example, an estimated 40 percent of adults participated in some form of adult education activity in the previous 12 months (not including full-time credential programs), and this figure has an estimated standard error of .48. Therefore, the estimated 95 percent confidence interval for this statistic is approximately 39 to 41 percent (40 ± 1.96 (.48)). That is, in 95 out of 100 samples from the same population, the estimated participation rate should fall between 39 and 41 percent.
The tests of significance used in this analysis are based on Chi-squared tests for bivariate relationships and Student's t statistics for the comparison of individual estimates. The Rao-Scott Chi-squared test was used to take into account the complex sample design. As the number of comparisons at the same significance level increases, it becomes more likely that at least one of the estimated differences will be significant merely by chance, that is, it will be erroneously identified as different from zero. Even when there is no statistical difference between the means or percentages being compared, there is a 5 percent chance of getting a significant t value of 1.96 from sampling error alone. As the number of comparisons increases, the chance of making this type of error also increases.

A Bonferroni adjustment was used to correct significance tests for multiple comparisons. This method adjusts the significance level for the total number of comparisons made with a particular classification variable. All the differences cited in this report are significant at the .05 level of significance after a Bonferroni adjustment.

Acknowledgments

The authors wish to thank the following people who reviewed this report and provided helpful critique and suggestions: Mike Cohen, Statistical Standards and Methodology Division of NCES; Jim Houser, NCES; Andrew Kolstad, NCES; Roslyn Korb, NCES; Gordon Darkenwald, Rutgers University; Elisabeth Hayes, University of Wisconsin-Madison; Richard Hoehlein, Tidewater Community College.

Endnotes


2In a forthcoming technical report, other estimates of participation in adult education (viz., the 1992 Current Population Survey) will be compared with those in the NHES:95. Some of these other estimates are significantly lower than those reported here, suggesting that the determination of participation in adult education may differ from survey to survey.


4In the NHES:95 survey administration, interviews were conducted in English and Spanish. As a result, the survey may underrepresent participation in ESL among adults who do not speak English or Spanish.

5In general, full-time enrollment in credential programs (e.g., college degree programs or postsecondary vocational or technical diploma programs) is not considered to be adult education, but traditional schooling. Some analysts may consider nontraditional credential seekers (e.g., adults over the traditional college age range) to be adult education participants.


7There are some methodological differences between the NHES:91 and the NHES:95, but these differences are not responsible for the increase in rates. This issue is discussed in the Survey Methodology and Data Reliability section.

8The NHES rates are much higher than the CPS rates (15 percent in 1984), which most likely reflects differences in the design and procedures of the two surveys in addition to change over time. Some of these differences may be attributable to methodological differences in the studies. For example, in the NHES, nonparticipants were sampled as well as participants. In the course of conducting the interviews, some of those sampled as nonparticipants were found to be participants. Only those initially reported as participants were sampled for the CPS 1969-84 Adult Education Supplements.

Some adults participated in more than one type of educational activity. This is addressed in table 2 and the accompanying discussion.


Persons who received their high school diploma or equivalent in the year prior to the interview and persons who received a high school diploma in a foreign country were also asked about their participation in ABE/GED activities in the previous 12 months.


The classification of types of adult education and whether an adult participates in more than one type depends on the definitions or groupings of adult education activities employed in a particular study.

Participation in more than one type of activity does not necessarily mean participation in more courses. For example, an adult may take three courses of one type, while another adult takes one course of each of two different types.


Table 1.— Percent of civilian, noninstitutionalized adults, 16-years of age or older, \(^1\) who took part in adult education activities in a 12-month period, by educational attainment: 1995

<table>
<thead>
<tr>
<th>Type of adult education</th>
<th>All adults</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>s.e.</td>
<td>Estimate</td>
<td>s.e.</td>
<td>Estimate</td>
<td>s.e.</td>
<td>Estimate</td>
</tr>
<tr>
<td>Estimated number of adults (in thousands)</td>
<td>189,576</td>
<td>153</td>
<td>29,347</td>
<td>660</td>
<td>62,957</td>
<td>780</td>
<td>50,736</td>
</tr>
<tr>
<td>Types of activity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any adult education activity(^2)</td>
<td>40</td>
<td>.48</td>
<td>16</td>
<td>1.07</td>
<td>31</td>
<td>.76</td>
<td>50</td>
</tr>
<tr>
<td>Any ABE/GED(^3)</td>
<td>1</td>
<td>.08</td>
<td>5</td>
<td>.41</td>
<td>1</td>
<td>.13</td>
<td>&lt;0.5</td>
</tr>
<tr>
<td>Any ESL(^4)</td>
<td>1</td>
<td>.06</td>
<td>1</td>
<td>.21</td>
<td>1</td>
<td>.11</td>
<td>&lt;0.5</td>
</tr>
<tr>
<td>Any credential program(^2)</td>
<td>6</td>
<td>.16</td>
<td>&lt;0.5</td>
<td>.12</td>
<td>4</td>
<td>.24</td>
<td>11</td>
</tr>
<tr>
<td>Any apprenticeship program</td>
<td>1</td>
<td>.09</td>
<td>1</td>
<td>.22</td>
<td>1</td>
<td>.17</td>
<td>2</td>
</tr>
<tr>
<td>Any work-related course</td>
<td>21</td>
<td>.36</td>
<td>4</td>
<td>.39</td>
<td>14</td>
<td>.49</td>
<td>24</td>
</tr>
<tr>
<td>Any personal development course</td>
<td>20</td>
<td>.33</td>
<td>7</td>
<td>.76</td>
<td>15</td>
<td>.54</td>
<td>25</td>
</tr>
</tbody>
</table>

\(^1\)Excludes persons enrolled in elementary or secondary school at the time of the interview.

\(^2\)Adults \(\geq 16\) took part in a credential program on a full-time basis only, for part or all of the year, and did not participate in any other type of formal educational activity. Adults who participated in a credential program on a full-time basis only and also participated in another type of adult education are included in the overall rate and the rate for the type of non-credential adult education in which they participated, but not in the credential program rate. Adults who participated in a credential program on a part-time basis only or on both part-time and full-time bases are included in the credential rate and the overall rate.

\(^3\)Adult Basic Education/General Educational Development (ABE/GED). Respondents who did not have a high school diploma or its equivalent, received a high school diploma or its equivalent in the past 12 months, or received a high school diploma in a foreign country were asked about participation in adult basic education, GED preparation classes, adult high school, or high school equivalency programs.

\(^4\)Persons with a Bachelor's degree or more education were not asked about participation in adult basic education, GED preparation classes, adult high school, or high school equivalency programs.

\(^5\)English as a Second Language (ESL). Respondents whose primary language is other than English were asked about participation in ESL classes.

NOTE: s.e. is standard error. Percents for different types of adult education sum to more than the overall participation rate because some adults participate in more than one type of activity or program. Estimates that are more than 0, but do not round to 1, are shown as <0.5 (less than one-half).

Table 2.— Percent of civilian, noninstitutionalized adults, 16 years of age or older¹, who took part in various adult educational activities, by educational attainment: 1995

<table>
<thead>
<tr>
<th>Type of adult education</th>
<th>All participants</th>
<th>Less than a high school diploma or its equivalent</th>
<th>High school diploma or its equivalent</th>
<th>Some college, associate's degree, or vocational school</th>
<th>Bachelor's degree or higher</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>s.e.</td>
<td>Estimate</td>
<td>s.e.</td>
<td>Estimate</td>
</tr>
<tr>
<td>Estimated number of adults (in thousands)</td>
<td>189,576</td>
<td>153</td>
<td>29,347</td>
<td>660</td>
<td>62,957</td>
</tr>
<tr>
<td>Only one type of activity</td>
<td>31</td>
<td>.39</td>
<td>14</td>
<td>1.02</td>
<td>26</td>
</tr>
<tr>
<td>ABE/GED² only</td>
<td>1</td>
<td>.07</td>
<td>3</td>
<td>.37</td>
<td>1</td>
</tr>
<tr>
<td>ESL³ only</td>
<td>&lt;0.5</td>
<td>.05</td>
<td>1</td>
<td>.13</td>
<td>&lt;0.5</td>
</tr>
<tr>
<td>Credential program⁴ only</td>
<td>3</td>
<td>.12</td>
<td>&lt;0.5</td>
<td>.12</td>
<td>2</td>
</tr>
<tr>
<td>Apprenticeship program only</td>
<td>1</td>
<td>.06</td>
<td>&lt;0.5</td>
<td>.14</td>
<td>1</td>
</tr>
<tr>
<td>Work-related course only</td>
<td>14</td>
<td>.26</td>
<td>3</td>
<td>.35</td>
<td>10</td>
</tr>
<tr>
<td>Personal development course only</td>
<td>12</td>
<td>.25</td>
<td>6</td>
<td>.74</td>
<td>12</td>
</tr>
<tr>
<td>Two or more types of activities</td>
<td>9</td>
<td>.24</td>
<td>2</td>
<td>.25</td>
<td>5</td>
</tr>
<tr>
<td>Credential program⁴ &amp; work-related</td>
<td>1</td>
<td>.07</td>
<td>&lt;0.5</td>
<td>.03</td>
<td>&lt;0.5</td>
</tr>
<tr>
<td>Credential program⁴ &amp; personal development</td>
<td>1</td>
<td>.08</td>
<td>&lt;0.5</td>
<td>.02</td>
<td>1</td>
</tr>
<tr>
<td>Work-related &amp; personal development</td>
<td>5</td>
<td>.19</td>
<td>&lt;0.5</td>
<td>.08</td>
<td>3</td>
</tr>
<tr>
<td>Credential program⁴, work-related, &amp; personal development</td>
<td>&lt;0.5</td>
<td>.04</td>
<td>0⁵</td>
<td>*</td>
<td>&lt;0.5</td>
</tr>
<tr>
<td>Any other combinations of adult education activities</td>
<td>1</td>
<td>.06</td>
<td>2</td>
<td>.24</td>
<td>1</td>
</tr>
</tbody>
</table>

¹Excludes persons enrolled in elementary or secondary school at the time of the interview.

²Adult Basic Education/General Educational Development (ABE/GED). Respondents who did not have a high school diploma or its equivalent, received a high school diploma or its equivalent in the past 12 months, or received a high school diploma in a foreign country were asked about participation in adult basic education, GED preparation classes, adult high school, or high school equivalency programs.

³Persons with a Bachelor's degree or more education were not asked about participation in adult basic education, GED preparation classes, adult high school, or high school equivalency programs.

⁴English as a Second Language (ESL). Respondents whose primary language is other than English were asked about participation in English as a Second Language classes.

⁵Adults who participated in a credential program on a full-time basis only, for part or all of the year, and did not participate in any other type of adult education are not counted as participants in adult education. Adults who participated in a credential program on a full-time basis only and also participated in another type of adult education are included in the overall rate and the rate for the type of non-credential adult education in which they participated, but not in the credential program rate. Adults who participated in a credential program on a part-time basis only or on both part-time and full-time bases are included in the credential rate and the overall rate.

⁶This estimate is based on a sample; it is possible that persons with these characteristics exist in the population.

*Standard errors are not appropriate when no observations occur in a cell.

NOTE: s.e. is standard error. Percents may not sum to 100 due to rounding. Estimates that are more than 0, but do not round to 1, are shown as <0.5 (less than one-half).