

# U.S. Census 2000 Test

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The U.S. Census 2000 Test, also known as the 1996 National Content Survey (NCS), is part of the Content Determination Process for the Census 2000. Census Day for the test was Saturday, March 2, 1996. Thirteen different questionnaires, seven short forms (100 percent items), and six long (sample) forms were tested. The long forms were targeted to collect responses from a national sample of about 4,200 housing units each. Four of the six sample questionnaires contained journey-to-work data. Facsimiles of the journey-to-work items from each of the four forms are shown in the Appendix.

The first form (DS-2A) is the 1990 control. It contains versions of the journey-to-work questions that are identical to those used in the 1990 census. Items included are place-of-work address (21a); city, town, or post office name (21b); inside/outside city limits indicator (21c); county (21d); state (21e); and ZIP code (21f). The questions ask persons where they worked last week. If they worked at more than one location during the week, they are asked to report where they worked the most (the greatest number of hours).

In addition to place-of-work information, Form DS-2A collects data on principal means of transportation to work (22a), vehicle occupancy (22b), departure time (23a), and travel time to work (23b). Each question asks respondents about their usual activity last week. If more than one means of transportation to work was normally used during the trip, they are asked to report the principal one, that is, the one used for most of the distance.

The second form (DS-2D) shown in the Appendix addresses several journey-to-work issues. Instead of inquiring about usual behavior during the preceding week, the questions on this form ask the respondents to report their behavior on a typical day that week. The expectation is that there will be no difference between the results obtained using the typical-day concept and those from the 1990 control form. This test is being conducted because many persons who use the journey-to-work data prefer a single-day (but not a typical-day) concept. Although there are a number of reasons why the single-day concept is not used in the decennial census, a different method of data collection (e.g., continuous measurement) might very well lend itself to the single-day concept. In that event, it will be important in evaluating data collected using the single-day concept to be able to show that the "typical day" and "usually last week" concepts yield comparable results.

Besides the typical-day concept, the work location items on Form DS-2D are essentially the same as on the 1990 control form. There is only a minor clarification on the county (21d) and state or foreign country of work (21e) items. The phrase "Name of" has been added to each.

There are several changes in the question on principal means of transportation to work (21a) on Form DS-2D beyond using the typical-day concept. The number of categories is reduced to eight by using a single category labeled "public transportation" instead of individual check boxes for bus, streetcar, subway, railroad, and ferryboat. A separate category is maintained for taxicab, however, since some respondents, analysts, and other data users may not consider it a public mode.

The number of public transportation categories was decreased on this form because of comments from transportation planners in metropolitan areas where multiple types of public transit are available. Planners tell the Census Bureau that respondents do not accurately distinguish among the public modes of travel. As a result, planners have to add the individual categories together to arrive at usable data for public transportation.

In addition to using only one public transportation check box on Form DS-2D, more space on the questionnaire was made available by reducing the number of vehicle occupancy categories. Instead of eight categories as in 1990, six check boxes are available in this version of the questionnaire. The "7 to 9 people" and "10 or more people" categories have been combined into a single "7 or more people" choice (21c). This limitation is in response to the steep decline in carpooling (especially large carpools) shown between 1980 and 1990.

The space conserved by the foregoing changes is being used to address a long-standing issue in data on means of transportation from the census. This issue is the occasional use of public transit to get to work. Many analysts have claimed that the "usually last week" concept results in an underestimate of public transportation use, since some people use transit occasionally, but not usually. To address the issue, Form DS-2D includes a question (21b) that asks respondents if they used public transit to get to work at any time during the preceding week.

The questions on departure time (22a) and travel time to work (22b) on DS-2D are unchanged from the 1990 control form, with the exception that they employ the typical-day concept instead of the "usually last week" reference.

The third set of journey-to-work questions shown in the Appendix is Form DS-2E. Like the 1990 control form, the wording in these items contains the "usually last week" concept.

The work location questions on Form DS-2E (11a-f) are essentially the same as on the control form. The only difference is in the instruction following the address block. Because geocoding reference materials do not include intersection coding guides, Form DS-2E asks for a shopping center or other physical location description of the place of work instead of the nearest street or intersection if the address is not known.

As in the previous form, DS-2E uses eight categories of principal means of transportation to work, with one check box for public transportation (12a). However, the individual modes (bus, streetcar, train, etc.) are listed in parentheses following the public transportation label to give the respondent examples of the types of transit to be included.

The vehicle occupancy item (12b) on Form DS-2E is like that found on the previous form; that is, it includes six categories with an upper limit of seven or more people.

The primary addition of new material to the third form concerns what transportation planners call "access mode," which refers to how respondents reached or were conveyed to their principal means of transportation to work. Two questions are included, one that asks if carpool occupants drove to meet the carpool (12c) and another that asks public transit users how they traveled from home to the public transportation stop or station (12d). One important application of this information would be in air-quality analysis, where the number of vehicle cold starts is an important input to air pollution models.

Although planners would prefer to have the census obtain information on all the means of transportation used to get to work, this procedure has proven difficult to put into operation and justify in a general-purpose data collection effort like the decennial census. Collecting information on access mode is seen as a reasonable compromise to obtaining complete multimodal data on the work trip.

The final two questions on Form DS-2E concern time leaving home to go to work (13a) and a new item, time of arrival at work (13b). The first question is unchanged from the other NCS forms. Time of arrival at work is being tested to see if travel times calculated from the departure and arrival time responses are less concentrated on numbers ending in 5 and 0 than the results obtained when respondents were directly asked their travel time.

The final form shown in the Appendix is Form DS-2F. It represents an attempt to create a simplified, user-friendly form. One aspect of user friendliness is the length or number of questions on the form. To address this issue, only one journey-to-work question is included on Form DS-2F, the question on place-of-work location. Although only a subset of the journey-to-work questions might be allowed if a simplified form is used in 2000, the inclusion of place of work here does not preclude different content later. The journey-to-work item or items to include on a simplified form in 2000, if used, have not been determined.

The place-of-work items used on Form DS-2F are little changed from those on the other NCS forms. The item on whether the work location was inside or outside the incorporated limits of the city or town reported has been moved. On this form it is the last item in the battery of questions, following the blocks for state and ZIP code, in response to opinions that its traditional location unnecessarily broke up the sequence of address responses that people are accustomed to providing.