

# NLTCS WEIGHTS

11/30/2006

PUBLIC USE WEIGHTS						Current U.S.	Variance
File	Variable	Producer	Description	Population	Census Estimate		
NLTCS82.SAS	BASEWGT82	U.S. CENSUS BUREAU	1982 BASE WEIGHT	14,966,154	<a href="#">26,789,298</a>	44.1%	
<p>The 1982 BASE WEIGHT cannot be used accurately with the available 1982 data set. The U.S. Census Bureau pulled a sample of ~55,000 people, a relatively large sample designed to ensure that a representative selection of detailed interviews was collected. That target was reached after interviewing 35,789 people, and the remaining ~19,000 people were dropped from the NLTCS. Of the 35,789 sample persons interviewed in 1982, only the 20,485 sample persons that were also interviewed in 1984 were retained on the 1982/1984 longitudinal file. The 10,388 unimpaired sample persons not selected for the 1984 NLTCS were not retained in the 1982/1984 longitudinal data set delivered by the U.S. Census Bureau. Without these sample persons, the population estimate is too low by 12 million people. For this reason Duke did not use Census Bureau weights for 1982.</p>							
NLTCS82.SAS	CROSSWGT82	U.S. CENSUS BUREAU	1982 FINAL SCREENER CROSS-SECTIONAL WEIGHT	14,312,094	<a href="#">26,789,298</a>	46.6%	
NLTCS82.SAS	UCRSSWGT82	U.S. CENSUS BUREAU	1982 UNBIASED CROSS-SECTIONAL WEIGHT	4,937,125			
NLTCS82.SAS	FDCRWGT82	U.S. CENSUS BUREAU	1982 FINAL DETAIL CROSS-SECTIONAL WEIGHT	5,073,929			
NLTCS84.SAS	BASEWGT84	U.S. CENSUS BUREAU	1984 BASE WEIGHT	29,206,101	<a href="#">27,879,625</a>	-4.8%	
NLTCS84.SAS	CROSSWGT84	U.S. CENSUS BUREAU	1984 FINAL SCREENER CROSS-SECTIONAL WEIGHT	30,825,592	<a href="#">27,879,625</a>	-10.6%	
<p>The Census Bureau's Screener Cross-Sectional Weight is useful only for analysis of variables in the Screener interview. A weight is assigned to all persons who completed a screener interview, including a subset of people who screened-in, but never completed a detailed interview. Since the disability status for this subset cannot be calculated using the same criteria as the rest of the detailed respondents, the Screener Cross-Sectional Weight cannot be used in analysis of disability.</p>							
NLTCS84.SAS	UCRSSWGT84	U.S. CENSUS BUREAU	1984 UNBIASED CROSS-SECTIONAL WEIGHT	9,896,323			
NLTCS84.SAS	FDCRWGT84	U.S. CENSUS BUREAU	1984 FINAL DETAIL CROSS-SECTIONAL WEIGHT	10,370,728			
<p>This weight has limited usefulness. It is based upon persons who received the detailed interview, and its calculations for renorming for non-response are based only upon the subpopulation of persons scheduled to receive a detailed interview. If all persons scheduled for a detailed interview were disabled, that strategy might work. However, people who received a detailed interview in prior waves are automatically selected for all following detailed interviews, regardless of whether or not they are currently disabled, resulting in a small group of non-disabled detailed respondents. This automatic selection strategy also created an inconsistency between selection in 1982 and all following waves. Since the Screener interview does not ask about the ability to do heavy housework, a person whose only limitation was heavy housework would not have been selected for a detailed interview in 1982. However, in 1984, a person who had received a detailed interview in 1982 but was currently limited only in heavy housework would be automatically selected for a detailed interview and would be IADL disabled on the detailed interview. This led to an overestimation of the IADL-only disabled group in 1984 and following waves. To adjust for these problems, Duke classifies persons who were automatically selected, but have only heavy housework limitations, as non-disabled.</p>							
NLTCS84.SAS	SCDTLGTWGT	U.S. CENSUS BUREAU	SCREENER/DETAIL LONGITUDINAL WEIGHT	25,452,404	<a href="#">27,879,625</a>	8.7%	
NLTCS84.SAS	DTDTLGTWGT	U.S. CENSUS BUREAU	DETAIL/DETAIL LONGITUDINAL WEIGHT	26,910,845	<a href="#">27,879,625</a>	3.5%	
NLTCS89.SAS	BASEWGT	U.S. CENSUS BUREAU	BASE WEIGHT	25,413,309	<a href="#">30,681,869</a>	17.2%	
<p>The 1989 Census Sample Specification for the NTLCS divided the sample population into six groups. However, Duke could not replicate Census's counts for these groups, despite conversations with the Census Bureau. Because of this problem, and the problems mentioned for prior waves, Duke did not use any of the 1989 Census weights.</p>							
NLTCS89.SAS	BASICWGT	U.S. CENSUS BUREAU	BASIC WEIGHT	29,226,926	<a href="#">30,681,869</a>	4.7%	
NLTCS89.SAS	ADJ_FACT	U.S. CENSUS BUREAU	SCREENER NONINTE ADJUST FACTOR				
NLTCS89.SAS	STGRATIO	U.S. CENSUS BUREAU	1ST STAGE RATIO ESTIMATE FACTOR				
NLTCS89.SAS	ORGSTGE2	U.S. CENSUS BUREAU	ORIGIN FORMULA 2ND STAGE FACTOR				
NLTCS89.SAS	NEWSTGE2	U.S. CENSUS BUREAU	NEW FORMULA 2ND STAGE RAT FAC				
NLTCS89.SAS	BASICWT2	U.S. CENSUS BUREAU	2ND BASIC WEIGHT	3,239,948			
NLTCS89.SAS	SC_ORGX	U.S. CENSUS BUREAU	SCREENER FINAL CROSS SECTIONAL (W ORIGINAL -FORM 2ND STAGE FAC)	30,815,979	<a href="#">30,681,869</a>	-0.4%	
NLTCS89.SAS	SC_NEWXS	U.S. CENSUS BUREAU	SCREENER FINAL CROSS SECTIONAL (W NEW -FORM 2ND STAGE FAC)	30,815,979	<a href="#">30,681,869</a>	-0.4%	
NLTCS89.SAS	ORGXSWGT	U.S. CENSUS BUREAU	2ND WT CROSS SECTIONAL (W ORIGINAL -FORM 2ND STAGE FAC)	8,153,807			
NLTCS89.SAS	NEWXSWGT	U.S. CENSUS BUREAU	2ND WT CROSS SECTIONAL (W NEW -FORM 2ND STAGE FAC)	8,065,588			
NLTCS89.SAS	WT_NIV_ORG	U.S. CENSUS BUREAU	NON-INTERV.FAC ORIGIN 2ND				
NLTCS89.SAS	NIV_NEW	U.S. CENSUS BUREAU	NON-INTERV.FAC NEW 2ND WT				
NLTCS89.SAS	NIVUNBAI	U.S. CENSUS BUREAU	NON-INTERV.FAC UNBIASED 2ND WT				
NLTCS89.SAS	UNBAIWGT	U.S. CENSUS BUREAU	UNBIASED 2ND WT	7,719,119			
NLTCS89.SAS	CG_XSECT	U.S. CENSUS BUREAU	CAREGIVER CROSS SECTIONAL (W NEW - FORM 2ND STAGE FAC)	3,937,228			

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## PUBLIC USE WEIGHTS

File	Variable	Producer	Description	Population	Current U.S. Census Estimate	Variance
<u>Beginning in 1994, Duke worked with Census to create the weights included on the public use files.</u>						
NLTCS94.SAS	BASEWGT	U.S. CENSUS BUREAU	1994 BASE WEIGHT	31,179,414	<a href="#">33,208,472</a>	6.1%
NLTCS94.SAS	CROSSWGT	DUKE	1994 FINAL SCREENER CROSS-SECTIONAL WEIGHT	33,038,789	<a href="#">33,208,472</a>	0.5%
NLTCS99.SAS	BASEWGT	U.S. CENSUS BUREAU	1999 BASE WEIGHT	35,164,360	<a href="#">34,715,633</a>	-1.3%
NLTCS99.SAS	CROSSWGT	DUKE	1999 FINAL SCREENER CROSS-SECTIONAL WEIGHT	35,163,461	<a href="#">34,715,633</a>	-1.3%
NLTCS_04_BETA2.SAS	BASEWGT	U.S. CENSUS BUREAU	2004 BASE WEIGHT	33,155,487	<a href="#">36,293,985</a>	8.6%
NLTCS_04_BETA2.SAS	CENSUS_CROSSWGT	DUKE	2004 FINAL SCREENER CROSS-SECTIONAL WEIGHT	36,245,332	<a href="#">36,293,985</a>	0.1%

The Duke analytic weights were created to adjust for all of the problems mentioned above.

## DUKE ANALYTIC FILE WEIGHTS

File	Variable	Producer	Description	Population	Current U.S. Census Estimate	Variance
ANALYTIC04Beta2.SAS	CDS_ScreenCrossSectionWGT_SY82		CDS Screener Cross-Sectional Weight - 1982	26,924,016	<a href="#">26,789,298</a>	-0.5%
ANALYTIC04Beta2.SAS	CDS_DetailCrossSectionWGT_SY82		CDS Detailed Cross-Sectional Weight - 1982	26,911,847	<a href="#">26,789,298</a>	-0.5%
ANALYTIC04Beta2.SAS	Transition_WGT_SY82_84		Transition Weight - 1982-1984	30,765,189		
The transition weights are longitudinal weights that assign a value to each person whose disability and mortality status is known in both 1982 and 1984. E.g., a person who completed an interview in 1982 and died before 1984 would receive a weight. A person who completed an interview, was alive in 1984, and did not complete a 1984 interview would not receive a weight. Because of sub-sampling, Duke did not create these weights past 1989.						
ANALYTIC04Beta2.SAS	CDS_ScreenCrossSectionWGT_SY84	DUKE	CDS Screener Cross-Sectional Weight - 1984	28,060,595	<a href="#">27,879,625</a>	-0.6%
ANALYTIC04Beta2.SAS	CDS_DetailCrossSectionWGT_SY84	DUKE	CDS Detailed Cross-Sectional Weight - 1984	28,055,257	<a href="#">27,879,625</a>	-0.6%
ANALYTIC04Beta2.SAS	Transition_WGT_SY84_89	DUKE	Transition Weight - 1984-1989	38,145,589		
ANALYTIC04Beta2.SAS	CDS_ScreenCrossSectionWGT_SY89	DUKE	CDS Screener Cross-Sectional Weight - 1989	30,871,346	<a href="#">30,681,869</a>	-0.6%
ANALYTIC04Beta2.SAS	CDS_DetailCrossSectionWGT_SY89	DUKE	CDS Detailed Cross-Sectional Weight - 1989	30,871,346	<a href="#">30,681,869</a>	-0.6%
ANALYTIC04Beta2.SAS	CDS_ScreenCrossSectionWGT_SY94	DUKE	CDS Screener Cross-Sectional Weight - 1994	33,125,154	<a href="#">33,208,472</a>	0.3%
ANALYTIC04Beta2.SAS	CDS_DetailCrossSectionWGT_SY94	DUKE	CDS Detailed Cross-Sectional Weight - 1994	33,125,154	<a href="#">33,208,472</a>	0.3%
ANALYTIC04Beta2.SAS	CDS_ScreenCrossSectionWGT_SY99	DUKE	CDS Screener Cross-Sectional Weight - 1999	35,226,146	<a href="#">34,715,633</a>	-1.5%
ANALYTIC04Beta2.SAS	CDS_DetailCrossSectionWGT_SY99	DUKE	CDS Detailed Cross-Sectional Weight - 1999	35,226,133	<a href="#">34,715,633</a>	-1.5%
ANALYTIC04Beta2.SAS	CDS_ScreenCrossSectionWGT_SY04	DUKE	CDS Screener Cross-Sectional Weight - 2004	36,245,333	<a href="#">36,293,985</a>	0.1%
ANALYTIC04Beta2.SAS	CDS_DetailCrossSectionWGT_SY04	DUKE	CDS Detailed Cross-Sectional Weight - 2004	36,245,322	<a href="#">36,293,985</a>	0.1%

## Weights Available with the NLTCS Public Use Files:

- Screener and Detailed Survey Base Weights: The base weights were generated by the Census and reflect the probability of a sample person's selection from Medicare enrollment files for the NLTCS surveys. These weights are the first step in generating adjusted screener and detailed weights.
- Census Screener Cross-Sectional Weight: This weight is created by adjusting the screener base weight for
  - a.) nonresponse to the screener interview (screener non-interview adjustment factor, or SNI AF)
  - b.) non-self-representing Primary Sampling Units (first-stage factor, or FSF)
  - c.) renormalizing the weighted totals to community-dwelling and institutionalized control totals (second-stage factor, or SSF).
 Thus, Census Screener Weight = Screener Base Weight x Screener NIAF x FSF x SSF  
 All survey participants with completed screener interviews receive a Census screener weight, regardless of whether or not they completed a detailed interview. The screener weight produces the national cross-sectional estimate of all persons aged 65 and over.
- Census Detailed Cross-Sectional Weight: The base weight for the Census Detail Cross-sectional weight differs from the overall base weight because the "healthy" supplement in 1994 and 1999 receiving the detailed interview  
 Census Detailed Weight = Detailed Base Weight x Screener NIAF x FSF x SSF x Detailed NIAF  
 Only survey participants with completed community or institutional detailed interviews receive a detailed weight. Prior to 1994, the detailed weight could be used to produce estimates for institutionalized persons and community-

**Weights Available with the Duke Analytic File:**

Through the Analytic File, CDS makes available several weights developed for various CDS research and analytic applications. Perhaps the most useful of these weights are the CDS Screener Cross-Sectional and the CDS Detailed Cross-Sectional weights.

- CDS Screener Cross-Sectional Weight: CDS makes one major change to the Census screener weight to generate the CDS screener weight, an adjustment for detailed non-response, i.e.,  

$$\text{CDS Screener Weight} = \text{Screener Base Weight} \times \text{Screener NIAF} \times \text{FSF} \times \text{SSF} \times \text{Detailed NIAF}.$$
 Survey participants who failed to complete a screener interview or who were scheduled for, but did not complete, a community or institutional detailed interview will not have a CDS screener weight. As with the Census screener weight, the CDS screener weight may be used to produce cross-sectional estimates of the U.S. population aged 65 years and older. Since detailed non-response is adjusted, the CDS weight may also be used to make estimates of the unimpaired, community-dwelling impaired, and institutionalized populations.
- CDS Detailed Cross-Sectional Weight: The CDS detailed weight is different from the Census detailed weight in that, rather than going back to the detailed base weight, it uses the CDS screener weight as its starting point. Essentially, the CDS detailed weight uses the detailed interview non-disabled respondents as a proxy for all NLTCS non-disabled respondents, both screened out and detailed non-disabled. The CDS screener weights for the detailed non-disabled are renormed by age and gender to sum to the weights of the total NLTCS non-disabled respondents. Only community-dwelling or institutionalized detailed respondents have a CDS detailed weight. The CDS detailed weight is useful for estimating the prevalence in the U.S. elderly population of conditions for which data exists only in the detailed NLTCS instruments.