

THE IMPACT OF DESIGN FEATURES UPON THE REDESIGNED NATIONAL HEALTH INTERVIEW SURVEY

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1. Introduction

The National Health Interview Survey (NHIS) is the oldest of a program of surveys designed to collect data on the health and the use of health services of the civilian noninstitutionalized population of the United States. This survey, which has been operational since 1957, is sponsored by the National Center for Health Statistics (NCHS) with the U.S. Bureau of the Census having primary responsibility for the sample design and data collection. From 1957-1984 the NHIS sample design was linked to the Current Population Survey (CPS), a labor force survey, but starting in 1985, an NHIS sample design not directly linked to the CPS has been implemented. Research conducted by NCHS and the Bureau of the Census has led to the sample design for the 1985-1994 NHIS. A complete discussion of the current NHIS sample design will be forthcoming in a NCHS Series 2 report.

The NHIS is a complex probability sample having sampling parameters determined by precision requirements, cost considerations, and linkage requirements to other NCHS surveys. When a large survey such as the NHIS is implemented, it is often the case that the realization of the design differs somewhat from the conceptual design. Operational constraints, unforeseen budget cuts, frame and field problems are factors which may result in deviations from the targeted design structure. This paper presents operational characteristics of the 1985 NHIS and compares them to targets as proposed by the NHIS research. Topics discussed include general design parameters, coverage, nonresponse, oversampling of Blacks, sampling results and stratification.

2. The proposed 1985-1994 NHIS Sample Design

The strata/sampling units of the NHIS have the following hierarchy: stratum, primary sampling unit, substratum, sample cluster of housing units, sample household, sample person. A brief description of the proposed design is now given.

2.1 Primary Stage Units, Stratification and Unit Selection

The Census Bureau has decomposed the United States into about 1900 geographically defined primary sampling units (PSUs). In general, a PSU consists of a single county, a small group of contiguous counties or a metropolitan statistical area (MSA). For the NHIS, these PSUs are partitioned into 125 strata: 52 self-representing strata (SR), which in general are the largest PSU's, and 73 non-self-representing strata (NSR). The universe of NSR PSUs is stratified within the 4 Census geographical regions, Northeast (NE), Midwest (MW), South (S), and West (W) crossed with MSA/non-MSA status. The SR PSUs are in the sample with certainty, and 2 sample PSUs are

selected without replacement from each NSR stratum using Durbin's (1967) procedure.

2.2 Second Stage Units and Sample Selection

The second stage units (SSUs) consist of clusters of housing units of which there are two types. Information from the 1980 Decennial Census is used to define geographically compact areas of housing units, called Enumeration Districts (EDs), from which SSUs can be formed; the totality of such areas is referred to as the area frame. Lists of new construction housing units not covered by the 1980 Census, referred to as the permit frame, are also available to form SSUs. These two SSU frames are designed not to overlap and to cover all dwelling units of the target population. Cost and variance considerations have led to the area frame being partitioned into SSUs having an expected 8 housing units and the permit frame SSUs having an expected 4 housing units.

The need to improve the reliability of estimates for Black persons has resulted in the Black population being targeted for oversampling. This is accomplished by partitioning each PSU with 5 to 50 percent Black population into as many as three substrata, one of which will have a high concentration of Black persons:

Substratum 0: all SSUs in the permit frame,

Substratum 1: all areas SSUs in EDs specified as having a high concentration of Black persons,

Substratum 2: All area SSUs not in Substratum 1.

In some PSU's substrata 0 or 1 may be empty. Overall, 102 of 198 sample PSUs are targeted for oversampling.

It is intended that the total sample of SSUs contain 61,400 housing units. In 1985 this value resulted in an overall SSU sampling interval (SI) chosen to be 1638.4365, i.e., about one in every 1638 SSUs of the target universe was selected for sample. In previous NHIS designs, the product of the first and second stage probabilities would equal $1/SI$, but in the current design the strategy to oversample the Black population resulted in defining different sampling rates within the three substrata of a selected PSU. More precisely, if M_0, M_1, M_2 are the numbers of SSUs in substrata 0, 1 and 2 respectively, of a sample PSU, then the sampling rates f_0, f_1, f_2 satisfy

$$f_j = 1/(SI \pi c_j) \text{ where}$$

π = probability of sample PSU selection,

$$c_0 = 1,$$

$$c_1 < 1 \text{ for oversampling,}$$

$$c_2 > 1 \text{ for undersampling,}$$

with c_1 and c_2 chosen in part to satisfy

$$\frac{(M_1 + M_2)}{SI \pi} = \frac{M_1}{SI \pi c_1} + \frac{M_2}{SI \pi c_2}$$

If the PSU is not oversampled for Blacks, then $c_1 = c_2 = 1$.

All second stage samples are selected by a systematic procedure.

2.3 Third Stage and Higher Stage Units

All eligible households in a SSU are targeted for NHIS interview, but in those SSUs with large numbers of housing units, a probability sample of housing units is selected. Within a sample household, all eligible persons are targeted for the NHIS sample.

2.4 Weighting

Each interviewed eligible household or person unit receives a national inflation weight which is the product of several factors:

- i. inverse of Prob (PSU is selected),
- ii. inverse of Prob (SSU is selected given the PSU and substratum),
- iii. inverse of Prob (housing unit selected given the SSU),
- iv. nonresponse inflation factor within SSU.

Weights for person units also receive ratio adjustments:

- v. ratio adjustment for first stage NSR PSU selection,
- vi. ratio adjustment for age-race-sex classes.

Table 1 provides a look at the U.S. target population estimated by using the inflation weights i. to iv. National and regional/MSA status subdomains are presented along with PSU substrata. Substratum 2 dominates the population, and its characteristics are quite similar to the total for each subdomain. Substratum 1, the oversampled portion of the area frame, tends to represent the Black, urban poor. As can be seen from the tabulations of the two health variables, the number of doctor visits per year and the percent of persons having self-perceived health status good to excellent, this substratum has different health characteristics than that the other substrata.

3. Realizations of the 1985 NHIS Sample Design

In this section the actual 1985 design and its deviations from the conceptual design are considered.

In late 1984 all first and second stage sampling units had been selected and preparations for field operations had begun when an unforeseen budgetary cut required the sample to be reduced by 25 percent. A reduction strategy was chosen by cost considerations and by requirements for linking other NCHS surveys to the NHIS. First, the NSR strata and "small"

SR PSUs were collapsed into superstrata having 4 sample PSUs each. Next, one sample PSU per superstratum was randomly selected for deletion in 1985. This procedure resulted in half of the original NSR strata being represented by 2 PSUs and half by one PSU. In the "large" SR PSUs a probabilistic method was used to reduce the number of sample SSUs.

3.1 Target Sample Sizes

Table 2 presents the 1985 target sample sizes with the actual counts. The only sampling unit for which there can be any sampling controls is the housing unit. This quantity, which includes both eligible and ineligible units, is the fundamental unit of the Census sampling frames. The target sample size of "interviewed eligible households" is based upon the past experience of having roughly 80 percent of housing units in this classification, and the quantity "eligible persons" is based upon a CPS estimate of 2.69 persons per household. Overall, there appears to be a 5 percent shortfall in expected sample. According to the Census, the main contributing factor to this shortfall is the loss of housing units due to SSU subsampling. From an examination of subsampling weight factors, it appears as if 3.7 percent of the housing units in sample SSUs are dropped as the result of subsampling. Inflating the observed sample number of housing units by this factor yields 45,400 which is about 1 percent less than the target value. Other contributing factors to the sample shortfall can also be identified. In quarter 1 of 1985 some permit SSUs were not sent to the field for processing, the unexpected 25 percent sample cut was not a strict cut, and expected sample size targets were projected using 1983 Census information and perhaps not accurate in 1985.

Some basic survey information (based upon unweighted counts) by region and urban/rural subdomains crossed with the three types of PSU substrata are presented in Table 3. Some aspects of this table will now be discussed.

3.2 SSU Size

The number of housing units in an SSU has always been important from both cost and variance considerations. Census research determined that area frame SSUs with 8 housing units and permit frame SSUs with 4 housing units would result in an efficient design with respect to cost and variance, and consequently, Census operations were set to these parameters. A discussion of the formation of SSUs is contained in Technical Report 40, U.S. Bureau of the Census (1978).

It is, however, somewhat misleading to speak of the NHIS SSUs as having 8 housing units. First, there are two measures of content for a SSU: the absolute number of housing units and the number of housing units with eligible households. In 1985 83 percent of all sampled housing units were eligible for the NHIS. Information on the absolute size of each SSU is not on NCHS data tapes, so further discussion will be focused upon the numbers of eligible households.

The number of eligible housing units within a SSU is quite variable. The distribution of the number of eligible housing units before subsampling is given in Table 4. About 10.6% of the area frame SSUs have 3 or fewer or 12 or more eligible housing units. The distribution has mean 7.2, median 7 and mode 8.

Subsampling usually occurs when a sample SSU having 16 or more housing units is encountered; subsampling occurs in about 3 percent of the sampled SSUs. After subsampling, the area frame sample SSUs have mean 7.0 and standard deviation 2.2 while the permit frame SSUs have mean 3.1 and standard deviation 1.3. Table 3 shows this variability in the number of selected households over different subdomains. Some general conclusions (based upon simple t-tests) are that urban SSUs tend to be larger than rural SSUs, and that in the urban regions, substratum 1, the "Black substratum", will have smaller size SSUs than the urban substratum 2.

3.3 Nonresponse

Non-response tends to introduce bias into the NHIS estimators, and thus, the distribution of the non-response is of interest. Table 3 provides non-response factors for various subdomains. Overall, the survey shows a 95.7% response rate for eligible households. The New York, Chicago, and Detroit CMSAs with respective response rates of 90.7%, 92.1%, and 91.9% had the lowest response rates among the larger PSUs. Urban response was 95.3 versus Rural response of 97.4.

3.4 Oversampling of Blacks: Area frame-Substratum 1

Table 3 demonstrates that the strategy to oversample high density Black regions within PSUs increased the Black sample; the unweighted percentage of Blacks in the sample was 16% as opposed to an expected population value of 12%. This oversampled stratum is estimated to have about 85% Black population, but as is evident from Table 1 this substratum does not represent the Black population as a whole, but tends to represent those in the lower economic classes.

While an oversample of Black persons was achieved, other objectives of oversampling were only partially met. Within each PSU designated for oversampling, the area frame was to have been divided into two substrata, and each assigned different sampling rates so that the following conditions held.

1. Substratum 1 contained ED's with the highest concentration of Blacks.
2. If
 - a. L_1 and L_2 are the proportions of the PSU population in substrata 1 and 2, respectively,
 - b. A_1 and A_2 are the proportions of the PSU sample in substrata 1 and 2, respectively,
 - c. $L_1 < L_2$, $L_1/L_2 < A_1/A_2$, and

d. R is the ratio of the variance of an inflation estimator of total based upon stratified simple random sampling within the PSU to the variance of an inflation estimator of total based upon non-stratified simple random sampling within the PSU

then

$R \leq 1.05$ for arbitrary totals and

$R < 1.00$ for Black totals
(anticipated to be less than .90 for many Black variables of interest)

With this strategy, a small amount of precision would be lost for estimates defined over the entire population, but large gains in precision would result for the Black population.

Now, when estimating an arbitrary total

$$R = \frac{(L_1^2/A_1)S_1^2 + (L_2^2/A_2)S_2^2}{S_0^2}$$

where S_1^2 and S_2^2 are the population variances within the substrata for the characteristic, and S_0^2 is the population variance of the characteristic for the entire PSU. The population S_0^2 can also be expressed as

$$S_0^2 = L_1S_1^2 + L_2S_2^2 + L_1L_2(\bar{X}_1 - \bar{X}_2)^2$$

where \bar{X}_1 and \bar{X}_2 are the substrata means.

To determine the sampling parameters specified in 2.a. and 2.b., Census used an iterative procedure on each PSU's EDs using the variable "age 65 years or older" for specifying R . This variable was chosen since it was considered to be independent of the ED stratification variable, Black. In such a

situation $S_1^2 = S_2^2$ and $\bar{X}_1 = \bar{X}_2$ and the value for R becomes $L_1^2/A_1 + L_2^2/A_2$. An examination of the PSU sampling parameters showed the nominal upper bound to vary from 1.04 to 1.08.

This is not an absolute upper bound. Since $L_1/A_1 < L_2/A_2$ the absolute upper bound of R is

L_2/A_2 which occurs when $S_1^2 = 0$, and $\bar{X}_1 = \bar{X}_2$. For example, in the NY CMSA the nominal bound was 1.04 but the absolute bound was 1.10 while in the Washington DC MSA, the nominal bound was 1.07 but the absolute bound was 1.18. It is quite unlikely that any NHIS variable would actually satisfy the conditions needed to attain the absolute upper bound, but examples can be given where the value of R may be excessive. For example, in the Washington MSA which has $L_1 = .18$ and $A_1 = .30$, if 5% of all persons in Substratum 1 and 11% of all persons in Substratum 2 have a specific characteristic then the ratio R will be 1.11.

Unfortunately, in those PSUs designated for oversampling, a stratified sampling procedure for selecting SSUs was not executed. The sampling of SSUs for the NHIS was linked to

second stage sampling of the CPS and other Census population surveys. The SSU sampling for Census surveys was done as part of a single operation. First, EDs were clustered and then systematic sampling intervals which avoided overlap of sample in the various surveys was used. For the NHIS the "oversampling" rate was used and all sample which fell into "under-sampled" EDs was then subsampled to achieve the appropriate sampling interval.

As a result of this methodology, the numbers of SSUs sampled in substrata 1 and 2 were random variables with the number of SSUs chosen dependent upon the sort of the EDs. In PSUs whose Substratum 1 consisted of only a few EDs and when only one or two sample SSUs were expected, it was possible for the systematic sample to miss all the EDs in substratum 1. This problem of having no substratum 1 sample SSUs occurred in two PSUs. Table 5 presents the observed and expected allocation of the SSUs over the substrata. Had a stratified sampling procedure been used, there would be less variability in the substratum sample sizes.

This method of sampling may cause problems in the later years of the NHIS. All sample SSU's for the decade of the survey are theoretically determined in one operation. The EDs selected by the systematic selection and their ordering in a PSU universe listing determine the NHIS sample SSUs for the years 1985-1994. Over time, the locations of SSUs may cross over into adjacent EDs in the listing; a SSU from substratum 1 may cross in time to substratum 2 or vice versa. The impact of this effect has not yet been studied.

3.5 Weighting Problems

Of the 5595 sample segments of the 1985 NHIS, 19 are identified as having weighting problems:

7 SSUs having 12 eligible households have no successful interviews.

The household subsampling weight is truncated at 4 by the Census; this practice will introduce some bias, but will probably reduce mean square error for the estimators. In the sample, 8 SSUs have subsampling weight value 4, and 3 of those are truncated.

For similar reasons, NCHS truncates the non-response weight at 2; 7 SSUs having at least one interview and having 33 eligible households had the nonresponse weight truncated at 4 and which resulted in 22 households after inflation.

These lost households resulting from the above three cases were not compensated for in any household weighting factor, but the impact should be minimal. At the person level, the ratio-adjustments compensate for such problems.

Furthermore, 2 SSUs had minor weighting inconsistencies.

3.6 Coverage:

The non-ratio adjusted weighted estimates households and persons along with approximated coefficients of variation appear in Table 6.

(The coefficients of variation were approximated using SESUDAAN.) The weighted NHIS estimates of the Census control totals appear to be negatively biased. Furthermore, the number of persons per household appears to be low: 2.60 versus the CPS estimate of 2.69. Undercoverage has also been a problem with previous NHIS surveys and other Census population surveys.

Ratio-adjustments are used to compensate for this undercoverage as well as for variance reduction. Two ratio adjustments are used. Sample persons in NSR PSUs receive a ratio adjustment weight which results in the total weight of 16 NSR region-race-residency classes being inflated to Census totals at the time of first-stage selection. More importantly, all persons receive a poststratification adjustment weight which results in the total weight of 60 age-race-sex class totals being inflated to current Census totals. The impact of the ratio-adjustments on collapsed age-race-sex classes are presented in Table 7.

It can be seen that all totals are underestimated by use of the basic inflation estimator. Undercoverage for Black males 20-34 is about 20%. This same group has also suffered from severe undercoverage in the past. Except for this group, the estimates of the percentages of population appear to be adequate when considering sampling variability. The incorporation of a first stage ratio-adjustment has little effect upon the estimates. For the Black subdomains presented in Table 7, this adjustment usually makes the observed bias somewhat worse. The introduction of the poststratification adjustment results in the NHIS estimates equal to the Census estimates.

4.0 Summary

Some weaknesses in the implementation of the NHIS design have been discussed, but there has been no evidence of any major flaws. The two aspects of actual design which are not quite in alignment with the conceptual design are:

the number of eligible households per SSU is quite variable, and

the strategy to oversample the Black population was implemented differently than was assumed in the research.

References:

Durbin, J. (1967), Design of multi-stage surveys for the estimation of sampling errors. *App. Stat.*, 16, 152-164.

U.S. Bureau of the Census (1978), The Current Population Survey, design and methodology, *Technical Paper No. 40.*, U.S. Government Printing Office, Washington.

TABLE 1

Selected Characteristics of the 1985 NHIS by Region/MSA Status and Substratum Type

REGION/ MSA	SUB STRATA	Weighted Counts (1000s)		Weighted Percents													AVG NUM DOCT VIST
		HOUSE- HOLDS	PER- SONS	HISP- ANIC	POV- ERTY	INCM <\$20	UR- BAN	UN- EMPL	EMPL MANU	AGE <18	AGE 65+	BLACK	MALE	TELE PHON	GOOD HLTH		
US SAMPLE	ALL	83136	216170	8	12	41	73	6	20	28	12	12	48	92	89	5.3	
	0	4621	11772	8	5	27	76	4	17	30	4	8	48	95	95	5.7	
	1	4801	13686	4	32	61	86	13	17	33	11	85	45	84	80	4.7	
	2	73714	190712	8	11	41	72	5	20	27	12	7	48	93	89	5.3	
NE MSA	ALL	15340	39731	8	9	36	85	5	21	25	13	11	47	96	90	5.3	
	0	523	1363	5	2	24	67	3	23	28	7	5	48	97	94	6.3	
	1	786	2195	6	31	58	100	12	11	33	9	94	44	89	83	5.1	
NE NON-MSA	ALL	2328	6211	2	13	53	31	6	28	28	13	0	48	95	89	4.7	
	0	15	50	0	0	43	78	0	23	30	0	0	61	100	100	5.7	
MW MSA	ALL	14312	37649	4	11	39	85	6	23	28	10	13	47	96	90	5.5	
	0	649	1657	0	9	32	82	7	21	33	5	10	46	96	95	5.8	
	1	1016	2932	6	38	66	100	21	23	34	11	94	45	89	78	5.1	
MW NON-MSA	ALL	6429	16320	2	14	51	36	6	22	28	15	1	49	93	89	5.0	
	0	92	237	7	7	32	49	11	27	35	10	0	41	100	95	7.7	
S MSA	ALL	19549	50513	10	12	39	81	5	15	28	11	20	48	90	89	5.2	
	0	1713	4313	10	4	25	75	2	13	30	3	10	50	94	95	6.1	
	1	1796	5028	2	30	59	94	11	15	32	11	90	45	84	80	4.5	
S NON-MSA	ALL	8779	23365	3	24	56	34	7	23	30	13	19	47	83	82	4.7	
	0	251	670	0	20	47	62	2	24	36	4	23	45	86	90	4.5	
	1	931	2798	2	34	62	44	12	21	33	12	60	46	75	80	4.4	
W MSA	ALL	13772	35400	17	9	36	92	5	17	28	10	6	49	94	91	5.7	
	0	1196	3003	13	3	25	87	4	16	27	5	3	47	97	95	5.1	
	1	272	733	14	23	57	100	10	17	34	10	82	45	89	82	5.0	
W NON-MSA	ALL	2628	6980	8	13	47	54	7	14	31	12	0	49	88	90	5.5	
	0	181	481	17	6	24	53	3	10	30	5	0	46	98	95	5.5	

TABLE 2

Target Sample Sizes and Actual Sample Sizes : 1985 NHIS

Unit	Target Sample Size	Observed Sample Size
Housing Units	46,000	43,826
Interviewed Eligible Households	37,000	34,844
Interviewed Eligible Persons	99,000	91,531

TABLE 3

Numbers of Sampled SSUs, Households (HSDS) and Persons (PERS)
By Subdomain and Substratum (SUB): 1985 NHIS
Based upon Unweighted Counts

SUB- DOMAIN	SUB	SSUs	%SSU SUB- SAMPLED	TOTAL HSDS ¹	HSDS PER SSU ¹	HSD RESP RATE	TOTAL PERSONS	PERS PER HSD ²	%BLK PERS
US	ALL	5595	.	36399	.	95.7	91531	2.63	16
	0	657	3	2017	3.1	95.7	4945	2.56	7
	1	598	3	4025	6.7	95.5	10930	2.84	85
	2	4340	3	30357	7.0	95.8	75656	2.60	7
NE	ALL	1154	.	7829	.	94.5	19466	2.63	13
	0	85	1	237	2.8	94.9	588	2.61	5
	1	107	1	721	6.7	93.1	1858	2.77	93
	2	962	2	6871	7.1	94.7	17020	2.62	5
MW	ALL	1371	.	9213	.	95.3	23063	2.63	13
	0	95	2	303	3.2	96.4	776	2.66	3
	1	125	3	826	6.6	92.6	2238	2.93	93
	2	1151	1	8084	7.0	95.5	20049	2.60	4
S	ALL	1925	.	12071	.	96.7	30790	2.64	26
	0	286	5	853	3.0	95.4	2055	2.52	12
	1	314	3	2110	6.7	97.7	5902	2.86	81
	2	1325	4	9108	6.9	96.6	22833	2.59	13
W	ALL	1145	.	7286	.	95.9	18212	2.61	7
	0	191	2	624	3.3	96.2	1526	2.54	3
	1	52	0	368	7.1	94.3	932	2.69	81
	2	902	2	6294	7.0	96.0	15754	2.61	3
URBAN	ALL	4185	.	27789	.	95.3	68046	2.57	19
	0	497	3	1586	3.2	95.8	3776	2.49	7
	1	538	2	3642	6.8	95.2	9783	2.82	88
	2	3150	2	22561	7.2	95.2	54487	2.54	7
RURAL	ALL	1395	.	8557	.	97.4	23375	2.81	8
	0	157	3	424	2.7	96.2	1159	2.84	6
	1	60	7	383	6.4	99.0	1147	3.03	59
	2	1178	4	7750	6.6	97.3	21069	2.79	5

¹ Households selected for interview² Interviewed households only

TABLE 4

Distribution of the Number of Eligible Households (HSD) in Sampled SSUs^{1/}
by SSU Size and Frame

Percent Distribution			Mean and Standard Deviation of No. HSDs	
Number HSD	Permit SSU	Area SSU	Number HSD	Area SSU
1	14.3	1.3	7	19.0
2	14.9	2.2	8	28.0
3	27.0	2.8	9	7.2
4	37.5	5.2	10	3.8
5	4.1	8.3	11	1.1
6	3.2 ^{2/}	16.8	12	1.1
			13+	3.2

	Permit SSU	Area SSU
mean	3.2	7.2
standard deviation	2.4	3.2

1/ Excludes SSUs with no eligible households
2/ Includes SSUs with 6 or more households

TABLE 5

Allocation of Area Frame Sample SSUs by Substratum (SUB)

	Number PSUs	Actual No. SSU's SUB 1	Actual No. SSU's SUB 2	Expected No. SSU's SUB 1	Expected No. SSU's SUB 2
PSUs with sample reduction ^{1/}	17	274	1349	305	1318
PSUs with no sample reduction	78	324	1316	340	1300
All PSUs	95	598	2665	645	2618

^{1/}Effect of SSU sampling confounded with 25% SSU reduction

TABLE 6

Inflation Weight Estimates of Households and Persons in the
Target Population of the 1985 NHIS and Census Population Controls

	Estimate (X1000)	Coefficient of Variation (%)	Census Control (X1000)
Total Households	83,220	1.0	86,789
Total Persons	216,320	0.9	233,721
Total Black Persons	26,040	3.6	28,149

TABLE 7

Observed Relative Bias of NHIS Inflation Weight and First-Stage
Ratio Adjusted Weight Estimators for Selected Census Age-Race-Sex Classes

RACE	SEX	AGE	UNWGT TOTAL	CENSUS TOTAL	REL-BIAS OF TOTAL ESTIMATE		REL-BIAS OF PERCENT ESTIMATE		
					INFLT WGT	1-STAGE RATIO	CENSUS PERCENT	INFLT WGT	1-STAGE RATIO
BLACK	M	<20	2895	5350	-4.7	-7.9	2.29	3.0	-0.4
.	.	20-34	1450	3383	-21.5	-23.8	1.45	-15.2	-17.6
.	.	35-64	1823	3446	-8.7	-11.3	1.47	-1.3	-4.0
.	.	65+	508	902	-7.5	-11.3	0.39	-0.1	-4.1
BLACK	F	<20	2847	5294	-3.4	-6.7	2.27	4.3	0.9
.	.	20-34	2086	4139	-8.0	-10.7	1.77	-0.6	-3.4
.	.	35-64	2419	4276	-3.0	-5.6	1.83	4.8	2.1
.	.	65+	752	1357	-8.3	-11.6	0.58	-0.9	-4.4
NON	M	<20	11593	30325	-5.8	-5.5	12.98	1.8	2.2
BLACK	.	20-34	9141	26231	-13.2	-12.8	11.22	-6.2	-5.7
.	.	35-64	12334	33022	-7.5	-7.3	14.13	-0.1	0.3
.	.	65+	3843	10202	-6.0	-5.9	4.37	1.5	1.8
NON	F	<20	11243	29052	-4.3	-4.0	12.43	3.4	3.8
BLACK	.	20-34	9783	27012	-10.4	-10.0	11.56	-3.1	-2.7
.	.	35-64	13214	35138	-6.9	-6.6	15.03	0.6	1.0
.	.	65+	5600	14581	-3.6	-3.5	6.24	4.2	4.4