

A Report on Sample Frame Comparisons and
Design Effects on the 1993 General Social Survey

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Introduction

A key goal of the General Social Survey (GSS) is to measure changes over time. Since way to measure change is not to change the measure, the GSS has attempted to maintain consistent measurement procedures. Whenever possible the basic components of the measurement process such as coding protocols, question wording, questionnaire content, and definition of target population have remained fixed. However, in some cases changes in procedures must be made to keep the survey accurate and up-to-date. A prime example of this is the decennial revision of the sample frame.

Every decade after the new Census is conducted, NORC draws a new master sample frame to reflect the population changes during the last 10-years and replenish our sample points.¹ While updating the sample frame is necessary to keep samples representative, the shifting of sample frames raises the possibility that observed changes between surveys using different sample frame may not reflect true changes, but rather only measurement variation. Since the GSS is trying to track social change, it has been particularly concerned about possible sample-frame effects. To check for such effects and provide for a way of calibrating for and thereby statistically neutralizing such possible effects, the GSS adopted a split sample design in 1983 and again in 1993. In 1983, half of the cases were drawn from the old 1970 sample frame and half from the new 1980 sample frame. Similarly in 1993, half of the cases were from the old 1980 sample frame and half from the new 1990 sample frame.

Extensive analysis of the 1983 sample frame shift indicated only one clear measurement effect. The 1980 sample frame yielded a higher proportion Mormon than the 1970 frame did due to the addition of a Primary Sample Unit in Utah.²

In this paper we report on our analysis of the 1993 sample frame experiment. Since we used SUDAAN to calculate design effects for the several hundred variables compared, we also report on design effects in the 1993 GSS.

Calculation of Variances for 1993 GSS

1. 1993 GSS sample

The 1993 GSS sample is composed of two independent samples from the NORC national sample frames. One half consists of housing units (HU's) from the 1980 NORC national sample frame and the other

¹The revision in NORC's master sample frame over the last 25 years is summarized in Appendix A of Davis and Smith (1994) and full-descriptions of the 1970, 1980, and 1990 sample frames are provided in King and Richards, 1972; Heeringa and Connor, 1984; and Tourangeau, Johnson, Qian, and Shin, 1993.

²For more details on this effect see Smith, 1990.

half consists of housing units from the 1990 NORC national sample frame. Each of the NORC national sample frames is a list of housing units which has been obtained using a multi-stage design. Each of NORC national sample frames were designed to yield a self-weighting samples representing all the HU's in the United States. However, the ultimate sampling unit in GSS is a person instead of an HU. Only one adult was selected for the GSS from each household. Therefore, the sampling weights were calculated to reflect the selection probability within a HU (Davis and Smith, 1994).

2. Variance Estimation

The 1993 GSS sample is a multi-stage complex sample. To, however, utilize a readily available software package (SUDAAN), the PPS (probability proportional to size) sampling with replacement at the first stage is assumed for both of the NORC national samples. Suppose that at the first stage a sample of n_h PSU's is selected with replacement from each of H strata, and that at the second stage a sample of n_{hi} segments is selected from the i th PSU in h th stratum. The unbiased estimator of the total is

$$\hat{Y} = \sum_{h=1}^H \sum_{i=1}^{n_h} \sum_{j=1}^{n_{hi}} w_{hi} Y_{hij},$$

where w_{hi} is the sampling weight. Let $Z_{hij} = w_{hi} Y_{hij}$, $Z_{hi} = \sum_{j=1}^{n_{hi}} Z_{hij}$,

$Z_h = \sum_{i=1}^{n_h} Z_{hi}$, and $\bar{Z}_h = \sum_{i=1}^{n_h} Z_{hi} / n_h$. Then, the estimated variance of \hat{Y} is

$$\text{Var}(\hat{Y}) = \sum_{h=1}^H n_h \sum_{i=1}^{n_h} (Z_{hi} - \bar{Z}_h)^2 / (n_h - 1).$$

Implicit stratification was done to select the PSU's for the both of NORC national samples. Since it is necessary to have at least two PSU's within a stratum, strata and PSU's were reconfigured. For the certainty PSU's (large metropolitan areas), a PSU was divided into 2 pseudo-PSU's by randomly grouping segments. For the non-certainty PSU's, two adjacent PSU's were paired to have a pseudo-stratum within each of the national samples.

Effects of Frames: Test of Significance

As noted earlier, the 1993 GSS sample are from two (1980 and 1990) NORC national sample frames. The complex sample design invalidates the direct application of conventional statistical tests (e.g., Pearson chi-squared statistics). To test the independence between a variable and the frame, a correct goodness of fit statistic was obtained by using SUDAAN. In the following

analysis the reported probability levels are adjusted to reflect the design effects.

Results

1. Frame Comparisons

Overall, 551 variables were compared across frames.³ Appendix 1 lists these variables alphabetically by variable name, Appendix 2 sorts them by design effect, and Appendix 3 orders them by probability level. The full meaning and wording of each item are given in Davis and Smith, 1994. 32 or 5.8% of the variables were statistically significant at the .05 level. This is slightly more than the 27-28 statistically significant differences that we would have predicted at the .05 level by chance.

At least one variable, date of interview (DATEINTV), clearly had a real relationship to sample frame. The new 1990 sample frame was not quite ready at the start of the field period so 1990 frame cases were released to the field two weeks after the 1980 cases were. This led to the real and highly significant difference for DATEINTV reported in Appendix 3.

We then attempted to assess the remaining 31 differences to see if they probably represented real or chance occurrences. First, we considered the possibility that other relationships were showing up because they were related to date of interview and that this was creating a spurious relationship to sample frame. Of the 31 variables showing frame differences, 13 were statistically related to date of interview. We calculated partial correlation coefficients between the 31 variables and sample frame controlling for date of interview. Only 13 (41.9%) of the variables had a significant correlation with sample frame. However, there was little difference and discrimination by whether the variables were significantly related to date of interview or not. Of those related to date of interview 38.5% ~~were~~ had statistically significant correlations, while 44.4% of the variables not related to date of interview had statistically significant correlations. The changes appear to be more the result of many weak relationships slipping under the .05 barrier when the date of interview was controlled for and partial correlations were examined than date of interview having a clear and widespread effect.⁴ However, the date of interview gap between sample frames does undoubtedly contribute to some of the observed differences.

Second, we looked for clear patterns in the variables. We checked to see if higher inter-correlated scale items, items

³These represent essentially all variables on the 1993 GSS that were not totally confounded with sample frame (e.g. SAMPCODE) and had at least 200 cases.

⁴Appendix 3 indicated that 8 of the 31 variables had only been statistically significant at just the .05 level.

measuring the same characteristics, or items dealing with a common topic consistently showed up among the statistically significant differences. In case after case, variables closely related to the statistically significant variables did not vary by sample frame. Consider the following four examples:

1. Of ten vocabulary words only one, WORDG, was related to frame.
2. Only one item, ABNOMORE, in a seven-item abortion scale was related.
3. Only one item, FEFAM, in an eight-item feminism scale was related.
4. Father's years of schooling (PAEDUC), but not highest degree obtained by father (PADEG), was related.

In brief, there was little evidence of similar effects among related items. This suggests random rather than real differences.

Finally, we examined nine variables that showed the strongest relationships with frame with date of interview controlled for and examined how they varied across frame:

Name	Description	1980	1990	80 is/has __ than 90
WORDG	% correct	41.9	31.6	smarter
OBEYTHNK	% Child Think for Self	72.2	66.4	more independent
HEALTH	% Excellent Health	37.6	27.7	healthier
PORNINF	% Porn. Informs	61.9	53.9	more liberal
DWELOWN	% Owns Home	75.1	64.6	more homeowners
WKSUBS	% Has a Supervisor with a Supervisor	74.3	86.0	higher in work hierarchy
MEMNAT	% Member of Nationality Group	7.0	2.6	more group members
MAKEART	% Made Art/Craft	37.6	43.8	less active in crafts
PUBDECID	% Govt Decide How to Protect Enviro.	81.4	76.2	more liberal

At first glance there does seem to be at least a consistent thread that weaves itself through these items. Cases from the 1980 frame are more upscale (e.g. homeowners, higher in work hierarchy, healthier, smarter) and more liberal (e.g. child should think for themselves rather than be obedient, pornography can be informative, government should decide how to protect the environment) than those in 1990 of these measures.

However, the three major measures of SES (family income-INCOME91, education-EDUC, and occupational prestige-PRESTG80) were not related to frame. Moreover, they did not even show a consistent hint of any relationship. Cases from the 1980 frame had marginally lower income, slightly higher occupation prestige, and the same

mean on years of schooling. Similarly, neither political ideology, party identification, nor presidential vote in 1992 showed a statistically significant relationship. The 1980 frame cases were slightly (but not significantly) more Democratic and more likely to have voted for Clinton in 1992, but were not more liberal in their ideological self-labelling. As a result, the hints of consistency (and therefore real effects) between the frames are not well supported by the central measures of SES and politics.

Overall, the low proportion of statistically significant differences coupled with the fact some observed differences reflect the transitory effects of date of interview, rather than inherent difference in the sample frame and most differences represent isolated items and not groups of related scale items suggests that there are few if any real differences across the sample frames. Even the slight indications of the 1980 frame having more limousine liberals than the 1990 frame is not substantiated by examining key SES and political measures.

2. Design Effects

Following on the work of Stephenson (1978), Appendix 3 reports on design effects on 551 GSS variables.⁵ Overall, the mean design effect is 1.54 and the median 1.42. Both come close to the standard rule-of-thumb that NORC area probability samples have a design effect of about 1.5 (Davis and Smith, 1992). A few variables (33) have design effects less than one. This means that these variables are more evenly spread across sampling points than one would expect by chance. The variables are a pretty diverse group and do not suggest any overarching pattern or theme. The only variable noted in previous research (Stephenson, 1978) as having a design effect less than one is gender (SEX). Women and men tend to be paired together in households as partners and thus are less geographically clustered than by chance.

⁵Since most GSS variables are not continuous variables, they had to be dichotomized in order to produce a single design effect per variable. The following rules were followed in dichotomizing variables: 1) missing values were excluded, 2) about a third of the variables were already dichotomies so no recode was done, 3) for nominal variables with a dominant category (e.g. Protestants on RELIG), the recode was dominant vs. all others, 4) for nominal variables with a large number of small categories, similar groups were coded together vs. all others coded together, and 5) for ordinal variables adjoining categories were grouped together to achieve either an approximately 50-50 split and/or a split along a natural divide (e.g. Strongly agree + Agree vs. Strongly disagree + Disagree).

If different cutting point had been chosen, design effects would be different from those reported herein. Because of this, reported results for individual dichotomized variables should be treated with caution.

At the upper end there are 15 variables with design effects over 3. These items are heavily geographically clustered into the same areas. They consist mostly of four types of variables: 1) geographic measures that are fixed at the segment or PSU level or geographic items that are closely related to these fixed variables (REGION, SRCBELT, XNORCSIZ, COMTYPE, REG16), 2) race and related indicators (RACE, HHRACE, GRANBORN), 3) a couple SES variables (DWELLING and REALINC), and 4) several of the intra-household relationship variables (UNRELAT, RELHHD4, RELHHD3, RELATE4, RELATE3). The geographic, racial, and SES variables have all been previously identified as items with high clustering and thus large design effects.

Only the intra-household relationship variables suggest a new group of highly clustered variables. To explore this unanticipated result we looked at the number of unrelated persons in the household (UNRELAT).⁶ First, we found that the clustering was robust in that including single-person households (which added 377 cases with 0 unrelated persons) produced a very similar design effect (4.20 compared to 4.14). Second, we found that the number of unrelated persons per household was greater in central cities and towns and lowest in suburbs, exurbia, and some rural areas (e.g. 13.1% with 1+ unrelated persons in the 100 largest central cities and 8.6% in their suburbs). Third, some rural areas with special conditions such as a large state university or military base also had a high average number of unrelated individuals per household.

Conclusion

First, there are few sample frame effects associated with NORC's shift from the 1980 to the 1990 Census. As a result, no standard adjustment is needed to study change from the 1980s into the 1990s. Variables that do show statistically significant differences are listed in the appendices.

Second, design effects are of the nature and magnitude as indicated by previous research. Researchers can use the overall average design effects of 1.42-1.54 or the variable-specific design effects reported in the appendices to approximately adjust significance levels if more precise calculations using SUDAAN or other programs are not practical.

⁶We examined on UNRELAT because the intra-household relationship variables were not independent of one another. As dichotomized RELHHD4 and RELATE4 were identical variables as were RELHHD3 and RELATE3. Moreover, even the three formally independent variables were measuring the same basic characteristic, relationships with the household.

Appendix 1: Alphabetical Listing

VARNAME	SAMPSIZE	DEFF	PVALUE
ABANY	1010	1.19	.11
ABDEFECT	1033	.99	.24
ABHLTH	1028	2.08	.66
ABNOMORE	1019	.89	.02
ABPOOR	1019	1.04	.15
ABRAPE	1025	1.27	.95
ABSINGLE	1014	1.10	.17
ADULTS	1606	2.75	.55
AGE	1601	1.39	.03
AGED	1042	1.56	.09
AGEWED	1294	1.05	.58
AIDSAGE	385	2.65	.40
AIDSDEAD	378	.94	.82
AIDSKNOW	1597	1.37	.91
AIDSRACE	385	1.07	.11
AIDSREG	383	1.52	.50
AIDSSEX	385	1.13	.44
AIDSWHO	385	.82	.39
ANOMIA5	1027	1.10	.40
ANOMIA6	1042	1.75	.65
ANOMIA7	1045	1.93	.89
ANRIGHTS	1467	1.59	.73
ANTESTS	1456	1.25	.32
ATTEND	1568	1.67	.15
ATTSPRTS	1594	1.62	.70
AUTORACE	1593	1.31	.96
BABIES	1603	.76	.05
BIBLE	1052	1.35	.18
BIGBAND	1430	1.42	.62
BIRTHMO	1592	1.23	.07
BLUES	1538	1.96	.24
BLUGRASS	1432	1.48	.36
BORN	1598	2.33	.60
BURGLR	1073	1.64	.03
BUSDECID	1341	1.22	.98
BUSING	990	1.23	.87
CAMPING	1593	2.00	.16
CANADA	1039	1.65	.52
CAPPUN	1488	1.21	.34
CARSFAM	1435	.91	.61
CARSGEN	1437	.81	.04
CARSTEN	1397	1.44	.53
CHEMFAM	1487	1.42	.70
CHEMFREE	1519	1.80	.32
CHEMGEN	1489	1.42	.09
CHILDS	1601	1.25	.60
CHINA	1016	1.37	.55
CHLDIDEL	967	1.29	.37

CHLDMORE	1071	1.40	.10
CHLDNUM	217	.90	.74
CLASS	1588	1.98	.13
CLASSICL	1529	1.08	.39
CLASSICS	1431	1.31	.14
COHORT	1601	1.39	.03
COLATH	1026	1.33	.24
COLCOM	994	1.06	.67
COLHOMO	1023	1.20	.75
COLMAJR1	788	1.74	.54
COLMIL	1024	1.32	.53
COLRAC	1028	1.54	.28
COMMUN	1038	1.57	.11
COMPREND	1599	1.77	.46
COMTYPE	1520	3.83	.83
CONARMY	1034	1.24	.36
CONBUS	1012	1.00	.12
CONCLERG	1018	1.07	.62
CONEDUC	1035	1.71	.63
CONFED	1020	1.02	.72
CONFINAN	1031	1.33	.87
CONJUDGE	1009	1.16	.80
CONLABOR	980	1.21	.13
CONLEGIS	1029	1.50	.84
CONMEDIC	1039	1.57	.88
CONPRESS	1032	1.14	.25
CONROCK	1544	1.77	.33
CONSCI	962	1.23	.61
CONTV	1042	.97	.05
COOP	1602	1.66	.60
COUNTRY	1574	1.57	.13
COURTS	1510	1.64	.57
DANCE	1593	1.35	.87
DATEINTV	1605	2.28	.00
DEATH16	1057	1.38	.31
DEATH5	1042	1.36	.74
DEGREE	1602	2.38	.56
DENOM	1023	2.51	.75
DENOM16	1034	2.25	.95
DIVLAW	1002	1.50	.58
DIVORCE	1025	1.45	.20
DOSPORTS	1594	1.67	.68
DRINK	1057	2.10	.87
DRIVLESS	1517	1.62	.29
DRUNK	731	1.27	.26
DWELLING	1605	3.59	.34
DWELOWN	1076	1.70	.01
EARNRS	1586	1.72	.62
EDUC	1602	2.58	.93
EGYPT	984	1.50	.47
ENGLISH	1537	1.45	.28
EQINCOME	1474	1.05	.25

EQWLTH	1035	1.69	.74
ETH1	1427	2.20	.94
ETH2	695	1.31	.16
ETH3	227	1.62	.99
ETHNIC	1248	2.62	.79
ETHNUM	1579	1.54	.34
EVPAIDSX	1451	1.25	.46
EVSMOKE	756	1.04	.16
EVSTRAY	1177	1.64	.93
EVWORK	542	1.62	.25
EXCELART	1463	1.49	.60
FAIR	1047	1.99	.57
FAMDIF16	407	.88	.05
FAMGEN	1606	1.25	.30
FAMILY16	1606	1.19	.21
FEAR	1070	1.86	.62
FECHLD	1063	1.89	.46
FEFAM	1054	1.37	.01
FEHELP	1045	1.82	.38
FEHOME	1042	1.48	.77
FEPOL	1020	.86	.20
FEPRES	1032	1.37	.06
FEPRESCH	1048	.92	.14
FEWORK	1056	1.54	.26
FINALTER	1593	1.64	.42
FINRELA	1587	1.93	.58
FOLK	1516	.99	.40
FRDCREAT	1569	1.23	.71
FRDCULTR	1565	1.23	.11
FRDDYNAM	1550	1.06	.57
FRDFUN	1584	.91	.84
FRDHONST	1587	1.18	.34
FRDINTEL	1582	1.86	.92
FRDRESP	1586	.92	.23
FRNDKING	1026	1.59	.99
FUND	1544	2.75	.45
FUND16	1557	2.60	.22
GARDEN	1594	1.23	.15
GENDER1	1606	1.55	.27
GENDER2	1230	1.80	.20
GENDER3	708	1.48	.75
GENDER4	413	1.55	.56
GETAHEAD	1068	1.24	.48
GOD	1497	1.89	.34
GOMUSIC	1592	1.67	.98
GOSPEL	1559	1.95	.78
GRANBORN	1498	3.05	.30
GRASS	1004	1.51	.06
GRNDEMO	1430	1.92	.59
GRNECON	1487	1.50	.38
GRNGROUP	1518	1.55	.18
GRNMONEY	1415	1.63	.92

GRNPRICE	1459	1.26	.89
GRNPROG	1472	1.55	.24
GRNSIGN	1480	1.81	.54
GRNSOL	1468	1.19	.41
GRNTAXES	1471	1.24	.70
GRNTEST1	1389	1.79	.47
GRNTEST2	1393	1.14	.66
GRNTEST3	1251	1.15	.60
GRNTEST4	1282	1.21	.58
GRNTEST5	1377	1.39	.79
GRNTEST6	1403	.91	.35
GRNTEST7	1426	1.14	.47
GRTBOOKS	1456	1.41	.13
GRWTHARM	1449	1.24	.04
GRWTHELP	1448	1.22	.59
GUN	1056	.83	.96
GUNAGE	201	1.77	.12
GUNLAW	1055	2.11	.78
HAPMAR	853	1.90	.89
HAPPY	1601	1.16	.22
HARMGOOD	1459	1.20	.71
HARMSGRN	1484	1.45	.54
HEALTH	1071	1.25	.01
HEFINFO	1554	1.32	.99
HELPBLK	1020	1.19	.65
HELPFUL	1042	1.57	.39
HELPNOT	1012	1.57	.83
HELPOTH	1031	1.36	.39
HELPPOOR	1028	1.46	.21
HELPSICK	1026	1.27	.72
HHRACE	1562	3.75	.48
HHTYPE	1604	1.49	.93
HHTYPE1	1604	1.12	.23
HIT	1056	1.36	.22
HITAGE	376	1.42	.65
HITBEATR	1018	1.49	.59
HITCHILD	1012	1.45	.52
HITDRUNK	1025	1.21	.67
HITMARCH	1032	1.84	.52
HITOK	988	1.94	.87
HITROBBR	1026	1.52	.47
HOMOSEX	1012	1.86	.55
HOMPOP	1606	2.08	.96
HOSDIS5	419	1.09	.70
HOSTHOME	1560	1.55	.73
HRS1	968	1.34	.65
HSCCLASS1	1460	1.48	.17
HSCCLASS2	298	.80	.27
HUNT	1074	1.39	.58
HUNTFISH	1591	1.54	.20
HVYMETAL	1526	1.14	.16
IF88WHO	409	1.73	.64

IF92WHO	415	1.07	.33
IHLPGRN	1421	1.34	.17
IMPCULTR	1567	1.72	.64
IMPFINAN	1589	.92	.01
IMPGOD	1586	1.11	.31
IMPJOB	1585	.99	.17
IMPKIDS	1584	1.17	.61
IMPMAR	1587	1.24	.13
IMPSELF	1588	.99	.82
IMPTHNGS	1585	1.37	.01
INCDEF	1454	2.30	.53
INCOM16	1590	1.69	.21
INCOME	1467	2.14	.06
INCOME91	1467	2.43	.07
INDUS80	1519	1.89	.94
INDUSFAM	1486	1.26	.87
INDUSGEN	1491	1.11	.16
ISCO681	1526	1.25	.71
ISRAEL	1002	1.58	.69
JAPAN	1035	1.41	.27
JAZZ	1553	1.67	.97
JOBFIND	665	1.69	.75
JOBHOUR	1037	1.16	.82
JOBINC	1037	1.35	.46
JOBLOSE	668	1.50	.68
JOBMEANS	1037	1.23	.88
JOBPROMO	1037	1.06	.84
JOBSEC	1037	1.34	.43
JUDGEART	1482	1.17	.42
JUDGELUV	1012	2.17	.84
LATIN	1373	1.46	.83
LETDIE1	1019	1.30	.07
LFECHNCE	1564	1.62	.61
LFEGENES	1552	1.28	.37
LFEGOD	1547	2.49	.84
LFEHRDWK	1581	1.49	.25
LFESOCTY	1550	1.58	.44
LIBATH	1028	1.40	.88
LIBCOM	1023	1.53	.35
LIBHOMO	1026	1.40	.86
LIBMIL	1034	1.51	.90
LIBRAC	1030	1.47	.57
LIFE	1067	1.26	.28
MADEATH	1006	1.20	.30
MADEG	1444	1.67	.40
MAEDUC	1379	2.29	.36
MAKEART	1593	1.57	.05
MAPA	1020	1.49	.29
MAR1	1594	1.94	.76
MAR2	1162	2.44	.71
MAR3	367	2.50	.28
MARCOHRT	1291	1.26	.07

MARITAL	1605	1.44	.12
MASTERSP	1009	1.65	.46
MATESEX	1135	1.24	.85
MAWKBORN	904	1.55	.09
MAWORK	1389	.83	.06
MEMCHURH	1052	1.23	.39
MEMFARM	1050	1.22	.54
MEMFRAT	1051	1.20	.54
MEMGREEK	1051	1.39	.11
MEMHOBBY	1051	1.11	.73
MEMLIT	1051	1.38	.97
MEMNAT	1048	.98	.00
MEMNUM	1053	1.38	.35
MEMOTHER	1044	1.57	.72
MEMPOLIT	1051	1.36	.92
MEMPROF	1051	1.28	.54
MEMSCHL	1051	1.04	.01
MEMSERV	1048	1.50	.83
MEMSPORT	1051	1.25	.88
MEMUNION	1051	1.32	.74
MEMVET	1051	1.11	.13
MEMYOUTH	1050	1.52	.77
MINFOOD	1450	1.54	.83
MINFOUR	1387	.98	.46
MINTHREE	1383	1.57	.14
MOBILE16	1603	2.27	.53
MODPAINT	1473	1.41	.39
MOODEASY	1521	1.71	.46
MOSTIMP1	1498	1.35	.76
MOSTIMP2	1265	1.02	.99
MOSTIMP3	391	.72	.75
MUSICALS	1515	1.38	.92
NATAID	759	1.10	.48
NATAIDY	775	2.14	.51
NATARMS	765	1.71	.75
NATARMSY	764	1.24	.89
NATCITY	696	1.25	.87
NATCITYY	675	1.29	.72
NATCRIME	765	1.05	.23
NATCRIMY	762	1.44	.15
NATDRUG	756	1.13	.80
NATDRUGY	748	1.86	.67
NATEDUC	774	1.35	.43
NATEDUCY	779	.87	.13
NATENVIR	758	1.35	.11
NATENVIY	759	1.43	.15
NATFARE	756	1.95	.28
NATFAREY	769	1.49	.51
NATHEAL	768	1.35	.35
NATHEALY	760	1.84	.68
NATMASS	1409	1.98	.27
NATPARK	1501	1.49	.37

NATRACE	720	1.80	.84
NATRACEY	685	1.88	.99
NATROAD	1511	1.52	.64
NATSOC	1492	2.10	.23
NATSPAC	742	.85	.12
NATSPACY	762	1.12	.12
NATURGOD	1351	1.62	.16
NATURPAX	1478	1.01	.64
NATURWAR	1434	1.14	.66
NEWAGE	1300	1.68	.92
NEWS	1075	1.41	.55
NOMEAT	1518	1.34	.98
NUKEFAM	1399	1.26	.40
NUKEGEN	1403	1.34	.68
NUMMEN	1378	.69	.15
NUMWOMEN	1376	1.09	.75
OBEY	1031	1.42	.85
OBEYTHNK	1444	1.23	.03
OBTOHELP	1573	1.23	.39
OCC80	1526	1.67	.53
OLD1	1593	1.57	.36
OLD2	1224	1.52	.56
OLD3	706	1.62	.68
OLD4	415	2.10	.27
OLDIES	1555	1.20	.12
OPERA	1510	1.01	.76
OPOUTCME	1558	1.26	.65
OWNGUN	1066	1.56	.64
PADEATH	991	1.08	.70
PADEG	1287	2.05	.37
PAEDUC	1195	2.34	.05
PAIND80	1368	1.23	.36
PAISC681	1367	2.54	.54
PAOCC80	1367	2.34	.53
PAPRES80	1367	2.19	.48
PARBORN	1596	2.81	.41
PARTNERS	1466	1.40	.05
PARTNRS5	1447	1.50	.06
PARTYID	1370	1.47	.68
PASEI	1351	2.61	.37
PAWRKSLF	1357	1.50	.79
PCLIT	1419	1.26	.05
PERFORM	1590	1.34	.65
PHONE	1601	1.35	.28
PILLOK	1037	1.31	.51
PISTOL	1066	1.18	.63
PLYMUSIC	1590	1.37	.75
POLABUSE	1034	1.55	.76
POLATTAK	1036	1.29	.06
POLESCAP	1006	2.04	.72
POLHITOK	1004	2.11	.35
POLMURDR	1025	1.30	.11

POLVIEWS	1548	1.65	.35
POPULAR	1031	1.36	.25
PORNINF	992	1.44	.03
PORNLAW	1040	1.45	.94
PORNMORL	989	1.32	.73
PORNOUT	909	1.99	.51
PORNRAPE	947	1.15	.86
POSTLIFE	965	1.30	.15
POSTMAT1	1393	1.35	.39
POSTMAT2	1362	1.46	.36
POVLINE	1575	1.29	.61
PRAY	1056	1.27	.16
PRAYER	1034	1.22	.35
PREMARX	1050	1.58	.00
PRES88	978	1.28	.18
PRES92	1084	1.70	.61
PRESTG80	1526	1.86	.71
PRETEEN	1602	1.43	.81
PRIVENT	1439	1.45	.60
PUBDECID	1229	1.13	.04
QUITSMK	288	1.04	.43
RACCHNG	993	1.26	.13
RACCHURH	842	1.13	.36
RACCLOS	934	1.76	.66
RACDIF1	1024	1.70	.65
RACDIF2	1038	1.86	.72
RACDIF3	1032	1.51	.10
RACDIF4	1003	1.38	.33
RACDIS	925	2.25	.32
RACE	1606	4.04	.19
RACFEW	1073	1.37	.38
RACHAF	998	1.22	.25
RACHOME	1065	1.44	.26
RACINTEG	923	1.48	.95
RACLIVE	1517	2.40	.90
RACMAR	1037	1.30	.58
RACMOST	824	1.37	.37
RACOPEN	1034	1.30	.64
RACPRES	1022	2.08	.42
RACSEG	1050	1.06	.43
RAP	1534	1.07	.09
REALINC	1467	3.21	.60
REALRINC	1019	1.74	.95
RECYCLE	1519	1.66	.44
REG16	1606	4.27	.87
REGGAE	1300	1.64	.86
REGION	1606	4.14	.81
RELATE2	1226	2.43	.78
RELATE3	707	3.11	.70
RELATE4	414	4.75	.77
RELHHD2	1226	2.43	.22
RELHHD3	707	3.11	.56

RELHHD4	414	4.75	.77
RELIG	1597	1.77	.50
RELIG16	1596	1.99	.33
RELITEN	1529	1.16	.39
RES16	1602	1.94	.87
RESNATUR	1481	1.09	.22
RESPNUM	1606	1.63	.63
RICHPOOR	1558	1.50	.30
RICHWORK	687	1.42	.69
RIFLE	1066	1.45	.68
RINCOM91	1019	1.63	.84
RINCOME	1020	1.82	.91
ROBBRY	1073	1.28	.61
ROWNGUN	450	1.53	.57
RPLACE	1602	1.63	.55
RUSSIA	1014	1.23	.56
RVISITOR	1606	1.55	.00
SAMPCODE	1606	1.66	.00
SATCITY	1054	1.44	.23
SATFAM	1047	1.27	.39
SATFIN	1596	1.51	.75
SATFRND	1053	1.33	.42
SATHEALT	1050	1.59	.58
SATHOBBY	1046	1.13	.11
SATJOB	1228	1.04	.52
SCIFAITH	1472	1.52	.64
SCIGRN	1444	1.28	.17
SCITEST1	1331	1.40	.80
SCITEST2	1309	1.49	.44
SCITEST3	1347	1.39	.15
SCITEST4	1350	1.54	.80
SCITEST5	1363	1.38	.26
SCIWORSE	1433	1.05	.34
SEEMOVIE	1594	1.70	.29
SEI	1517	2.01	.44
SELFIRST	1588	1.45	.59
SEX	1606	.93	.46
SEXEDUC	1049	1.44	.77
SEXFREQ	1119	1.07	.93
SEXSEX	1102	1.15	.59
SEXSEX5	1222	1.21	.31
SHOTGUN	1066	1.73	.72
SIBDEATH	206	1.05	.18
SIBS	1600	1.70	.20
SIZE	1606	1.06	.80
SMOKE	1055	1.54	.22
SOCBAR	1076	1.12	.62
SOCFRIEND	1076	1.25	.01
SOCOMMUN	1076	1.37	.25
SOCPARS	790	1.25	.57
SOCREL	1075	1.38	.39
SOCSIBS	973	1.27	.40

SPANKING	1061	1.35	.02
SPDEG	851	2.12	.74
SPDEN	535	1.42	.94
SPDEN16	534	1.74	.71
SPEDUC	848	2.53	.13
SPETH1	719	1.93	.77
SPETH2	283	.94	.92
SPETHNIC	651	1.73	.99
SPETHNUM	843	1.51	.85
SPEVWORK	248	.79	.31
SPFUND	819	1.90	.40
SPFUND16	816	1.79	.63
SPHRS1	564	1.13	.18
SPIND80	816	1.59	.89
SPISC681	819	1.29	.26
SPKATH	1054	1.57	.08
SPKCOM	1044	1.25	.59
SPKHOMO	1038	1.37	.26
SPKMIL	1045	1.18	.90
SPKRAC	1046	1.66	.49
SPOCC80	819	1.73	.65
SPPRES80	819	1.68	.94
SPREL	850	1.06	.76
SPREL16	846	1.49	.70
SPSEI	813	1.88	.45
SPWRKSLF	815	1.26	.13
SPWRKSTA	856	1.59	.15
SRCBELT	1606	5.38	.36
STANDUP	1572	1.47	.72
SUICIDE1	1027	1.24	.05
SUICIDE2	1060	1.31	.20
SUICIDE3	1053	1.53	.06
SUICIDE4	1038	1.28	.46
TAX	1031	1.43	.65
TEENS	1606	1.24	.32
TEENSEX	1060	1.37	.27
TEMPFAM	1357	1.21	.67
TEMPGEN	1363	1.06	.09
THNKSELF	1031	1.11	.44
TOODIFME	1455	1.20	.45
TRAUMA1	1013	1.01	.38
TRAUMA5	1013	1.38	.63
TRSTPROF	1512	1.49	.26
TRUST	1052	1.53	.08
TVHOURS	1594	1.22	.84
TVNEWS	1597	1.51	.50
TVPBS	1591	1.77	.64
TVSHOWS	1595	1.58	.44
UNEMP	1053	1.22	1.00
UNEMP5	1054	1.12	.46
UNION	1591	1.59	.71
UNITED	1527	1.25	.19

UNRELAT	1164	4.14	.81
USEVCR	1594	1.38	.33
USINTL	1031	1.51	.39
USUN	1026	1.47	.87
USWARY	1041	1.69	.54
VETYEARS	1022	1.11	.95
VISITART	1593	1.62	.49
VISITORS	1606	1.58	.79
VOTE88	1448	1.44	.00
VOTE92	1555	1.65	.25
WATERFAM	1488	1.21	.67
WATERGEN	1497	.82	.74
WIDOWED	1115	1.08	.17
WIRTAP	1013	1.16	.89
WKSUB	764	1.58	.12
WKSUBS	601	1.16	.00
WKSUP	751	1.10	.84
WKSUPS	322	1.24	.61
WORDA	981	1.81	.85
WORDB	982	1.19	.60
WORDC	787	1.43	.12
WORDD	998	1.91	.67
WORDE	957	1.80	.65
WORDF	954	2.01	.49
WORDG	924	1.76	.01
WORDH	824	1.27	.50
WORDI	997	2.19	.68
WORDJ	942	1.04	.15
WORDSUM	1015	1.81	.36
WORKHARD	1031	.84	.58
WRKSLF	1518	1.45	.85
WRKSTAT	1606	1.09	.99
XMARSEX	1053	1.90	.69
XMOVIE	1050	1.07	.48
XNORCSIZ	1606	6.73	.22
ZODIAC	1592	1.22	.39

Appendix 2: Listing by Design Effects

VARNAME	SAMPSIZE	DEFF	PVALUE
NUMMEN	1378	.69	.15
MOSTIMP3	391	.72	.75
BABIES	1603	.76	.05
SPEVWORK	248	.79	.31
HSCCLASS2	298	.80	.27
CARSGEN	1437	.81	.04
WATERGEN	1497	.82	.74
AIDSWHO	385	.82	.39
MAWORK	1389	.83	.06
GUN	1056	.83	.96
WORKHARD	1031	.84	.58
NATSPAC	742	.85	.12
FEPOL	1020	.86	.20
NATEDUCY	779	.87	.13
FAMDIF16	407	.88	.05
ABNOMORE	1019	.89	.02
CHLDNUM	217	.90	.74
FRDFUN	1584	.91	.84
GRNTEST6	1403	.91	.35
CARSFAM	1435	.91	.61
FRDRESP	1586	.92	.23
IMPFINAN	1589	.92	.01
FEPRESCH	1048	.92	.14
SEX	1606	.93	.46
SPETH2	283	.94	.92
AIDSDEAD	378	.94	.82
CONTV	1042	.97	.05
MEMNAT	1048	.98	.00
MINFOUR	1387	.98	.46
FOLK	1516	.99	.40
IMPJOB	1585	.99	.17
IMPSELF	1588	.99	.82
ABDEFECT	1033	.99	.24
CONBUS	1012	1.00	.12
NATURPAX	1478	1.01	.64
TRAUMA1	1013	1.01	.38
OPERA	1510	1.01	.76
MOSTIMP2	1265	1.02	.99
CONFED	1020	1.02	.72
SATJOB	1228	1.04	.52
ABPOOR	1019	1.04	.15
EVSMOKE	756	1.04	.16
WORDJ	942	1.04	.15
MEMSCHL	1051	1.04	.01
QUITSMK	288	1.04	.43
EQINCOME	1474	1.05	.25
SIBDEATH	206	1.05	.18
SCIWORSE	1433	1.05	.34

NATCRIME	765	1.05	.23
AGEWED	1294	1.05	.58
SPREL	850	1.06	.76
JOBPROMO	1037	1.06	.84
RACSEG	1050	1.06	.43
COLCOM	994	1.06	.67
FRDDYNAM	1550	1.06	.57
SIZE	1606	1.06	.80
TEMPGEN	1363	1.06	.09
CONCLERG	1018	1.07	.62
SEXFREQ	1119	1.07	.93
AIDSRACE	385	1.07	.11
XMOVIE	1050	1.07	.48
IF92WHO	415	1.07	.33
RAP	1534	1.07	.09
WIDOWED	1115	1.08	.17
PADEATH	991	1.08	.70
CLASSICL	1529	1.08	.39
RESNATUR	1481	1.09	.22
WRKSTAT	1606	1.09	.99
HOSDIS5	419	1.09	.70
NUMWOMEN	1376	1.09	.75
ABSINGLE	1014	1.10	.17
WKSUP	751	1.10	.84
ANOMIA5	1027	1.10	.40
NATAID	759	1.10	.48
INDUSGEN	1491	1.11	.16
MEMVET	1051	1.11	.13
MEMHOBBY	1051	1.11	.73
IMPGOD	1586	1.11	.31
THNKSELF	1031	1.11	.44
VETYEARS	1022	1.11	.95
HHTYPE1	1604	1.12	.23
UNEMP5	1054	1.12	.46
NATSPACY	762	1.12	.12
SOCBAR	1076	1.12	.62
SPHRS1	564	1.13	.18
SATHOBBY	1046	1.13	.11
AIDSSEX	385	1.13	.44
NATDRUG	756	1.13	.80
RACCHURH	842	1.13	.36
PUBDECID	1229	1.13	.04
GRNTEST7	1426	1.14	.47
GRNTEST2	1393	1.14	.66
NATURWAR	1434	1.14	.66
COMPRESS	1032	1.14	.25
HVYMETAL	1526	1.14	.16
PORNRAPE	947	1.15	.86
GRNTEST3	1251	1.15	.60
SEXSEX	1102	1.15	.59
RELITEN	1529	1.16	.39
JOBHOUR	1037	1.16	.82

CONJUDGE	1009	1.16	.80
HAPPY	1601	1.16	.22
WIRTAP	1013	1.16	.89
WKSUBS	601	1.16	.00
JUDGEART	1482	1.17	.42
IMPKIDS	1584	1.17	.61
FRDHONST	1587	1.18	.34
PISTOL	1066	1.18	.63
SPKMIL	1045	1.18	.90
FAMILY16	1606	1.19	.21
WORDB	982	1.19	.60
HELPBLK	1020	1.19	.65
GRNSOL	1468	1.19	.41
ABANY	1010	1.19	.11
MADEATH	1006	1.20	.30
COLHOMO	1023	1.20	.75
MEMFRAT	1051	1.20	.54
OLDIES	1555	1.20	.12
HARMGOOD	1459	1.20	.71
TOODIFME	1455	1.20	.45
CONLABOR	980	1.21	.13
GRNTEST4	1282	1.21	.58
CAPPUN	1488	1.21	.34
WATERFAM	1488	1.21	.67
TEMPFAM	1357	1.21	.67
SEXSEX5	1222	1.21	.31
HITDRUNK	1025	1.21	.67
UNEMP	1053	1.22	1.00
TVHOURS	1594	1.22	.84
ZODIAC	1592	1.22	.39
PRAYER	1034	1.22	.35
MEMFARM	1050	1.22	.54
GRWTHelp	1448	1.22	.59
BUSDECID	1341	1.22	.98
RACHAF	998	1.22	.25
MEMCHURH	1052	1.23	.39
BIRTHMO	1592	1.23	.07
JOBMEANS	1037	1.23	.88
BUSING	990	1.23	.87
RUSSIA	1014	1.23	.56
CONSCI	962	1.23	.61
GARDEN	1594	1.23	.15
FRDCULTR	1565	1.23	.11
OBTOHELP	1573	1.23	.39
OBETHNK	1444	1.23	.03
FRDCREAT	1569	1.23	.71
PAIND80	1368	1.23	.36
WKSUPS	322	1.24	.61
GRWTHARM	1449	1.24	.04
MATESEX	1135	1.24	.85
GRNTAXES	1471	1.24	.70
SUICIDE1	1027	1.24	.05

CONARMY	1034	1.24	.36
TEENS	1606	1.24	.32
IMPMAR	1587	1.24	.13
NATARMSY	764	1.24	.89
GETAHEAD	1068	1.24	.48
FAMGEN	1606	1.25	.30
SOCFREND	1076	1.25	.01
MEMSPORT	1051	1.25	.88
SPKCOM	1044	1.25	.59
CHILDS	1601	1.25	.60
NATCITY	696	1.25	.87
EVPAIDSX	1451	1.25	.46
SOCPARS	790	1.25	.57
UNITED	1527	1.25	.19
ISCO681	1526	1.25	.71
HEALTH	1071	1.25	.01
ANTESTS	1456	1.25	.32
INDUSFAM	1486	1.26	.87
LIFE	1067	1.26	.28
SPWRKSLF	815	1.26	.13
PCLIT	1419	1.26	.05
MARCOHRT	1291	1.26	.07
NUKEFAM	1399	1.26	.40
OPOUTCME	1558	1.26	.65
RACCHNG	993	1.26	.13
GRNPRICE	1459	1.26	.89
SATFAM	1047	1.27	.39
WORDH	824	1.27	.50
HELPSICK	1026	1.27	.72
PRAY	1056	1.27	.16
DRUNK	731	1.27	.26
SOCSIBS	973	1.27	.40
ABRAPE	1025	1.27	.95
LFEGENES	1552	1.28	.37
SUICIDE4	1038	1.28	.46
MEMPROF	1051	1.28	.54
PRES88	978	1.28	.18
SCIGRN	1444	1.28	.17
ROBBRY	1073	1.28	.61
SPISC681	819	1.29	.26
CHLDIDEL	967	1.29	.37
POVLINE	1575	1.29	.61
POLATTAK	1036	1.29	.06
NATCITYY	675	1.29	.72
POSTLIFE	965	1.30	.15
LETDIE1	1019	1.30	.07
RACOPEN	1034	1.30	.64
POLMURDR	1025	1.30	.11
RACMAR	1037	1.30	.58
SUICIDE2	1060	1.31	.20
PILLOK	1037	1.31	.51
CLASSICS	1431	1.31	.14

AUTORACE	1593	1.31	.96
ETH2	695	1.31	.16
PORNMORL	989	1.32	.73
MEMUNION	1051	1.32	.74
HEFINFO	1554	1.32	.99
COLMIL	1024	1.32	.53
SATFRND	1053	1.33	.42
CONFINAN	1031	1.33	.87
COLATH	1026	1.33	.24
HRS1	968	1.34	.65
JOBSEC	1037	1.34	.43
NOMEAT	1518	1.34	.98
NUKEGEN	1403	1.34	.68
PERFORM	1590	1.34	.65
IHLPGRN	1421	1.34	.17
NATHEAL	768	1.35	.35
NATENVIR	758	1.35	.11
DANCE	1593	1.35	.87
SPANKING	1061	1.35	.02
BIBLE	1052	1.35	.18
MOSTIMP1	1498	1.35	.76
JOBINC	1037	1.35	.46
NATEDUC	774	1.35	.43
POSTMAT1	1393	1.35	.39
PHONE	1601	1.35	.28
DEATH5	1042	1.36	.74
HIT	1056	1.36	.22
MEMPOLIT	1051	1.36	.92
POPULAR	1031	1.36	.25
HELPOTH	1031	1.36	.39
TEensex	1060	1.37	.27
AIDSKNOW	1597	1.37	.91
IMPTHNGS	1585	1.37	.01
PLYMUSIC	1590	1.37	.75
SOCOMMUN	1076	1.37	.25
CHINA	1016	1.37	.55
RACMOST	824	1.37	.37
FEFAM	1054	1.37	.01
RACFEW	1073	1.37	.38
FEPRES	1032	1.37	.06
SPKHOMO	1038	1.37	.26
TRAUMA5	1013	1.38	.63
MEMNUM	1053	1.38	.35
SCITEST5	1363	1.38	.26
DEATH16	1057	1.38	.31
MEMLIT	1051	1.38	.97
USEVCR	1594	1.38	.33
RACDIF4	1003	1.38	.33
MUSICALS	1515	1.38	.92
SOCREL	1075	1.38	.39
COHORT	1601	1.39	.03
HUNT	1074	1.39	.58

AGE	1601	1.39	.03
SCITEST3	1347	1.39	.15
GRNTEST5	1377	1.39	.79
MEMGREEK	1051	1.39	.11
PARTNERS	1466	1.40	.05
CHLDMORE	1071	1.40	.10
LIBHOMO	1026	1.40	.86
LIBATH	1028	1.40	.88
SCITEST1	1331	1.40	.80
GRTBOOKS	1456	1.41	.13
MODPAINT	1473	1.41	.39
NEWS	1075	1.41	.55
JAPAN	1035	1.41	.27
OBAY	1031	1.42	.85
SPDEN	535	1.42	.94
RICHWORK	687	1.42	.69
BIGBAND	1430	1.42	.62
HITAGE	376	1.42	.65
CHEMFAM	1487	1.42	.70
CHEMGEN	1489	1.42	.09
WORDC	787	1.43	.12
PRETEEN	1602	1.43	.81
TAX	1031	1.43	.65
NATENVIY	759	1.43	.15
CARSTEN	1397	1.44	.53
NATCRIMY	762	1.44	.15
PORNINF	992	1.44	.03
RACHOME	1065	1.44	.26
SEXEDUC	1049	1.44	.77
VOTE88	1448	1.44	.00
MARITAL	1605	1.44	.12
SATCITY	1054	1.44	.23
PRIVENT	1439	1.45	.60
HITCHILD	1012	1.45	.52
SELFIRST	1588	1.45	.59
ENGLISH	1537	1.45	.28
PORNLOW	1040	1.45	.94
WRKSLF	1518	1.45	.85
HARMSGRN	1484	1.45	.54
DIVORCE	1025	1.45	.20
RIFLE	1066	1.45	.68
HELPPOR	1028	1.46	.21
LATIN	1373	1.46	.83
POSTMAT2	1362	1.46	.36
PARTYID	1370	1.47	.68
STANDUP	1572	1.47	.72
LIBRAC	1030	1.47	.57
USUN	1026	1.47	.87
RACINTEG	923	1.48	.95
HSCLASS1	1460	1.48	.17
GENDER3	708	1.48	.75
BLUGRASS	1432	1.48	.36

FEHOME	1042	1.48	.77
NATFAREY	769	1.49	.51
EXCELART	1463	1.49	.60
SCITEST2	1309	1.49	.44
LFEHRDWK	1581	1.49	.25
HITBEATR	1018	1.49	.59
MAPA	1020	1.49	.29
TRSTPROF	1512	1.49	.26
HHTYPE	1604	1.49	.93
NATPARK	1501	1.49	.37
SPREL16	846	1.49	.70
RICHPOOR	1558	1.50	.30
GRNECON	1487	1.50	.38
DIVLAW	1002	1.50	.58
JOBLOSE	668	1.50	.68
PAWRKSLF	1357	1.50	.79
CONLEGIS	1029	1.50	.84
PARTNRS5	1447	1.50	.06
MEMSERV	1048	1.50	.83
EGYPT	984	1.50	.47
SATFIN	1596	1.51	.75
SPETHNUM	843	1.51	.85
GRASS	1004	1.51	.06
RACDIF3	1032	1.51	.10
USINTL	1031	1.51	.39
LIBMIL	1034	1.51	.90
TVNEWS	1597	1.51	.50
AIDSREG	383	1.52	.50
MEMYOUTH	1050	1.52	.77
SCIFAITH	1472	1.52	.64
NATROAD	1511	1.52	.64
HITROBBR	1026	1.52	.47
OLD2	1224	1.52	.56
LIBCOM	1023	1.53	.35
SUICIDE3	1053	1.53	.06
TRUST	1052	1.53	.08
ROWNGUN	450	1.53	.57
FEWORK	1056	1.54	.26
HUNTFISH	1591	1.54	.20
ETHNUM	1579	1.54	.34
SMOKE	1055	1.54	.22
MINFOOD	1450	1.54	.83
COLRAC	1028	1.54	.28
SCITEST4	1350	1.54	.80
POLABUSE	1034	1.55	.76
RVISITOR	1606	1.55	.00
HOSTHOME	1560	1.55	.73
GENDER4	413	1.55	.56
GENDER1	1606	1.55	.27
GRNGROUP	1518	1.55	.18
MAWKBORN	904	1.55	.09
GRNPROG	1472	1.55	.24

AGED	1042	1.56	.09
OWNGUN	1066	1.56	.64
MINTHREE	1383	1.57	.14
COUNTRY	1574	1.57	.13
HELPFUL	1042	1.57	.39
CONMEDIC	1039	1.57	.88
MEMOTHER	1044	1.57	.72
HELPNOT	1012	1.57	.83
OLD1	1593	1.57	.36
MAKEART	1593	1.57	.05
SPKATH	1054	1.57	.08
COMMUN	1038	1.57	.11
VISITORS	1606	1.58	.79
WKSUB	764	1.58	.12
TVSHOWS	1595	1.58	.44
LFESOCTY	1550	1.58	.44
PREMARSX	1050	1.58	.00
ISRAEL	1002	1.58	.69
FRNDKING	1026	1.59	.99
UNION	1591	1.59	.71
SATHEALT	1050	1.59	.58
ANRIGHTS	1467	1.59	.73
SPIND80	816	1.59	.89
SPWRKSTA	856	1.59	.15
OLD3	706	1.62	.68
LFECHNCE	1564	1.62	.61
ATTSPRTS	1594	1.62	.70
NATURGOD	1351	1.62	.16
ETH3	227	1.62	.99
DRIVLESS	1517	1.62	.29
EVWORK	542	1.62	.25
VISITART	1593	1.62	.49
GRNMONEY	1415	1.63	.92
RINCOM91	1019	1.63	.84
RPLACE	1602	1.63	.55
RESPNUM	1606	1.63	.63
FINALTER	1593	1.64	.42
BURGLR	1073	1.64	.03
EVSTRAY	1177	1.64	.93
COURTS	1510	1.64	.57
REGGAE	1300	1.64	.86
CANADA	1039	1.65	.52
VOTE92	1555	1.65	.25
MASTERSP	1009	1.65	.46
POLVIEWS	1548	1.65	.35
SAMPCODE	1606	1.66	.00
SPKRAC	1046	1.66	.49
RECYCLE	1519	1.66	.44
COOP	1602	1.66	.60
OCC80	1526	1.67	.53
JAZZ	1553	1.67	.97
ATTEND	1568	1.67	.15

