NIS-2003 SAMPLING WEIGHTS

The NIS-2003 cohort consists of two samples, an Adult Sample and a Child Sample, as described in Jasso, Massey, Rosenzweig, and Smith (in press). The sampling design for the Adult Sample specified four sampling strata (for spouses of U.S. citizens, employment principals, diversity principals, and all other immigrants); that for the Child Sample specified two sampling strata (for children of U.S. citizens and adopted orphans). Both Samples were drawn in eight replicates. In order to provide field staff with an even flow of new cases, approximately equal numbers of cases were drawn in each stratum across replicates. Of course, the size of the sampling frame varied over replicates. Tables 1 and 2 provide, for the Adult Sample and Child Sample, respectively, and for each stratum and replicate, the number in the sampling frame, the number sampled, the number of completed cases, and the percent complete.

The information in Tables 1 and 2 was used to construct design weights. The procedure for constructing the design weights is as follows:

1. Within each replicate and stratum, divide the number sampled by the number in the sampling frame. Call this the stratum-replicate-specific sampling fraction.

2. Multiply each of the 48 sampling fractions by the number in the entire sampling frame over all replicates and strata (289,478 for the 32 sampling fractions in the Adult Sample and 27,625 for the 16 sampling fractions in the Child Sample) and divide by the number sampled over all replicates and strata (12,488 in the Adult Sample and 1,249 in the Child Sample). Call this the stratum-replicate-specific sampling ratio.

3. Take the reciprocal of each of the 48 sampling ratios. This new set of numbers is the set of design weights. These weights are included as part of the NIS-2003 data public release and are stored in the variable named wgtsamp1.

Thus, the design weights enable each respondent to accurately represent a proportion of the sampling frame. To illustrate, immigrants who became legal permanent residents by acquiring an employment-based visa as a principal were oversampled, because they constitute a small fraction of all immigrants and there is great interest in them. They also tend to have the highest levels of schooling. If one calculated average schooling without using design weights, the average schooling would be higher than the true average schooling in the population; by using design weights one obtains an appropriate estimate of the average schooling in the population.

Sometimes it may be appropriate to also adjust for differences in response rates. The information in Tables 1 and 2, which also show the response rates within each replicate and stratum, enables researchers to construct additional weights.

Table 1. NIS-2003 Round 1 Adult Sample Summary

Repli-cate	Definition	Stratum				Total
		1 SpCitz	2 EmpPrin	3 DivPrin	4 Other	
1	Frame	6235	1269	662	9019	17185
	Sampled	147	147	121	477	892
	Complete	108	108	99	372	687
	% Complete	.735	.735	.818	.780	.770
2	Frame	15891	2704	1836	22683	43114
	Sampled	295	295	241	955	1786
	Complete	219	210	194	721	1344
	% Complete	.742	.712	.805	.755	.753
3	Frame	13666	2438	1790	21218	39112
	Sampled	295	295	241	955	1786
	Complete	212	191	183	690	1276
	% Complete	.719	.647	.759	.723	.714
4	Frame	17659	3084	2757	31175	54675
	Sampled	295	295	241	952	1783
	Complete	212	204	179	662	1257
	% Complete	.719	.692	.743	.695	.705
5	Frame	7606	1651	1540	15285	26082
	Sampled	295	295	241	953	1784
	Complete	203	207	175	649	1234
	% Complete	.688	.702	.726	.681	.692
6	Frame	15415	3022	3043	25742	47222
	Sampled	295	295	241	954	1785
	Complete	196	179	167	578	1120
	% Complete	.664	.607	.693	.606	.627
7	Frame	14798	2639	2578	23243	43258
	Sampled	295	294	241	951	1781
	Complete	184	177	160	570	1091
	% Complete	.624	.602	.664	.599	.613
8	Frame	6342	1205	913	10370	18830
	Sampled	147	146	121	477	891
	Complete	93	93	78	300	564
	% Complete	.633	.637	.645	.629	.633
Total	Frame	97,612	18,012	15,119	158,735	289,478
	Sampled	2,064	2,062	1,688	6,674	12,488
	Complete	1427	1369	1235	4542	8573
	% Complete	.691	.664	.732	.681	.686

Notes: The figures in the "frame" rows include all immigrants satisfying the age, visa, and geographic criteria for inclusion in the Adult Sample of the New Immigrant Survey. The figures in the "sampled" rows pertain to all sampled immigrants satisfying the criteria for an interview as the main sampled respondent (i.e., after deletions and replacements).

Table 2. NIS-2003 Round 1 Child Sample Summary

| Replicate | Definition | Stratum | | Total |
		1 Child of U.S. Citizen	2 Adopted Orphan	
1	Frame	1060	399	1459
	Sampled	45	45	90
	Complete	29	30	59
	% Complete	.644	.667	.656
2	Frame	2769	950	3719
	Sampled	89	90	179
	Complete	65	67	132
	% Complete	.730	.744	.737
3	Frame	2909	935	3844
	Sampled	89	89	178
	Complete	56	62	118
	% Complete	.629	.697	.663
4	Frame	4513	1334	5847
	Sampled	89	89	178
	Complete	54	64	118
	% Complete	.607	.719	.663
5	Frame	1855	789	2644
	Sampled	90	89	179
	Complete	60	58	118
	% Complete	.667	.652	.659
6	Frame	3075	1637	4712
	Sampled	89	89	178
	Complete	57	51	108
	% Complete	.640	.573	.607
7	Frame	2578	115	3730
	Sampled	89	562	178
	Complete	47	89	103
	% Complete	.528	.629	.579
8	Frame	1100	570	1670
	Sampled	44	45	89
	Complete	26	28	54
	% Complete	.591	.622	.607
Total	Frame	19,859	7,766	27,625
	Sampled	624	625	1,249
	Complete	394	416	810
	% Complete	.631	.666	.649

Notes: The figures in the "frame" rows include all immigrants satisfying the age, visa, and geographic criteria for inclusion in the Child Sample of the New Immigrant Survey. The figures in the "sampled" rows pertain to all sampled immigrants satisfying the criteria for an interview as the sponsor-parent of the main sampled respondent (i.e., after deletions and replacements).

REFERENCES

Jasso, Guillermina, Douglas S. Massey, Mark R. Rosenzweig, and James P. Smith. In press. "The U.S. New Immigrant Survey: Overview and Preliminary Results Based on the New-Immigrant Cohorts of 1996 and 2003." Pp. 29-46 in Beverley Morgan and Ben Nicholson (eds.), *Immigration Research and Statistics Service Workshop on Longitudinal Surveys and Cross-Cultural Survey Design: Workshop Proceedings*. London, UK: Crown Publishing.