1. Please provide the minimum detectable effects (with 80% power, alpha = .05) for key comparisons between the 2012 survey and the 2002 survey.

The 2002 survey collected 9,616 interviews for persons age 16 years and older. The average design effect due to unequal weighting is approximately 1.3. The 2012 survey is expected to complete around 9,000 interviews with persons age 16 years and older. The sample design will use a partially overlapping dual frame design and the average design effect due to unequal weighting is expected to be around 1.75. The effective sample sizes are therefore 7,400 and 5,1443, respectively.

Table 1 shows the detectable effects for proportions ranging from 0.10 to 0.50.

Table 1. Total sample two group continuity corrected c^2 test of equal proportions (unequal n's)

	1	**2**	**3**	**4**	**5**
Test significance level, a	0.050	0.050	0.050	0.050	0.050
1 or 2 sided test?	2	2	2	2	2
Smaller proportion, p_1	0.100	0.200	0.300	0.400	0.500
Larger proportion, p_2	0.116	0.221	0.324	0.425	0.526
Power (%)	80	80	80	80	80
n_1	5143	5143	5143	5143	5143
n_2	7400	7400	7400	7400	7400

A key aspect of the analysis will involve bicyclists. Around 26% of the adults age 16 years and older are expected to be bicyclists. The bicyclist sample sizes are expected to be 2,500 and 2,340, respectively. Applying the design effects given above the effective sample sizes should be 1,924 and 1,337, respectively.

Table 2 shows the detectable effects for proportions ranging from 0.10 to 0.50.

Table 2. Bicyclist Sample two group continuity corrected c^2 test of equal proportions (unequal n's)

	1	**2**	**3**	**4**	**5**
Test significance level, a	0.050	0.050	0.050	0.050	0.050
1 or 2 sided test?	2	2	2	2	2
Smaller proportion, p_1	0.100	0.200	0.300	0.400	0.500
Larger proportion, p_2	0.133	0.242	0.347	0.450	0.550
Power (%)	80	80	80	80	80
n_1	1337	1337	1337	1337	1337
n_2	1924	1924	1924	1924	1924