**Biking in Pittsburgh Survey | 36-303 Spring 2010 Group I | Assignment I.4**

Target Population: Adults in the city of Pittsburgh (People 18+ years of age)

***Sampling Plan***

Sampling Frame: List of registered landline telephone numbers within Pittsburgh city limits (b) usable for random-digit dialing

Procedure: How we will obtain the sampling frame is as follows - list of all the prefixes in Pittsburgh (area code 412) from <http://phones.whitepages.com/412>. Then, in order to ensure that we get a representative sample in the sense that no one prefix is favored more heavily than it should be, we will use the same website’s information on the number of telephone numbers that use that prefix. This allows us to weight the probability of selecting any individual prefix in proportion to the number of people that can be reached using that prefix. Then after a prefix has been selected, random-digit dialing can be used to determine the remaining numbers. Spreadsheet of prefixes is available upon request.

However, if more detailed information is available regarding the ethnic makeup and affluence of these prefixes are available this would allow us to further ensure a representative sample through organizing the prefixes into strata, giving each prefix within each stratum a chance of being selected.

***Accounting for Nonresponse***

If a caller does not respond, we will make follow up calls and try calling at different times of the day to increase the likelihood of a response. We actually suspect that we may get an unrepresentative sample since many of the people within our target population don’t fit within the sampling frame – and many that do simply don’t use their landlines. These sources of coverage error are a concern. For example, many college students with active, registered landlines depend on their cell phones and don’t accept calls on landlines. Many people also maintain landlines simply for faxing and emergency purposes and don’t answer incoming calls that arrive via the landline.

If we suspect our sample is not representative of the target population, we will attempt to weight those groups that are underrepresented more heavily. In our case, this means that we will probably have to weight what college students we do manage to survey, more heavily than the rest of those surveyed.