

target pop 25/25
samp frame
using frame
nonresponse
total

25/25
25/25
25/25
100/100

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

ah! I hadn't realized you were doing a phone survey beyond CMU! this is good.

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.

these are great ideas

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.

you may wish to ask a brief bit of demographic info at the end of your phone interview as

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.

call backs for non-answered phones are good. obviously you don't want to call back for refusals.

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.

if one of you could find an article about possible biases due to cell phone use, that would be

weighting is a good backup plan here. you should find some information out about the proportion of college students (and other categories that you might care about) in the general pgh population.

response rate is going to be an issue here. If 30% of the people you call will talk with you, and 1/3 of pittsburghers use bikes, then your effective response