



HOMEWORK WEEK 8

1. How are the strata defined in pure choice-based sampling?
2. Consider the population described in Table 1. Characterize a sample with the following sampling probabilities:
 - $R(\text{Car}) = \frac{1}{1000}$
 - $R(\text{Bus}) = \frac{1}{500}$
 - $R(\text{Slow Modes}) = \frac{1}{1000}$

Mode	Age			
	Young	Adult	Retired	
Car	10'000	120'000	15'000	145'000
Bus	15'000	30'000	25'000	70'000
Slow mode	25'000	50'000	10'000	85'000
	50'000	200'000	50'000	300'000

Table 1: Description of the population of the city

3. Which estimation procedures are used for the following models with this sampling strategy?
 - Logit model
 - MEV model