# Women's Mobility in Riyadh: Pre-Analysis Plan

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## 1 Introduction

We are currently working with Alnahda Society in collaboration with Uber and the Saudi Driving School on an evaluation of a program that tests interventions to increase women's mobility in Riyadh. As part of the evaluation, we have randomized female beneficiaries into:

(i). A control group

(ii). Priority enrollment in driver's license training with fees and transport to training covered

(iii). Information about government Wusool subsidy for ride-sharing

(iv). Driver's license training AND information about government Wusool subsidy

This pre-analysis plan sets out the outcome variables we intend to examine in the first wave of followup data collection. At the time of registration of this plan, this first wave is in progress but the researchers have not accessed the dataset or begun any analysis.

# 2 First stage

We will present the following estimations to assess the intended “first stage" effect of the randomized assignment:

## 2.1 Driving training and license

- Ever attended driving training
- Received driver’s license

## 2.2 Knowledge of reduced cost of e-hailing due to government subsidy

- Expected cost of commute on e-hailing including any discount

# 3 Second stage outcomes - midline

We will examine the following outcomes from the midline survey. We intend to register another PAP document corresponding to the endline survey.

## 3.1 Mobility

- Drove in the last month
- Drove yesterday
- Driving frequency: estimated number of trips per month
- Expected likelihood of driving in the future (coded to 1 if currently driving)
- Time since most recent trip

- Time since the most recent trip without any family member accompanying
- Time since the most recent trip to visit relatives
- Time since the most recent trip to visit friends
- Any travel yesterday to any destination other than work / study commute

### 3.2 Job search

- Looking for a job
- Attended a career fair in last 3 months
- Proportion of possible job search activities the respondent has taken in the last month
- Travel to search (visited a job center or employers in person)
- Self-reported reservation wage
- Number of jobs respondent applied to in last month
- Interview calls
- Interview attendance
- Stated willingness to take a job at 3000 SAR 15 minutes away
- Stated willingness to take a job at 3000 SAR 30 minutes away

## 4 Estimation

We plan to estimate the following estimation for outcome $Y_{ij}$ for respondent $i$ in randomization stratum $j$:

$$Y_{ij} = \beta_0 + \beta_1 D_i + \beta_2 W_i + \beta_3 D_i W_i + \gamma X_i + \mu_j + \epsilon_{ij} \quad (1)$$

Where $D$ represents the offer of driving training; $W$ represents the offer of information on commute subsidy program Wusool.

Some respondents are ineligible at baseline for the Wusool subsidy, and are therefore not given information about the subsidy; therefore, $W$ will be instrumented with the original randomized assignment to the Wusool information group.

To adjust for a few cases of non-compliance in assignment to sessions, $D$ will be instrumented with the original randomized assignment to driving training.

We will also present a version of 1 in which we use the randomized driving training offer as an instrument for attending driving training. This will be identified under the assumption that the driving training offer only affects outcomes through attending driving training.

$\mu_j$ are indicator variables for each stratum within which randomization was conducted. $X_i$ is a vector of controls including the respondent's age, education, marital status, household size, and baseline HH car ownership.