

Addendum Pre-Analysis Plan: Individual Demand for Building State Effectiveness

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1 Motivation

Training presents a primary way for policymakers to improve management skills and performance of the public sector, reflected in the large expenditure on training and development by country governments and through development cooperation and international organizations. Yet, the perceived effectiveness of training is uneven (Global Survey of Public Servants, 2023), and there exists large variation in the quality of bureaucracies across the world (WGI). Adopting new work practices and enhancing effectiveness often rely on the incentives and preferences of individual civil servants. Moreover, an effective civil service can have large externalities on the rest of society.

In November 2023, we conducted the first part of this study to assess civil servants' willingness to pay (WtP) for professional development opportunities in Ethiopia, such as coaching, shadowing, and training. We found that those with private motivations for attending training reported lower WtP, while those with public or collective motivations reported higher WtP. Despite a general willingness to pay, our elicitation revealed low demand. Given the importance of training in enhancing civil service performance globally, understanding the factors influencing individual demand is crucial for improving bureaucratic effectiveness.

The second part of this study, described in this addendum pre-analysis plan, aims to investigate whether the observed low demand is explained by low private returns or because individuals do not internalize the externalities of a more effective public sector.

2 Research Questions

Our main research question is “what explains low demand for professional development among civil servants?”

Within that, we ask:

- Does training that emphasizes personal career or some form of social impact possess greater demand?
- Can demand be stimulated by central interventions to highlight private or public goals?

- To what extent do insufficiently powered individual career incentives blunt demand for training?
- Is training within the team seen as a complement or substitute?

3 Research Strategy

To investigate our research questions we will undertake three steps in this study. This builds on our previous effort to estimate the demand functions for various capacity building activities, as outlined above. First, we will measure the participants willingness-to-pay for each of four trainings that emphasis a distinct aspect of capacity building. Second we will measure how demand for training varies with the number of other public servants in their team being trained. And third, we will randomise respondents to listen to an audio intervention that highlights either private or public goals and assess its effect on our measure of WtP.

In November 2023, we implemented a framed field experiment to elicit incentive-compatible willingness-to-pay for professional development among civil servants at the higher education institute for civil servants in Ethiopia. We offered students at the Civil Service University (CSU) the opportunity to take up a program in management at a financial cost to them. These students are professional civil servants taking Winter session degree programs over several years. This estimate of demand for professional development forms our baseline demand estimate.

We will conduct a follow-up survey by phone with an embedded information provision experiment. Many of the students are expected to have returned to their offices, making in person elicitation less feasible. We will measure their willingness-to-pay for the four different training emphases, treat respondents with our audio intervention, and then re-measure their WtP.

3.1 Demand for professional development

We will present four kinds of training emphases to our professional student sample, enabling us to discriminate between demand for each. The prompts will be read in case the subject asks for further information.

Scenario:

We are thinking of offering another one- or two-day training that emphasizes [X]. How much would you actually pay for that kind of training?

PROMPT: What's the least amount you'd have to be paid to take such a course?

[Randomize order of presentation]

1. General skills for careers. ...skills to strengthen your career prospects across any kind of organization.

- *PROMPT: The kind of training that enhances your career by learning skills you can take to any organization and increase your performance level there. You will learn tools and strategies to be more effective in managing people and projects.*

2. Spillovers to the organization. ...skills that are identified by your team as crucial for your organization's productivity.

- *PROMPT: Do you want to learn and practice how to make your team work together more effectively, reduce bottlenecks, and increase the part you can play in successfully delivering your team's objectives?*
- *PROMPT: Emphasizing complementarities in how people work. You can reduce bottlenecks and improve how your team works together and with other teams.*

3. Spillovers to service as a whole. ...skills that make the public service as a whole work more effectively together.

- *PROMPT: The public sector has specific requirements to succeed. Learn about public sector leadership, navigating civil service rules and culture to progress your career.*

4. Delivering social impact. ...skills that make your direct impact on citizens larger.

- *PROMPT: This training will aim to provide new ways of working to help you directly deliver better outcomes for citizens.*

For the follow-up phone survey, we will mimic the BDM mechanism employed in the first part of our study in November 2023, while stating that we will not collect money on that day. We state that if we are to go ahead with the proposed training, the amounts they state will be the amounts they may have to pay. This allows us to measure WtP in a way that is consistent our first experiment in November 2023, but investigate many more variations in the characteristics of training in the finite interview time.

3.2 Survey experiments

To investigate the determinants of WtP for public service capacity building, we ask participants to assess their WtP in the case that training emphasises each of the themes outlined above. We then undertake two randomised survey experiments:

Testing saturation: We measure the extent to which individuals change their WtP conditional on the fact that other members of their unit are being trained. Specifically, we randomise the number of individuals that we state will be trained with the participant. The question line is as follows:

Thank you. We are interested in whether the fact that from your department, [RANDOMIZED: 1 other; 2 others; 3 others; the rest of your department] going to a training affects your willingness to participate.

Imagine that from your unit, [RANDOMIZED: 1 other; 2 others; 3 others; the rest of your department] registered to attend the training that emphasizes [RANDOMLY CHOOSE ONE: skills to strengthen your career prospects across any kind of organization; skills that are identified by your team as crucial for your organization’s productivity; skills that make the public service as a whole work more effectively together; skills that make your direct impact on citizens larger].

Without that consideration, you had bid [X] Birr. How much are you willing to pay now that [RANDOMIZED: 1 other; 2 others;

3 others; the rest of your department] are attending?

Testing emphasis: We prime the participant towards a private career intention for training, or public contribution intention, by having them listen to a recording from the Civil Service Commission that describes why training is important. The text of these recordings are provided in Table 1. Which of the two recordings is played to the participant is randomised. The audio recording is introduced by the enumerator as from the Civil Service Commission, with whom we have collaborated. These are read by a female ex-senior civil servant to contrast with the male enumerator, differentiating the message from the call.

Table 1: Audio Treatments

Treatment	Description
Private— Career	“The Civil Service Commission wants to support the careers of civil servants, and so are implementing a competency framework to make clear the steps needed for career advancement. Training is a central part of our reform process to help all civil servants reach these standards. We want civil servants to perform and progress in their own personal careers.”
Public— Other- regarding	“I’ve seen first-hand how training can make a difference in the work civil servants do. I recently visited a team in the service, and saw how by implementing the new practices they learnt at a training course, they made their processes much more efficient, and were able to serve more members of the public. Citizens I spoke to were very happy about their experience of the team, which is the feedback I love to hear. Improving skills and ways of working through training can make a difference for Ethiopia.”

3.3 Assignment to Treatment

Assignment to treatment in the survey experiments will be based on a pre-assigned randomization. Participants will be linked to this randomization with their survey ID. The phone call order is further randomized.

3.4 Attrition from the Sample

To ensure as small an attrition rate as possible, we will use the following procedure. Firstly, participants are called and invited to conduct the 15-minute survey at that point, or else reschedule for a more convenient time. Secondly, in case they cannot be reached, the enumerator will call them up to three times. Thirdly, they will be offered alternative methods, such as zoom calls, to conduct the survey. We provided respondents with a 50ETB (0.50USD) in airtime credit to thank them for their time.

4 Empirical Analysis

4.1 Variables

4.1.1 Independent Variables

Testing saturation

C is a vector of indicators variables equal to one for each of the respective options “1 other”; “2 others”; “3 others”; “the rest of your department”. The omitted vector in the regression will be “1 other” colleague.

Testing motivation

T_i is an indicator variable corresponding to audio message, defined as: 0 = career incentives message, 1 = citizen impact message.

4.1.2 Outcome Variables

Primary outcome: The key outcomes of interest are the elicited demands for professional development, asked for each of the four types of training, or the randomly selected one after the survey experiment on saturation.

Secondary outcome: We will ask participants about their anticipated promotion prospects with the following question:

Thank you. We’re interested in how training impacts your chances of promotion. Imagine you went on a training that emphasizes [RANDOMLY CHOOSE ONE: skills to strengthen your career

prospects across any kind of organization; skills that are identified by your team as crucial for your organization’s productivity; skills that make the public service as a whole work more effectively together; skills that make your direct impact on citizens larger]. Do you think that increases the percentage chance of receiving a promotion? By how much? [ANSWER OPTIONS: 0% - 100%]

We also collected data on whether the respondent has been promoted in the last year that we plan to use as an additional control variable (“Are you promoted since attending CSU? 1 = Yes, 0 = No”).

4.2 Specifications

4.2.1 Demand Curves

We will estimate and plot demand curves for the four training types and compare them with demand for training from the initial elicitation in November 2023.

Nonparametric tests of equality of distribution will be run to assess whether there are differences between the estimated demand curves for each type of training.

We will also estimate the mean WtP for each of the four trainings in our initial elicitation. To test for differences, we will regress WtP in the emphasis \mathbf{S} . Standard errors will be robust for each individual i .

$$Y_i = \mathbf{S}\boldsymbol{\beta} + \varepsilon_i \quad (1)$$

4.2.2 Survey experiments

Testing saturation.

We will run the following regression to test the impact of the number of colleagues attending training, where we control for the (randomly selected) training emphasis S .

$$Y_{post,i} = \alpha_1 Y_{pre,i} + \mathbf{C}\boldsymbol{\gamma} + \mathbf{S}\boldsymbol{\delta}_1 + \varepsilon_i \quad (2)$$

where $Y_{pre,i}$ is the elicited willingness-to-pay elicited at the beginning of the survey, for the corresponding emphasis.

Testing motivation.

We will run the following regression to test the impact of the audio-message, where we control the (randomly selected) training emphasis S .

$$Y_{post,i} = \alpha_2 Y_{pre,i} + \beta T_i + \mathbf{S}\boldsymbol{\delta}_2 + \varepsilon_i \quad (3)$$

where $Y_{pre,i}$ is the elicited willingness-to-pay elicited at the beginning of the survey, for the corresponding emphasis.

We also plan to run an alternative difference-in-differences specification if we find an autocorrelation above 0.8 between the pre-treatment and post-treatment elicited willingness to pay.

Secondary outcome: To study changes in the perceived probability of promotion from training, we will use a specification similar to Equation 3, but controlling for an indicator for the individual has been previously been promoted, rather than the prior value $Y_{pre,i}$.

4.2.3 Controls

We will estimate equations (1), (2), (3) under the following conditions:

1. Controlling for the willingness-to-pay for training elicited in November 2023.
2. Using a post-double LASSO model for control variable selection.

The set of controls included in the post-double LASSO selection will include: age, sex of the respondent, indicators for the region in which the respondent, indicators for which tier of the administration, the years of experience in the civil service, number of organizations that the respondent has worked in, indicators for monthly income brackets before starting the course at CSU.

5 Ethics and IRB

Ethics has been approved by the University of Oxford under ECONCIA22-23-21, including an amendment for the survey described in this addendum.