CASE STUDY: COUNSELING AND JOB PLACEMENT FOR YOUNG JOB SEEKERS

How to Randomize?

A job counseling session in Paris, France.
Photo: Aude Guerrucci | J-PAL/IPA

This case study is based on "Do Labor Market Policies have Displacement Effects? Evidence from a Clustered Randomized Experiment" by Bruno Crépon et al. (2013), *Quarterly Journal of Economics*.

J-PAL thanks the authors for allowing us to use their paper as a teaching tool.

Note: Some of this vocabulary is not used in this case study, but is related to the topic of how to randomize.

KEY VOCABULARY	
Treatment assignment, Treatment status	An individual's treatment assignment is the group they were randomly assigned to: were they assigned to the treatment group or the comparison group? An individual's treatment status is what actually happened to them: were they treated or not?
Unit of randomization	The unit of randomization is the level of observation (e.g. individual, household, school, county) at which treatment and control groups are randomly assigned.
Spillovers	Spillovers occur when one individual's action of taking up a treatment impacts another individual, regardless of that individual's treatment assignment status. An illustrative example of spillovers are vaccines: If you are randomly assigned to be offered a vaccine—and you choose to take it up—you reduce the risk of others around you contracting the disease. It does not matter if the people around you are vaccinated or not—or even if they are in the study—the fact that you took up the treatment has impacted them. Spillovers can be positive or negative.
Attrition	Attrition is an occurrence when individuals or groups leave the study. This can happen for many reasons: they move away from the study area, they no longer wish to participate, they are absent on the surveyors' attempt to survey them, and many more. What is key to note is that if a unit attrits, they do not appear in your data—regardless of their treatment status and their outcome. Random attrition is a concern because it reduces your sample size, which all else equal, makes it harder to detect differences between treatment and comparison groups. Non-random attrition, or when certain groups are more likely to attrit than others, is a larger concern, because it introduces selection bias (described below) in your study sample.
Balance	Randomization creates two groups that on average look very similar. This can be tested by collecting some baseline demographic information—such as age, gender, years of education, income, etc.—and comparing the average value of these characteristics in the treatment group to the average value of them in the comparison groups. Even when randomization is done correctly, some of these average values will be different; however, this reflects differences that occur by chance. We say the comparison and treatment groups balance if they have similar average values for baseline characteristics.
Selection bias	Selection bias is bias that occurs when the individuals who receive the program are systematically different from those who do not. Consider an elective after school tutoring program. Is it effective at raising children's exam scores? If we compare those who take up the tutoring program to those who don't, we will get a biased estimate of the effect of the tutoring program, because those who chose to take it up are likely different from those who don't. The two groups likely do not balance (for example, those who took it up may be more motivated, or they may be weaker students). Randomization removes selection bias because it breaks the link between characteristics of the individual and their treatment status.

KEY VOCABULARY	
	Selection bias can occur in other ways in a randomized evaluation. For example: - Participants can choose to take up a treatment or refuse it - Participants can choose to leave the study - Surveyors can choose to only survey the closest houses
Attrition bias	Attrition bias is a type of selection bias that occurs when people choose to leave the study. This can bias the estimate of the treatment impact in two ways: 1. It may be the case that people with certain characteristics (say, those with the highest levels of education) in both the treatment and comparison groups leave. This means your study population looks less like the general population. The treatment effect you estimate might not represent the true effect for the general population. 2. The reasons people choose to leave may be correlated with the treatment. Suppose some of the treatment group finds your job training classes to be too difficult and leave the study. This could mean that workers who have higher levels of ability or motivation are more likely to receive the training, which would create bias in your results.
Compliance	In many randomized evaluations, researchers randomize the assignment to treatment instead of the actual treatment (e.g., they randomly pick which group to offer vaccines instead of randomly administering vaccines). The study sample can be split into three distinct groups: 1. **Always-takers:** This group of people will always take up the program, regardless of assignment status. 2. **Never-takers:** This group of people will never take up the program, regardless of assignment status. 3. **Compliers:** This group of people will follow their assignment status. If they are assigned to the treatment group, they will take up the treatment; if they are assigned to the control group they will not take up the program. When respondents do not comply with their treatment assignment, the study has partial compliance. In the treatment group, the people who do not comply are never-takers, while in the comparison group, those who do not comply are always-takers. We collectively refer to those who do not comply as non-compliers, and the action of not complying with treatment status as non-compliance. **Note:** You may hear of a fourth group called defiers. These are individuals who always do the opposite of their treatment status (i.e., they will take up treatment only if they are assigned to the comparison group and they will refuse treatment only if assigned to the treatment group).
Intention-to-treat (ITT):	The ITT is a method for estimating the effect of the program where you compare the average outcomes of those assigned to the treatment group to the average outcomes of those assigned to the comparison group,

KEY VOCABULARY	
	regardless of whether individuals within those groups have actually received the treatment (also known as treatment status). The ITT measures the impact of delivering a program in the real world, where some people don't take up the program when they are supposed to, and others do take up the program when they are not supposed to.
Local Average Treatment Effect (LATE)	The LATE is a method for estimating the effect of the program on those who complied with their treatment status. The LATE divides the ITT by the difference in the proportion of treatment group who took up the program and the proportion of the comparison group who took up the program. Recall that the ITT compares the average outcome of the treatment group to the average outcome of the comparison group. This means that under partial compliance, the average changes we measure in the treatment group will be diluted by changes in outcomes among those who did not take it up. Intuitively, you should think of the LATE as a way of adjusting the ITT to reflect that not all of those assigned to treatment were treated while some who were assigned to the comparison group were treated.

LEARNING OBJECTIVE

To explore how an experimental design can be used to answer different research questions and to manage spillovers; to examine randomization strategies.

SUBJECTS COVERED

Evaluation design, randomization design

INTRODUCTION

Professional job counseling services are a potential tool for helping young people find stable jobs. By connecting employers with job seekers, counseling agencies are designed to smooth the process of finding work and make good matches between employers and employees.

Historically, the French government has provided these services directly. How successful is this strategy in addressing France's problem of high unemployment—particularly among youth? Even with these services, a sizable portion of those with college degrees have difficulty finding a job. Some policymakers have suggested that more intensive forms of career counseling and support—in particular, those provided by private agencies—could improve the efficiency of matching between employers and employees. These policymakers' proposals would reduce the role of the public sector in providing services for unemployed job seekers, transferring many of these core functions to the private sector.

If the government outsources this job counseling function to private employment agencies, will we see an improvement in job placement and job retention? What experimental designs could test the impact of this intervention?

THE PROBLEM OF CHRONIC UNEMPLOYMENT

At the time this study, many people in France's younger population were unemployed, despite a generally healthy economy and the presence of public services to facilitate job placement: an estimated 25-32% of university graduates were unable to find stable work three years after graduation. While the government provided a safety net for many unemployed people in the country, including money to cover basic necessities, to be eligible for these benefits a person must have been employed for at least six out of the 22 previous months, and must not have left the job voluntarily. The government offered counseling and placement services to people who were unemployed but ineligible for unemployment benefits. The job seekers selected for this study were mostly in their mid-twenties, possessed vocational or university degrees, and had not had stable work for at least six months. Since many of these job seekers did not meet eligibility requirements for unemployment benefits, 69 percent of them were not receiving unemployment benefits.

Until 2005, the French public agency ANPE (Agence Nationale Pour l'Emploi) was the sole provider of counseling and job placement for unemployed French youth. The government compelled employers to communicate their vacant job announcements to ANPE in order to make job placement swifter. However, the employment prospects of recent graduates remained limited. In 2005, a new law was passed that led to the expansion of many private job placement firms.

After an expansion of the private market for job placement services, the government decided to increase the number of partnerships between the public operator and private actors. In 2007, the Ministry of Labor began delegating job placement services for young graduates to more intensive counseling programs in private agencies, in addition to the regular counseling program in the public employment agency.

DETAILS OF THE PROGRAM

Out of 30,000 unemployed youth across France, the government selected roughly 15,000 people and assigned them each to one of 235 individual private agencies for counseling. The government did not prescribe a specific counseling structure, but it provided the private employment agencies with incentives. For each job seeker an agency counseled, the agency could receive up to 2,100 Euros from the government for meeting specific outcome targets:

- Payment 1: An eligible job seeker enrolls in the program.
- Payment 2: The job seeker signs a job contract at least six months in length.
- Payment 3: The job seeker is still employed six months after entering the job.

The government hand-selected the agencies that would be on its shortlist of service providers. Private counseling firms (for-profit and not-for-profit) were required to apply to the government to participate. Upon winning the bid, they were committing themselves to serve all job seekers assigned to them by the government under the three-payment incentive structure.

The private agencies received the names of job seekers and contacted them to participate in two-stage counseling. The first stage focused on finding long-term employment (lasting at least six months). The second stage focused on helping people adjust to their new jobs and remain employed.

The unemployed youth not selected to participate in the program still had the option of receiving counseling from the public employment agency, Pôle Emploi, or paying for the services of the private agencies on their own.

ADDRESSING KEY EXPERIMENTAL ISSUES THROUGH EVALUATION DESIGN

Different randomization strategies may be used to answer different questions. What strategies could be used to evaluate the following questions? How would you design the study?

DISCUSSION TOPIC 1

Testing the effectiveness of private counseling

1. What is the relative effectiveness of private counseling versus regular government counseling? Who would be in the treatment and control groups, and how would they be randomly assigned to these groups? What would the unit of randomization be?

DISCUSSION TOPIC 2

Testing the effectiveness of for-profit and not-profit agencies

1. What is the relative effectiveness of for-profit private agencies versus non-profit private agencies? Who would be in the treatment and control groups, and how would they be randomly assigned to these groups?

DISPLACEMENT EFFECTS:

Many economists argue that giving intensive job counseling to some individuals simply tips the scale in their favor, and does not increase job placements overall. In other words, offering intensive job counseling to some people but not others results in job opportunities being transferred from individuals who do not receive counseling to those who do. Under this view, employment is a zero-sum game, and no counseling could increase overall rates of employment.

In the context of an evaluation, the comparison (also known as control) group would be indirectly harmed by their exclusion from intensive tutoring, and would therefore no longer serve as a valid "counterfactual." This indirect harm is called a "negative spillover." This spillover could bias our estimate. If so, the experimental designs proposed above will be insufficient to measure the real effect of the program. If the people *not* receiving extra counseling are having a more difficult time finding jobs *because* people receiving extra counseling will end up taking a limited number of jobs, then simply measuring the employment outcomes of people receiving counseling versus not receiving counseling will give an artificially high estimate of how effective counseling is at increasing overall employment.

DISCUSSION TOPIC 3

Managing Spillovers

1. How might spillovers undermine our analysis? Will the results be biased? If so, in what direction, and why?

2. What randomization strategy could you use to address this issue?

   Hint: What unit of randomization will you use now? Job seeker, counselor, agency, region?

DISCUSSION TOPIC 4

Measuring Spillovers

1. If you were interested in measuring whether spillovers exist, and specifically the impact of spillovers, how might you design the experiment differently?

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