

The counterfactual logic for impact evaluation

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Everybody likes to have an
“impact”
(politicians, funders, managing
authorities, eurocrates)

Impact is the most
misused term in
evaluation

Impacts are the **SAME**
thing as **EFFECT**

Impacts differ in a
fundamental way from
outputs and results

outputs and results are
observable quantities

Can impacts be
observed ?

NO THEY CANNOT

This is a major point of departure between
the counterfactual and the logical
framework
(i.e. abuse of indicators) paradigm

As output indicators measure outputs,
as result indicators
measure results,
so supposedly
impact indicators
measure impacts

Sorry, they don't

Almost everything about programmes can be observed (at least in principle):

outputs (beneficiaries served, training courses offered, KM of roads built

outcomes/results (well-being of the population, pollution, congestion, inflation, jobs created, birth rate)

Two separate worlds, two different paradigms, two ways of thinking

- Counting Realizations to be Accountable
for the Billion Spent

CRABS

- Testing Effective
Solutions to Problems

TESP

In a CRABS world

EVALUATIONS COUNT THINGS DONE

(MONEY ABSORBED,

PROJECTS COMPLETED

CLIENTS SERVED)

In a TESP world

YOU CARE MOST ABOUT WHAT
WOULD HAVE HAPPENED
ANYWAY

WHAT IS LEFT (IF ANY) IS THE IMPACTS
THAT YOU ARE TRYING TO FIND

To measure impacts, it is not enough to
“count” something,
or compare results with targets,
or to check progress from baseline

It is necessary to deal with
causality

We would like
make you to understand why
“causality”
is relevant to public policy
and why the
“counterfactual approach”
is one of the most rigorous
ways to deal with it

Here we are dealing with a
special but important case

of application of causality is when the “cause” is
a **policy** trying to have an “effect” (even a small
one)

on a collective **problem**

Let’s make this point clear:

the “cause” is a policy that tries to marginally modify
 (“have an effect”) a problem

(a condition, a behavior), which can have a million
 “causes”, and also be the “cause”
 of other (wanted and unwanted) “effects”

Our goal is not understand every cause of the problem, nor we want to capture all possible effects of the policy

All we want is to understand whether a given policy

(=an uncertain solution to a problem)

does have enough of the intended effects to justify the use of resources

EFFECT SIZE IS CRUCIAL, NOT JUST P-VALUES

Our goal is to know whether the policy
was worth the money we spent on it
not enough to know “money was spent”
not enough to know “activities were done”
not enough to know “changes took place”
We need to learn which part of the
observed change are attributable
to(=caused by) the policy

Not just what was produced and what
changed, but whether policy
caused the change

AND ITS SIZE!

An example of a widely used
policy:

Giving grants to private
enterprises to invest or to
innovate.

Is this an effective use
of the money?

Is it enough to compare firms who
get the subsidy and those who
do not even apply for the subsidy?

?

no

Is it enough to compare firms
before they get the subsidy and
where they are two years later?

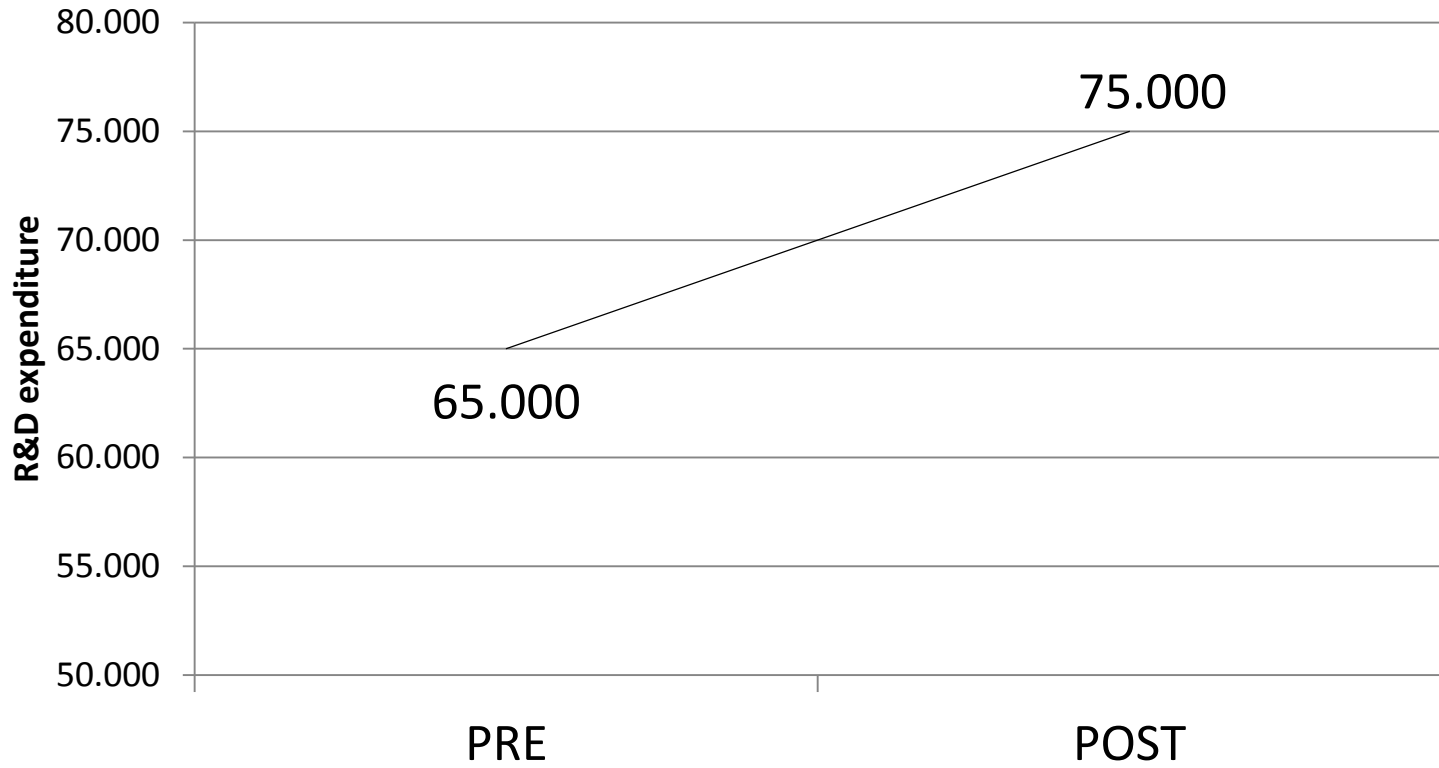
?

no

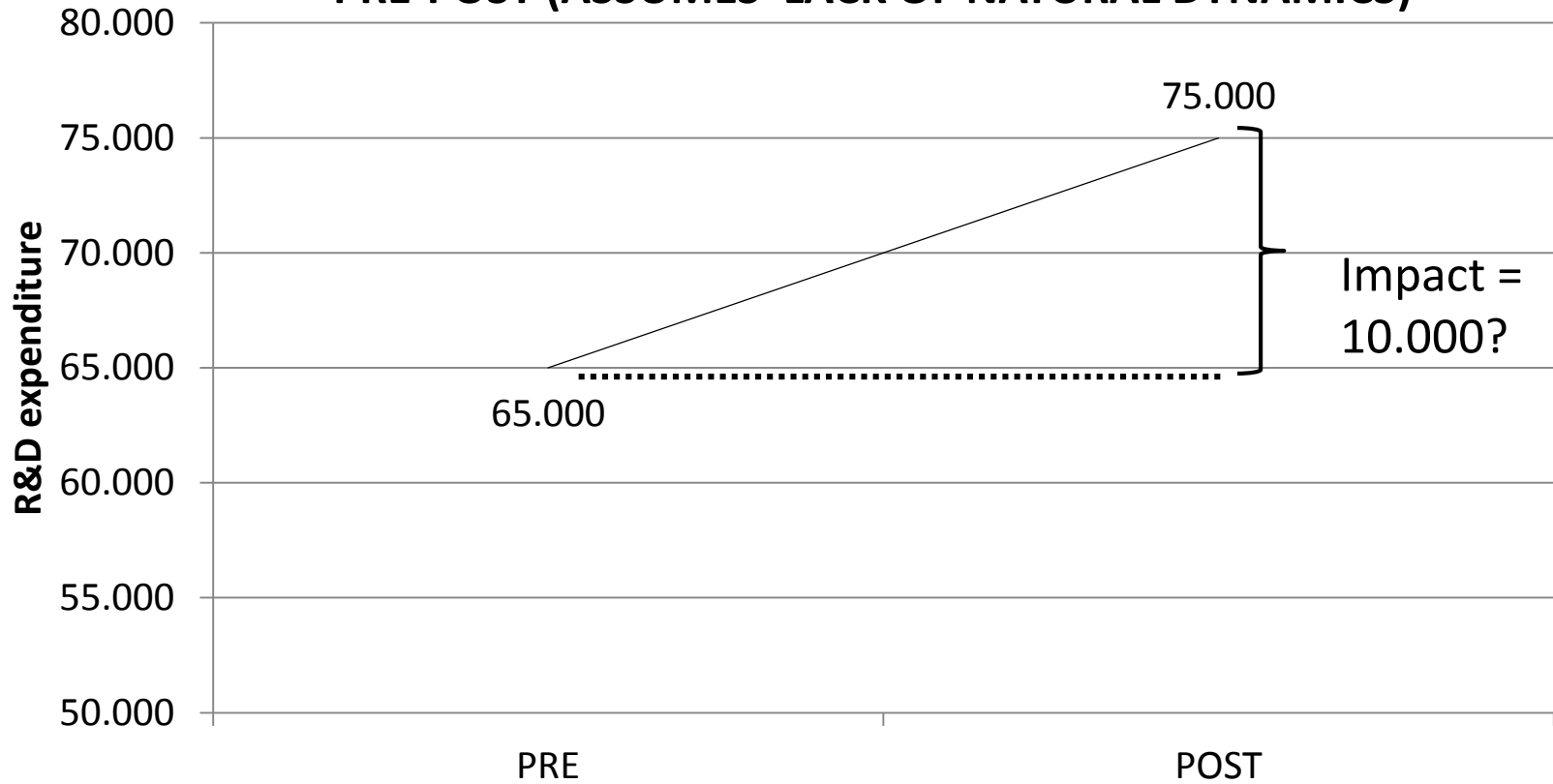
R&D EXPENDITURES AMONG THE FIRMS RECEIVING GRANTS

| | AVERAGE | N |
|-----------------|----------------|----------|
| PRE | 65.000 | 2400 |
| POST | 75.000 | 2400 |
| OBSERVED CHANGE | 10.000 | |

Is 10.000 the true average
impact of the grant?



PRE-POST (ASSUMES LACK OF NATURAL DYNAMICS)



Things change over time
by **“natural dynamics”**

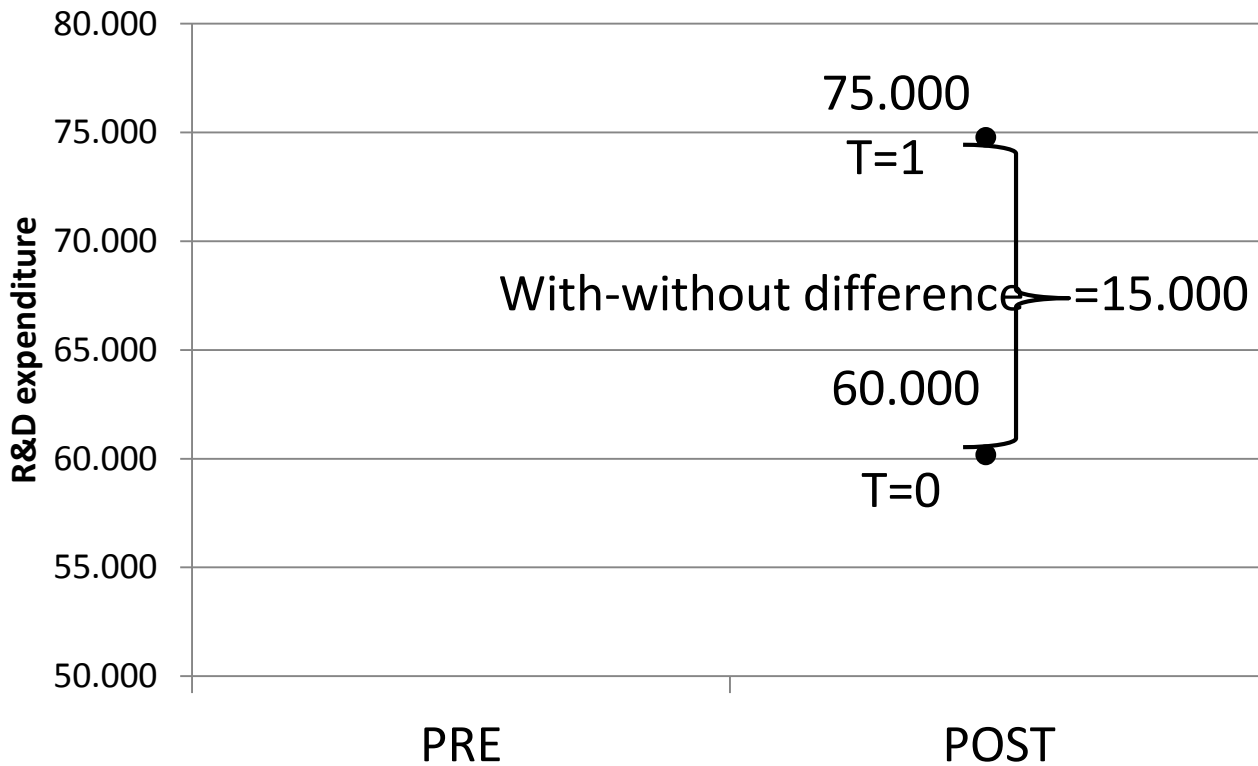
How do we disentangle the
change due to the policy
from the myriad changes
that would have occurred
anyway?

DIFFERENCE TREATED - NON TREATED

| | AVERAGE | N |
|-------------------------------------|---------|------|
| T=0 | 60.000 | 2600 |
| T=1 | 75.000 | 2400 |
| DIFFERENCE TREATED - NON TREATED | +15.000 | |

IS 15.000 THE TRUE IMPACT
OF THE POLICY?

WITH-WITHOUT



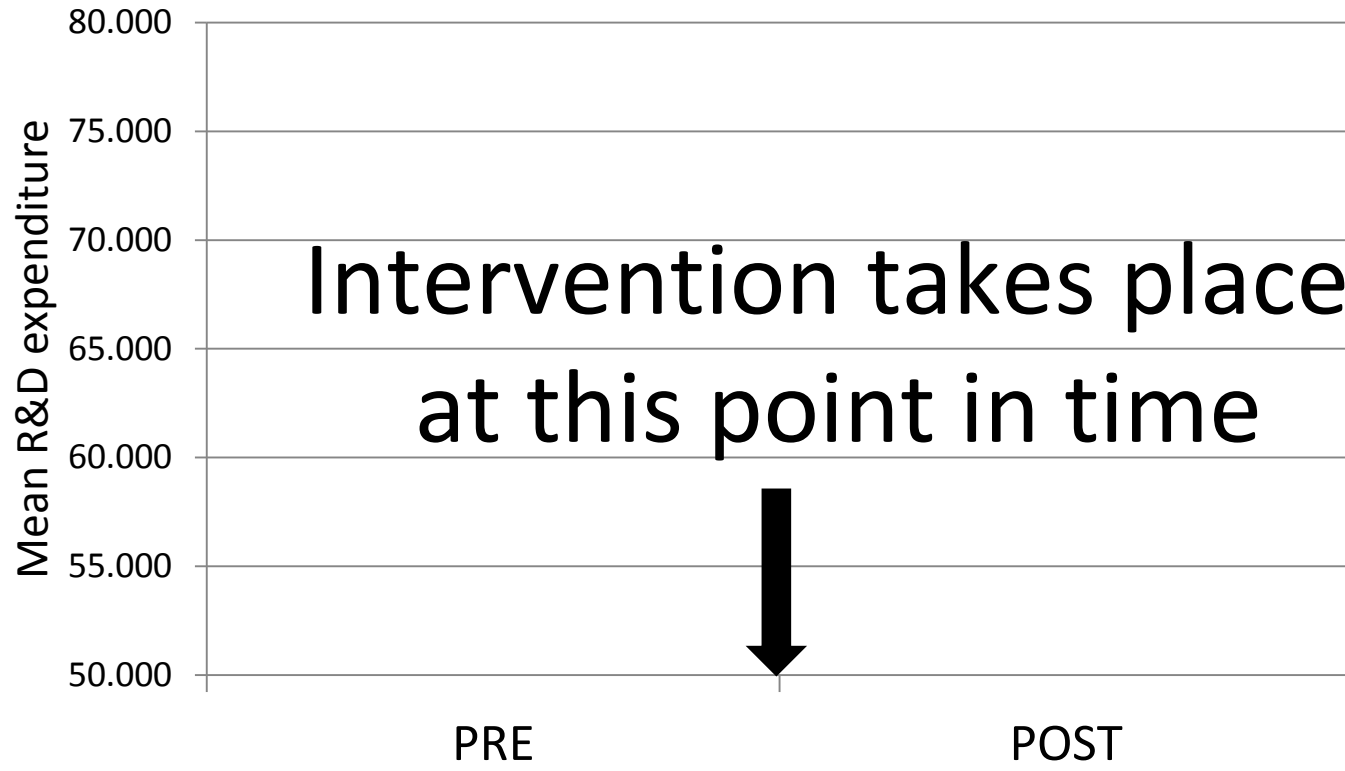
Is it reasonable to state that
All the difference observed in the
Two group of enterprises is
DUE to the policy?
How do we disentangle the
difference due to the policy
from the pre-existing
differences? Also called
selection bias

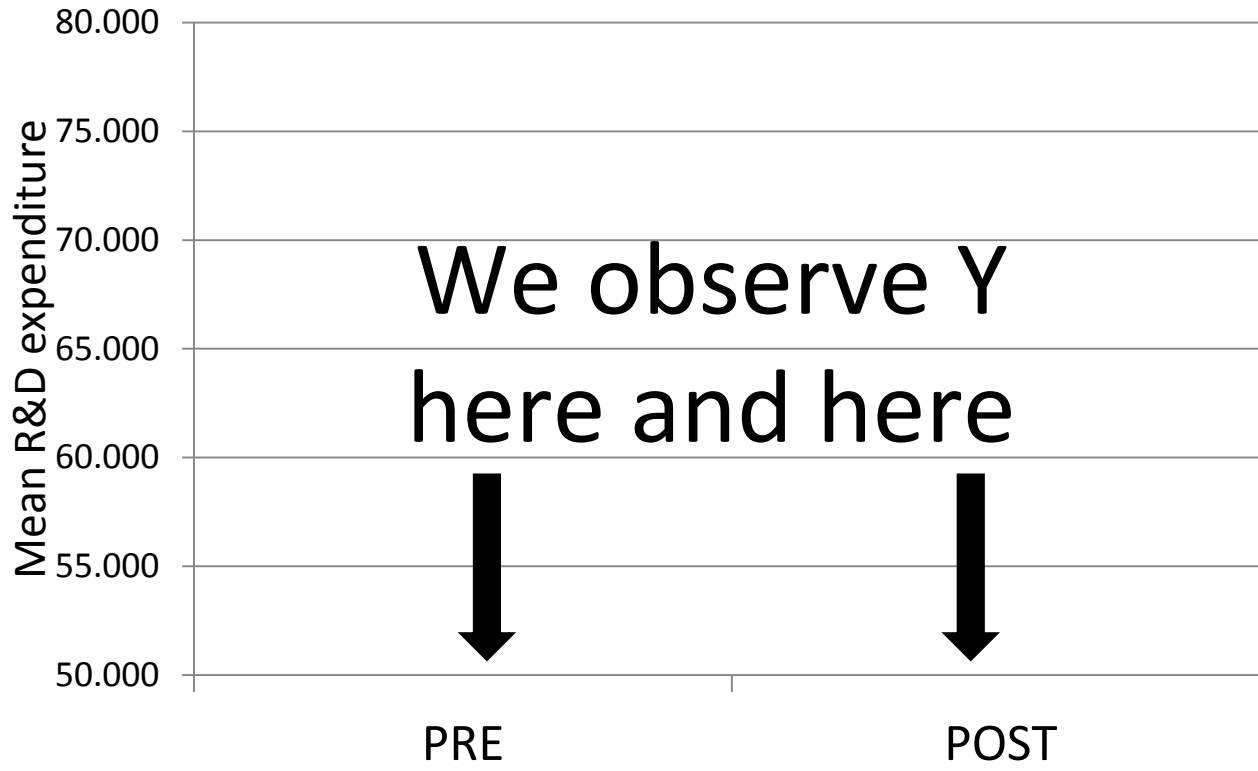
LET US SAY THAT

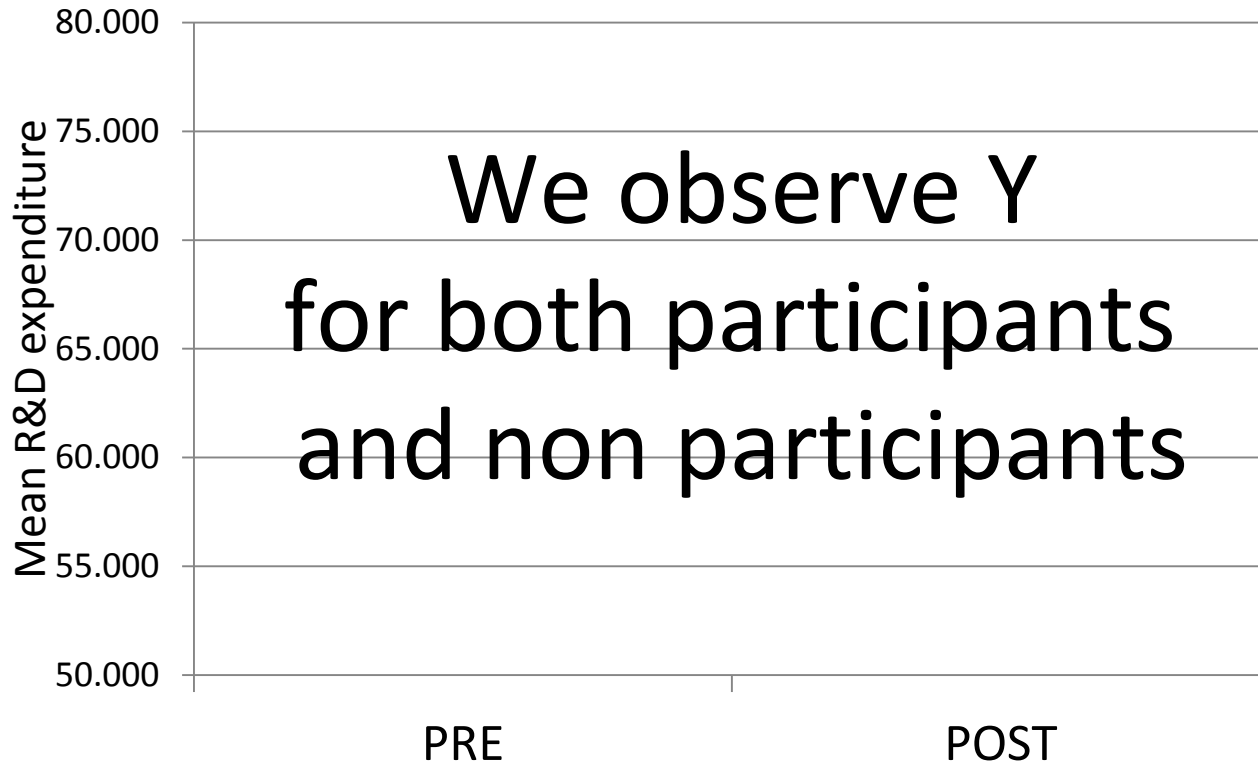
We cannot use experiments with firms, for political-practical reasons

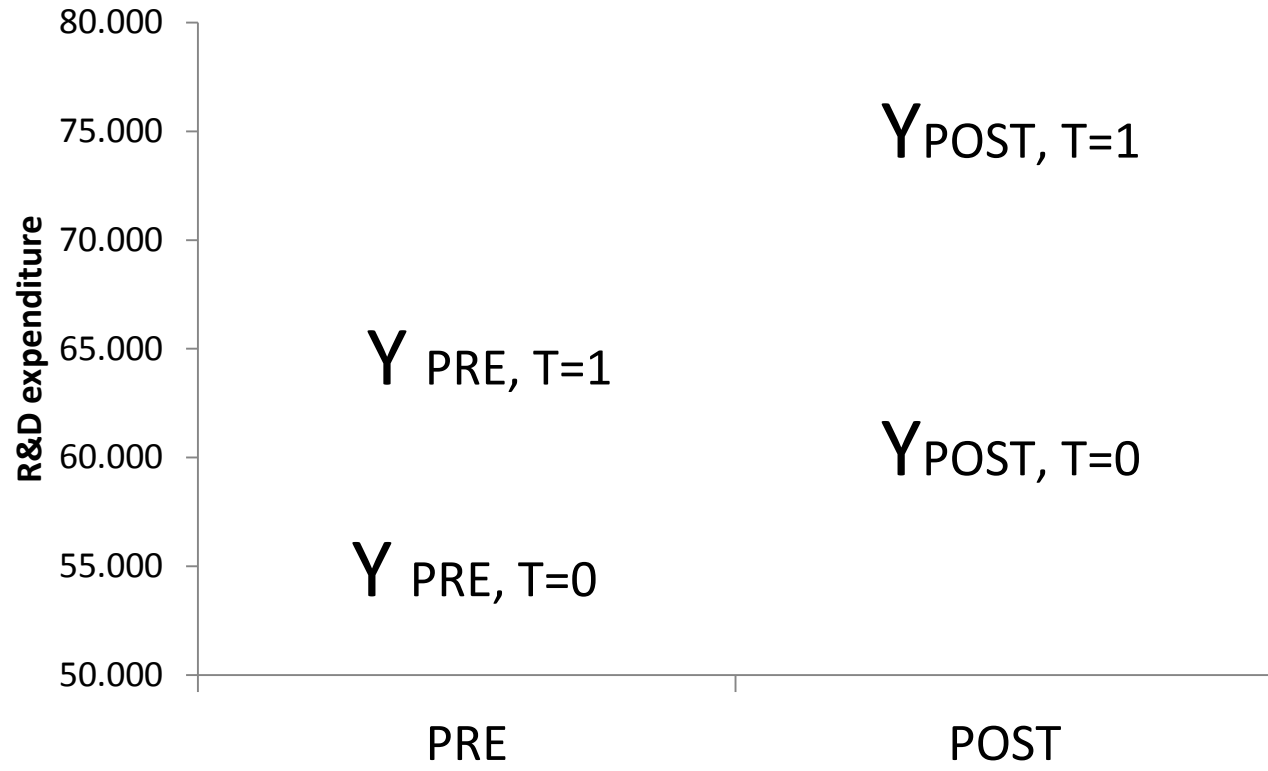
There are many non-experimental counterfactual methods

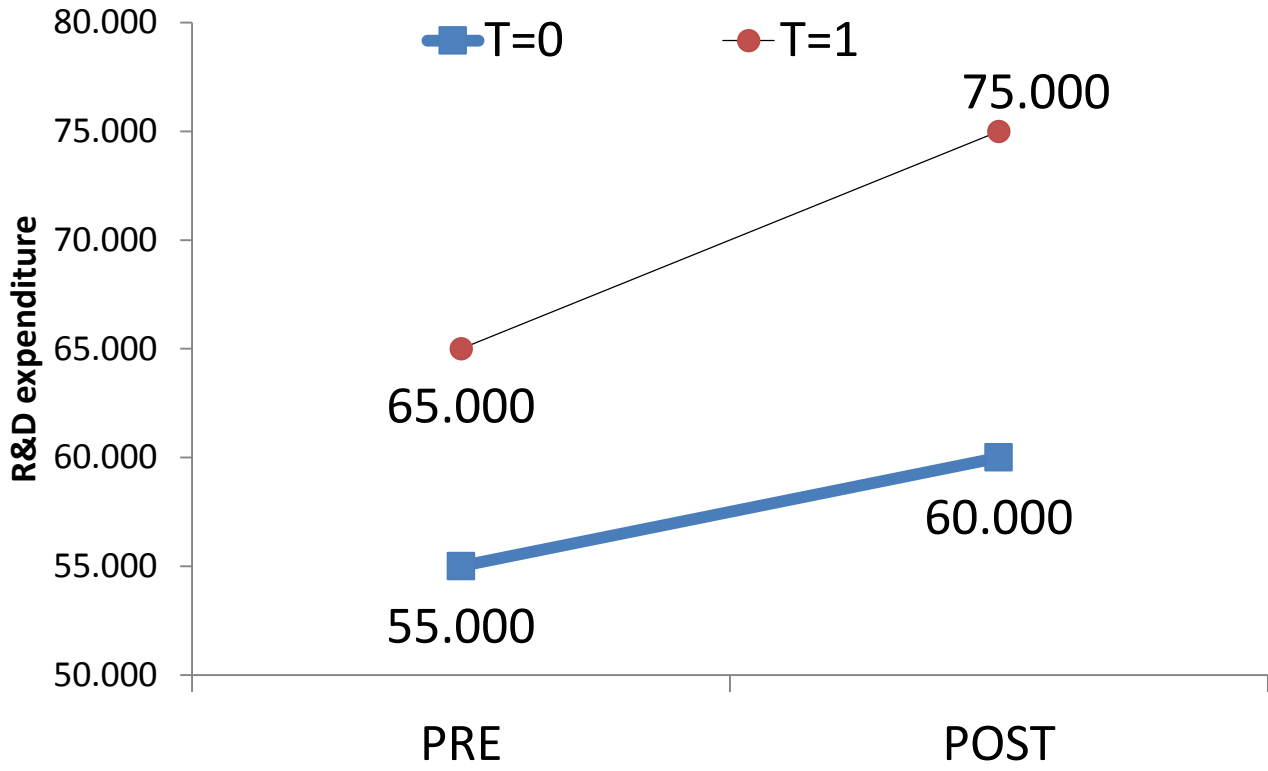
WE PROVIDE WITH A TOTALLY
STYLIZED EXAMPLE, INSPIRED
BY THE FIRM SUPPORT
PROGRAMME YOU USED
YESTERDAY

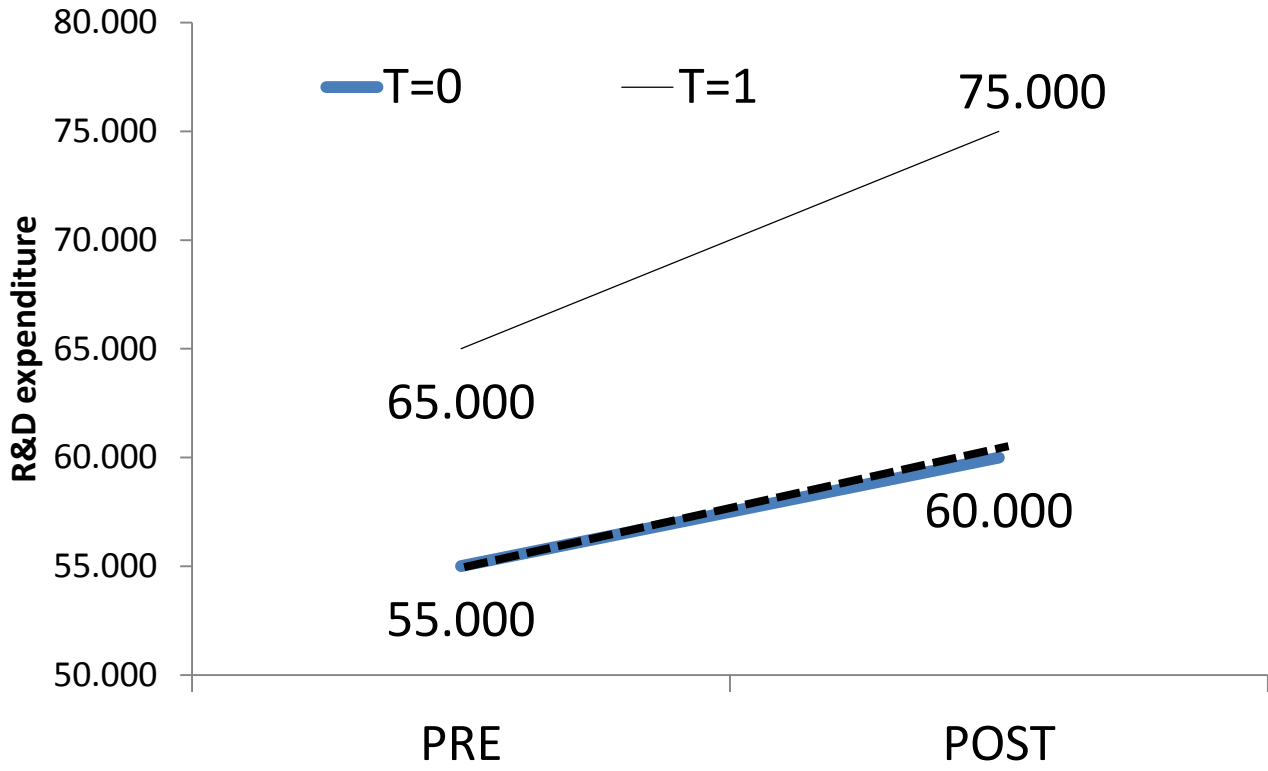


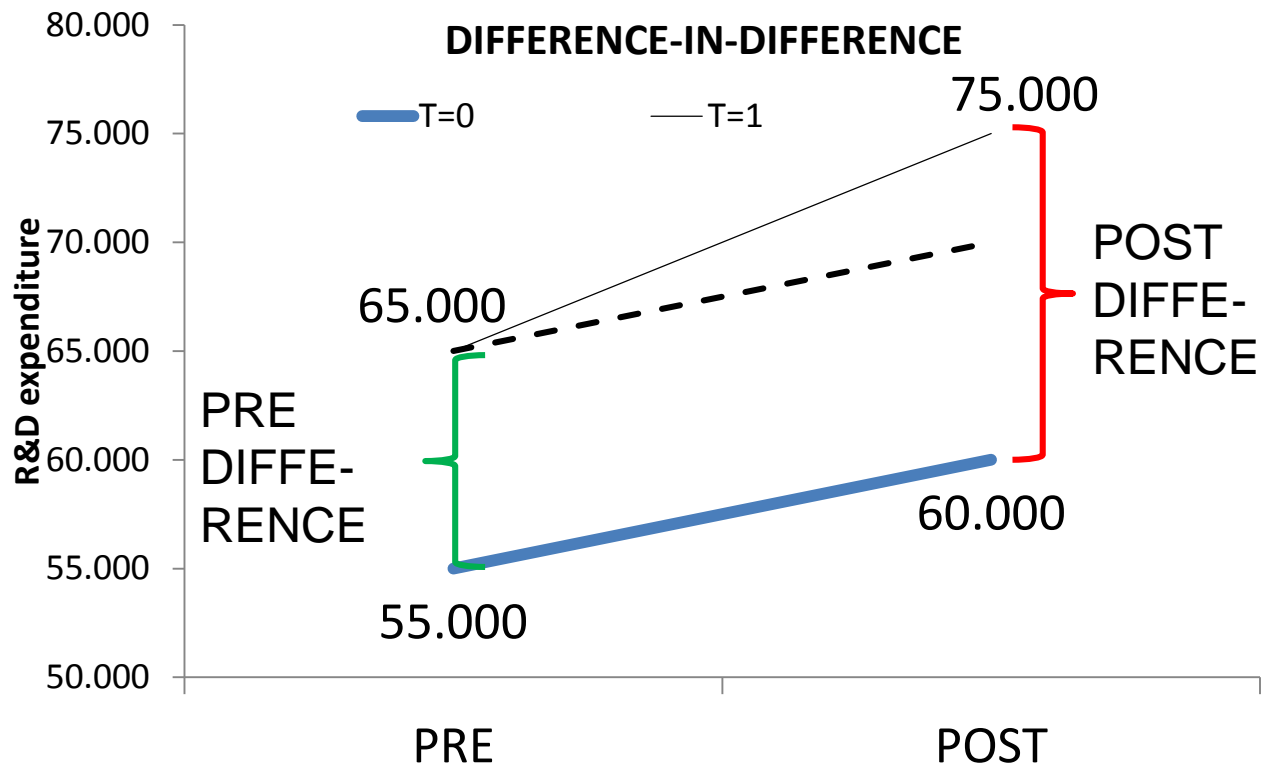












THE PURPOSE OF THIS PRESENTATION WAS NOT THE ILLUSION OF
TRASFORMING ANY OF YOU INTO INSTANT ECONOMETRICIAN ,
RATHER TO GIVE YOU THE FEELING FOR WHAT A
COUNTERFACTUAL ANALYSIS
MIGHT LOOK LIKE

THIS FEELING FOR COUNTERFACTUAL ANALYSIS IS ALL
YOU MIGHT HAVE THIS AFTERNOON WHEN YOU WILL BE
ASKED TO GO BACK WITH
YOUR GROUP TO THE DRAFT TOR YOU WROTE
YESTERDAY, IN THE HOPE
TO MAKE IT LOOK LIKE MORE LIKE THE “REAL THING”