BUILDING GENDER INTO IMPACT EVALUATION

PAUL GERLTER
UC BERKELEY

Seminario Internacional sobre Evaluación con Perspectiva de Género de Políticas Públicas

31 MAY 2018
MEXICO CITY

IMPACT EVALUATION

An assessment of the causal effect of a project , program or policy on beneficiary outcomes.

Estimates the change in outcomes attributable to the intervention.

HOW ARE IMPACT EVALUATIONS USEFUL?

As an input to funding decisions

To inform program design

As a means of influencing ideas

WHY DO IE SEPARATELY FOR MEN AND WOMEN

- Impact Evaluations often only look at average impacts and do not ask whether policies affect males & females differently
  - Truth is often hidden by averaging
  - Policy implications can be complex
- Examples (At-Scale RCTs)
  - Inquiry and Problem Based Pedagogy in 4 Latin Am. Countries
  - Vocational Training in Dominican Republic
  - High School Leadership Training and Soft Skills in Uganda

OUR OBJECTIVE

Estimate the causal effect (impact) of intervention (P) on outcome (Y).

(P) = Program or Treatment

(Y) = Indicator, Measure of Success

Example: What is the effect of a Cash Transfer Program **(P)** on Household Consumption **(Y)**?

CAUSAL INFERENCE

What is the impact of (P) on (Y)?

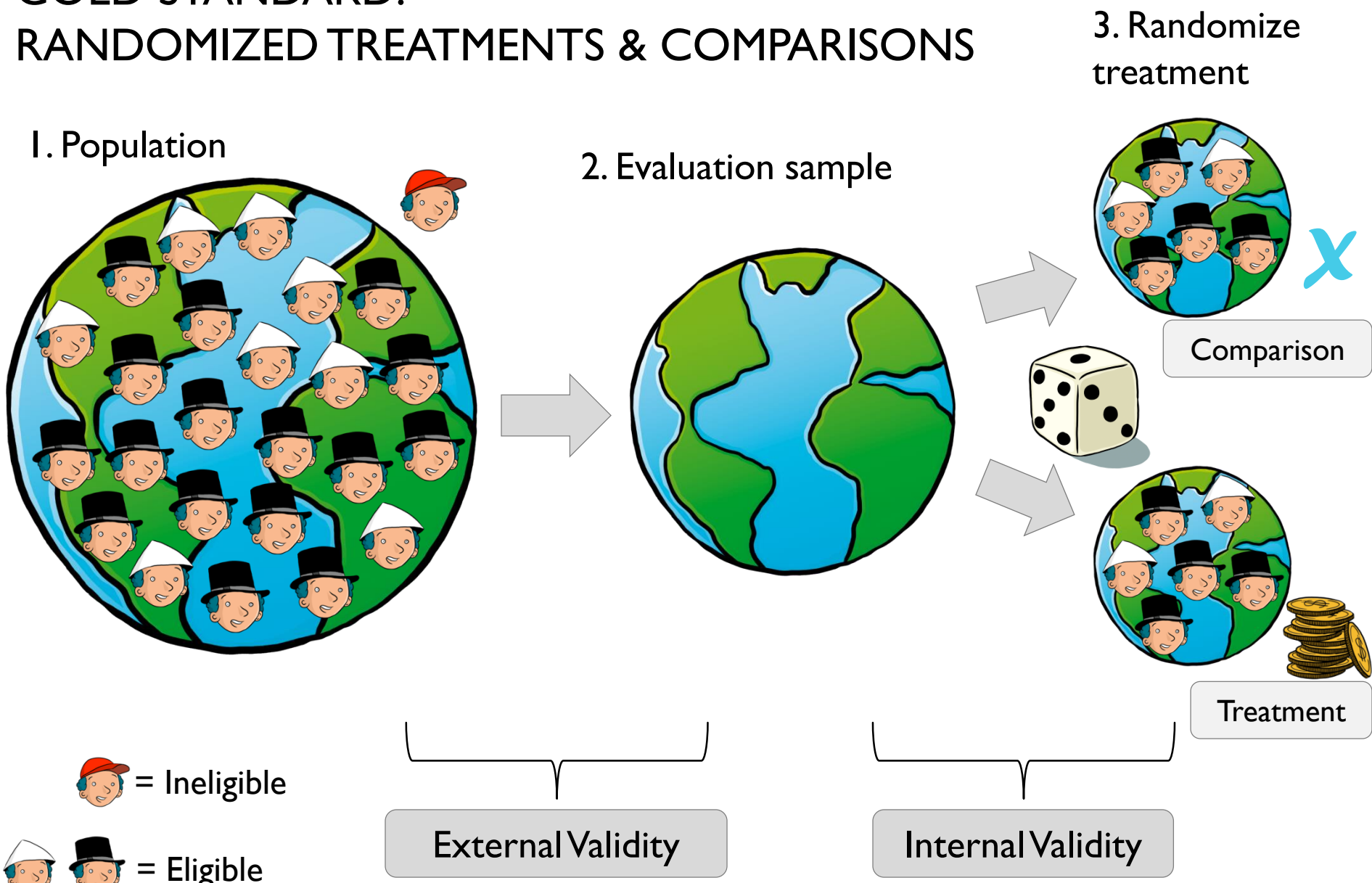
Impact = (Y with P) – (Y without P)

we observe (Y with P)

BUT we do **not** observe (Y without P)

Estimate "what ***would*** have happened to *Y* in the absence of *P*," *i.e. the counterfactual*

GOLD STANDARD: RANDOMIZED TREATMENTS & COMPARISONS



KEYS TO GOOD EVALUATION

- Internal validity
  - Randomized design or quasi-experimental design
- External validity
  - Representative & multiple locations and populations
- Powered: large enough sample sizes to observe meaningful minimal detectable effects
  - Enough to analyze gender specific effects

INQUIRY AND PROBLEM BASED PEDAGOGY (IPP)

- Students learn better when play an active role in learning through doable tasks with social interaction
- Traditional lecturing w/ passive listening not conducive to fostering critical thinking or inspiring interest
- IPP creates active problem solving opportunities
  - Learn by collaborating in solving real world problems, developing explanations and communicating ideas
  - Taught to search for information from different sources both text and own data collection
  - Develop problem solving skills by engaging in investigations

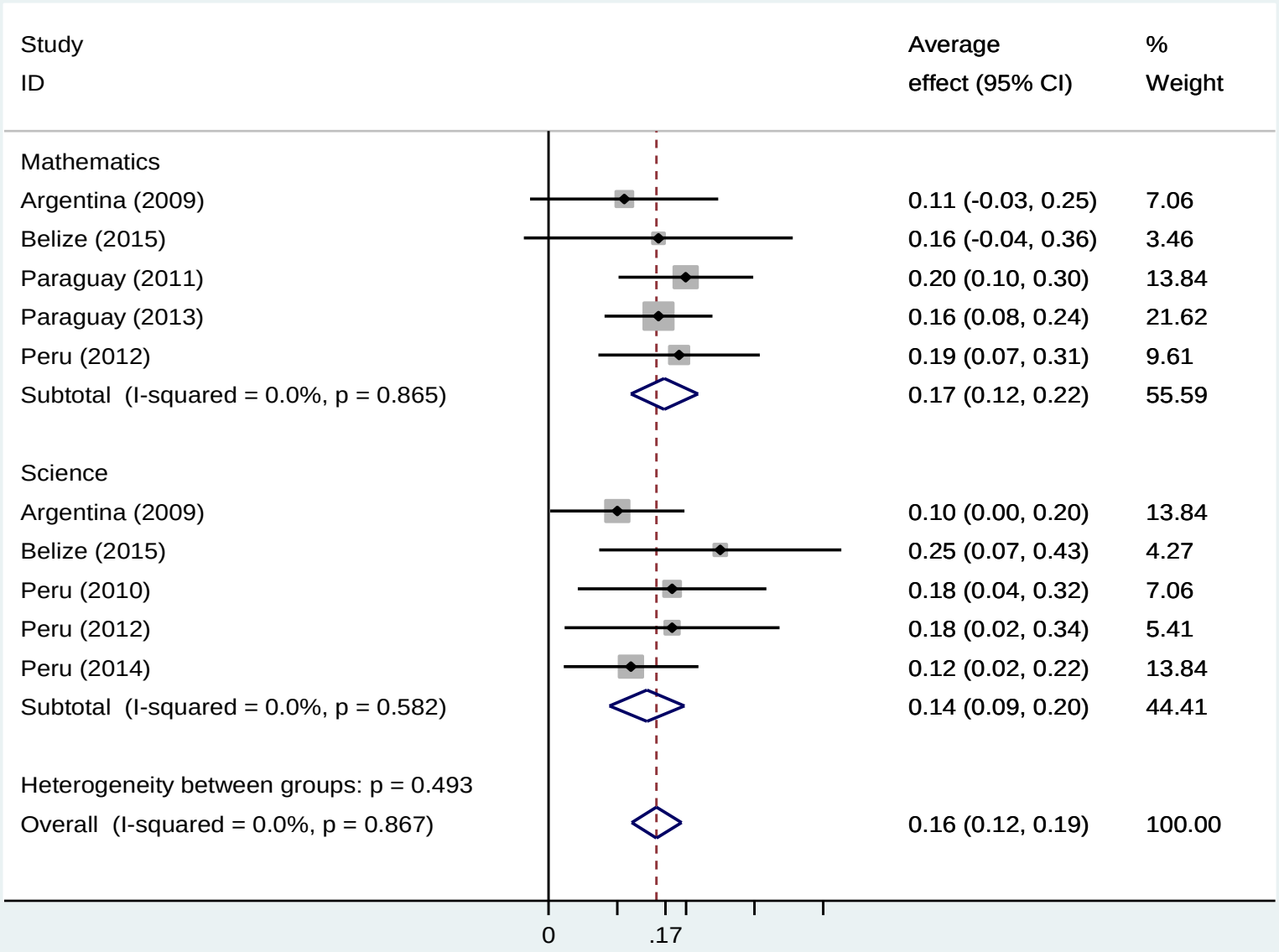
SCIENCE EXAMPLE

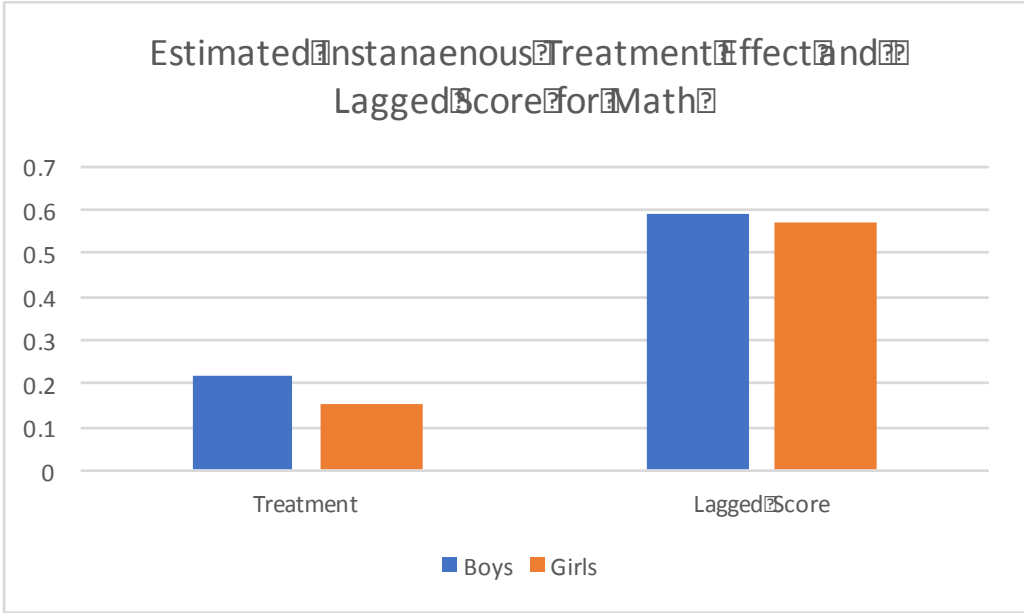
- Traditional pedagogy: copy facts about bone tissues and names of 206 bones in body. Then answer questions based on lecture and text.
- IPP: teachers pose research question; guide students though formulation of research questions, and testing of hypotheses;
- e.g. what do bones help people do? Students research bones from in texts and direct observation.
- They might ask what would happen if people had no bones? Answer by creating 3D clay figures and make predictions about how long could stand without toothpick bones
- Or, how does lose of calcium affect bone strength? Test by soaking bones in vinegar for different length of time

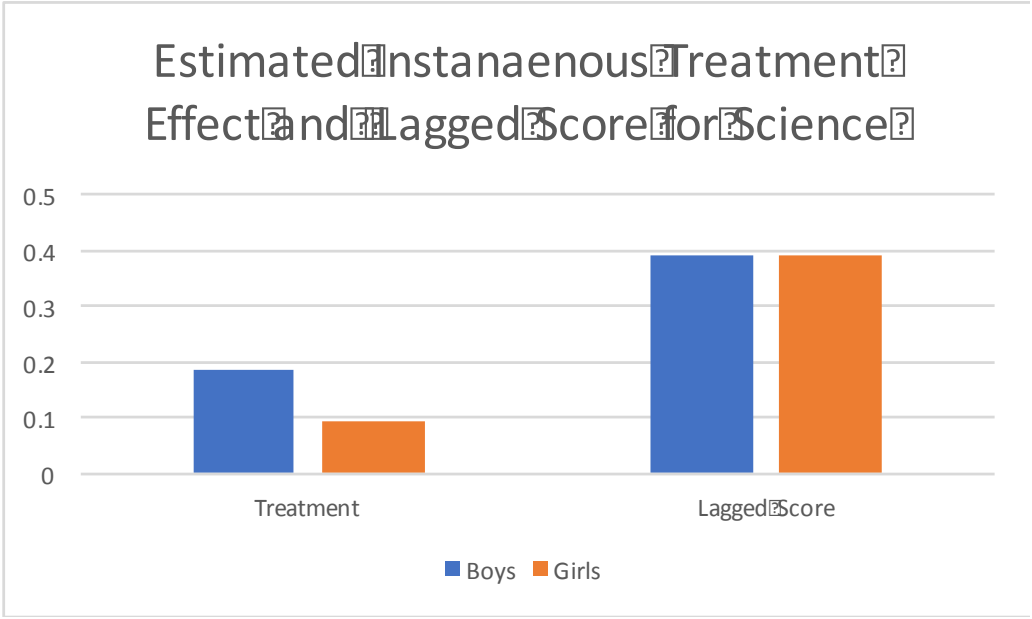
10 RCTS IN 4 COUNTRIES

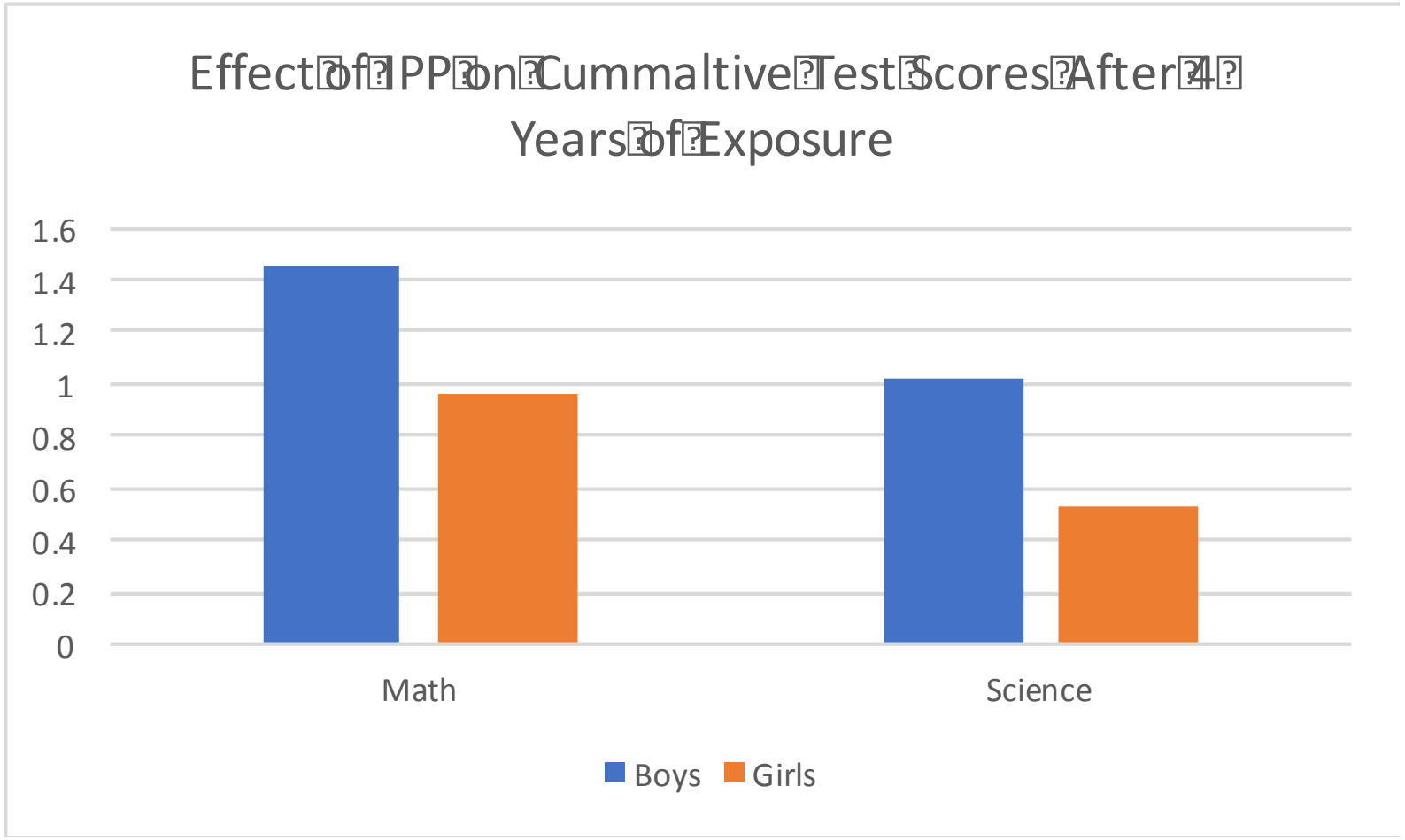
- Countries: Argentina, Belize, Paraguay, and Peru
- Grades: preschool, 1st, 3rd, and 4th
- Years: 2009 – 2015
- Effect on test scores (standard deviations)
- Instantaneous effects
- long term effects exploiting dynamic complementarities

$$y_{ist} = \mu_s + \beta T_{is} + \gamma y_{ist-1} + \varepsilon_{is}$$


Study
ID
Average
effect (95% CI)
%
Weight
Mathematics
Argentina (2009)
0.11 (-0.03, 0.25)
7.06
Belize (2015)
0.16 (-0.04, 0.36)
3.46
Paraguay (2011)
0.20 (0.10, 0.30)
13.84
Paraguay (2013)
0.16 (0.08, 0.24)
21.62
Peru (2012)
0.19 (0.07, 0.31)
9.61
Subtotal (I-squared = 0.0%, p = 0.865)
0.17 (0.12, 0.22)
55.59
Science
Argentina (2009)
0.10 (0.00, 0.20)
13.84
Belize (2015)
0.25 (0.07, 0.43)
4.27
Peru (2010)
0.18 (0.04, 0.32)
7.06
Peru (2012)
0.18 (0.02, 0.34)
5.41
Peru (2014)
0.12 (0.02, 0.22)
13.84
Subtotal (I-squared = 0.0%, p = 0.582)
0.14 (0.09, 0.20)
44.41
Heterogeneity between groups: p = 0.493
Overall (I-squared = 0.0%, p = 0.867)
0.16 (0.12, 0.19)
100.00
0
.17


Estimated Instanaenous Treatment Effect and Lagged Score for Math
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Treatment
Lagged Score
Boys
Girls


Estimated Instanaenous Treatment Effect and Lagged Score for Science
0.5
0.4
0.3
0.2
0.1
0
Treatment
Lagged Score
Boys
Girls

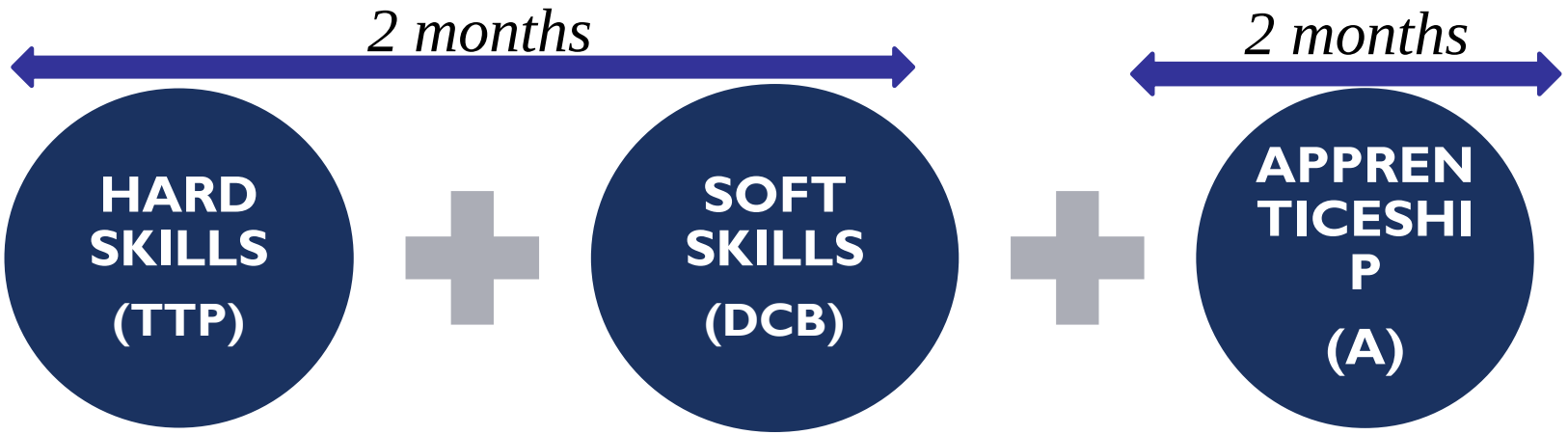

Effect of IPP on Cummaltive Test Scores After 4 Years of Exposure
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Math
Science
Boys
Girls

COMPLEX POLICY IMPLICATIONS

- IPP leads to large gains in learning
- Effect sizes bigger for boys than girls
- Why?
- While IPP is good for both boys and girls it widens the gap between them
- What are the policy solutions?

JOB TRAINING IN THE DOMINICAN REPUBLIC

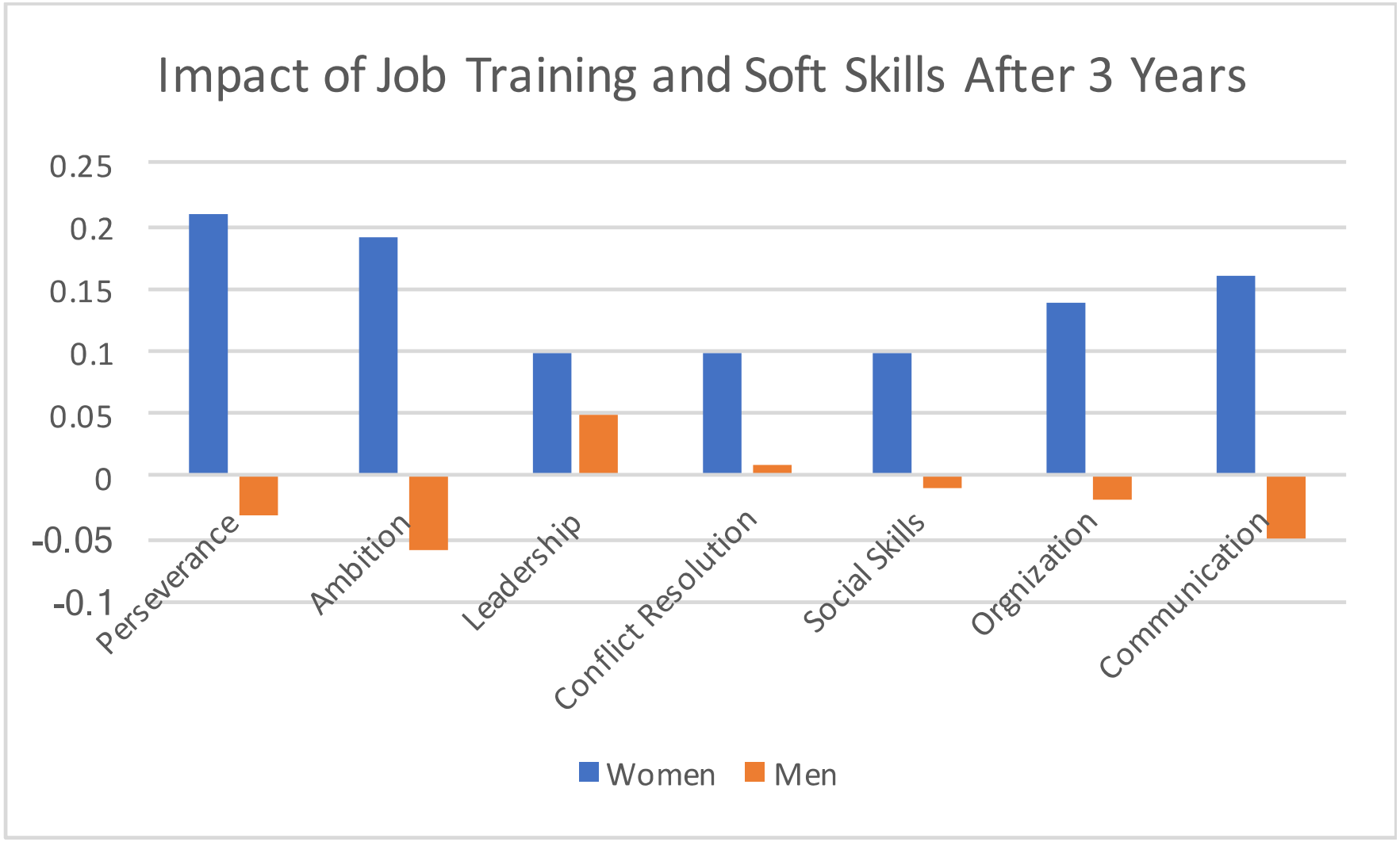
(*)16-29 years old, unemployed, with less than secondary education and living in poor neighborhoods
(*)16-29 years old, unemployed, with less than secondary education and living in poor neighborhoods

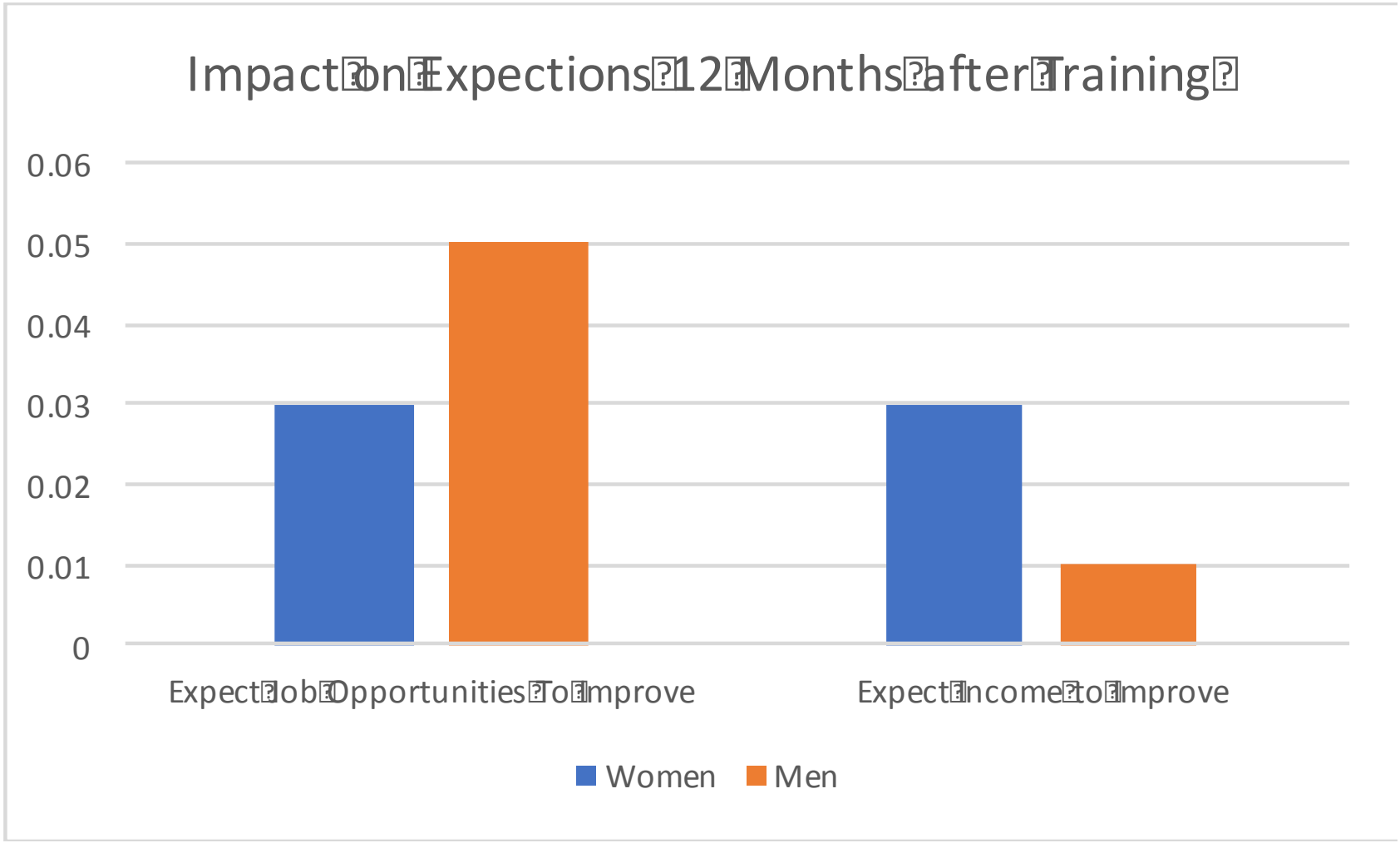


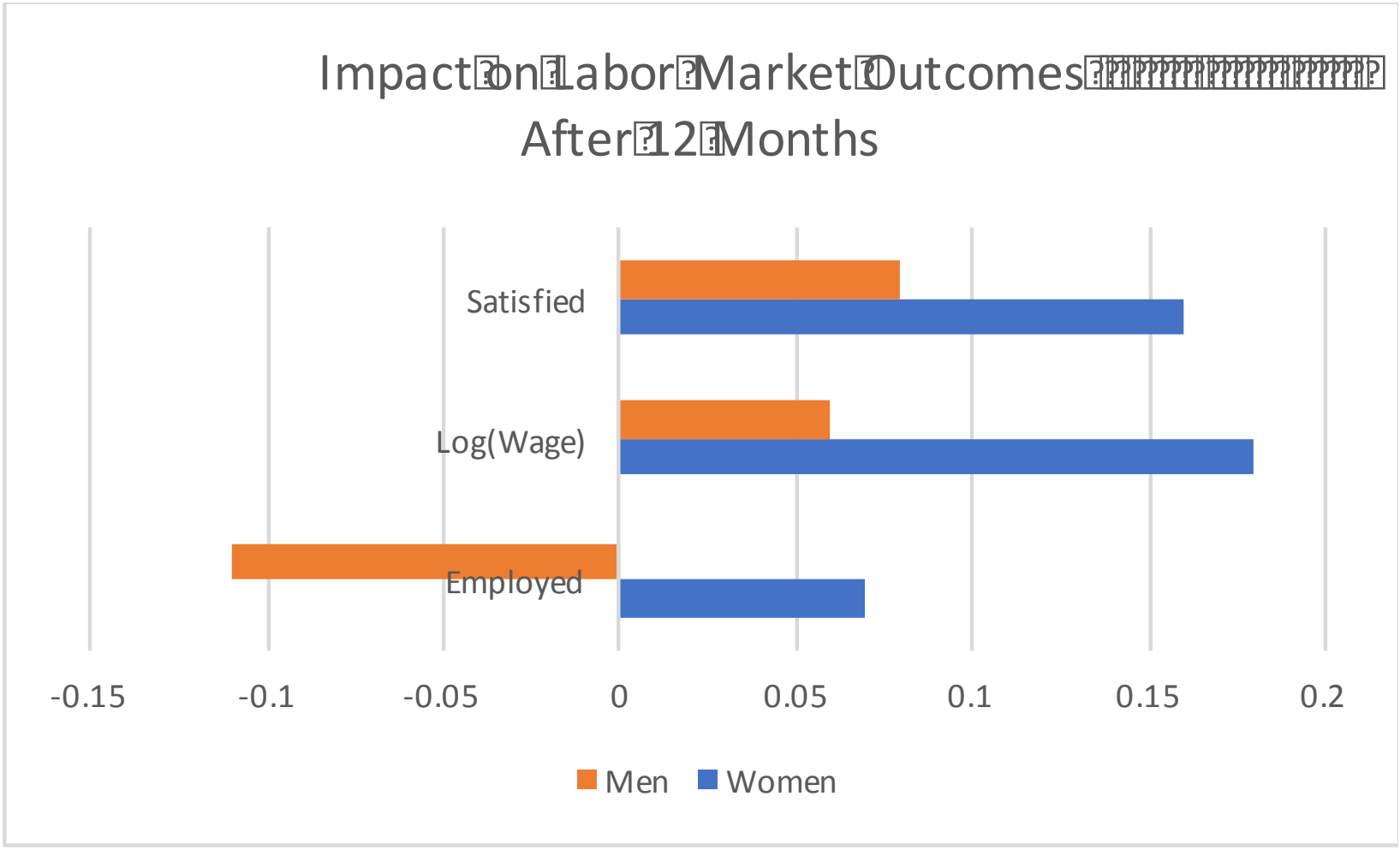
150 hours
Courses on…
- Barman
- Beauty
- Accountant
- Electronics
- etc…

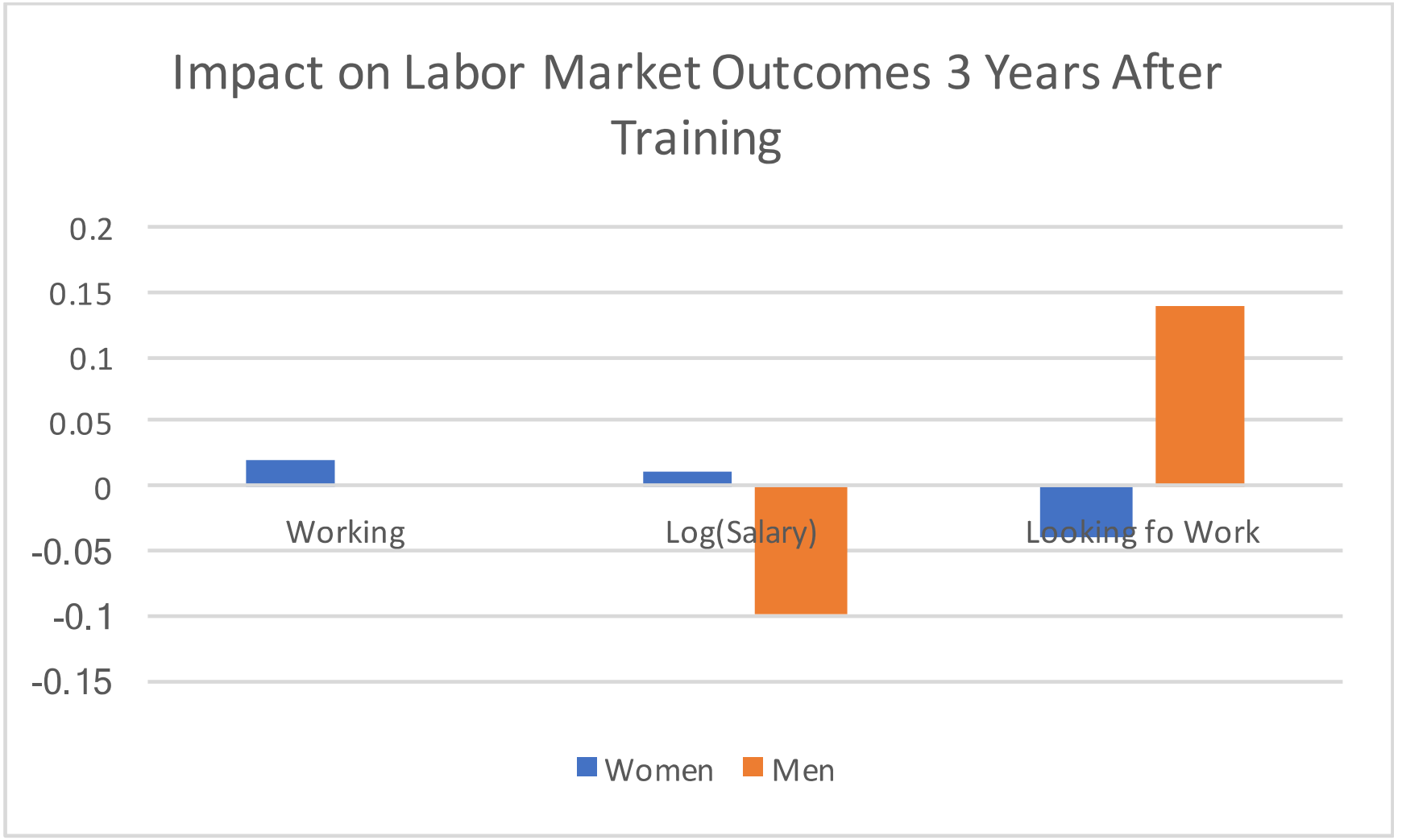
75 hours
Themes on…
- Self-Esteem
- Conflict Resolution
- Communication
- etc…

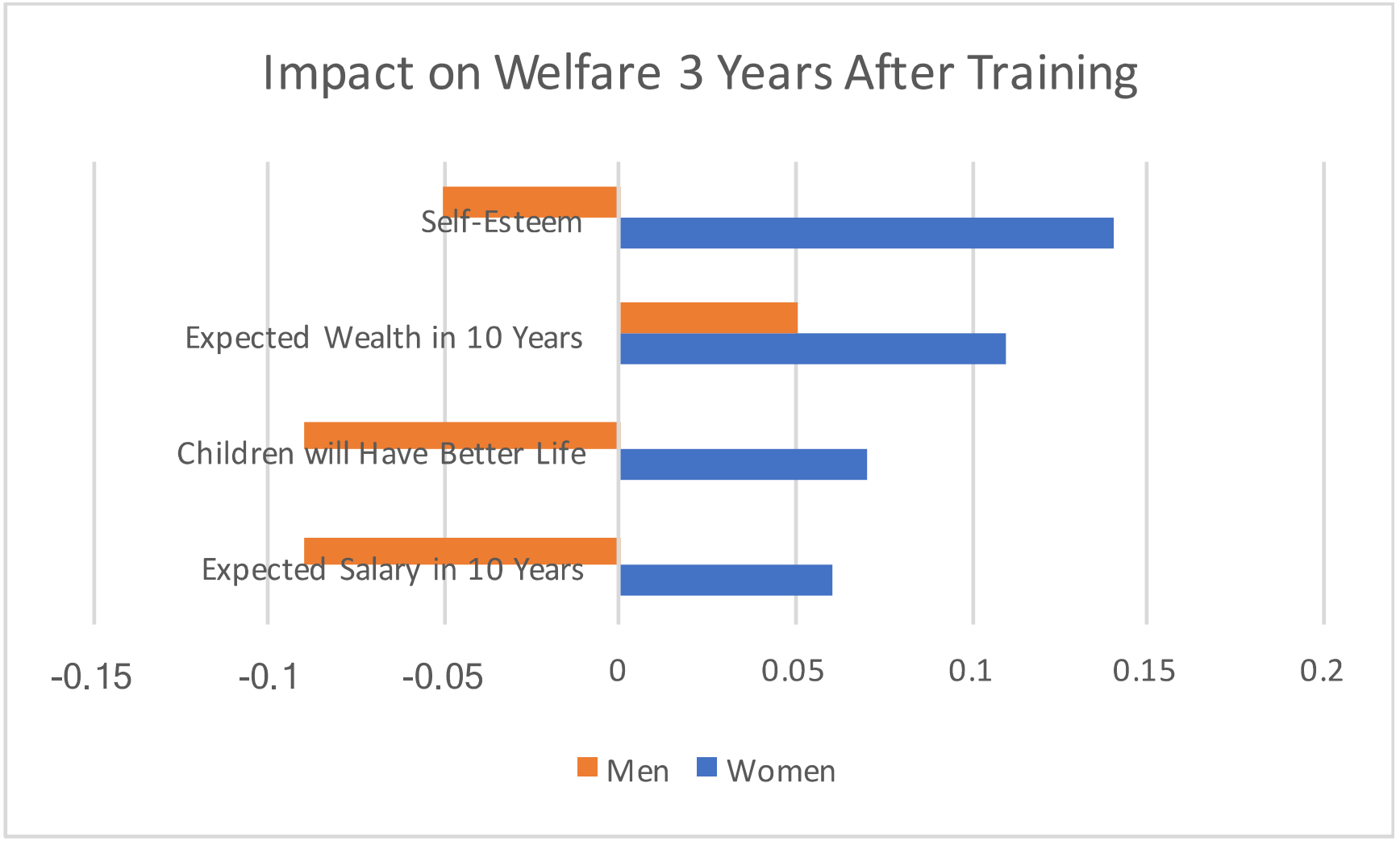
240 hours
In local firms


Impact of Job Training and Soft Skills After 3 Years
0.25
0.2
0.15
0.1
0.05
0
-0.05
-0.1
Perseverance
Ambition
Leadership
Conflict Resolution
Social Skills
Orgnization
Communication
Women
Men


Impact on Expections 12 Months after Training
0.06
0.05
0.04
0.03
0.02
0.01
0
Expect Job Opportunities To Improve
Expect Income to Improve
Women
Men


Impact on Labor Market Outcomes After 12 Months
Satisfied
Log(Wage)
Employed
-0.15
-0.1
-0.05
0
0.05
0.1
0.15
0.2
Men
Women


Impact on Labor Market Outcomes 3 Years After Training
0.2
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
Working
Log(Salary)
Looking fo Work
Women
Men

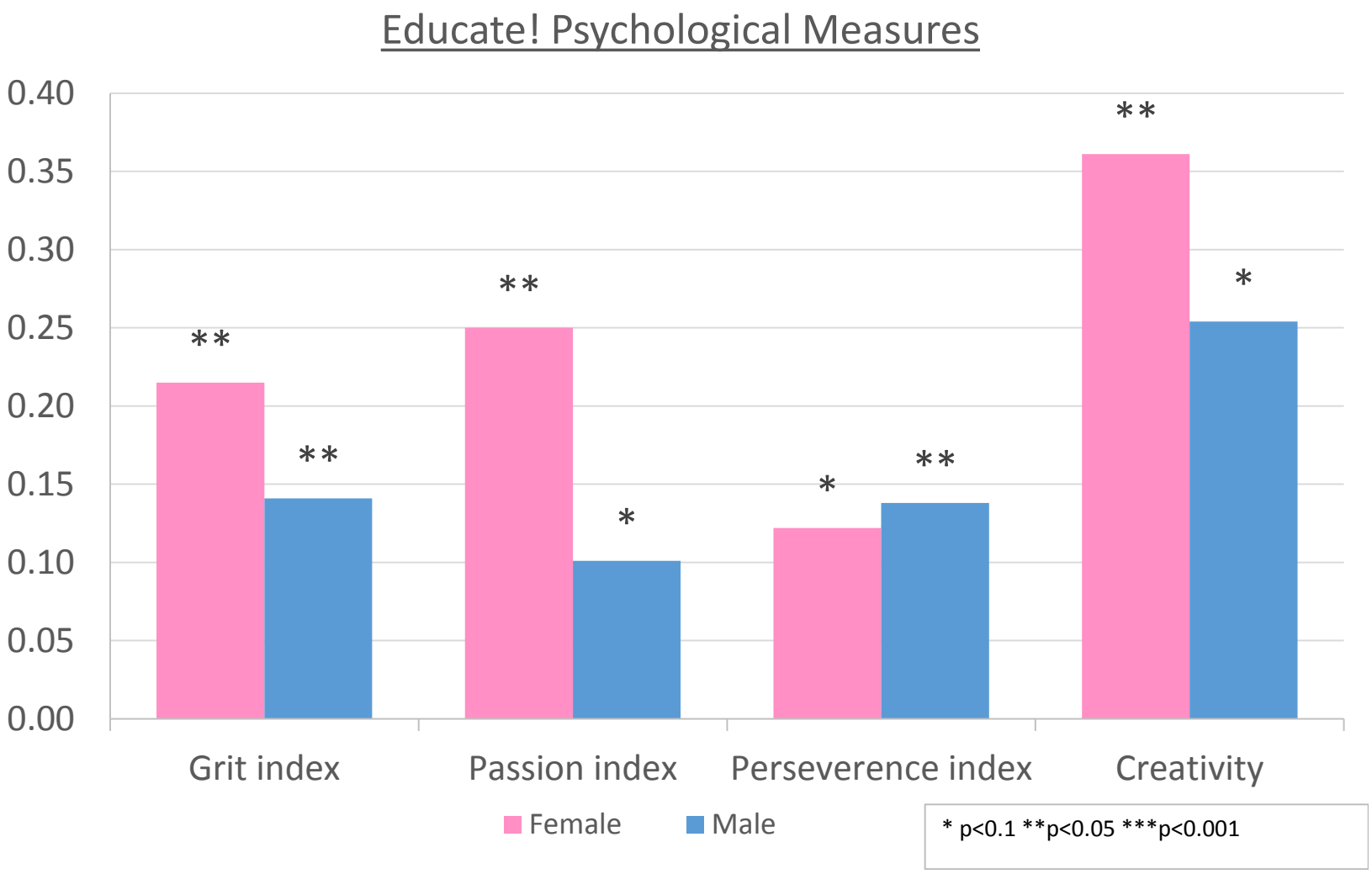

Impact on Welfare 3 Years After Training
Self-Esteem
Expected Wealth in 10 Years
Children will Have Better Life
Expected Salary in 10 Years
-0.15
-0.1
-0.05
0
0.05
0.1
0.15
0.2
Men
Women

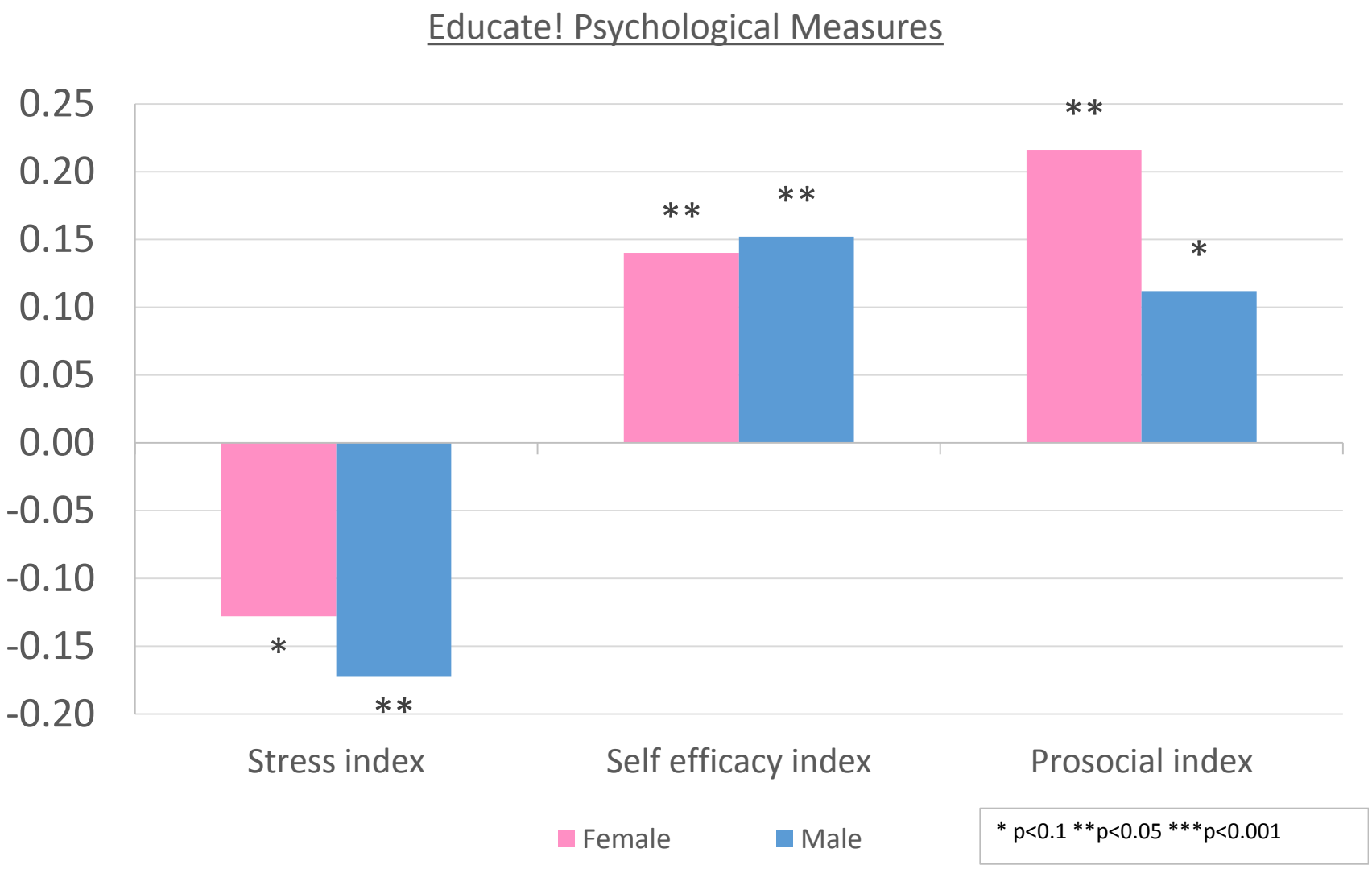
CONCLUSIONS DIFFERENT FOR MEN & WOMEN

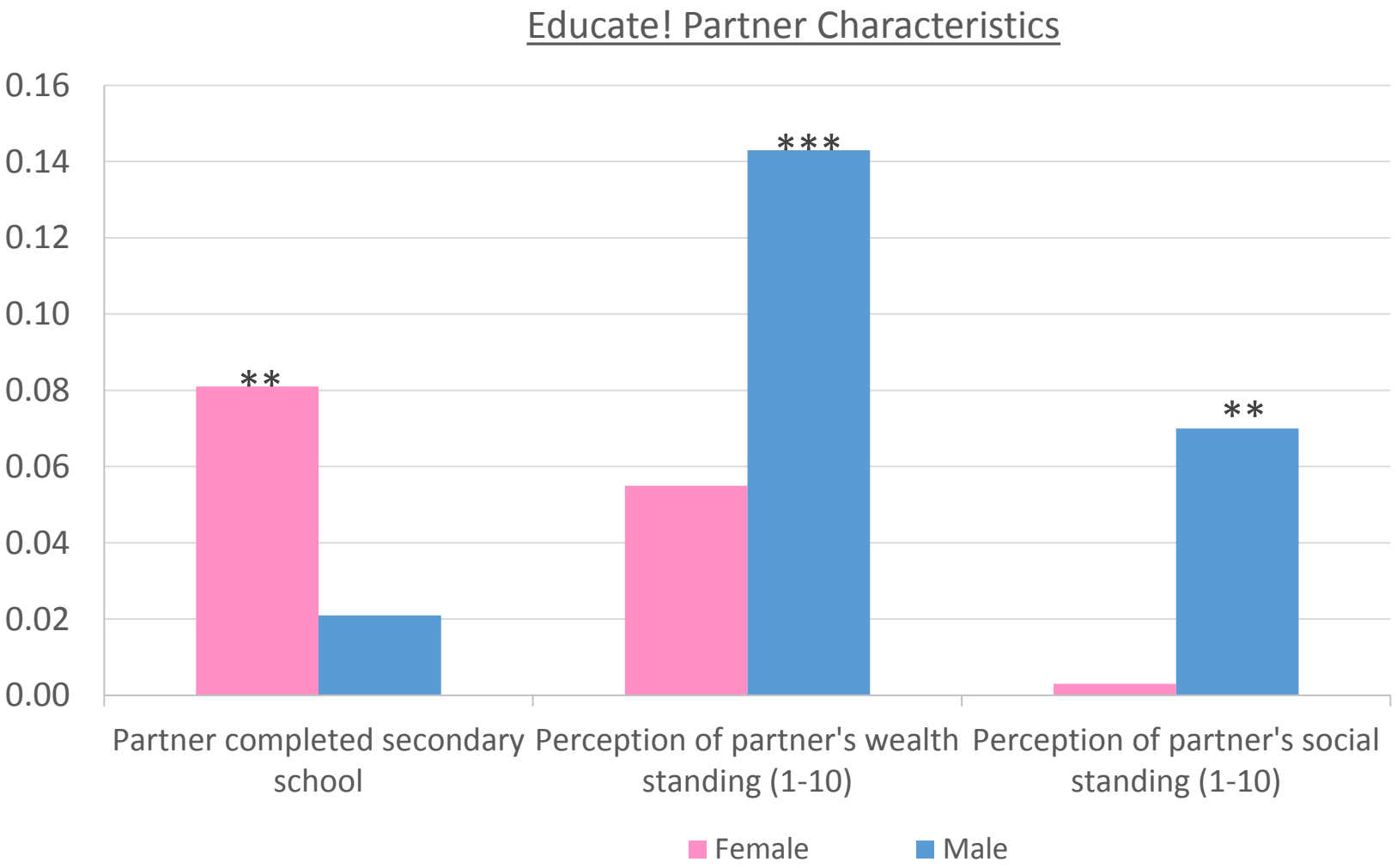
- Women
  - Gained soft skills and expectations increased
  - Realized some gains in labor market and happy with their jobs
  - Better off in terms of self-esteem and future outlook
- Men
  - Did not gains skills, but expectations increased
  - Expectations not realized in labor market and unhappy w/ jobs
  - Discouraged worker effect and worse off

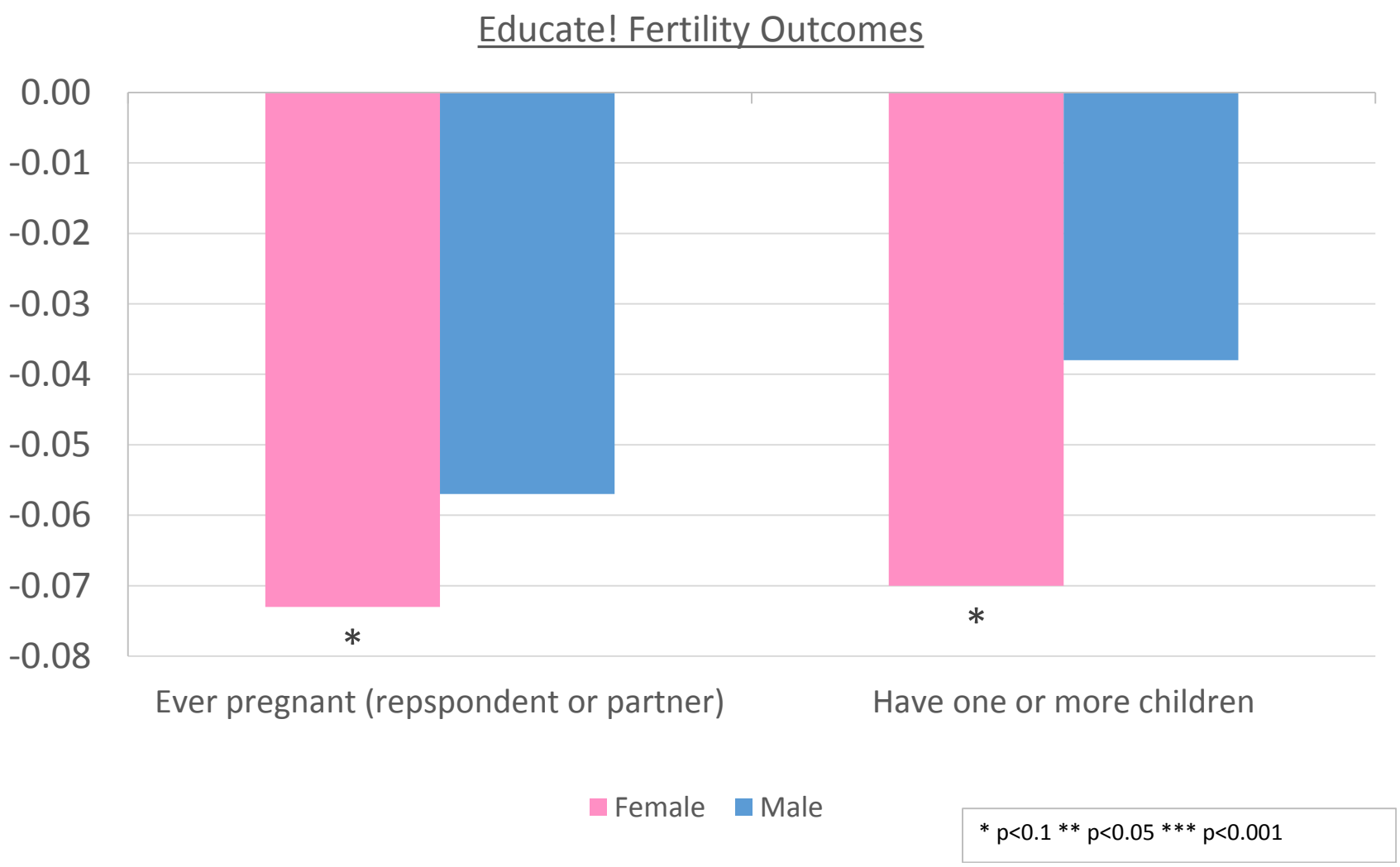
UGANDA – HIGH SCHOOL LEADERSHIP PROGRAM

- Educate! is centered on on two key modules: **Soft Skills development (Skills Lab) and Business Club**.
  - **Skills Lab** students learn about leadership, self-efficacy, confidence, critical thinking and problem solving through games, group work and public speaking
  - **Business Club**, students develop ideas for products and services that serve the needs of their community
  - **Mentors** help them develop ideas into social enterprises and community projects
- Examine how affected skills and demographic outcomes


Educate! Psychological Measures
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
**
**
**
*
*
**
**
*
Grit index
Passion index
Perseverence index
Creativity
Female
Male
* p<0.1 **p<0.05 ***p<0.001


Educate! Psychological Measures
0.25
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
*
**
**
**
**
*
Stress index
Self efficacy index
Prosocial index
Female
Male
* p<0.1 **p<0.05 ***p<0.001


Educate! Partner Characteristics
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
**
***
**
Partner completed secondary school
Perception of partner's wealth standing (1-10)
Perception of partner's social standing (1-10)
Female
Male


Educate! Fertility Outcomes
0.00
-0.01
-0.02
-0.03
-0.04
-0.05
-0.06
-0.07
-0.08
*
*
Ever pregnant (repspondent or partner)
Have one or more children
Female
Male
* p<0.1 ** p<0.05 *** p<0.001

Educate! Violence Attitudes and Incidence

EDUCATE CONCLUSIONS

- Both men and women gains better soft skills, but women gained substantially more
- Both found higher quality partners
- Both lowered fertility, but women by more
- Women experience less violence

TAKE AWAYS

- Average impacts hide heterogeneity
  - Often policies & programs affect men and women differently
  - Investigate why and what can be done
- Lead to complex policy choices
  - Helping all may lead to greater gender inequality
  - Design and evaluate changes to reduce inequality without sacrificing benefits
- Need to build into evaluation designs: SAMPLE SIZE