

Testing solutions to reduce the digital divide for marginalized households

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Three facts about digital skills in Europe

1. According to the Digital Skill Indicator, only 61% of EU residents aged 16-74 have **at least basic skills** (Eurostat, 2023)
2. There are **large disparities** across countries (range between 31% and 84%; in Italy, it's 53%)
3. Disparities are even wider among **disadvantaged groups**: in Italy, 45% among foreign-born, 30% among low-educated individuals

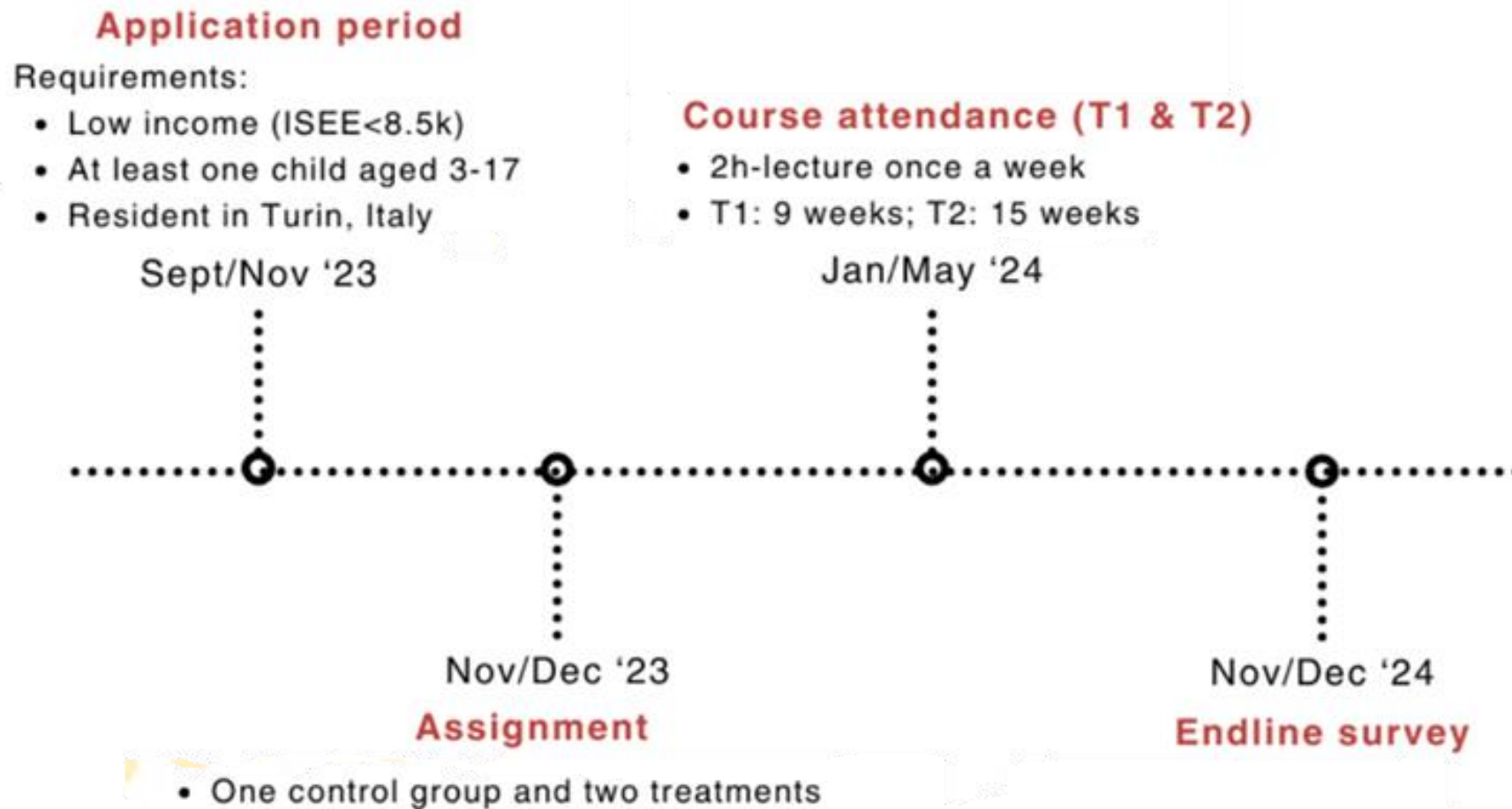
Motivation

- Digital skills are essential for daily life and in most workplace
- Stronger digital divide among marginalized households
 - **Financial barriers:** expensive technological equipment imposes high entry costs
 - **Learning barriers:** steep learning curve discourages technology adoption
- Increasing digital skills may have positive externalities
 - Improving ability to supervise and educate children in the digital world
 - Removing barriers to adults' social inclusion and employment
- Key policy challenge for EU: ensure that 80% of its population has basic digital skills by 2030
 - Despite urgency, **no causal evidence** on what works to improve digital skills

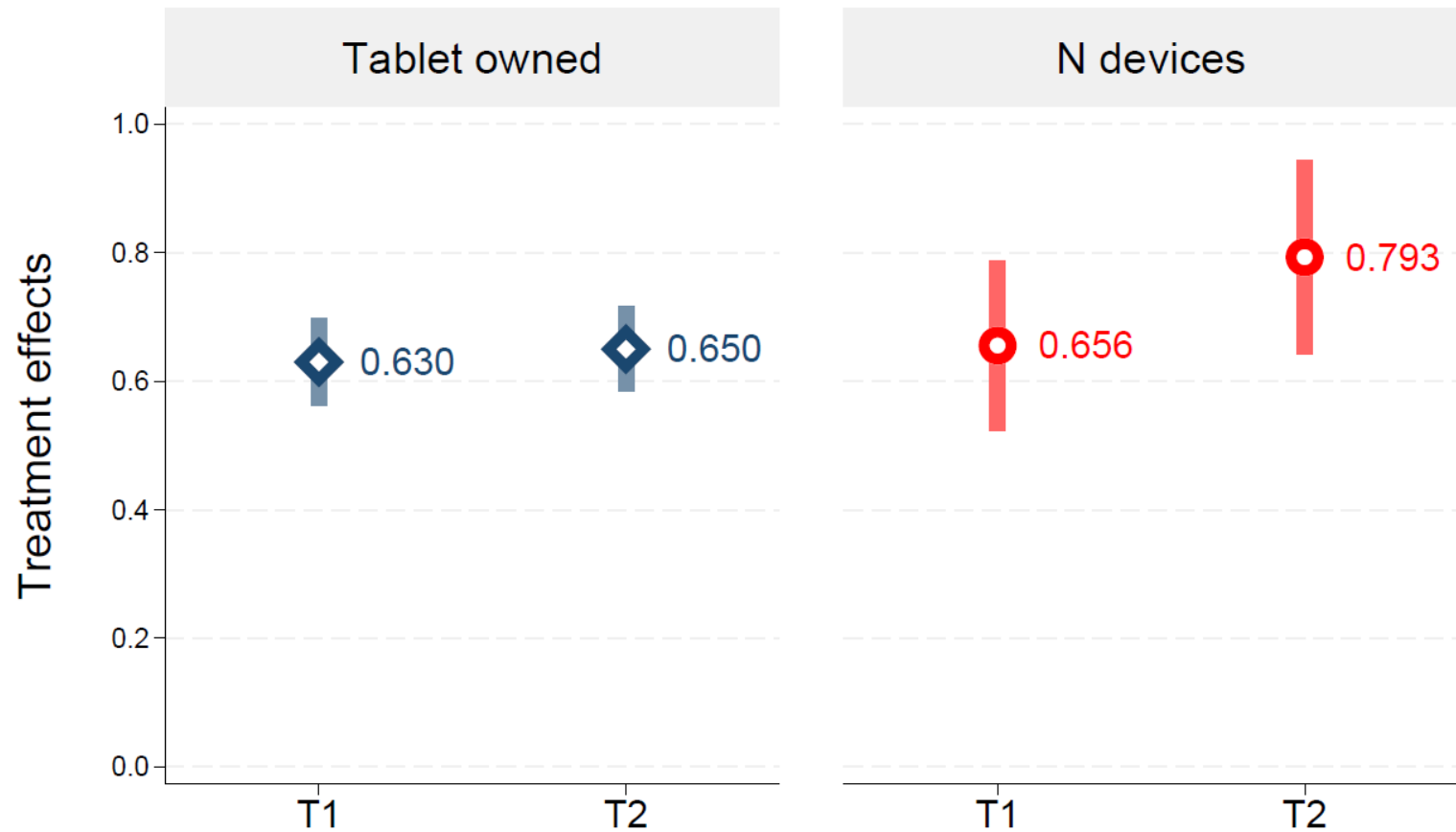
This project tests two solutions

- We implement a program to address **two key barriers** faced by marginalized households:
 - **Financial barriers:** we provide a free tablet with internet access
 - **Learning barriers:** we offer a digital literacy training
- We test **two solutions of training:** 18 hours (T1) or 30 hours (T2)
 - To understand if digital skills can take-off with minimal support or require sustained training
- The program involves 859 low-income parents in Turin, Italy (“DigitAll program”)
- We focus on two types of outcomes:
 - **Digital inclusion:** technology adoption and digital skills
 - **Economic outcomes:** digital parenting and social inclusion

Project Timeline

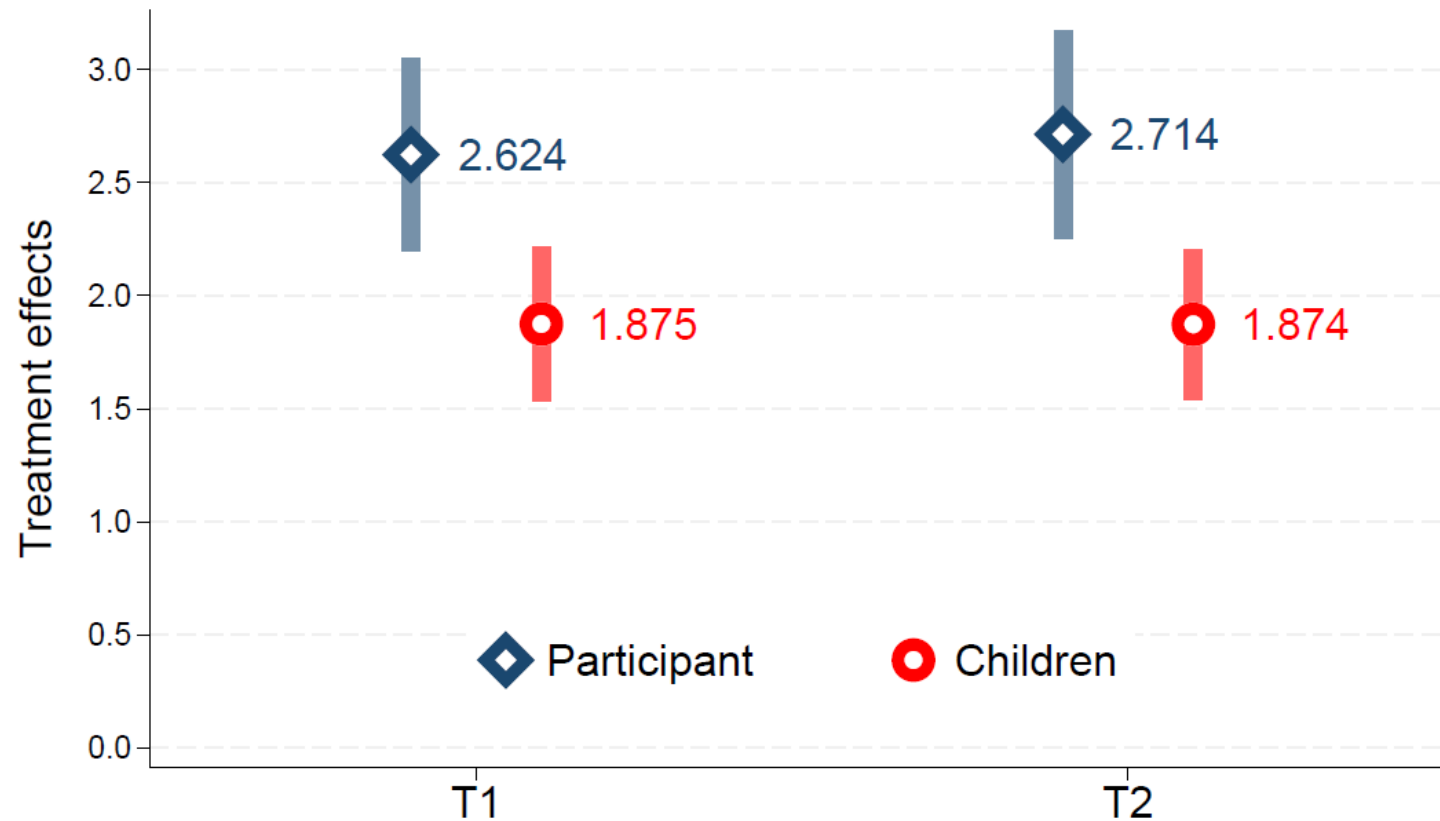


Technology adoption: increase in devices' ownership



➤ Control group: mean tablet = 0.26; mean N devices = 0.57 (s.d.=0.81)

Technology adoption: increase in device usage

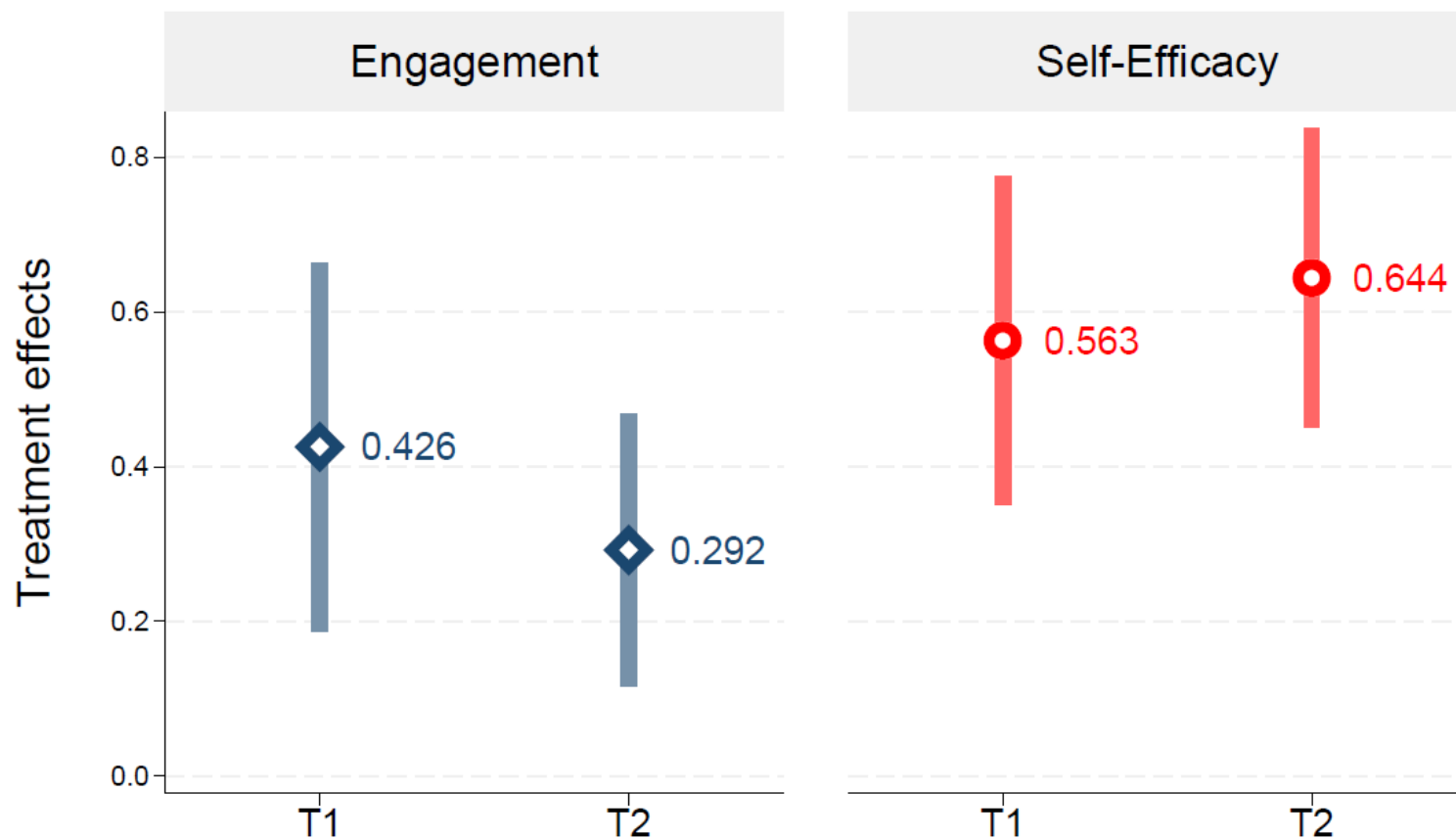


➤ Control group: mean parent = 1.27 (s.d. =2.09); mean children = 1.45 (s.d.=1.94)

Digital Skills Indicator: overcome the Italian average!

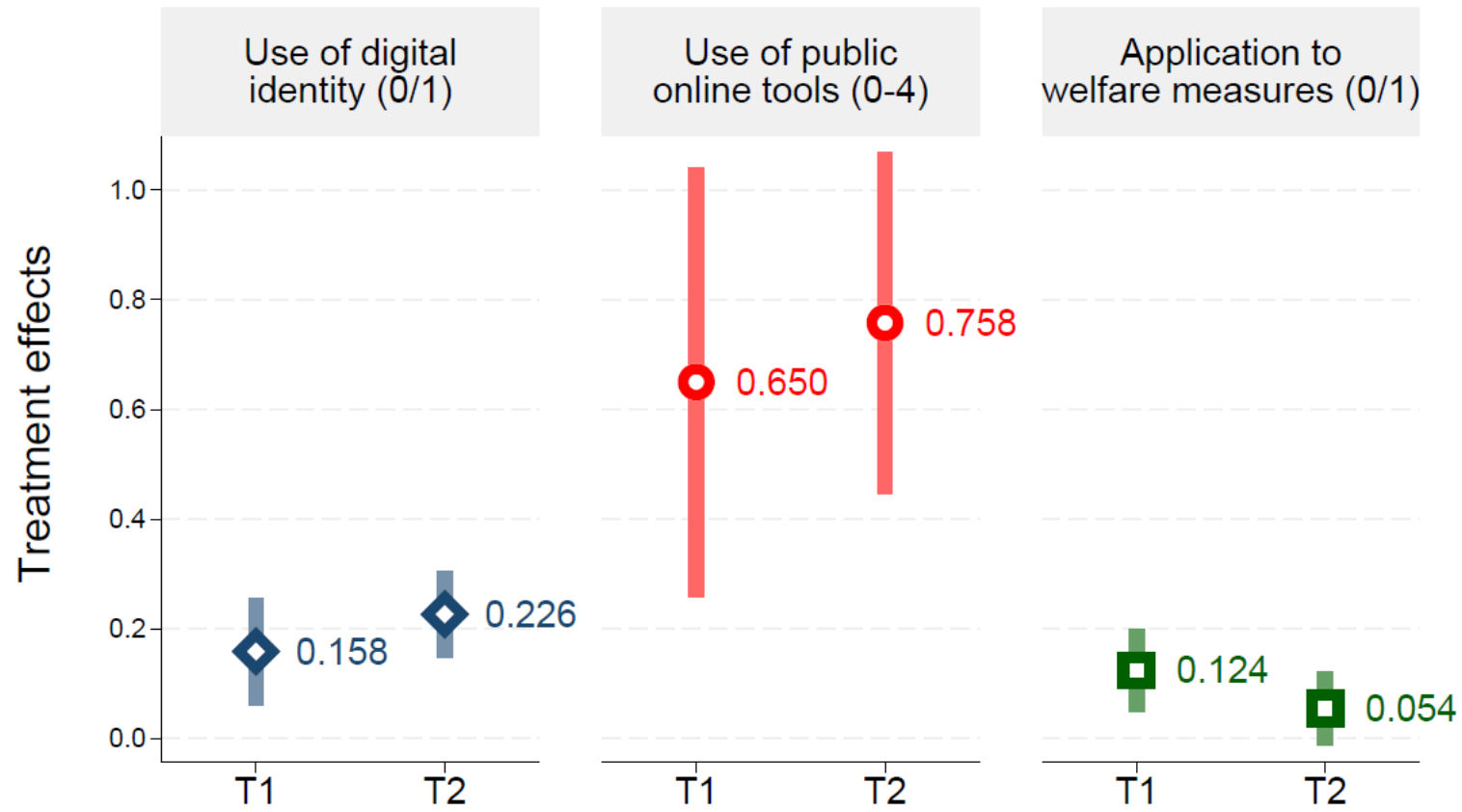
- Recall: 53% of Italian residents aged 16-74 have **at least basic skills**
- Our control group: 31% have at least basic skills
 - With a **short** digital literacy training (T1): 56%!
 - With a **long** digital literacy training (T2): 64%!

Digital Parenting: increase engagement & self-efficacy



➤ Indexes with mean 0 and s.d. 1 in the control group

Social inclusion: increase engagement with PA



➤ Control group: means are 0.36 (s.d. 0.48), 0.89 (s.d. 1.51), 0.14 (s.d. 0.35)

Conclusion

- We test two solutions to remove **both financial and learning barriers** and improve digital skills
- Three main results:
 - T1 & T2 participants reached the same digital skill level of Italian adults
 - Broader positive effects on **digital parenting** and **social inclusion**
 - Shorter training already delivers meaningful results
- **Testing alternatives matters:** results inform **cost-effective model** for closing digital gaps in marginalized populations



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