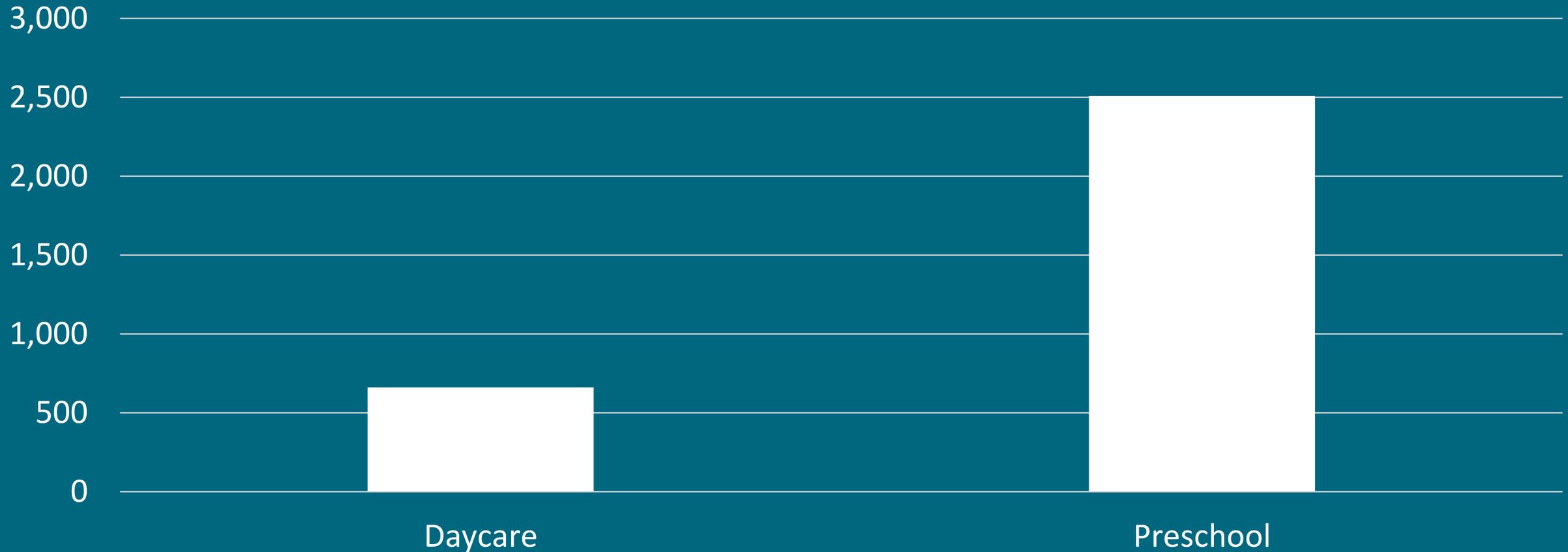


Public Childcare, Child Development, and Labor Market Outcomes

Orazio Attanasio, Ricardo Paes de Barros, Pedro Carneiro,
David K. Evans, Lycia Lima, Pedro Olinto, and Norbert Schady

Motivation: We know a lot more about preschool than daycare

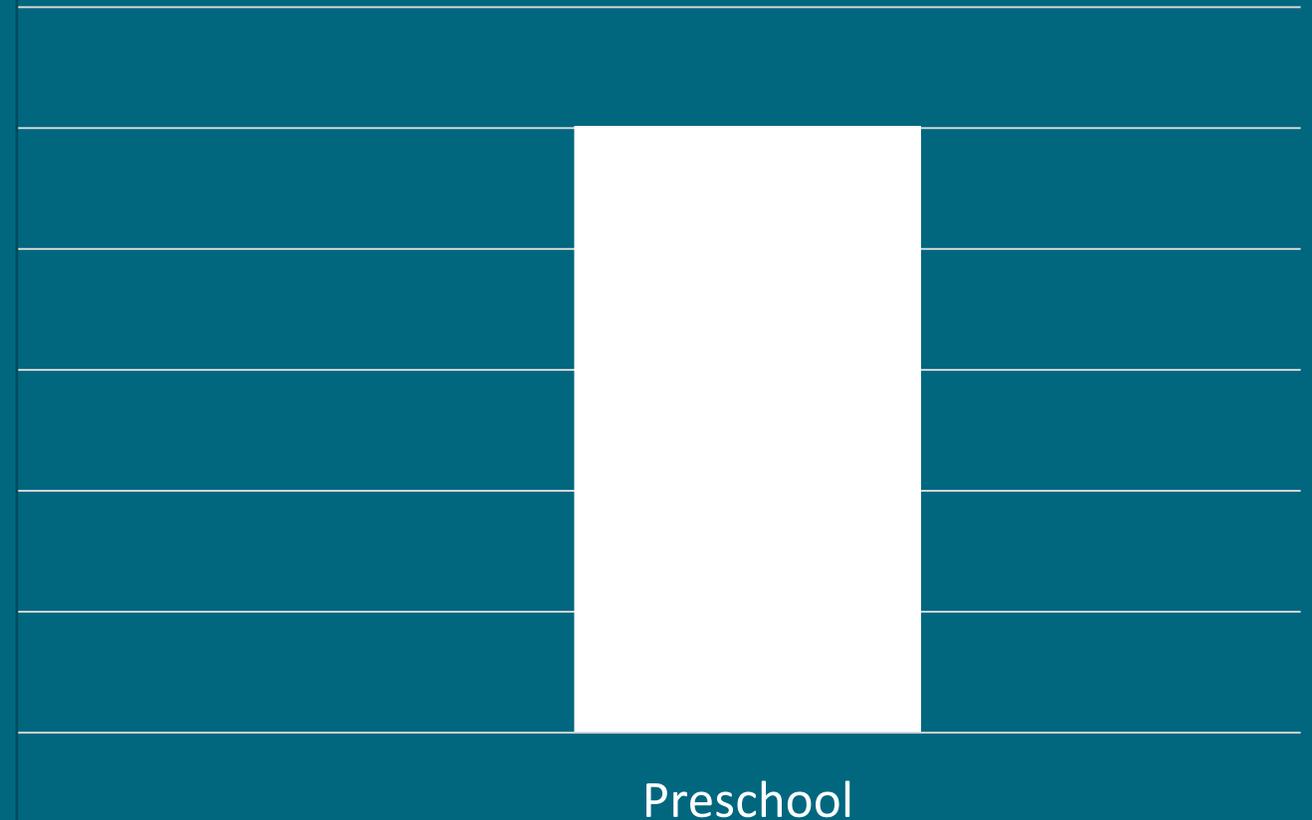
Number of studies on the impact of ...



Motivation: We know a lot more about preschool than daycare

The vast majority of this evidence is from high-income environments.

es on the impact of ...



Motivation: We know a lot more about preschool than daycare

The vast majority of this evidence is from high-income environments.

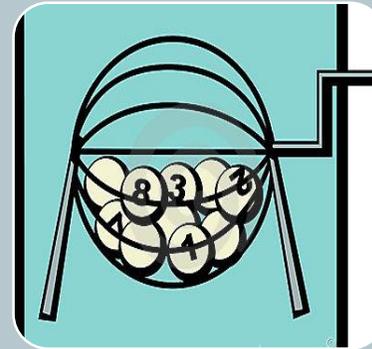
This study adds to just three others on center-based daycare in low- or middle-income countries.

Question

What is the impact of publicly provided daycare for children age 0-3

- on subsequent child development and
- on outcomes for the rest of the household?

This paper



Tests the impact of publicly provided daycare

over the course of seven years

using a lottery to assign children to daycare

in low-income neighborhoods of Rio de Janeiro, Brazil

The program



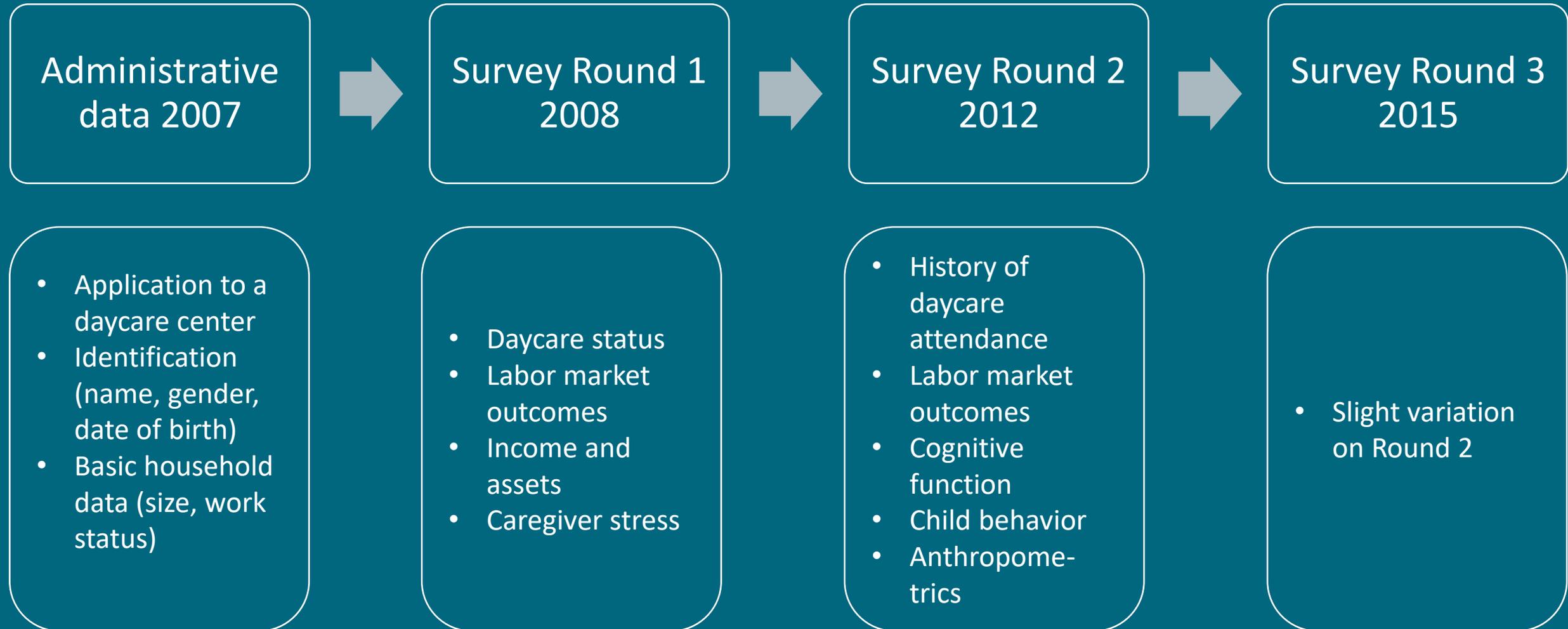
- Full-time daycare on weekdays: 7am-4:30pm
- Activities: physical play, storytelling, art, music, rest
- 5 meals or snacks a day

Empirical strategy

To daycare or not to daycare: A random assignment



Data



Data: Balance

Variable	Lost the lottery	Won the lottery		Variable	Lost the lottery	Won the lottery
Male	0.51 (0.50)	0.53 (0.49)		Prenatal care	0.95 (0.22)	0.94 (0.23)
Black	0.12 (0.33)	0.11 (0.31)		Planned birth	0.33 (0.47)	0.35 (0.48)
Birthweight (kilos)	3.19 (0.62)	3.21 (0.61)		Household per capita income	586.2 (1818.9)	634.5 (2841.3)
Birth height (centimeters)	49.26 (4.07)	49.29 (4.23)		Household size	4.55 (3.46)	4.64 (4.55)
Age of mother at birth	20.28 (4.90)	20.37 (4.97)		Age of caregiver	29.25 (9.77)	29.15 (9.16)
Breastfed to 6 months	0.77 (0.42)	0.75 (0.43)		Caregiver can read/write	0.97 (0.18)	0.98*** (0.13)

Data: Attrition

	Attempted	Total found	Attrition	Winners		Losers	
				N	%	N	%
Sample 2007 lottery	4,348	4,348	0	2,174	50%	2,174	50%
Sample 2008 survey	4,348	3,777	13%	1,912	51%	1,865	49%
Sample 2015 total	3,115	2,050	34%	1,059	52%	991	48%

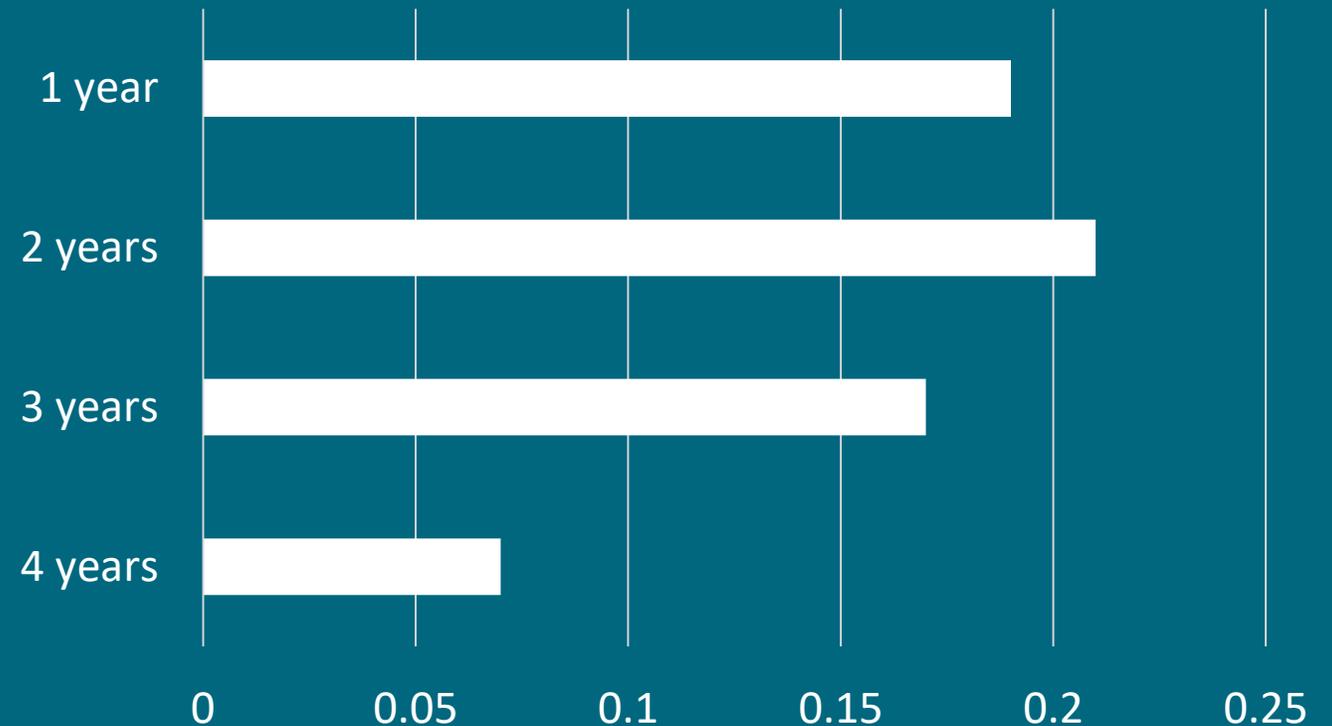
Attrition is higher for those who lost the lottery, but there is no systematic difference across observed characteristics.

Results

Does winning the daycare lottery increase access to daycare?

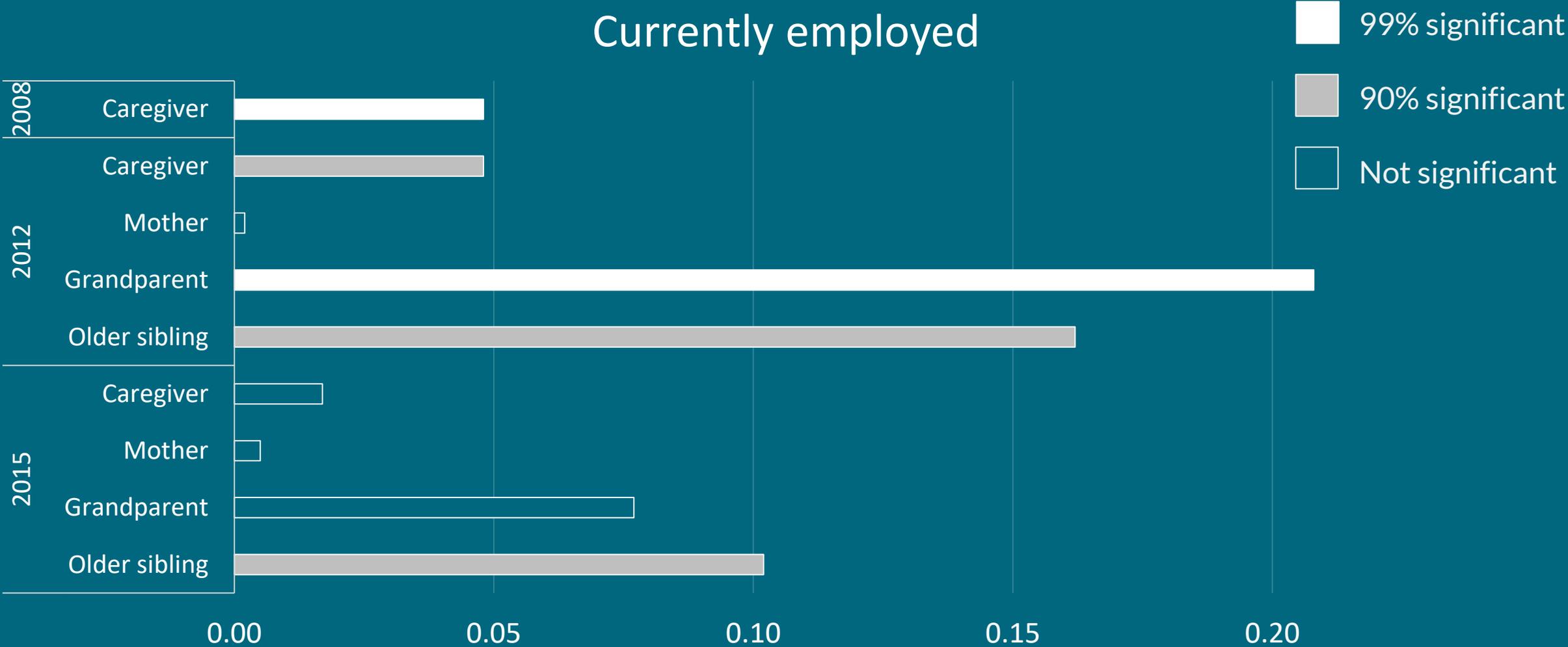
Lottery winners had 0.64 additional years in daycare.

Increased probability of at least x years in daycare for lottery winners



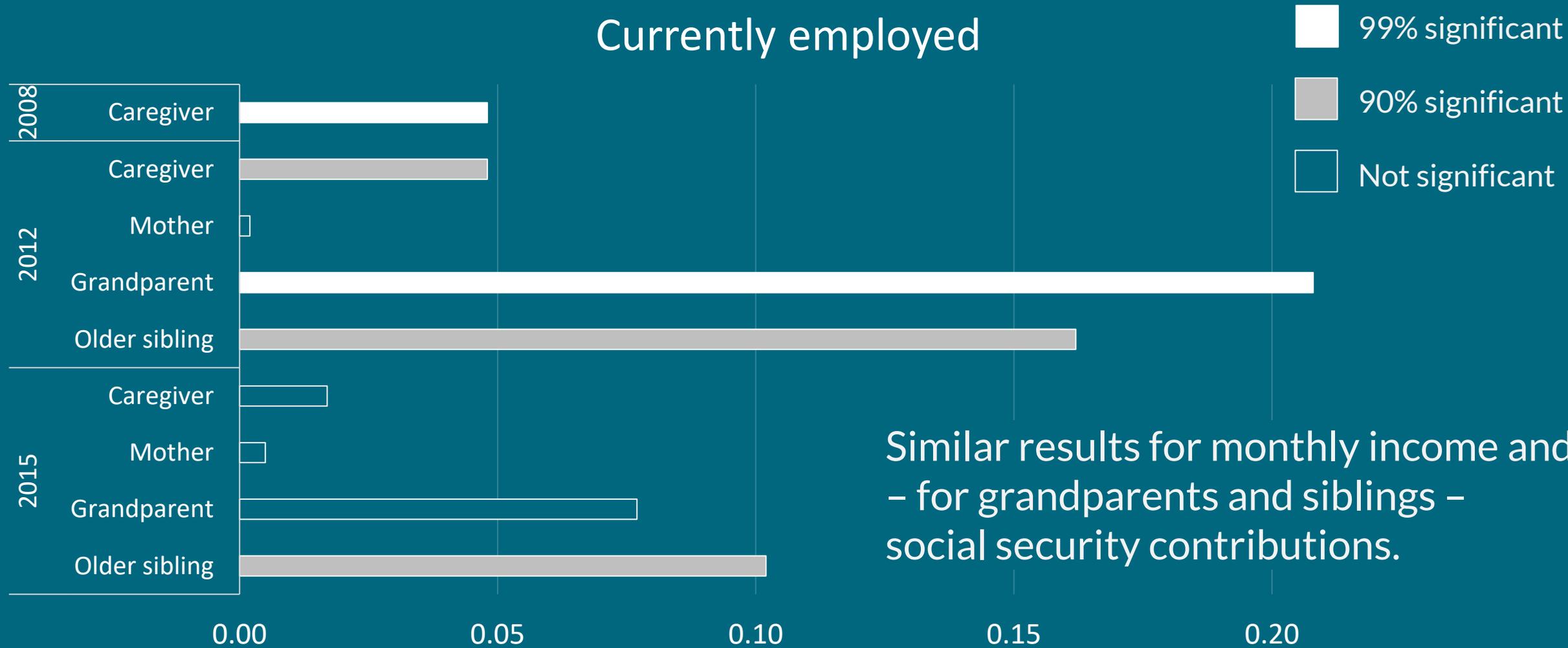
All these estimates are highly statistically significant.

How does winning the daycare lottery impact households?



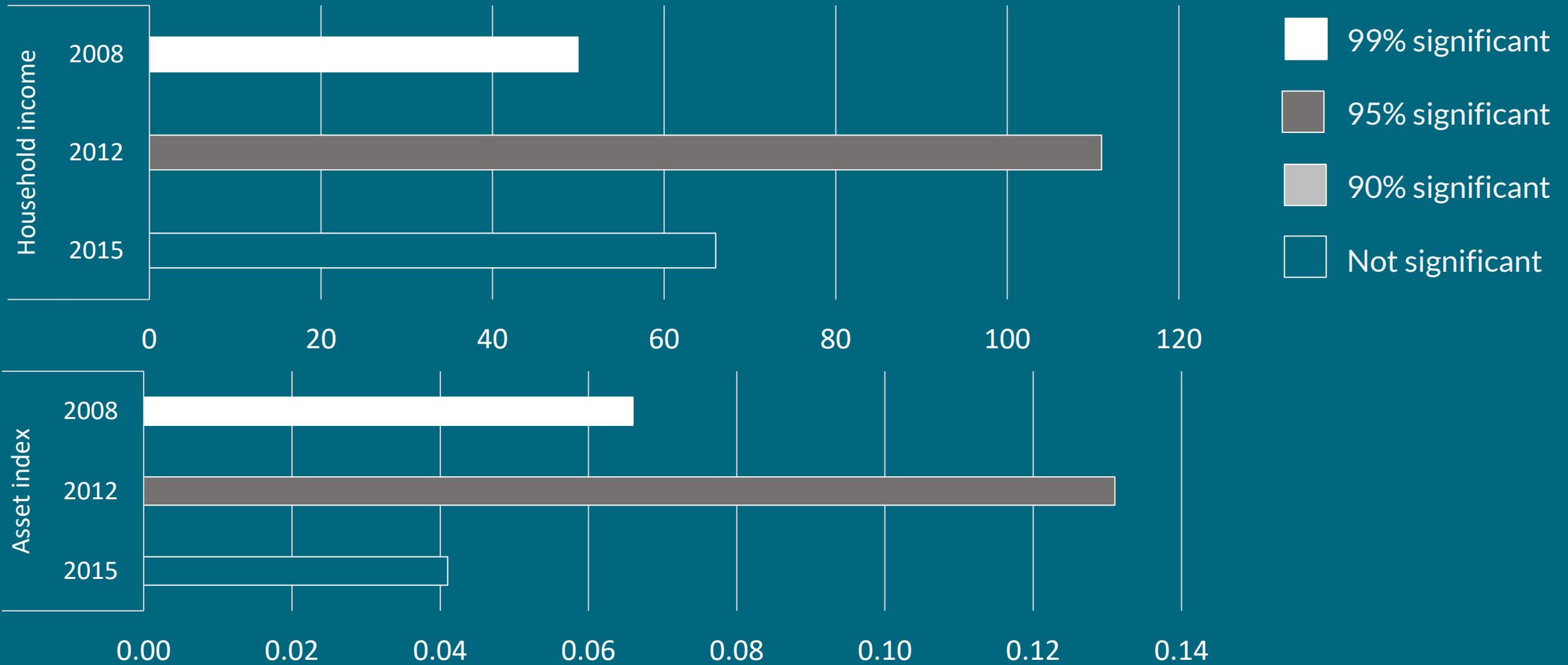
How does winning the daycare lottery impact households?

Labor force participation



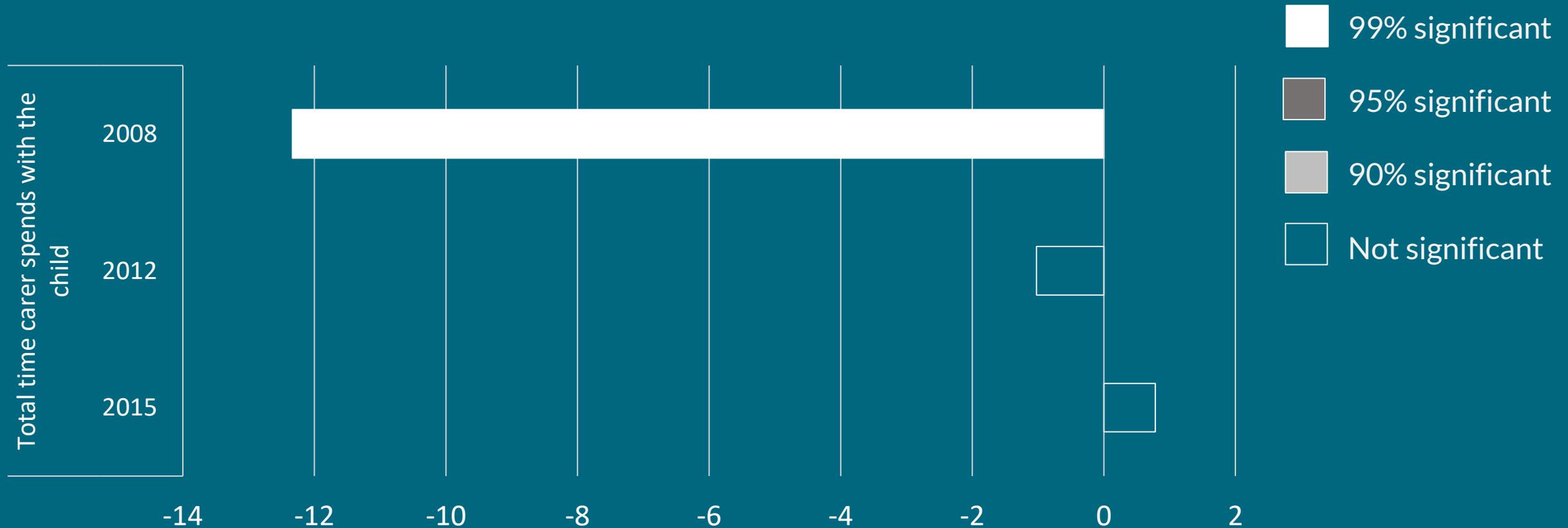
How does winning the daycare lottery impact households?

Assets and income



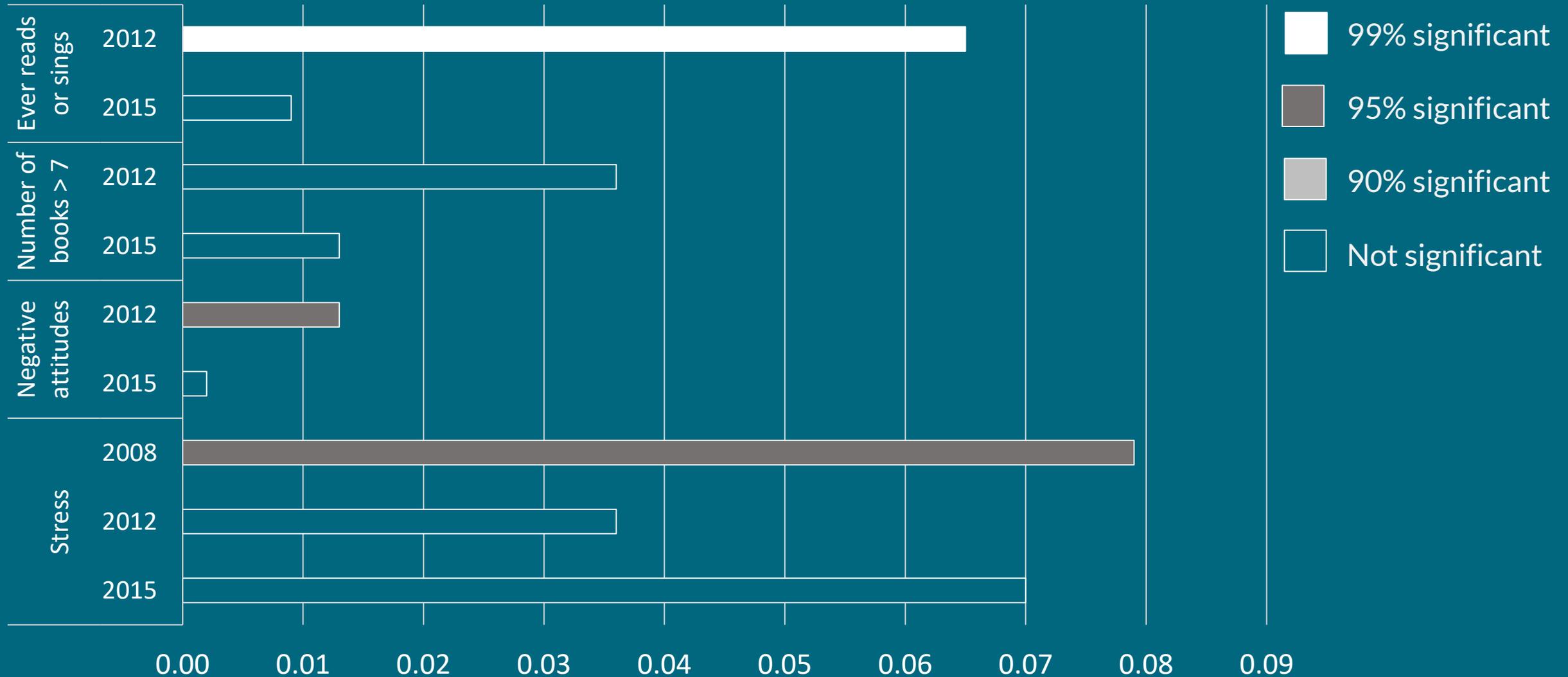
How does winning the daycare lottery impact households?

Home environment



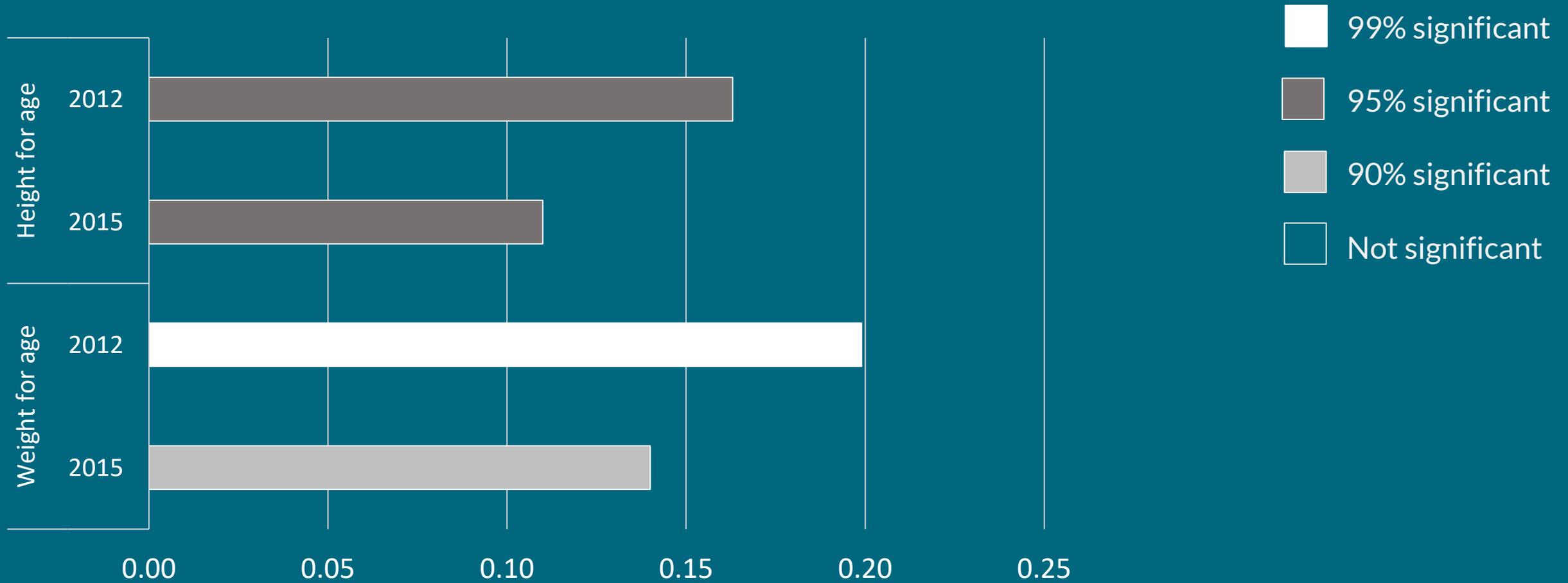
How does winning the daycare lottery impact households?

Home environment



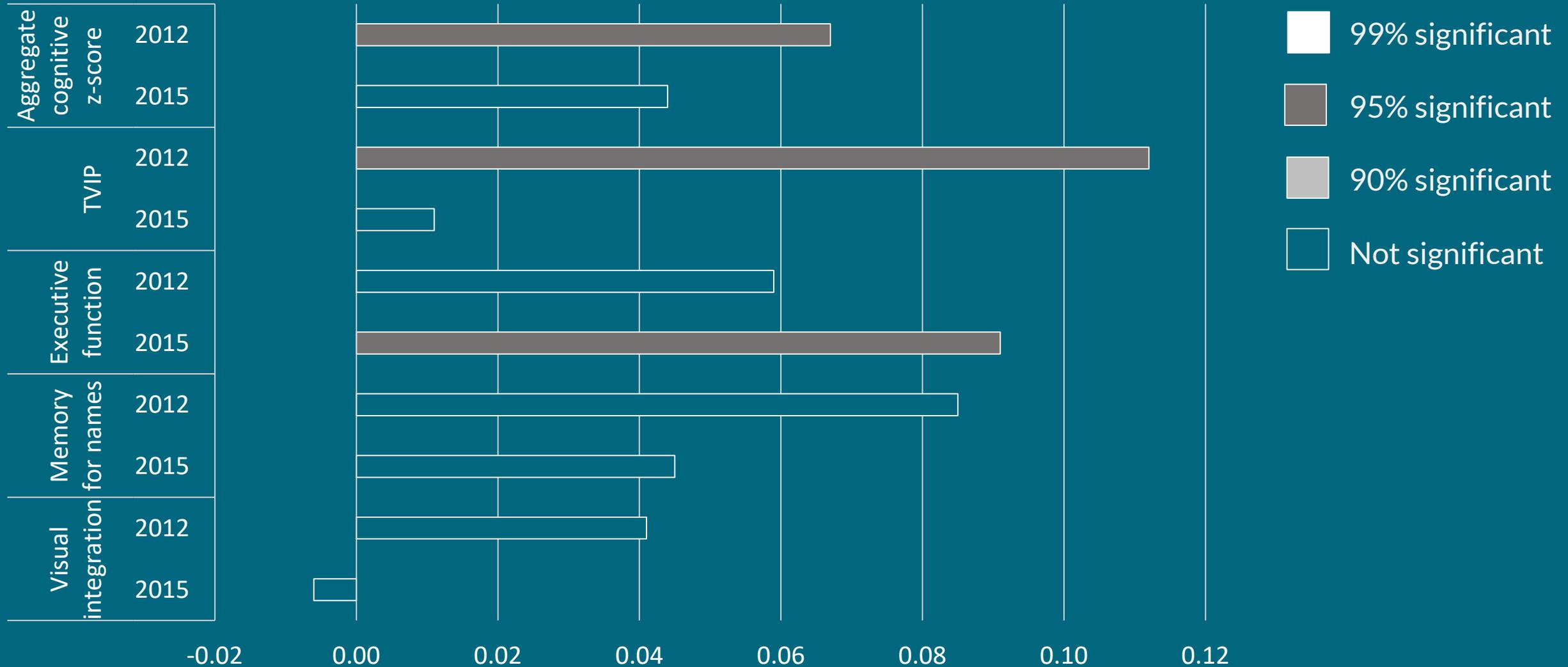
How does winning the daycare lottery impact children?

Anthropometrics



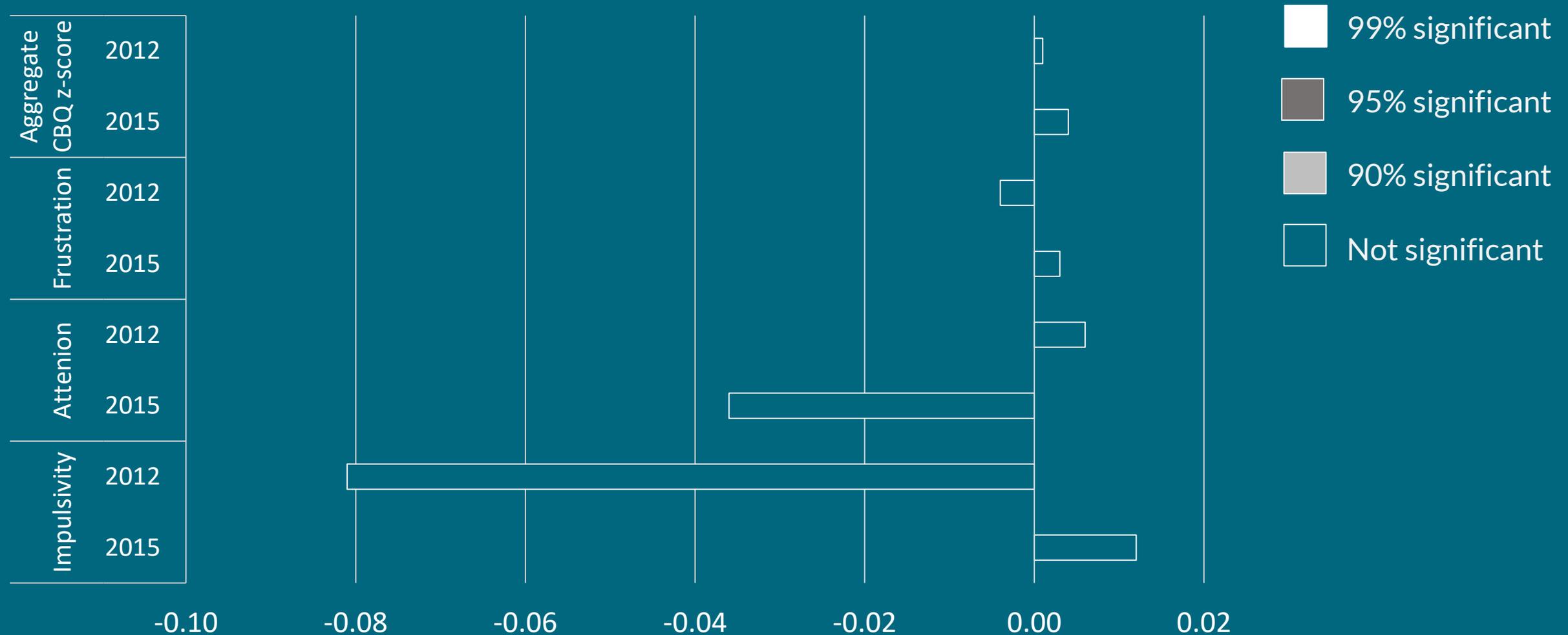
How does winning the daycare lottery impact children?

Cognitive function

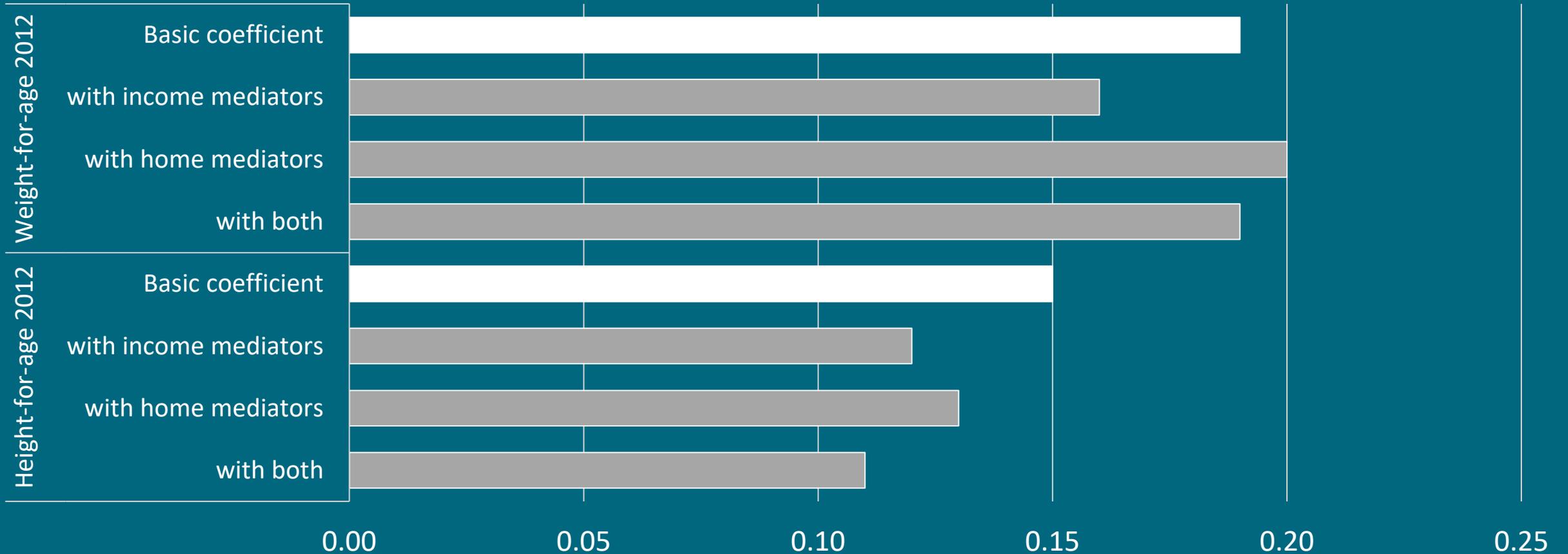


How does winning the daycare lottery impact children?

Child behavior



Mediation analysis: What drives the anthropometrics?



Summary of findings

Impacts for children

- Anthropometrics ↗
 - Height-for-age ↗
 - Weight-for-age ↗
- Child cognitive development →
 - Receptive vocabulary ↗
 - Perceptual reasoning ↗
 - Not in several other measures
- Child behavior →

Impacts for households

- Labor force participation ↗
 - Current employment and income for main caregiver, grandparents, and older siblings ↗
- Income ↗
 - Initial rise, then catch-up
- Home environment →
 - Time with caregiver ↘ initially
 - Stress of caregiver ↘
 - Singing and reading ↗
 - Range of other outcomes →