

Clearing the Road to Opportunity

How autonomous vehicle transportation relieves youth transportation barriers

The Phoenix AV Youth Mobility Pilot tested one specific question: Can providing AV transportation safely reduce a well-documented barrier to youth opportunity?

In summer 2026, Legacy Institute partnered with Boys & Girls Clubs of the Valley (BGCAZ) in Phoenix, Arizona to answer that question. BGCAZ invited 30 of its teen interns, ages 14 to 17, to participate in a randomized trial. Fifteen received transportation scholarships and rode to and from their internships using Waymo teen accounts for the eight weeks of the program. The other fifteen arranged their own transportation, as BGCAZ interns normally do. Youth and their caregivers completed surveys at the start and the end of the summer. By the end, the two groups had diverged sharply on transportation stress and on family burden, and across 539 rides there were no safety incidents.

This was a small trial by design, and it opens the door to larger tests, and to the policy and funding decisions that will determine whether transportation keeps deciding which young people reach out-of-school programs, education, and work.

THE HEADLINE FINDING

86% → 43%

Share of AV-riding youth who said they felt stressed about getting to their internship, start of summer versus end. Among youth without Waymo access, the figure did not move.

539

RIDES DELIVERED

0

SAFETY INCIDENTS

\$593

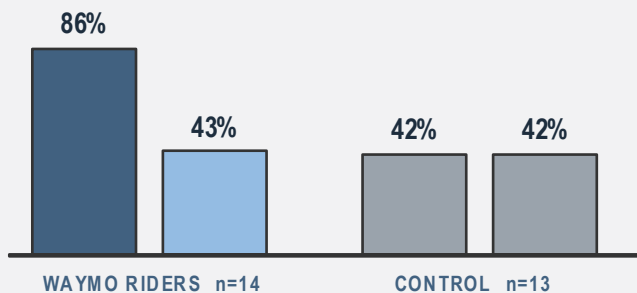
COST PER RIDER

9.6 min

MEAN WAIT

FINDING 1 · YOUTH

AV transport cut stress about getting to work in half



Left bar in each pair is baseline, right bar is endline. A 43-point drop among riders and no movement in the control group.

Riders: -0.43 scale points, $p=.008$, $d=0.83$ (large). Group difference: 0.43 points, $p=.031$, and a 43-point gap in binary change.

YOUTH, TREATMENT GROUP

FINDING 2 · PARENTS AND CAREGIVERS

Without AV transport, the family burden grew over the summer

"Getting my teen to work is a challenge", control families



"I worry about my teen traveling independently", control families



Among Waymo families both measures held flat or fell. Bars show control families only ($n=13$); Waymo families $n=14$.

Control: +0.38 points, $p=.018$, $d=0.88$. Waymo: -0.21 points. Group difference: 0.60 points, $p=.018$, survives BH-FDR correction. Composite burden scale ($\alpha=.814$): control +0.233, $p=.007$. Worry difference $p=.023$, binary analysis.

CAREGIVER, TREATMENT GROUP, ENDLINE

"Yes, the Waymo got me to my internship on time every day. If I didn't have Waymo, I probably couldn't work."

"I didn't have to worry about how he got there."

FINDING 3 · SAFETY AND RELIABILITY

539 rides. Zero safety incidents.

Waymo delivered every ride the program required, with a corrected mean wait of 9.6 minutes and no safety incidents of any kind. Caregiver trust in the service started high and stayed high. Youth described riding alone in the vehicle as calming rather than frightening, and several said the absence of a driver was the reason it felt safe.

"It wasn't much different than in a normal car, knowing that it wouldn't get distracted with loud music or anything made it feel more safe."

YOUTH, TREATMENT GROUP

What funders and policymakers can take from this

FIVE IMPLICATIONS

- 01 Transportation is a precondition, not a logistics line item.** The program only works if youth show up, and they only show up if they can get there.
- 02 Caregiver burden is the hidden cost.** As programs move to off-site placements, the daily logistics fall on working families: rising challenge, rising worry, lost shifts.
- 03 The technology is operational today.** Zero incidents over 539 rides, and caregivers who trusted the service at the start still trusted it at the end.
- 04 The cost is modest against the problem.** Roughly \$593 per rider for a full summer, versus families paying for gas, rideshare, or sacrificed work shifts.
- 05 This adds causal evidence where the field has had little.** Transportation-equity interventions for youth are understudied in community program settings. Replication at larger scale would establish how durable these effects are.

WHAT COMES NEXT

This small-scale pilot opens the door to more questions: whether these promising results hold across a school year rather than a summer, how to fund youth transportation sustainably through policy rather than pilot grants, what AV rides for young people at scale would mean for the rideshare workforce, and whether the effect holds in the neighborhoods that today's AV service maps leave out. That overlap between service area, home, and program site was the binding constraint on this study. Legacy Institute will continue to pursue these questions and welcomes partners, both to build with and to learn from.

For organizations already operating where autonomous service exists, the findings are usable now: transportation is a budget line that buys attendance, and it may cost less than program leaders assume. For policymakers and funders, the more urgent question is access. Service maps are drawn in the permits, partnerships, and public agreements that cities negotiate as autonomous vehicles arrive city by city, and evidence that AV access measurably changes outcomes for low-income youth gives cities a reason to ask that those maps include low-income neighborhoods from the start. **Low-income young people are usually last in line for new transportation technology. This pilot was built to test whether they can be first.**

STUDY DESIGN

Randomized control trial. Treatment $n=15$ received AV (Waymo) rides to and from internship sites; control $n=15$ arranged their own transportation. Parents and caregivers were enrolled as a parallel arm. Teen accounts link a 14 to 17 year old's rides to a parent or guardian's account, which receives a receipt after every trip. Thirty youth ages 14–17, mean age 15.7, predominantly Hispanic and Latino (43%), Black and African American (17%), White (23%), and multiracial or other. Groups comparable on all youth demographics at baseline. Surveys at baseline (May–June 2026) and endline (July–August 2026); matched analysis of 14 treatment and 13 control youth and their caregivers. 38 Likert items across six domains, paired t-tests with BH–FDR correction and McNemar's exact test for binary change.

LIMITATIONS WITH THIS EVIDENCE

The primary stress finding is robust under paired t-test ($p=.008$) and binary analysis ($p=.031$). Under ANCOVA, which adjusts for baseline differences, it approaches but does not reach conventional significance ($p=.067$), reported here as a conservative check. Three parent items showed significant baseline differences, with treatment caregivers reporting higher burden at the outset, a chance imbalance of the kind expected at this sample size. The sample is small ($n=30$). Wellbeing and professional confidence items were at ceiling at baseline, leaving no statistical room to move, and no skills measure moved significantly in either arm. Long-term outcomes were not directly measured, but are identified in a logic model.

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FULL DATA TABLES IN APPENDIX B OF THE TECHNICAL REPORT