Extend evening bus service

DECISION

Which service design should a transit authority take into a local rider pilot?

BASELINE

A transit authority would extend Route 12 to midnight on weekdays. Evening buses would run every 30 minutes. To fund this, afternoon service would go from every 20 minutes to every 30 minutes. Fares would stay the same. The change would run for six months.

ALTERNATIVE

A transit authority would extend Route 12 to midnight on weekdays. Evening buses would run every 30 minutes and be scheduled to meet trains. The current afternoon frequency and fares would stay the same. The authority would publish missed connections, wait times and operating costs each month of the six-month trial.

AUDIENCE

US adults

ELIGIBLE POPULATION AND COVERAGE

261,404,664 adults · 12 demographic cells · 0 human interviews

METHOD

Exploratory Vertex questionnaire pretest. Cell distributions are weighted by the fitted Census population counts.

LARGEST MODELED DIFFERENCE

question: How much would you support this proposal?

option: Support

alternative: Timed transfers and preserved afternoon service

points: 19.3

ANSWER DISTRIBUTIONS

- Baseline · How much would you support this proposal? - Support 46%, Oppose 33.8%, Unsure 20.2%

- Baseline · Which detail would most affect whether the trial works for you? - Evening hours 41.3%, Afternoon wait 28.7%, Train connections 10%, Cost to the authority 10.6%, Unsure 9.4%

- Baseline · How clear is the information you would need to plan an ordinary weekday trip? - Clear 53.2%, Partly clear 28.5%, Unclear 10%, I do not have enough information 8.3%

- Timed transfers and preserved afternoon service · How much would you support this proposal? - Support 65.3%, Oppose 18.5%, Unsure 16.2%

- Timed transfers and preserved afternoon service · Which detail would most affect whether the trial works for you? - Evening hours 36.9%, Afternoon wait 16.9%, Train connections 27%, Cost to the authority 10%, Unsure 9.2%

- Timed transfers and preserved afternoon service · How clear is the information you would need to plan an ordinary weekday trip? - Clear 56.3%, Partly clear 26.6%, Unclear 10%, I do not have enough information 7.1%

QUESTIONS TO TAKE INTO FIELDWORK

- Baseline · The proposal requires trading off faster afternoon frequency for later evening service, which may obscure whether respondents value evening access more than afternoon convenience. What specific time of day do you use transit the most, and how does reducing afternoon frequency affect your routine?

- Baseline · The trade-off between reduced afternoon frequency and extended evening hours involves balancing different community needs without clear data on rider usage patterns. How do you weigh the benefit of midnight service against the inconvenience of longer afternoon waits?

- Timed transfers and preserved afternoon service · The proposal outlines operating costs and a trial period, but does not specify how the extension will be funded long-term or what trade-offs might occur if reserves are used. What spending or service would you expect to change in exchange?

- Timed transfers and preserved afternoon service · Focusing only on evening hours and train connections might overlook whether riders have reliable physical access to the stations during late-night hours. Which backup channel would make enrollment realistic?

SOURCE RECEIPTS

- us-stratified-pretest-v1

- gemini-3.5-flash-lite

- CiviSphere US 1.0.0

- Population release 7cb396b43c6d98dce2155655f21b5872b3de0aba5984369742f4344b4a036abe

- Fitted Census artifact f4b2d04963c928546592a599b0a254daefb0953887d302a053c1af57fb9cdd44

- https://windtunnel.tacitus.me/audiences/us

FIELDWORK PLAN

Recruit late-shift riders, daytime riders, and riders who need accessible transfers. Measure trips completed, missed connections and operating cost on the corridor.

WORKED STUDY RECEIPT

version: 1.0.0

recipe: us-stratified-pretest-v1

model: gemini-3.5-flash-lite

temperature: 0.2

thinking Level: LOW

inputs Sha256: 4beacae21cafa9bc39b9a87d4b29fafee3657f81ea1c15d63f270d1757b6a9f9

input Hash: 32737fd832da949510a06bd512a11c7d274e0cec1f4e27b5e86b69a4af915932

output Sha256: 7f1fbffe45f03aa2254710c816b0eb60f93780aca98b35ea2e544d2db6de6a04

result Sha256: e535de2e0f596d2a24f17217544407af38e53a9d11f60ca1402a09bf4fa7d456

human Interviews: 0