

To: Alphaville City Council
From: Otto Orange, Pips, Pulp and Peel Consulting
Date: July 3, 2023
Subject: Proposed Tax on Ride Sharing Services
AI Use: No AI was used in this memo

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Proposed Policy:

A new \$2 tax on rides provided by ride sharing services was recently proposed as a means of raising revenue for the City to pay for road maintenance and other public infrastructure. No such tax is in place at the moment. This memo summarizes the likely impacts of adopting the tax on the users of ride sharing services, on drivers, and on the City's budget.

Commented [PW2]: Brief overview of policy and current conditions

The Current State of the Ride Sharing Market:

A survey recently commissioned by the City Council found that rides currently cost \$20 and that Alphaville riders fall into two demographic groups differentiated by income. The table below shows the survey's main results. Individual high income riders take many more rides per capita (50 vs 30) but there are far more low income riders, so overall they account for more total rides (6 million vs 5 million).

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Table 1: Results of Alphaville Ridership Survey

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	Demographic Group	
	High Income	Low Income
Number of riders	100,000	200,000
Per capita income in dollars	\$80,000	\$27,000
Per capita rides per year	50	30

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Outcomes from a Similar Tax in Betatown:

An identical tax was recently adopted in Betatown. In terms of income, demographic characteristics, and commuting behavior, Betatown ride sharing users are fairly similar to those in Alphaville, so the experience of Betatown is likely to be a good guide about what to expect from an Alphaville tax.

Commented [PW6]: Source of data on policy responsiveness

After the tax was introduced, the cost of a ride in Betatown rose to \$22, an increase of 10%. Both high and low income riders reduced the number of rides they purchased. High income riders were fairly sensitive to the tax and reduced their use of ride sharing by 20%. Low income riders, in contrast, were less sensitive and only reduced their use of ride sharing by 10%.

Commented [PW7]: Elasticities without jargon

Expected Impact on Alphaville Riders:

Assuming that the reaction of Alphaville riders is similar to those in Betatown, the Alphaville tax would cause high income riders to take 10 fewer trips per year and low income riders to take 3 fewer. The follow-on impacts on the two groups are shown in the table below.

Commented [PW8]: Explanation linking results to underlying data

Table 2: Expected Impacts on Riders of an Alphaville Ride Sharing Tax

	Demographic Group	
	High Income	Low Income
Change in per capita rides per year	-10	-3
New per capita rides per year	40	27
Tax payments per capita per year	\$80	\$54
Effective tax rate (taxes over income)	0.1%	0.2%
Lost benefits on foregone rides	\$10	\$3

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High income households would pay \$80 a year in ride sharing taxes, or 0.1% of their income, while low income households would pay \$54 a year, or 0.2% of their income. Thus, the tax would be regressive. However, the absolute amounts paid in tax are relatively low for both groups, so both percentages are small.

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In addition to paying higher prices, both groups of riders lose benefits they currently receive from the rides they would no longer take. The value of those rides can be inferred from the fact that households take them when the price is \$20 but not when it is \$22. Thus, the value of those rides is at least \$20 but not more than \$22. Taking the average value to be \$21, the net loss on each foregone ride, after accounting for the \$20 price, is \$1. Thus, as shown in the table above, high income and low income households lose an additional \$10 and \$3, respectively, beyond what they pay in higher prices.

Commented [PW11]: Explains lost CS precisely but without jargon

Impacts on Ride Share Drivers:

The total number of ride share rides will drop from 11 million to 9.4 million per year, a reduction of 14.5%. Data on drivers in Betatown is not available but part of the reduction in Alphaville rides will occur as a drop in the average number of rides per driver and part as a decline in the number of drivers.

Fiscal Impact on the City:

The tax will bring in considerable revenue: a total of \$18.8 million per year. Of that, \$8 million, or 43%, will come from high income households (33% of ride sharing users) while the remaining \$10.8 million, or 57%, will come from low income households (67% of ride sharing users). The total cost of the policy to riders is \$20.4 million: \$18.8 million in taxes plus \$1.6 million in lost benefits on foregone rides. Thus, the overall cost to riders per dollar of City revenue is \$1.085, which is near the low end of the range for common taxes in the US.

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Summary and Caveats:

Overall, if riders in Alphaville behave similarly to those in Betatown, the proposed ride share tax is likely to be successful at raising significant funds, and it will do so without excessive costs to the public. However, the tax will be slightly regressive and, due to the large number of low income ride share users, more than half of the revenue will be raised from low income households.