Fare Capping Policies in the United States: Current Practices and Potential Rider Benefits

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Outline

- Background
- Study Objective
- Methodology
- Results Part 1 – 4
- Conclusions
- Areas for Future Research

Background

- Fare Capping – a fare policy in which a transit agency caps the maximum fare a rider can pay in a given period.
- Factors motivating implementation:
  - Maturation of technology.
  - Equity for vulnerable groups.
  - Potential to simplify fare.

Study Objectives

1

Provide an overview of fare capping policies in the US.

2

Estimate potential discount.

3

Discuss how fare capping may be used to increase ridership post-COVID.

4

Discuss how fare capping may be used to provide extra savings to vulnerable groups.

Methodology

Multiple case study of fare capping at the top 101 US transit agencies.

- 2019 unlinked passenger trip dataset from the National Transit Database.

Categorized policies according to period.

Estimated potential rider discount.

Discussed “nested” and “disproportionally reduced” fare capping policies.

Results Part 1: Overview

- At least 21 major US agencies have fare capping as of September 2021.
  - Daily – 20
  - Weekly – 4
  - Monthly – 14
  - Other – 3

Transit Agency	Location	Daily	Monthly	Other
Alameda-Contra Costa Transit District	Oakland, CA	X	X	7-day
St. Louis Metro Transit	St. Louis, MO	X	-	-
Capital District Transportation Authority	Albany, NY	X	-	-
Central Ohio Transit Authority	Columbus, OH	X	X	7-day
Champaign-Urbana Mass Transit District	Urbana, IL	-	X	Annual
City and County of Honolulu	Honolulu, HI	X	X	Annual
CTtransit	Hartford-New Haven, CT	X	X	3-, 5-, 7- day
County of Miami-Dade	Miami, FL	X	-	-
Dallas Area Rapid Transit	Dallas, TX	X	X	-
Greater Dayton Regional Transit Authority	Dayton, OH	X	X	-
Hillsborough Area Regional Transit Authority	Tampa, FL	X	X	-
IndyGo	Indianapolis, IN	X	-	7-day
Interurban Transit Partnership	Grand Rapids, MI	X	X	-
Houston Metro	Houston, TX	X	-	-
Pinellas Suncoast Transit Authority	St. Petersburg, FL	X	X	-
Regional Transit Service - Monroe County	Rochester, NY	X	X	-
Rhode Island Public Transit Authority	Providence, RI	X	X	-
Sacramento Regional Transit Authority	Sacramento, CA	X	-	-
San Diego Metropolitan Transit System	San Diego, CA	X	X	-
Santa Clara Valley Transportation Authority	San Jose, CA	X	-	-
TriMet	Portland, OR	X	X	-

Results Part 1: Overview

- Number of single fare trips to reach a cap:
  - Daily: 2-4
  - Weekly: 9-13
  - Monthly: 20-56

Transit Agency	Single Fare ($)	Trips for Daily Cap	Trips for Weekly Cap	Trips for Monthly Cap
Alameda-Contra Costa Transit District(	2.25	3	10	38
St. Louis Metro Transit	2.00	4	-	-
Capital District Transportation Authority	1.3	3	-	-
Central Ohio Transit Authority	2	3	13	31
Champaign-Urbana Mass Transit District	1	-	-	20
City and County of Honolulu	2.75	2	-	26
CTtransit	1.75	2	11	36
County of Miami - Dade	2.25	3	-	-
Dallas Area Rapid Transit	2.5	3	-	39
Greater Dayton Regional Transit Authority	1.50	2	-	20
Hillsborough Area Regional Transit Authority	2	2	-	33
IndyGo	1.75	3	9	-
Interurban Transit Partnership	1.75	2	-	27
Houston Metro	1.25	3	-	-
Pinellas Suncoast Transit Authority	2.25	3	-	32
Regional Transit Service, Monroe County	1	3	-	56
Rhode Island Public Transit Authority	2	3	-	35
Sacramento Regional Transit Authority	2.5	3	-	-
San Diego Metropolitan Transit System	2.5	3	-	29
Santa Clara Valley Transportation Authority	2.5	3	-	36
TriMet	2.5	2	-	40

Results Part 2: Discount

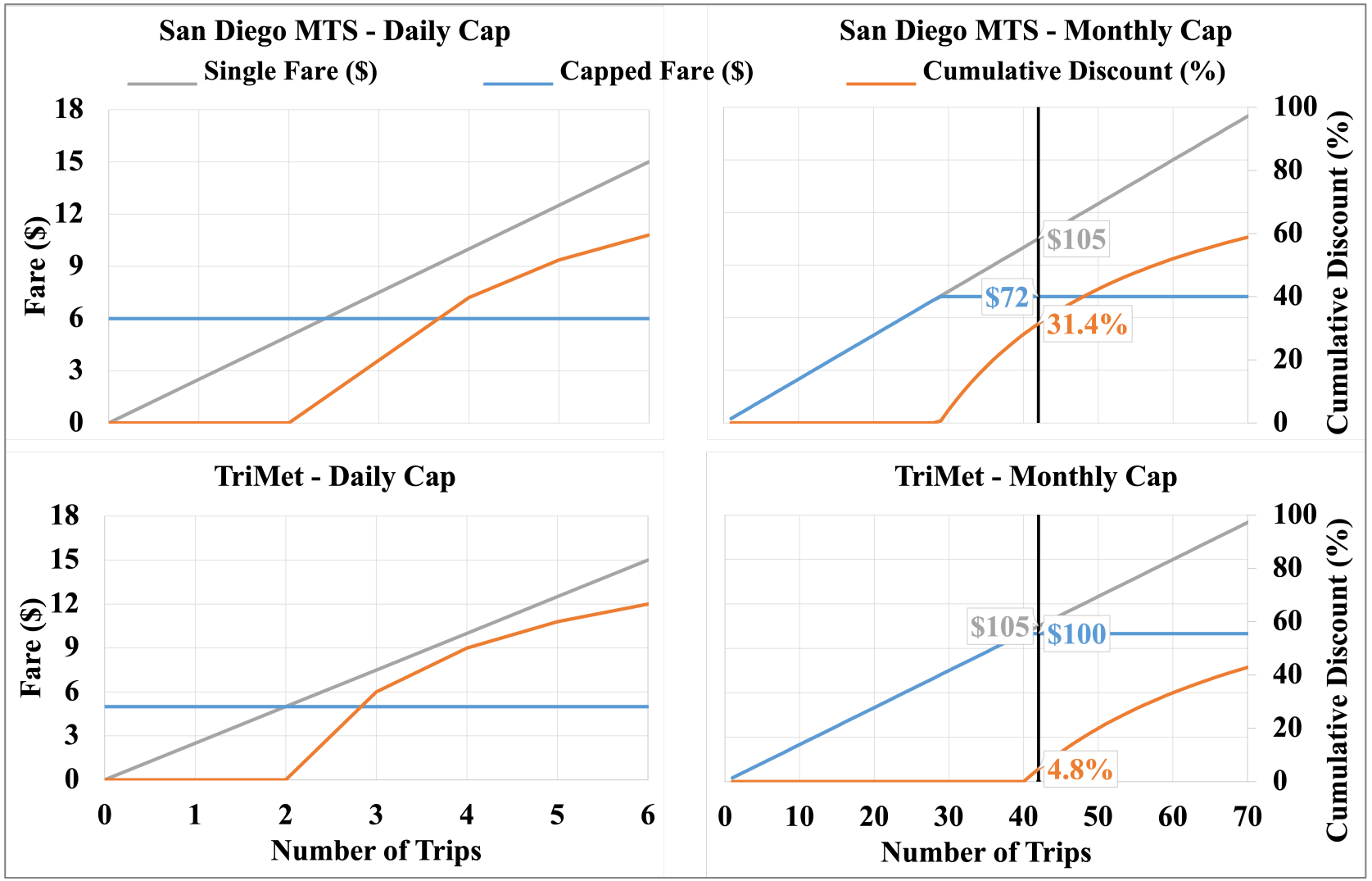
- 15 of 20 (75%) of daily fare capping policies offer a rider discount by the 3rd trip.
- 12 of 14 (86%) of monthly fare capping policies offer a rider discount by the 40th trip.
- Monthly discount at the 42nd trip ranged from 0% to 52%.

$$D = \begin{cases} 0 & if\ N * F \leq C \\ \dfrac{(N * F) - C}{N * F} * 100 & if\ N * F > C \end{cases}$$

D = percent discount
N = number of trips
F = single fare
C = fare cap

Results Part 2: Discount

- San Diego MTS
  - 3 trips to reach daily cap.
  - 29 trips to reach monthly cap.
- TriMet
  - 2 trips to reach daily cap.
  - 40 trips to reach monthly cap.



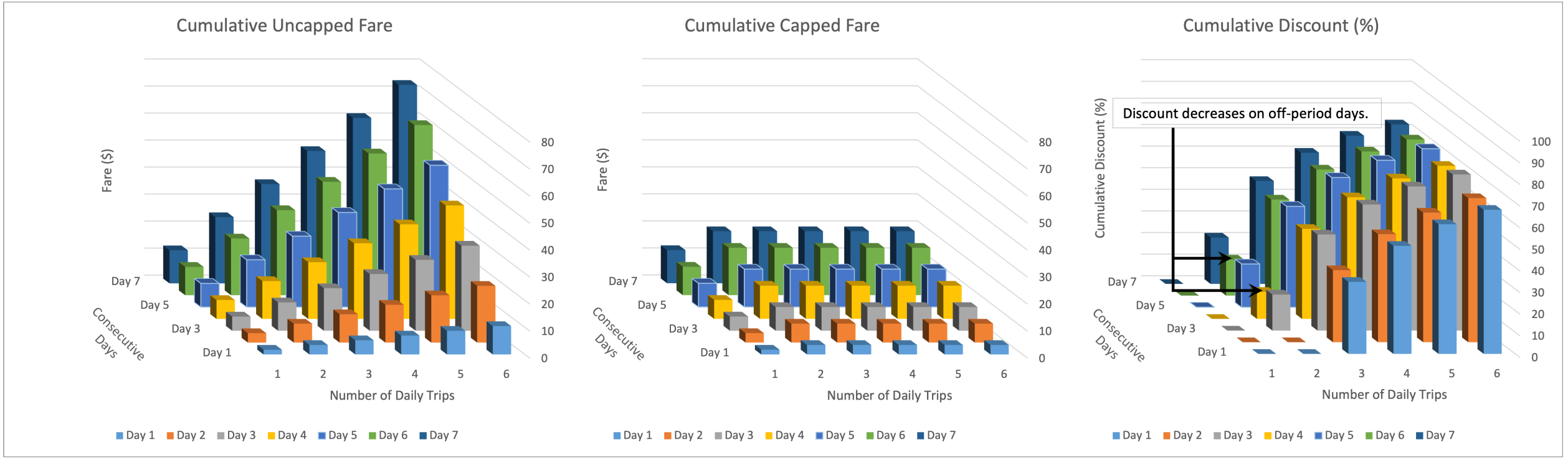
Results Part 3: "Nested" Caps

- "Nested" caps - when multiple fare caps apply to the same time period.
- The number of trips to reach the best discount can increase.

Transit Agency	No. Daily Caps Equal to Weekly Cap	No. Daily Caps Equal to Monthly Cap	No. Weekly Caps Equal to Monthly Cap
Alameda-Contra Costa Transit District	4.5	16.9	3.8
St. Louis Metro Transit	-	-	-
Capital District Transportation Authority	-	-	-
Central Ohio Transit Authority	5.6	13.8	2.5
Champaign-Urbana Mass Transit District	-	-	-
City and County of Honolulu	-	12.7	-
CTtransit	5.5	18	3.3
County of Miami - Dade	-	-	-
Dallas Area Rapid Transit	-	16	-
Greater Dayton Regional Transit Authority	-	10	-
Hillsborough Area Regional Transit Authority	-	16.3	-
IndyGo	3.9	-	-
Interurban Transit Partnership	-	13.4	-
Houston Metro	-	-	-
Pinellas Suncoast Transit Authority	-	14	-
Regional Transit Service, Monroe County	-	18.7	-
Rhode Island Public Transit Authority	-	11.7	-
Sacramento Regional Transit Authority	-	-	-
San Diego Metropolitan Transit System	-	12	-
Santa Clara Valley Transportation Authority	-	-	-
TriMet	-	20	-

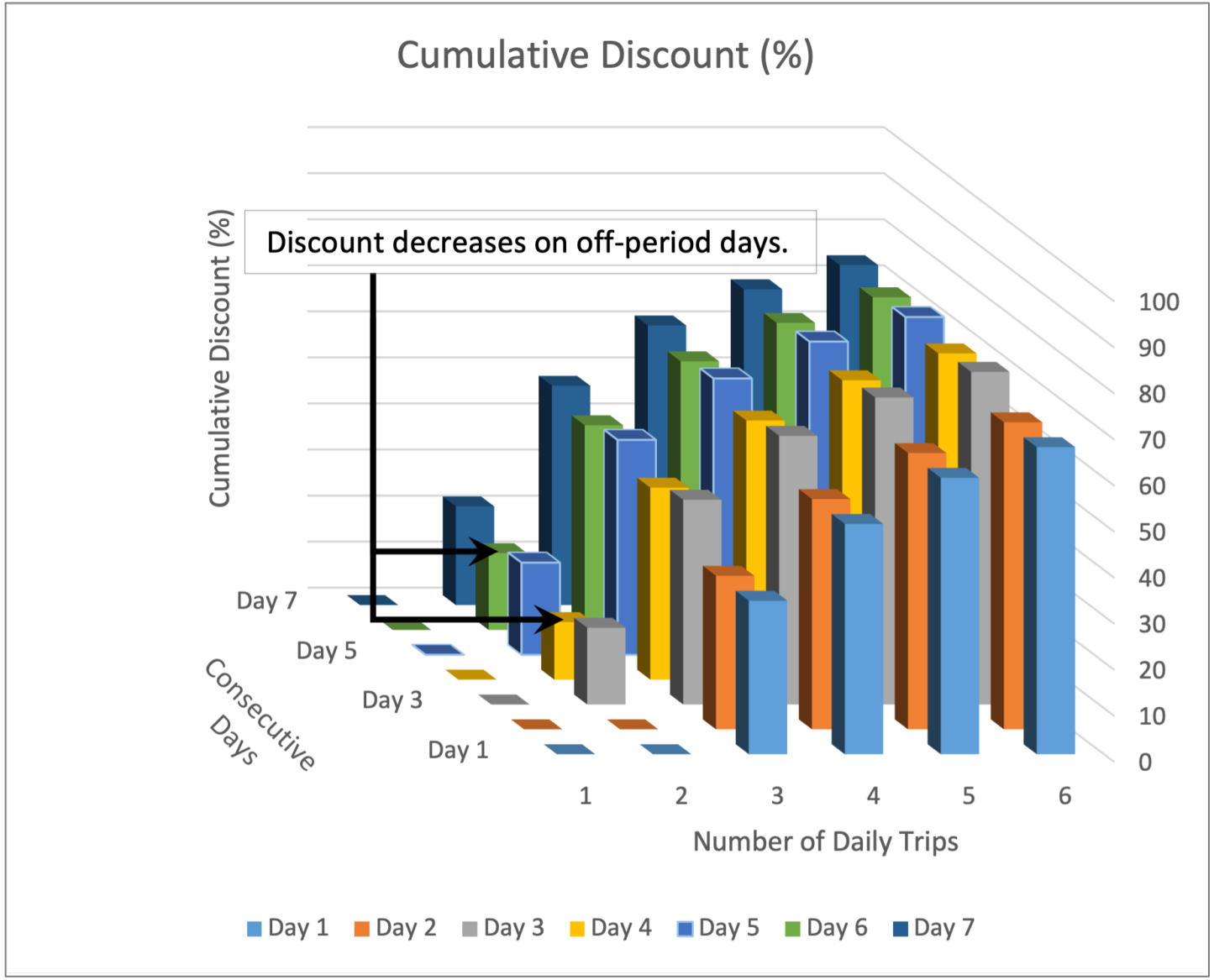
Results Part 3: “Nested” Example

- CTtransit, a special case of nested fare capping.
  - 1-, 3-, 5-, 7-, and 31-day periods.



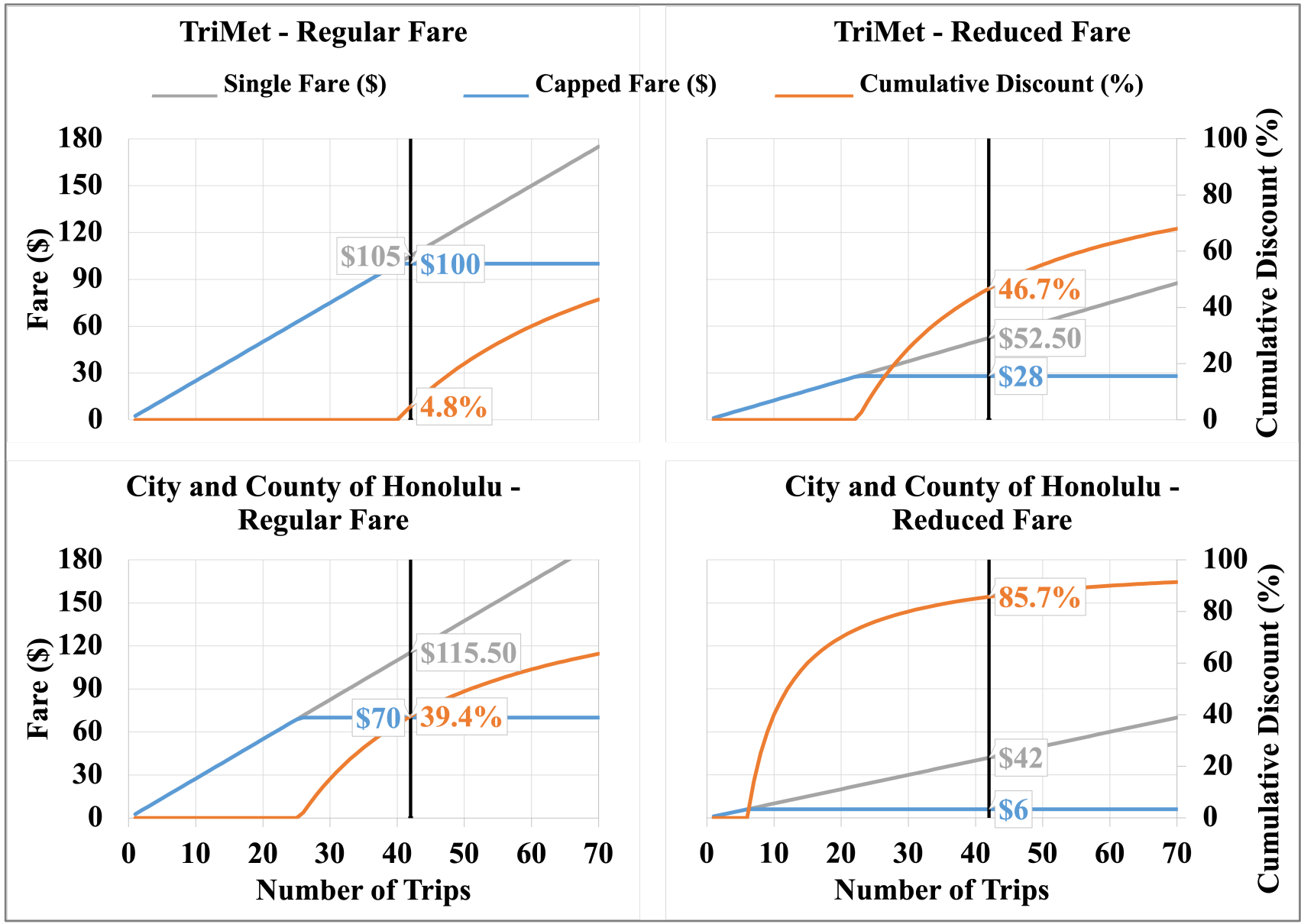
Results Part 3: “Nested” Example

- Riders benefit more from fare caps that closely match their travel patterns.
- May reduce revenue loss.



Results Part 4: Vulnerable Groups

- Disproportionally reduced fare capping reduces the number of trips to reach a fare cap.
  - Greater discount for vulnerable riders.



Conclusions

- Fare capping is a rapidly growing trend in the US.
- Fare capping may simplify fare by removing the need to purchase a period pass.
- “Nested” fare capping may incentivize ridership post-COVID and reduce revenue loss.
- Reduced fare capping can provide extra benefits for vulnerable groups.

Areas for Future Research

- Transit agency revenue impact due to fare capping.
- Barriers for vulnerable riders to access fare capping.
- Potential discontinuation of period passes when fare capping is available.
- Fare capping in zonal or distance-based fare systems.

Questions?