

A bit about Travel Modeling

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METROPOLITAN
TRANSPORTATION
COMMISSION

What.

Why.

How.

Questions.

What.

Why.

How.

Questions.



Image source: flickr.com/improbcat

Mathematical models Supply & demand

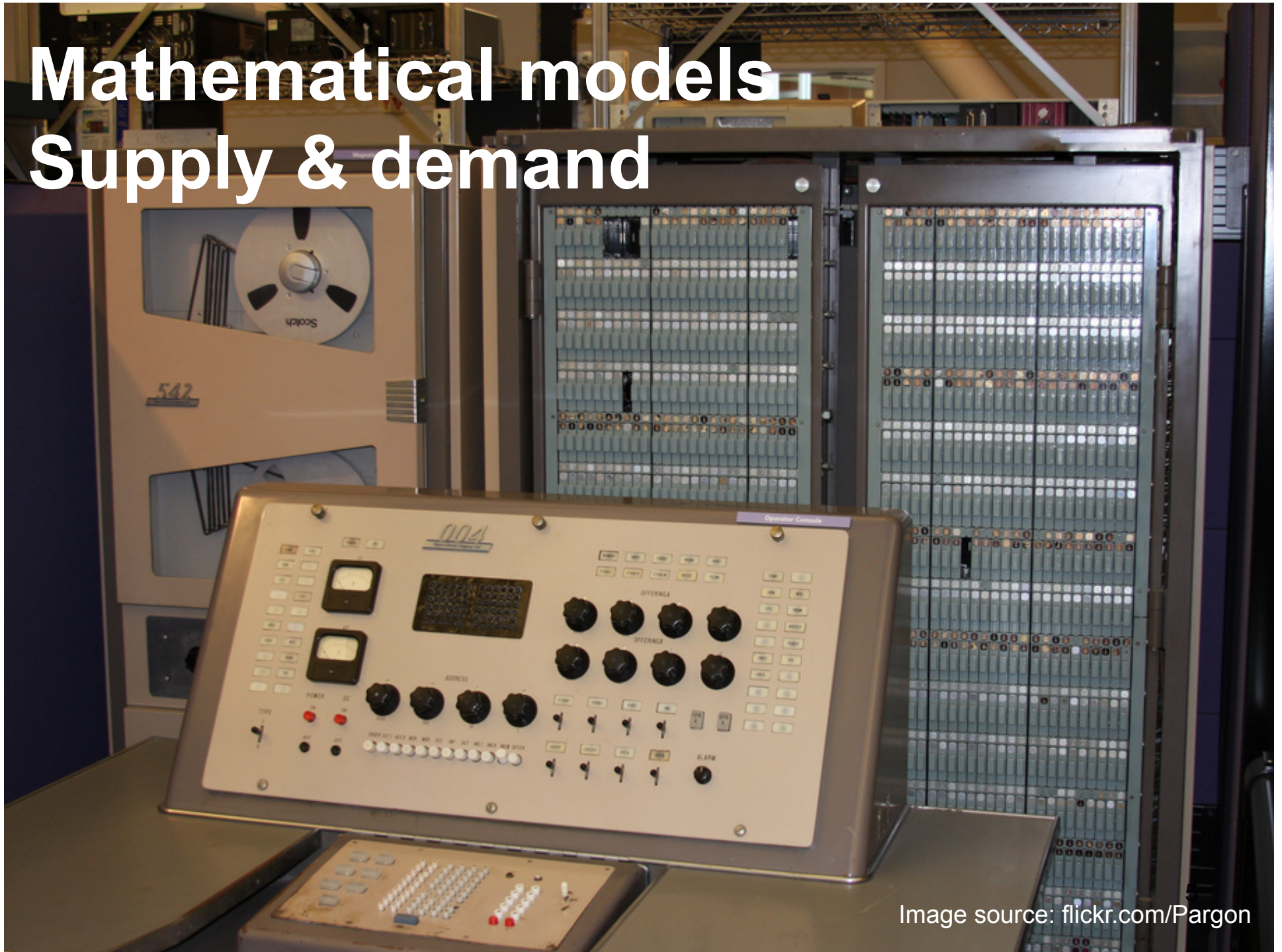


Image source: flickr.com/Pargon

Abstract

having only intrinsic form with little or no attempt at pictorial representation

(merriam-webster.com)

www.bart.gov



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Mathematical models Supply & demand Simulation of a typical weekday

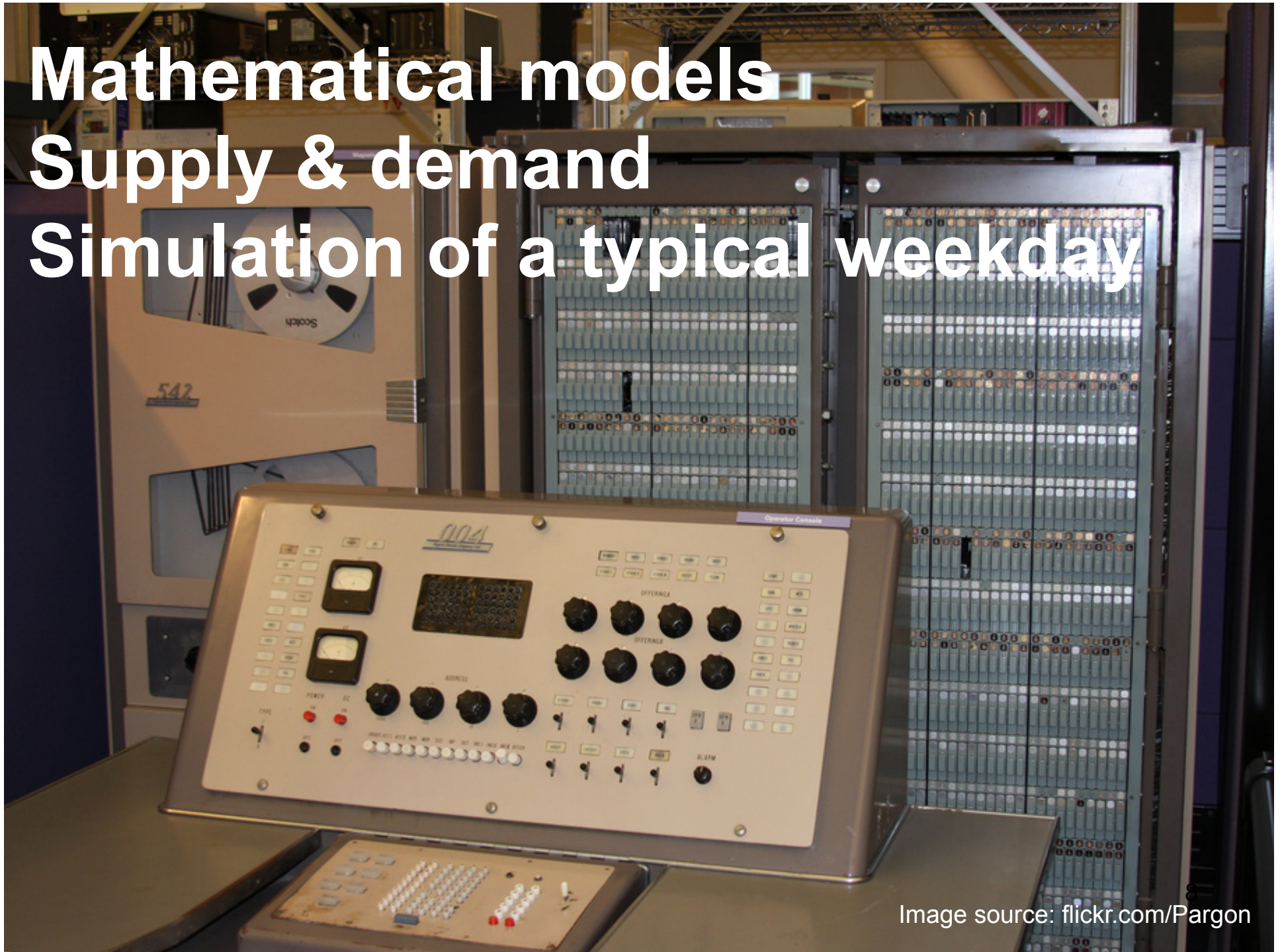



Image source: flickr.com/Pargon

What.

Why.

How.

Questions.



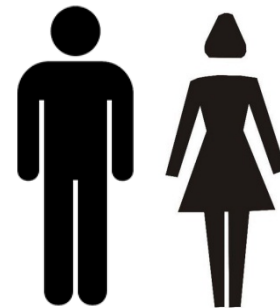
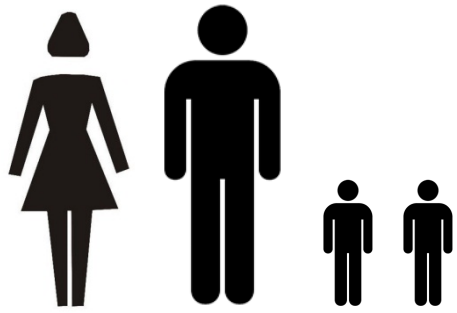
Insights
Objective
Comprehensive
~~**Answers**~~
Multi-purpose

What.

Why.

How.

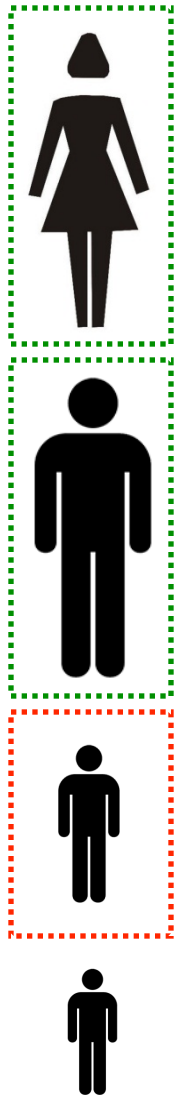
Questions.



Synthetic

devised, arranged, or fabricated for special situations to imitate or replace usual realities.

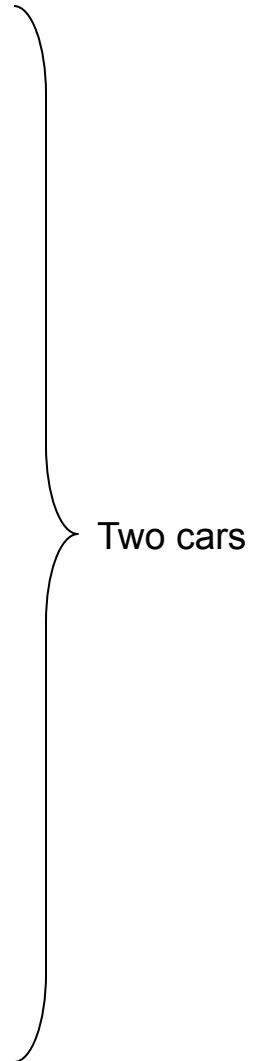
(merriam-webster.com)



→ SF CBD

→ Google

→ Zone X



→ Not work

→ Work

→ School

→ Not school

→ 1 Tour

→ 1 Tour

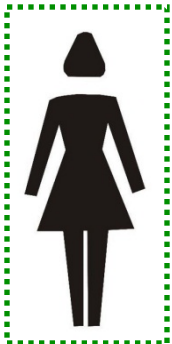
Worker or student status (from census)

Work and school locations selected

Household auto ownership level chosen

Daily activity patterns chosen jointly

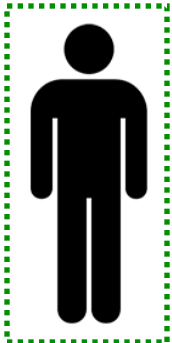
Mandatory tours generated



→ 2 Joint Tours

→ Zoo, Market

→ 8 to 11; 3 to 4



→ 7 to 7

→ 1 At-work Tour

→ McDonald's

→ 12 to 1



→ 8 to 4

→ 1 Non-mandatory Tour

→ Jimmy's House

→ 5 to 6



→ 2 Joint Tours

→ Zoo, Market

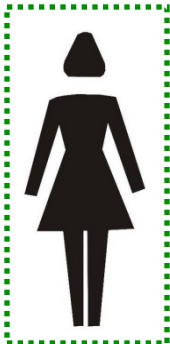
→ 8 to 11, 3 to 4

Mandatory tours are scheduled

Non-mandatory travel is generated

Destinations for non-mandatory tours are selected

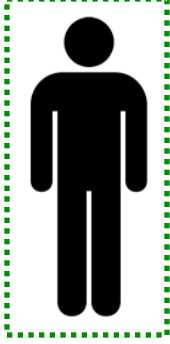
Non-mandatory tours are scheduled



→ Drive to zoo; walk to market

→ No stops

→ Shared ride 2; Walk



→ Drive to work; drive to lunch

→ Starbucks near home

→ Drive; Drive; Drive



→ Transit to school; bike to Jimmy's

→ No stops

→ Transit; Bicycle



→ Ride to zoo; walk to market

→ No stops

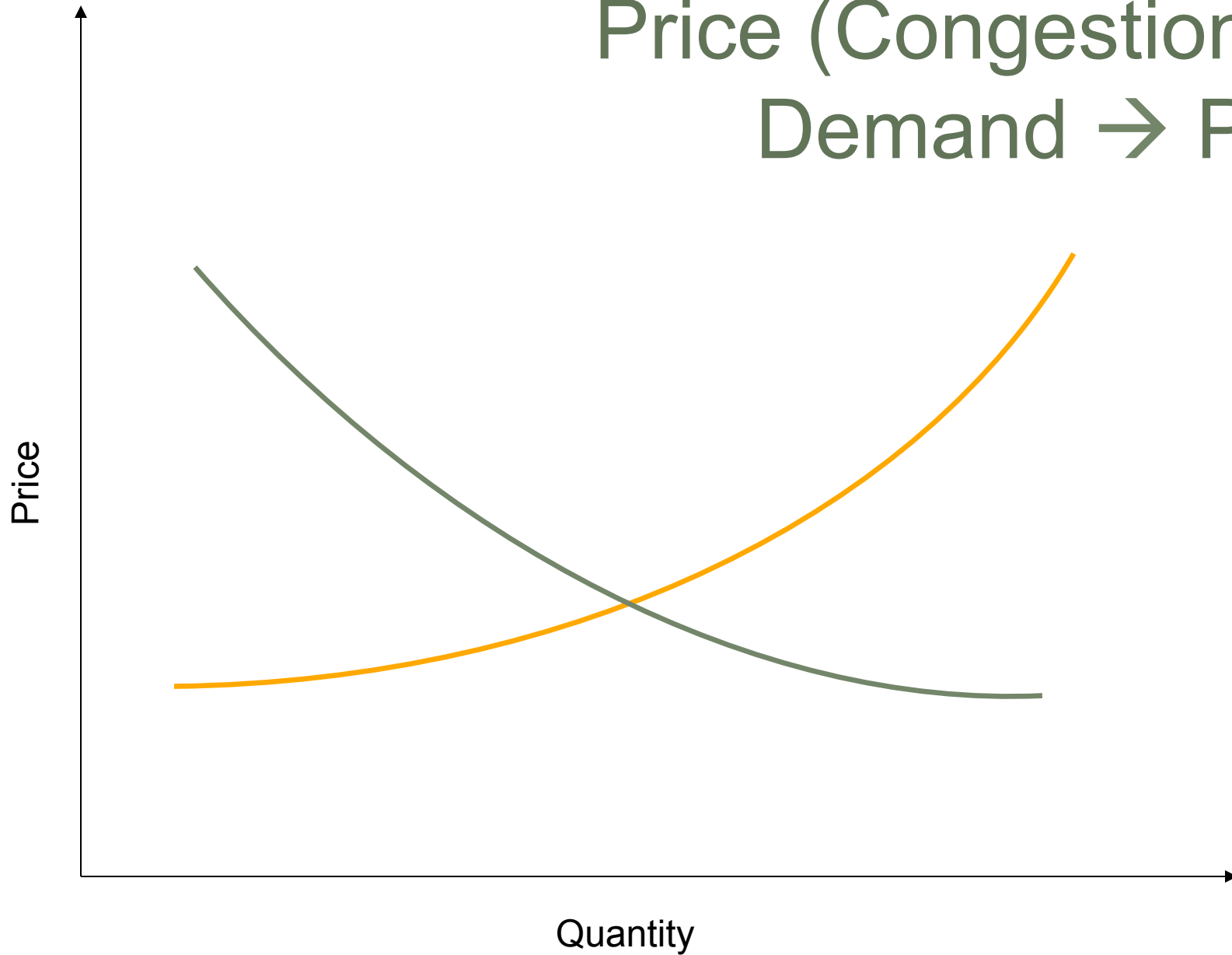
→ Shared ride 2; Walk

Mode choice for all tours

Stop frequency;
stop location;
stop time

Trip mode choice

Price (Congestion) →
Demand → Price



A large stack of papers is shown, with a single sheet of paper being pulled out from the middle. The text "Results (Now the work begins)" is overlaid in yellow. The background is a blurred stack of papers, suggesting a large volume of work or data.

Results (Now the work begins)

Questions

