Parking: An Underperforming Municipal Asset

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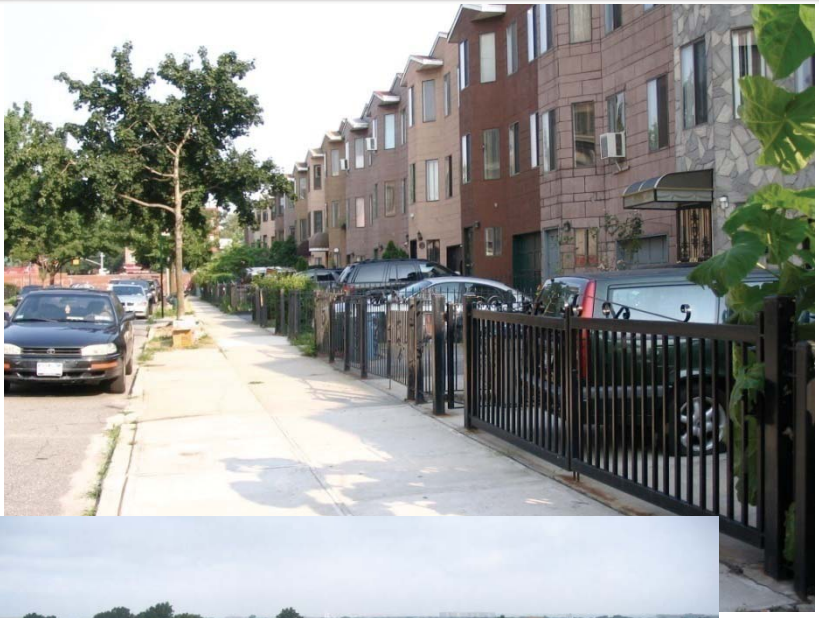
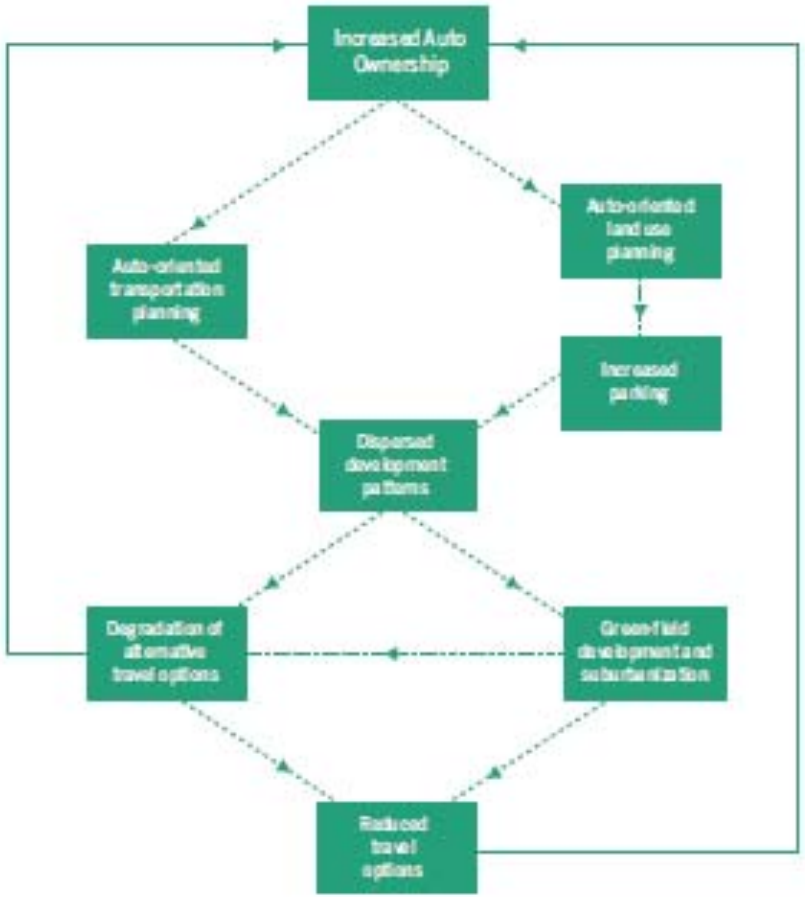
Four Faces of Parking



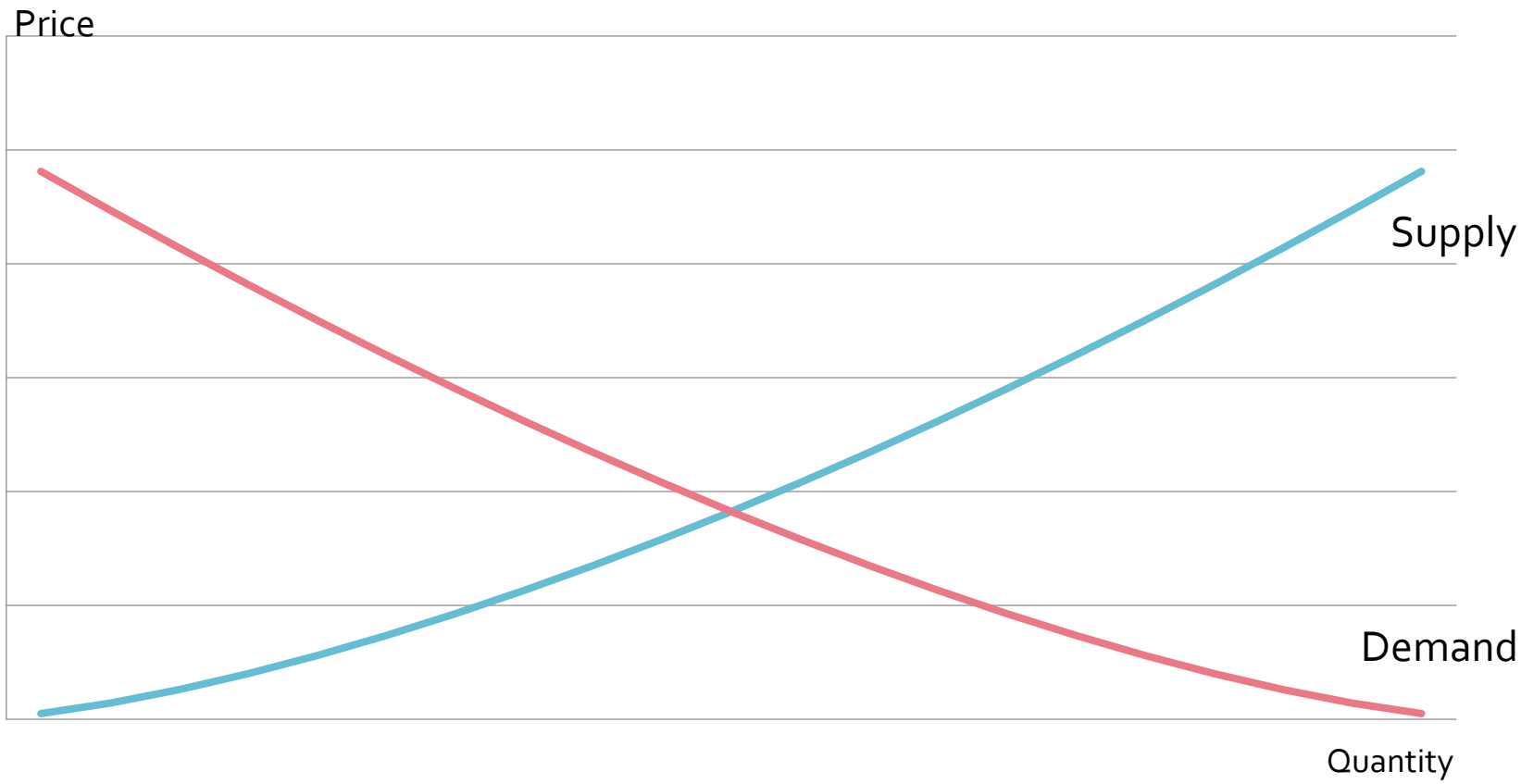

Four More Faces of Parking



Cycle of Dependence



Classic Supply and Demand



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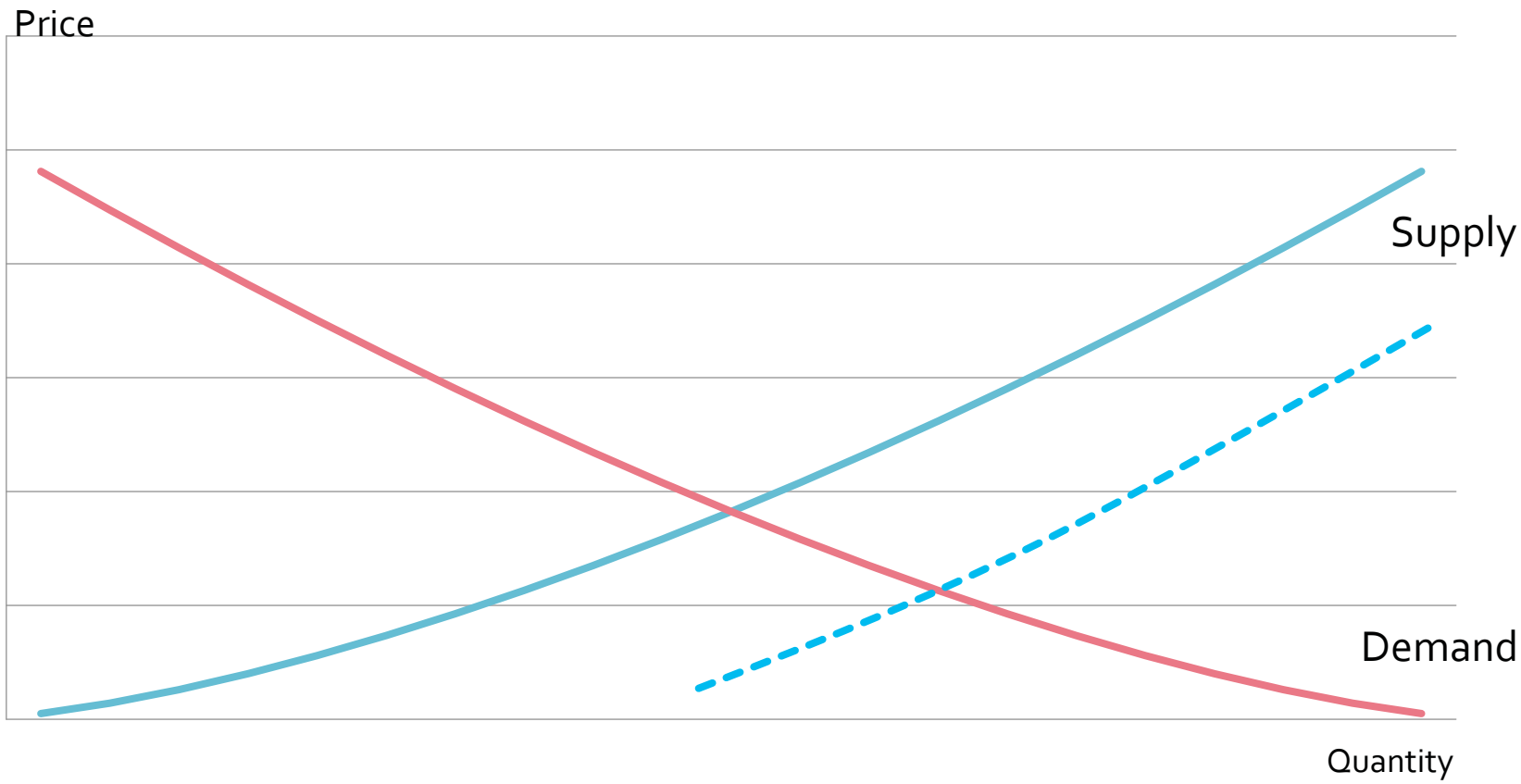
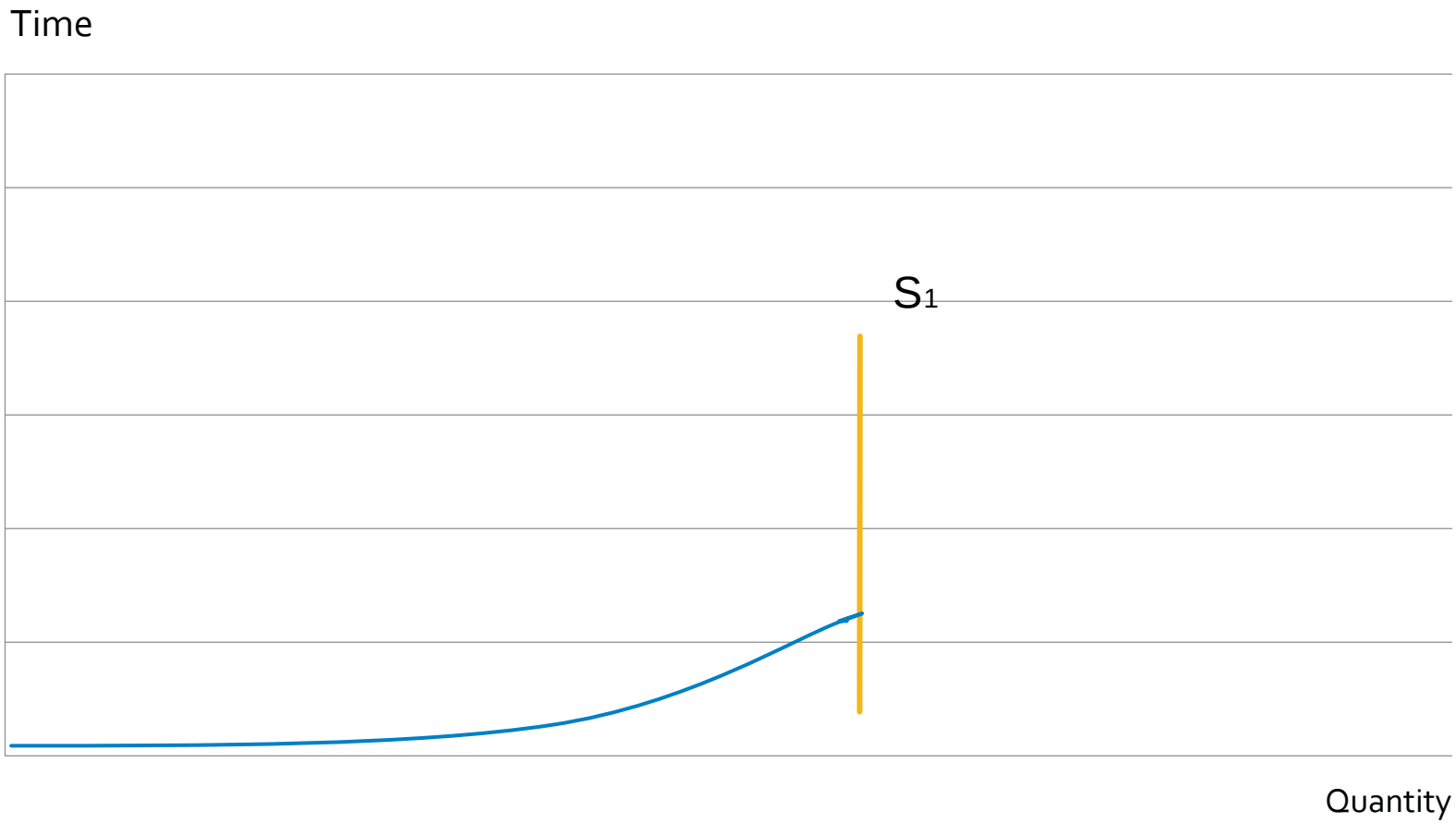


Free Goods



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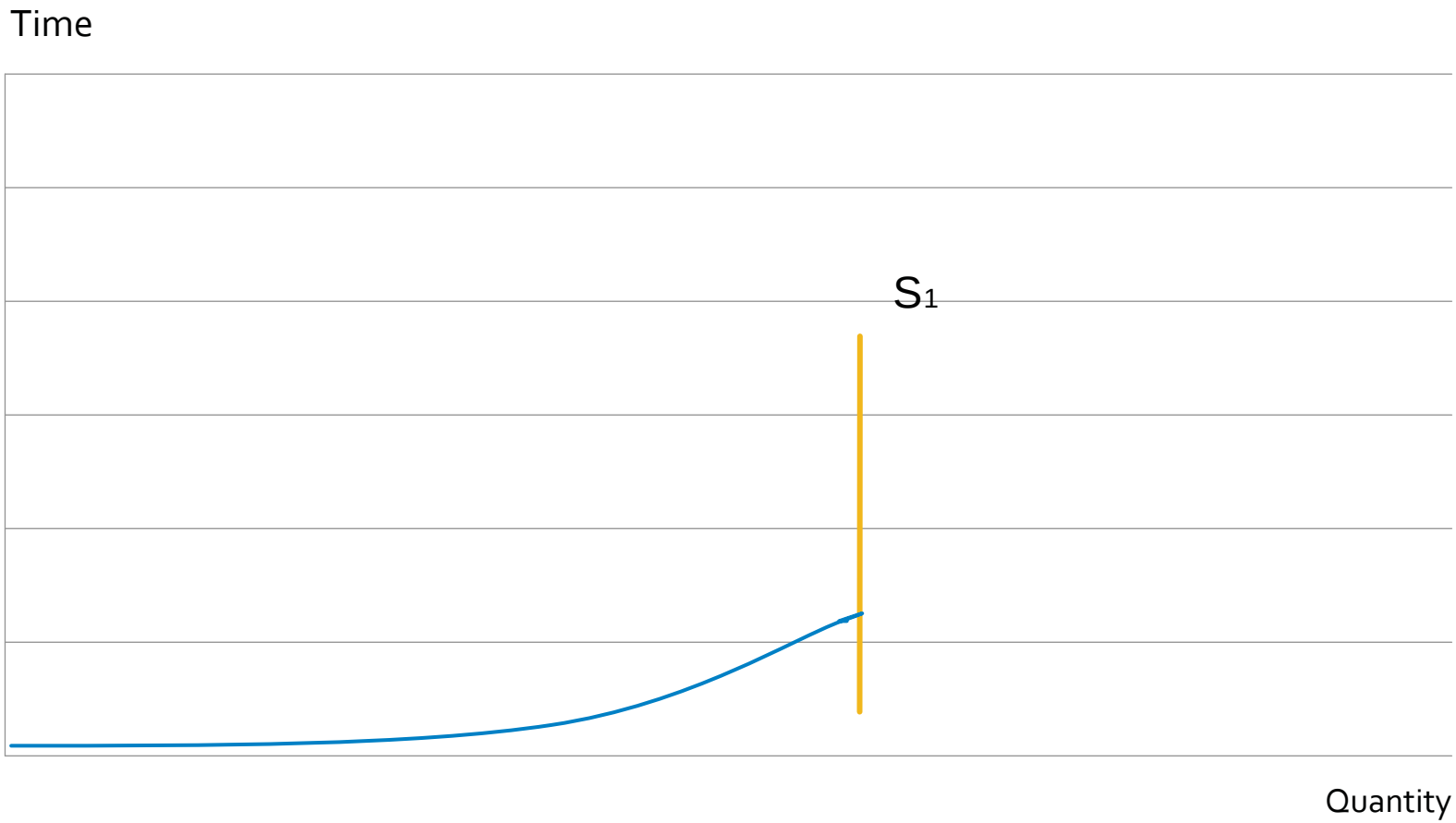
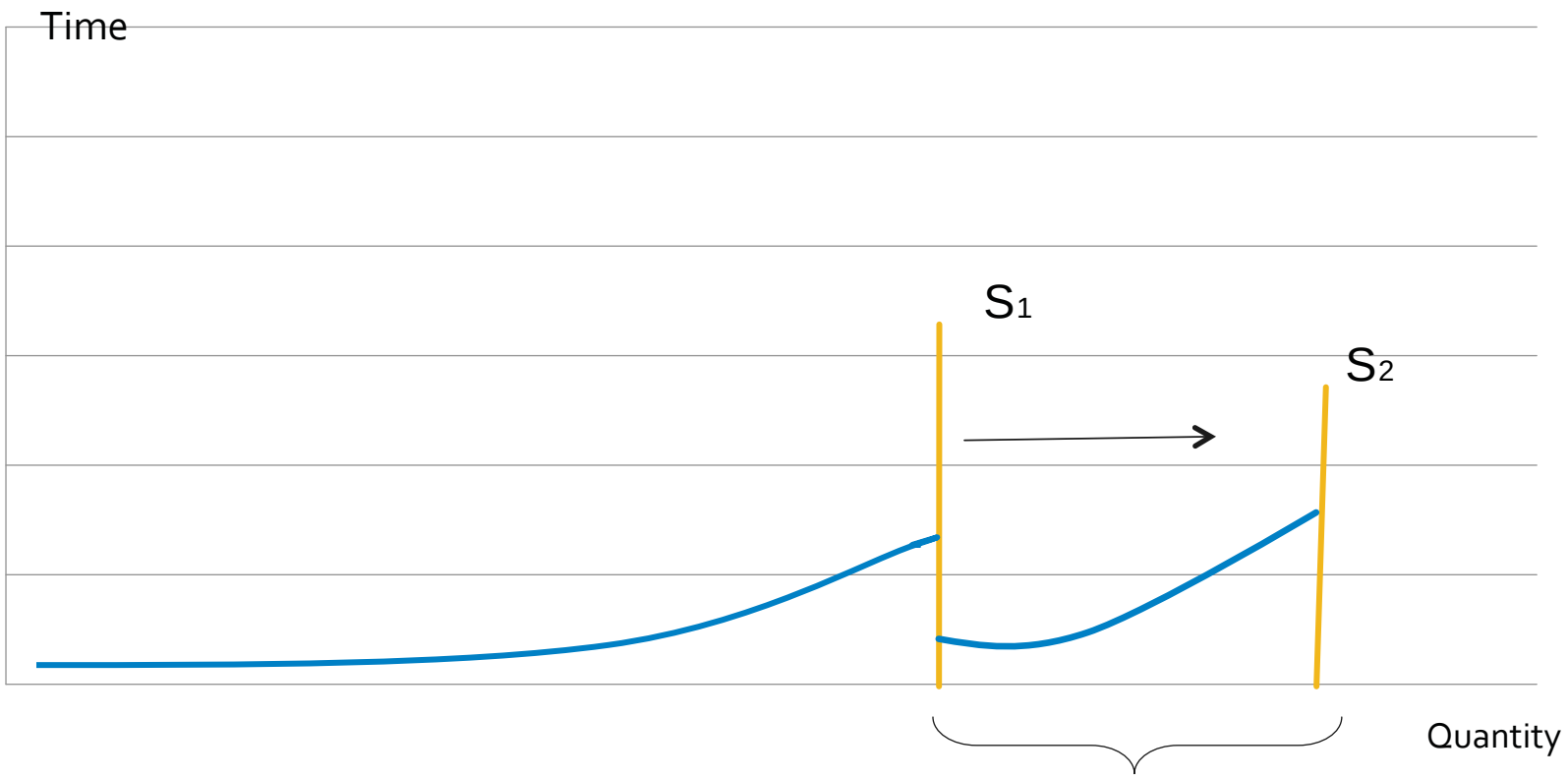


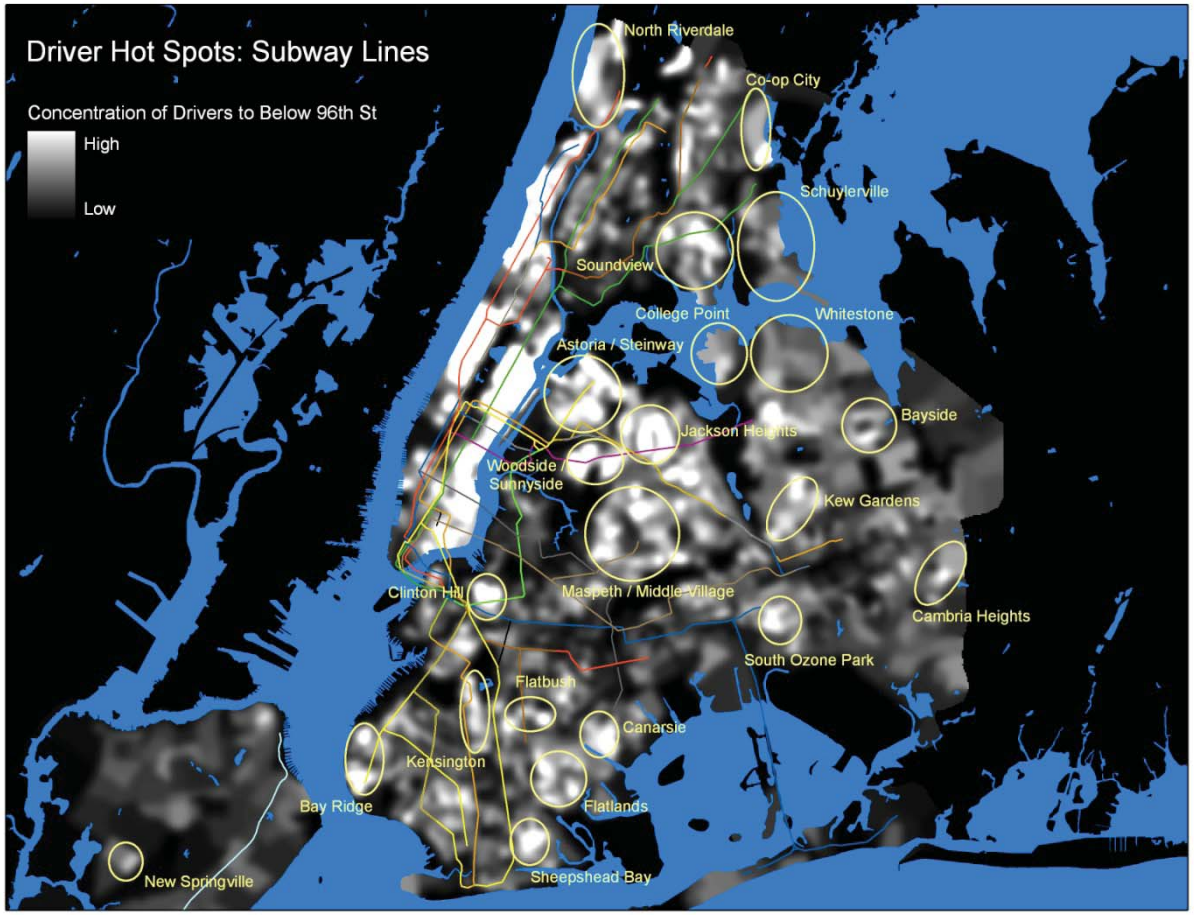
More parking " more car ownership " more car use



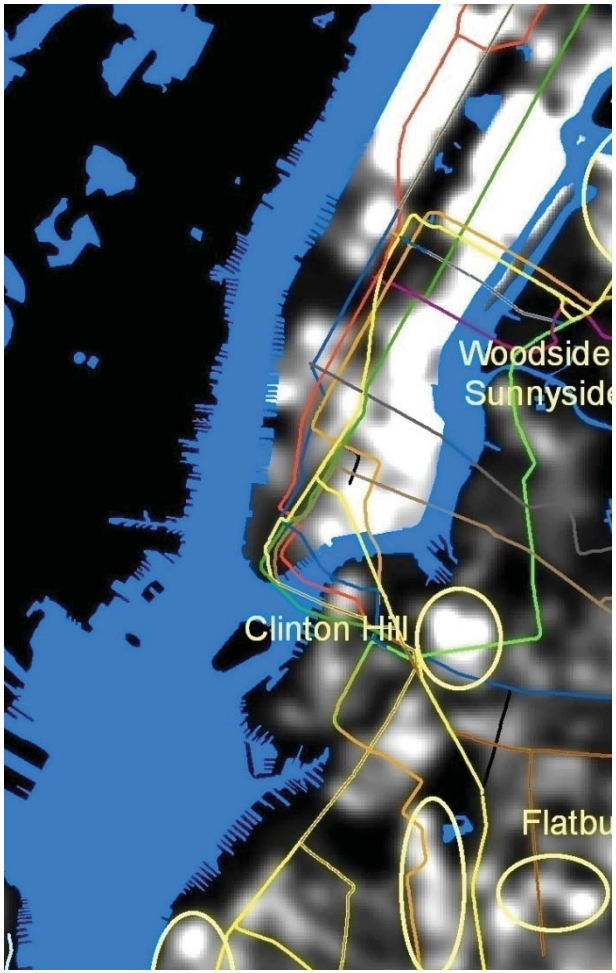
Parking influences mode choice

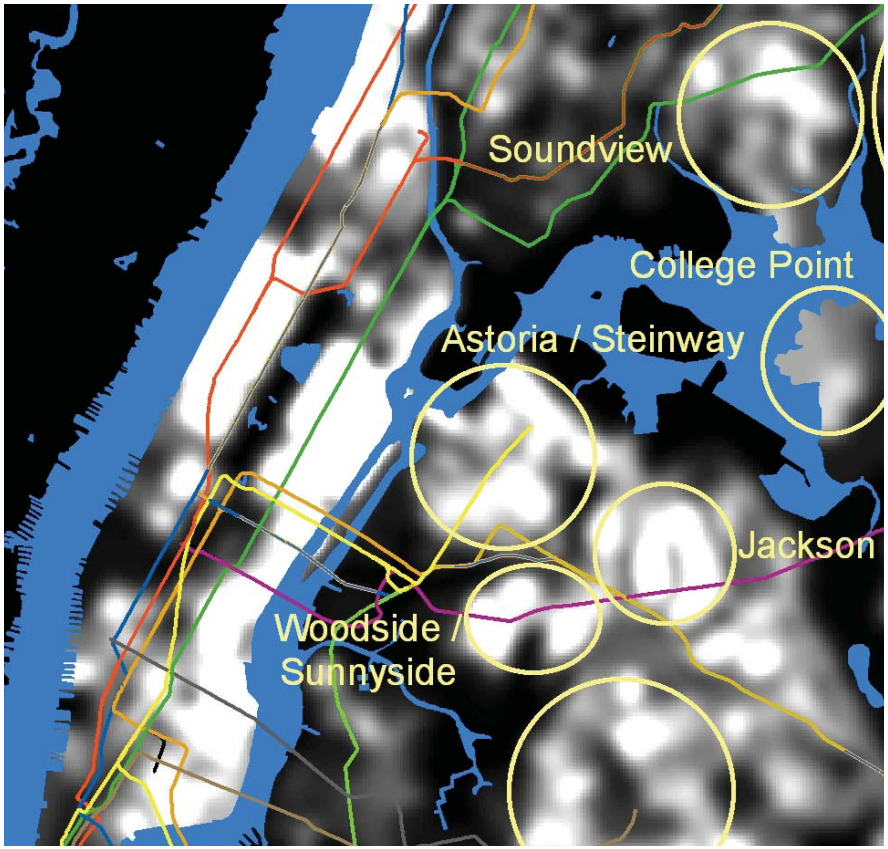
- CBD
  - Gabriel Roth (1965)
  - David Gillen (1978)
  - Richard Willson & Donald Shoup (1992)
  - Donald Shoup (pick a date, any date)
  - Daniel Hess (2001)
  - Kuzmyak, Pratt, Weinberger & Levinson (2003)
  - Vaca and Kuzmyak (2005)
- Residential
  - Weinberger, Seaman and Johnson (2010)

Neighborhood Comparison



Neighborhood Comparison





Demographics & Vehicles Owned

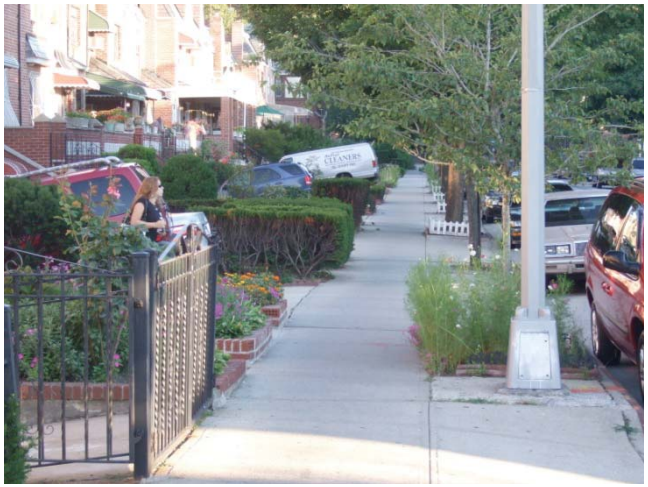
	Jackson Heights	Park Slope
Demographics		
Population	71,186	53,078
Occupied households	24,900	24,360
Household per square mile	34,110	26,194
Median household income	$39,566	$60,711
Home ownership (% of households)	27%	34%
Vehicle ownership		
Vehicles per employed resident	0.37	0.38
Households with at least one vehicle	39%	42%
Households with multiple vehicles	13%	11%

Commute Behavior

	Jackson Heights	Park Slope
Commuting behavior		
Employed residents	31,190	31,619
Drive or carpool to work	7,029	5,300
Percent auto share	23%	18%
Residents employed in CBD	12,824	16,481
Drive or carpool to CBD	1,004	885
Percent auto share to CBD	7.8%	5.4%

Park Slope

Jackson Heights



Parking

Type of parking	Jackson Heights	Park Slope
Parking lots	605	883
Driveways and garages	3,028	533
Total	3,633	1,416
Dwelling Units	24,900	24,360
Off-street parking space per Dwelling Unit	14%	6%
Off-street space per car owner	31%	12%
"On-site" off-street per car owner	26%	4.50%

Off-Street Parking and the Zoning Code

CANNOT BE BUILT AS OF RIGHT

CITY PLANNING PREFERRED

Development Projections/Supply effects of ZR

	Spaces Per DU (required)	*Ultra High Density*	*Extreme High Density*	*High Density*	*Moderate Density*
Highest density	0.32	75%	50%	20%	15%
Medium density	0.5	12.5%	25%	45%	45%
Low density	1	12.5%	25%	35%	40%
Increase in off-street parking and related car ownership		113,288	141,775	169,335	178,345
Spaces per DU (effective)		0.43	0.54	0.64	0.67

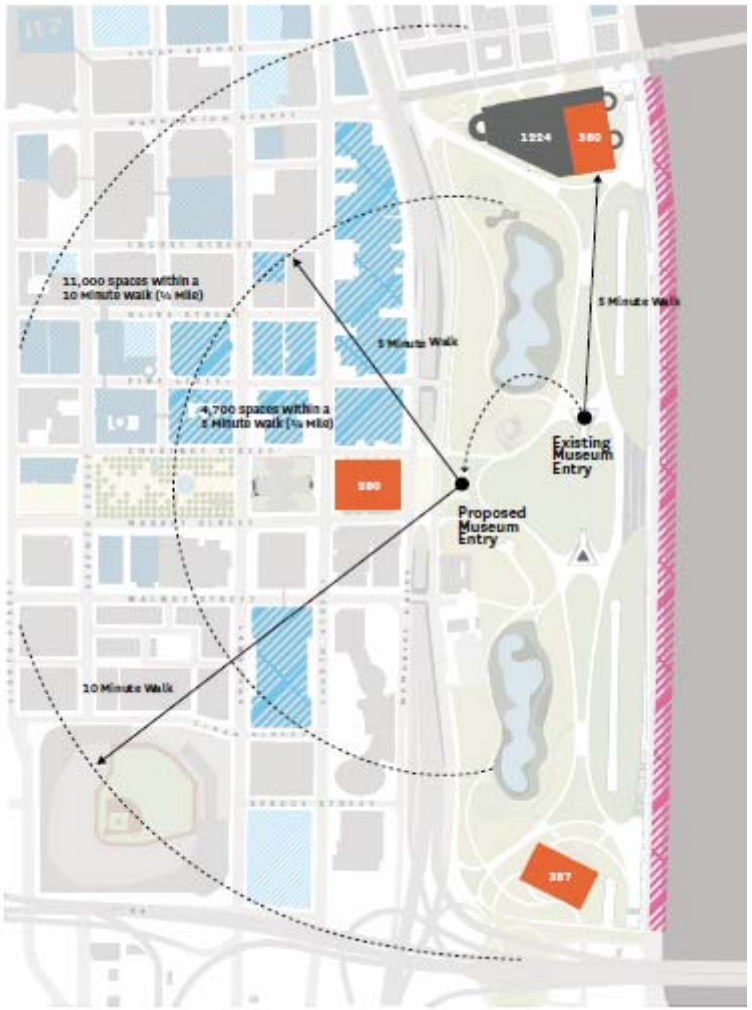
Carbon & VMT Impacts

	Ultra High Density	*Extreme High Density*	*High Density*	*Moderate Density*
Increase in off-street parking	113,288	141,775	169,335	178,345
Annual VMT (000)	734,103	918,702	1,097,291	1,155,676
CO2 Metric Tons per year	288,338	360,844	430,990	453,922

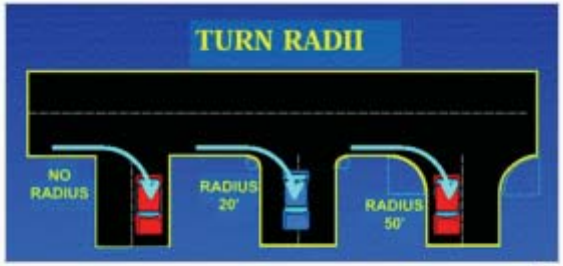
Problems: Off-street

- Increases cost of development
- Shifts parking costs from users to development
- Subsidizes auto use/contributes to auto dependence
- Limits foot traffic creating "dead-downtowns"
- Access points create pedestrian auto conflicts

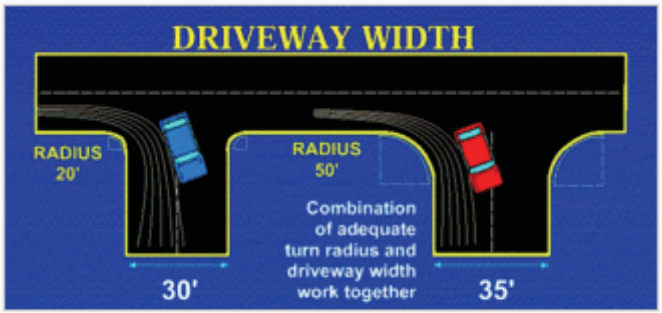
Single use parking; Dead downtowns



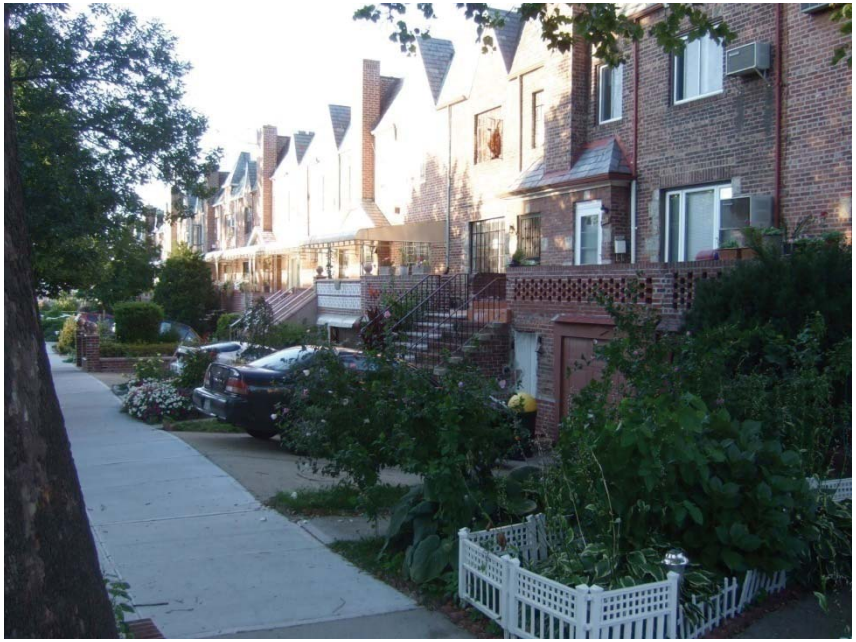
Off-street conflicts



The larger the radius, the faster the turning vehicle can get off the road and fewer through-movement vehicles need to slow.



Adequate driveway width can help turning vehicles get off the road with a greater speed and less encroachment into oncoming driveway traffic.



Problems: Curbside

- Spot shortages
- Lack of performance standards
- Lack of political will
- Lack of coordination between curbside and off-street
  - Planning departments
  - Public works/streets departments

In Conclusion:

- Parking exerts great influence on:
  - Mode choice
  - Urban design

Air, water quality
Development density
Active, tax ratable land uses/accessory uses
Street life and pedestrian environment

- Price sensitivity
  - Small changes
- Performance standards -> need to know what the goals are
- Supply leads to additional demand