An Evaluation of Automobile Use, Parking Provision, and Urban Activity

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Nantucket Parking Study
2010 Draft

Utilization study
Max utilization: 94%
+ 77 spaces (on-street)

Land use study
Demand: 2,870 spaces
+ 670 spaces

Local zoning codes
+ 2,337 spaces
“Parking Demand”

< 3/4 mile
Increase parking?
Theoretical model of land consumption

Land used for transportation

Land used for activities

Automobile mode share

Taller buildings and/or Fewer activities
Historical automobile use
(Percent of resident commuters)

Year


Lowell
San Mateo
Alameda
Hartford
Albany
New Haven
Evanston

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Historical automobile use
(Percent of resident commuters)

Lowell
San Mateo
Alameda
Hartford
Albany
New Haven
Silver Spring
Evanston
Somerville
Berkeley
Cambridge

Year

Historical automobile use (Percent of resident commuters)

- Lowell: 100%
- San Mateo: 90%
- San: 80%
- Mateo: 70%
- Alameda: 60%
- New Haven: 50%
- Silver Spring: 40%
- Evanston: 30%
- Berkeley: 20%
- Somerville: 20%
- Cambridge: 10%

Year:
- 1960
- 1970
- 1980
- 1990
- 2000
- 2010
Automobile use in 2000
(percent of resident commuters)

Automobile dependent

Low automobile use

Cambridge  Berkeley  Somerville  Evanston  Silver Spring  New Haven  Hartford  Albany  Alameda  San Mateo  Lowell
Automobile use (percent of resident commuters) vs. Parking provision (sq feet per activity)
Level of activity
Activity density in 2000
(combined residents plus employees per square mile)
Limits on growth?
Employee density
(employees per square mile)

Driving to work:

58% 65% 70% 68% 74% 83% 88% 87% 78% 86% 89%

Cambridge  Berkeley  Somerville  Evanston  Silver Spring  New Haven  Hartford  Albany  Alameda  San Mateo  Lowell

1960 No data 2000 No data

No data
Findings…

1. High levels of automobile use (and parking) correspond with fewer activities
Findings…

2. Cities with the most activities have preserved their urban fabric and provide a range of transportation options
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Good urban planning must provide a place for the motor car: that goes without saying. But this does not in the least mean that the motor car must be permitted to penetrate every part of the city and stay there, even though it disrupts all other activities.

- L. Mumford (1961)

Too much dependence on private automobiles and city concentration of use are incompatible.

Depending on which pressure wins most of the victories, one of two processes occurs: erosion of cities by automobiles, or attrition of automobiles by cities.

- J. Jacobs (1961)