2014-2015 Arlington Commercial Office Building Study

Highlights
December 2015
Study Goals and Objectives

Goals
• Explore travel and parking behaviors of office employees in commercial buildings
• Provide staff and decision-makers with local data on factors that influence travel and parking behavior
• Support public understanding of travel influences/outcomes and relationship to county-wide objectives and national standards

Objectives
• Contribute to building and neighborhood travel profiles
• Describe influences on mode split and parking behavior and adequacy of parking supply
• Compare observed trip-generation rates to ITE
• Explore influences of ACCS on economic competitiveness*
Data Collection Methods

DESIGN: Cross-Sectional (point-in-time - correlation)
DESIGN: Convenience Sample (not random)
1. Field Visits (to understand surrounding environment)
2. Property Manager Interviews (in-person)
3. Employer Interviews (in person or by phone)
4. Employee Surveys (online)
5. Vehicle Trip Counts (7 days, 24 hours)
6. Parking Occupancy Counts
7. Secondary Data Collection (Walkscore, Neighborhood Intensity)
Building Sample Characteristics

- 16 buildings
- 3.7 million GSF office, 86% occupied
- 237,000 GSF retail
- 13,400 employees
- 8,400 parking spaces, all types; 4,700 unreserved spaces available for employees
- 0.72 – 2.68 employee parking spaces per 1,000 GSF (0.11-1.04 spaces per employee)
Employer Sample Characteristics

• 135 office tenants
• 63 office tenants agreed to participate in employer interviews
• Employees from 86 different firms completed employee surveys
• Employers had between 1 and 500 employees on site
• About two-thirds of employers interviewed were for-profit companies, while the remaining third were non-profit organizations.
## Employee Sample Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Sample (n = 2,644)</th>
<th>Work in Arlington (n = 454, 2013 SOC, random)</th>
<th>Sample is...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor vehicles in the HH</td>
<td>9% have no HH vehicles</td>
<td>6% have no HH vehicle</td>
<td>Slightly fewer HH vehicles</td>
</tr>
<tr>
<td>Sex</td>
<td>56% female</td>
<td>51% female</td>
<td>Similar</td>
</tr>
<tr>
<td>Age &lt; 35 years</td>
<td>28% (42% under 45)</td>
<td>14%</td>
<td>Younger</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td>77% White, 9% African-American, 4% Hispanic</td>
<td>54% White, 25% Black, 12% Hispanic</td>
<td>Less racially diverse</td>
</tr>
<tr>
<td>HH Income $80K+</td>
<td>67% (58% $100K+)</td>
<td>77%</td>
<td>Less affluent</td>
</tr>
<tr>
<td>Home access to bus stop</td>
<td>69% live less than ½ mile</td>
<td>80% live less than ½ mile</td>
<td>Slightly farther from bus at home</td>
</tr>
<tr>
<td>Home Location</td>
<td>20% Arlington, 14% DC, 22% Fairfax</td>
<td>24% Arlington, 9% DC, 31% Fairfax</td>
<td>Less Arlington and Fairfax, more DC-based</td>
</tr>
</tbody>
</table>
47% of Work Trips are Drive Alone; DC Still Lower

*Percentage of Weekly Commute Trips by Mode – Study Respondents, vs SOC Respondents who Work in Neighboring Jurisdictions*

<table>
<thead>
<tr>
<th>Commute Mode by Work Location</th>
<th>Drive alone</th>
<th>Bus or train</th>
<th>Bike/Walk</th>
<th>Telework/CWS</th>
<th>Carpool/Vanpool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study respondents (n = 2,644)</td>
<td>47%</td>
<td>32%</td>
<td>9%</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>District of Columbia (n = 1,743)</td>
<td>41%</td>
<td>38%</td>
<td>4%</td>
<td>6%</td>
<td>11%</td>
</tr>
<tr>
<td>Virginia Jurisdictions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Arlington (n = 422)</td>
<td>54%</td>
<td>26%</td>
<td>4%</td>
<td>9%</td>
<td>7%</td>
</tr>
<tr>
<td>- Alexandria (n = 311)</td>
<td>79%</td>
<td>9%</td>
<td>3%</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>- Fairfax (n = 882)</td>
<td>78%</td>
<td>7%</td>
<td>1%</td>
<td>9%</td>
<td>5%</td>
</tr>
<tr>
<td>- Prince William (n = 195)</td>
<td>84%</td>
<td>1%</td>
<td>1%</td>
<td>10%</td>
<td>4%</td>
</tr>
<tr>
<td>- Loudoun (n = 279)</td>
<td>86%</td>
<td>1%</td>
<td>1%</td>
<td>11%</td>
<td>2%</td>
</tr>
<tr>
<td>Suburban Maryland (n = 1,049)</td>
<td>79%</td>
<td>6%</td>
<td>1%</td>
<td>9%</td>
<td>5%</td>
</tr>
</tbody>
</table>
Arlingtonians in Sample take 34% of Work Trips by Foot or Bike

Commute Mode Share to Studied Buildings by Home Location

- **Arlington**
  - Drive-alone: 37%
  - Transit: 26%
  - Bike/walk: 34%
  - Carpool/vanpool: 2%
  - Telework: 3%

- **DC**
  - Drive-alone: 30%
  - Transit: 6%
  - Bike/walk: 63%
  - Carpool/vanpool: 1%
  - Telework: 2%

- **Other**
  - Drive-alone: 59%
  - Transit: 3%
  - Bike/walk: 28%
  - Carpool/vanpool: 10%
  - Telework: 7%
Arlington’s Under-35s are Twice as Likely to Drive Alone as the District’s
Buildings Generate Half of the Daily Vehicle Trips that ITE Would Predict

![Graph showing vehicle trips per 1,000 GSF for different building observations.](chart)

- **Study Weekday Daily**
- **Curran's Adjusted ITE Daily Weekday**
- **Fahgri and Venigalla Weekday Daily**
- **ITE Daily Weekday (Code 710)**
Garages Are Not Full; Weekends are Different for Highly Mixed Use

Average Weekday Occupancy (M-Th)
Average Weekend Occupancy (F-Su)

Building Observations (8, 10, and 11 are mixed use with residential or office)
Spillover Parking is Uncommon; Some Shared Parking Between Buildings

Where Respondents Park when they Drive to Work

- On-site, 85%
- Public facility nearby, 9%
- Street, 3%
- Other, 2%
R-B Corridor Employers Offer More than $25 million in Parking Subsidies Each Year

Almost a Quarter of Survey Respondents Do Not Pay to Park
Habits Change at $151 per Month or $7.70 per Day
TDM Influences Travel Behavior

Even when transportation and land use already support sustainable transportation choices
Studied Buildings are All in Transit-Rich Dense Neighborhoods

![Graph showing the relationship between Walk Score and Transit Score for studied buildings and core neighborhoods. The graph indicates that most buildings are located in neighborhoods with high Transit Scores and moderate to high Walk Scores.](image-url)
Transit and Bicycle Use Increases with Certain Benefits

Transit info
Share of Commute Trips on Transit

Transit subsidy: 23% (Not Available), 39% (Available)
Transit info: 35% (Not Available), 33% (Available)

Bike/walk info
Share of Commute Trips by Bike

Secure bike parking: 2% (Not Available), 4% (Available)
Bike/walk info: 2% (Not Available), 4% (Available)

Transit-Related TDM Service
Transit Subsidies and Parking Prices Combine to Promote Transit Ridership
Won’t Somebody Please Think of Carpooling and Vanpooling?
Transit-Focused TDM Crowds Out Carpooling and Vanpooling

![Bar chart showing the share of commute trips](chart.png)

- **Carpool/vanpool**
  - Zero or 1 to 4 Support Services Only (GRH, transit info., etc.): 10%
  - Five or more support services: 8%
  - At least one financial incentive: 6%

**Commute Mode**

**Share of Commute Trips**

0% 20% 40% 60% 80% 100%
Ridesharing Services Not Common, but Use is Comparable to Others

- Have used
- Have not used
- Used When Available

- Transit financial benefit: 60%
- Transit schedule info: 19%
- Secure bicycle parking: 13%
- Showers / personal lockers: 9%
- Bicycle / walking info: 10%
- Ridematching: 10%
- Info kiosk in lobby: 10%
- Shuttle to Metrorail: 9%
- Carshare membership: 9%
- Preferential carpool/vanpool parking: 9%
- Capital Bikeshare membership: 10%
- Guaranteed Ride Home: 7%
- Info on company intranet: 7%
- Carpool financial incentive: 17%
- Vanpool financial incentive: 10%
- Bicycle financial incentive: 10%
- Fleet vehicles for personal trips: 10%

Share of Respondents Reporting Access to Each Service