Money Doesn’t Grow on Trees, But . . . the retail benefit of trees

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Trees as Legacy in Design & Development
June 2012
Trees & Retail Environments Research
Chicago’s Magnificent Mile
Why are city trees & urban greening important? 

human health, functioning, & well-being
Research Reviews

www.greenhealth.washington.edu

Green Cities: Good Health

Metro nature - including trees, parks, gardens, and natural areas - enhance quality of life in cities and towns. The experience of nature improves human health and well-being in many ways. Nearly 40 years of scientific studies tell us how. Here’s the research ...

RESEARCH THEMES
- Livable Cities
- Place Attachment & Meaning
  - Community Building
  - Community Economics
  - Social Ties
  - Crime & Fear
  - Reduced Risk
  - Wellness & Physiology
  - Active Living
  - Healing & Therapy
  - Mental Health & Functioning

www.greenhealth.washington.edu

summaries complete: Sept 2012
additional products
study of economic valuation with MSU’s Dr. Grado
Local Economics

Trees in cities are not grown and managed for products that can be bought and sold on markets, but they do provide many intangible services and functions! This article serves two purposes. First, it introduces valuation methods that are used to convert intangible benefits to dollar sums. Then, it shows how nonmarket valuations can support local decision-making.

Fast Facts

- The presence of larger trees in yards and as street trees can add from 3% to 15% to home values throughout neighborhoods.

- Averaging the market effect of street trees on all house values across Portland, Oregon yields a total value of $1.35 billion, potentially increasing annual property tax revenues $15.3 million.

- A study found 7% higher rental rates for commercial offices having high quality landscapes.

- Shoppers claim that they will spend 9% to 12% more for goods and services in central business districts having high quality tree canopy.

- Shoppers indicate that they will travel greater distance and a longer time to visit a district having high quality trees, and spend more time there once they arrive.
1. Community Economics

% distribution
City Trees & Nature
Community Economics

- Residential real estate values - 3-7% with trees in yard
- Residential real estate values - 5-20%, proximity to natural open space
- Commercial property rental rates - 7%
- Increased rent values – ROW & yard trees (Donovan 2011)
- Improved consumer environments in business districts - 9-12% product spending
Trees & Retail Environments Research
Trees & Shopper Environments Research

• Research Questions •
  trees and visual quality?
  trees and consumer behavior?
  trees and product pricing?

• Methods:
  mail out/in surveys
  national or local sample
  residents/nearby city residents

partners: U of Washington, NGOs, business organizations
funded by USDA Forest Service
Methods

surveys

preference images

verbal questions

‘scenarios’
Methods

surveys

mailings across selected districts

person-to-person contact

interviews
Image Categories (sorted by ratings)

Pocket Parks
mean 3.72
(highest)

Scale: 1=not at all,
5=like very much,
26 images

Full Canopy
mean 3.63
Enclosed Sidewalk 3.32

Intermittent Trees 2.78
No Trees mean 1.65 (lowest)
(high - 3.72)
1. Place Perceptions
   - Place Character
   - Interaction with Merchants
   - Quality of Products

2. Patronage Behavior
   - travel time, travel distance
   - duration & frequency of visits
   - willingness to pay for parking

3. Product Pricing
   - higher willingness to pay for all types of goods
   - higher in districts with trees – 9-12%
Patronage Behavior

Time You Would Spend in this Place?

<table>
<thead>
<tr>
<th>Time Period</th>
<th>% Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 30 min</td>
<td></td>
</tr>
<tr>
<td>30 to 59 min</td>
<td></td>
</tr>
<tr>
<td>1-2 hours</td>
<td></td>
</tr>
<tr>
<td>&gt; 2 hours</td>
<td></td>
</tr>
</tbody>
</table>

Similar response patterns for other behaviors:
- time of travel
- distance of travel
- how often would return to place
Product Pricing

![Bar chart showing mean reported WTP for goods categories: convenience, shopping, and specialty, with two categories: no vegetation and mature vegetation.](chart.png)
Small Malls (strip malls)

Preference ratings 1-5

<table>
<thead>
<tr>
<th>1: Mixed Screen</th>
<th>mean 3.18, 0.91 sd</th>
</tr>
</thead>
<tbody>
<tr>
<td>2: Ordered Trees</td>
<td>mean 3.09, 0.78 sd</td>
</tr>
<tr>
<td>3: Shrub Edge</td>
<td>mean 2.35, 0.96 sd</td>
</tr>
<tr>
<td>4: No Vegetation</td>
<td>mean 1.39, 0.83 sd</td>
</tr>
</tbody>
</table>
Small Malls (strip malls)

Mall Having Trees

- Amenity: much higher
- Business Quality: higher
- Positive Merchants: higher
- Wayfinding: much lower

Product Pricing

- willingness-to-pay
- 8.8% more

Wolf, Arb & UF, 2009
funding by TREE FUND
social science of consumer behavior

‘atmospherics’
“Companies stage an experience when they engage customers in a memorable way.”
individual businesses vs. the business district - investing in the "commons" -
Places & Design

trees and other streetscape features
visibility = customer appeal?
tree annoyances - the best solution?
ALPHA:
Awaji Landscape Planning & Horticulture Academy
typical retail street in urban Japan
Namba Parks, Osaka

view from nearby hotel
interior retail space

ground level
small plazas, retail entry
passive nature experiences
Namba Parks: retail success & nature experience benefits
What Have We Learned?

- **Trees make a retail “experience”**

- **Place Marketing**
  - More expensive to recruit new customer than to retain established customer
  - Trust, quality, loyalty

- **Trees & District Image**
  - Product and business quality
  - Higher price willingness-to-pay
Trees & Nature Benefits

- livability
- health
- quality of life
- ecosystem services
- public values