Trees Mean Business

Examples from Research & Design

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urban forest – beauty & economics!
City Trees & Nature
Environmental Services

- Air pollutants reduction
- Nitrogen, phosphorus and sediment interception
- Carbon emissions reduction & sequestration
- Urban heat-island cooling
- Reduced “bad” ozone
- Stormwater runoff reduction
- Wildlife habitat
Wildlife Habitat

- including birds!
Tools for assessing and managing Community Forests

Assessing Urban Ecosystems
Find out how to assess all the trees in your community.
> click here to begin

Assessing Street Tree Populations
Learn how to assess just the street trees in your community.
> click here to begin

Applications and Utilities
Access tools available for your tree management.
> click here to begin

The i-Tree Tools help quantify the structure, function and value of tree populations. They provide a scientific process for data collection, analysis and quantification of the benefits.

Find out more >>
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%
- Heating and cooling costs reductions
- Less frequent pavement replacement
- Improved consumer environments in business districts - 9-12% product spending
Inner City Business Districts  
Small Town Business Districts  
Freeway & Roadside Communities  
Athens GA Case Study  
Strip Malls & Roadside

5 studies

Sponsors:

NUCFAC - USDA Forest Service  
National Main Street Program  
National Scenic Byways Research Center  
many local partners!
Visibility = customer appeal?
“low maintenance”
• 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
Image Categories (sorted by ratings)

Pocket Parks
mean 3.72
(highest)

Full Canopy
mean 3.63

Scale: 1=not at all, 5=like very much,
26 images
Enclosed Sidewalk 3.32

Intermittent Trees 2.78
No Trees
mean 1.65
(lowest)
(high - 3.72)
Survey Scenarios

Streetscape and Canopy Differences
Business District Scenarios

- district character
- respondent sees one
- architecture constant
1. Place Perceptions

Place Character
Products & Merchants

higher ratings for scenario with tree canopy
2. Patronage Behavior

- travel time, travel distance
- duration of visits
- frequency of visits
- willingness to pay for parking

increased market range & potential
Visit Length

![Graph showing visit length by time in minutes with and without trees.](image-url)
3. Product Pricing

- higher willingness to pay for all classes of goods

- 9.2% higher in districts with trees (12% in large cities)
Product Pricing

- Convenience: No Trees (6), With Trees (10)
- Shopping: No Trees (65), With Trees (90)
- Specialty: No Trees (50), With Trees (70)
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%
anthropology of consumer behavior
“Companies stage an experience when they engage customers in a memorable way.”
Results Summary

• Trees create a retail “experience”

• Place Marketing
  • More expensive to recruit a new customer than to retain established customer
  • Trust, quality, loyalty

• Trees & District Image
  • Product and business quality
  • Higher price willingness-to-pay
ALPHA, U of Hyogo: near Kobe, Osaka, Kyoto
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
Small Malls

Preferences and Scenarios
Small Malls (strip malls)

1: Mixed Screen, mean 3.18, 0.91 sd
mean 3.18

2: Ordered Trees, mean 3.09, 0.78 sd
mean 3.09

3: Shrub Edge, mean 2.35, 0.96 sd
mean 2.35

4: No Vegetation, mean 1.39, 0.83 sd
mean 1.39

Preference ratings 1-5
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 ISA Tree Fund
Product Pricing

Bar chart showing mean reported WTP (Willingness To Pay) for different goods categories:
- Convenience
- Shopping
- Specialty

Categories are compared between no vegetation and mature vegetation.
Design Details

Trees in Retail Business Districts
Trees Mean Business

• beauty!
• property values
• commercial rentals
• retail districts & centers

trees are cues to quality & care
TREES ARE GOOD FOR BUSINESS