

# Open Data for Sustainable Communities

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Open Data Panel

New Partners for Smart Growth Conference

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Smart Growth  
PROGRAM

# Data Tool

# Smart Location Mapping



US Environmental Protection Agency

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## Smart Location Mapping

**Interactive maps and data for measuring location efficiency and the built environment**

You will need Adobe Reader to view some of the files on this page. See [EPA's About PDF page](#) to learn more.

- [Background](#)
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### Background

A large body of research has demonstrated that land use and urban form can have a significant effect on transportation outcomes.

# A National Database of Smart Growth Characteristics



## 4 Units per Acre



Density  
Diversity  
Design of Street Network  
Destination Accessibility  
Distance to Transit



## 11 Units per Acre



Image sources: Lincoln Land Institute's "Visualizing Density" and Victor Dover

# Open Data Access



## Smart Location Database

The Smart Location Database is a nationwide geographic data resource for measuring location efficiency. It includes more than 90 attributes summarizing characteristics such as housing density, diversity of land use, neighborhood design, destination accessibility, transit service, employment, and demographics. Most attributes are available for every census block group in the United States.

EPA first released the Smart Location Database in 2011 and released version 2.0 in July 2013. Please review the [Smart Location Database Technical Documentation and User Guide](#) for a full description of all available variables, data sources, data currency, and known limitations.

Figure 1 illustrates one of the variables in the Smart Location Database. The map shows patterns of spatial variation in transit service availability and density in Los Angeles and its surrounding cities and suburbs.

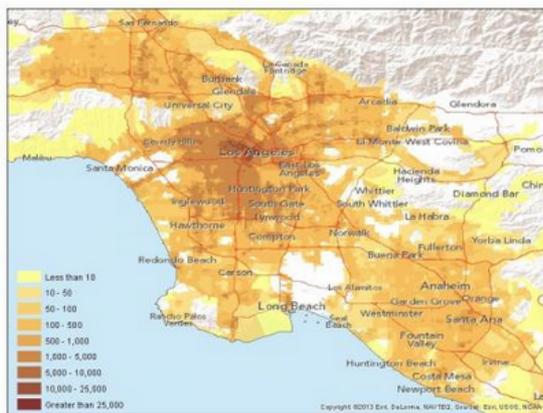


Figure 1: Transit Service Density in the Los Angeles Metropolitan Region (Aggregate frequency of transit service per hour per square mile during evening peak period)

## Access the Data

[Interactive map viewer](#) [\[v\]](#)

[Download data for your community](#) [\[v\]](#)

Download data for the entire nation:

- [Shapefile \(ZIP\)](#) (800 MB)
- [Dbf \(ZIP\)](#) (85 MB)
- [Esri Geodatabase \(ZIP\)](#) (417 MB)

[Metadata](#)

[Web services](#)

Online interactive map viewer  
“Clip n’ Ship”

Complete dataset for download

<http://www2.epa.gov/smartgrowth/smart-location-mapping#SLD>

# Mapping Tool



ArcGIS ▾ Smart Location Database

Details | Basemap | Share | Print | Measure | Boston, Massachusetts, United States

About | Content | Legend

Contents

- Workers per job equilibrium index
- Land use diversity
- Total road network density
- High-speed road network density
- Street intersection density
- Percentage of jobs within 0.25 miles of fixed-guideway transit
- Percentage of jobs within 0.5 miles of fixed-guideway transit
- Transit service frequency

Search result

Boston, Massachusetts, United States

Add to Map Notes ▾

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Sources: Esri, USGS, NOAA | Sources: Esri

# New Spin Off Product National Walkability Index



Details

Basemap



Print Measure

Boston, Massachusetts, United States

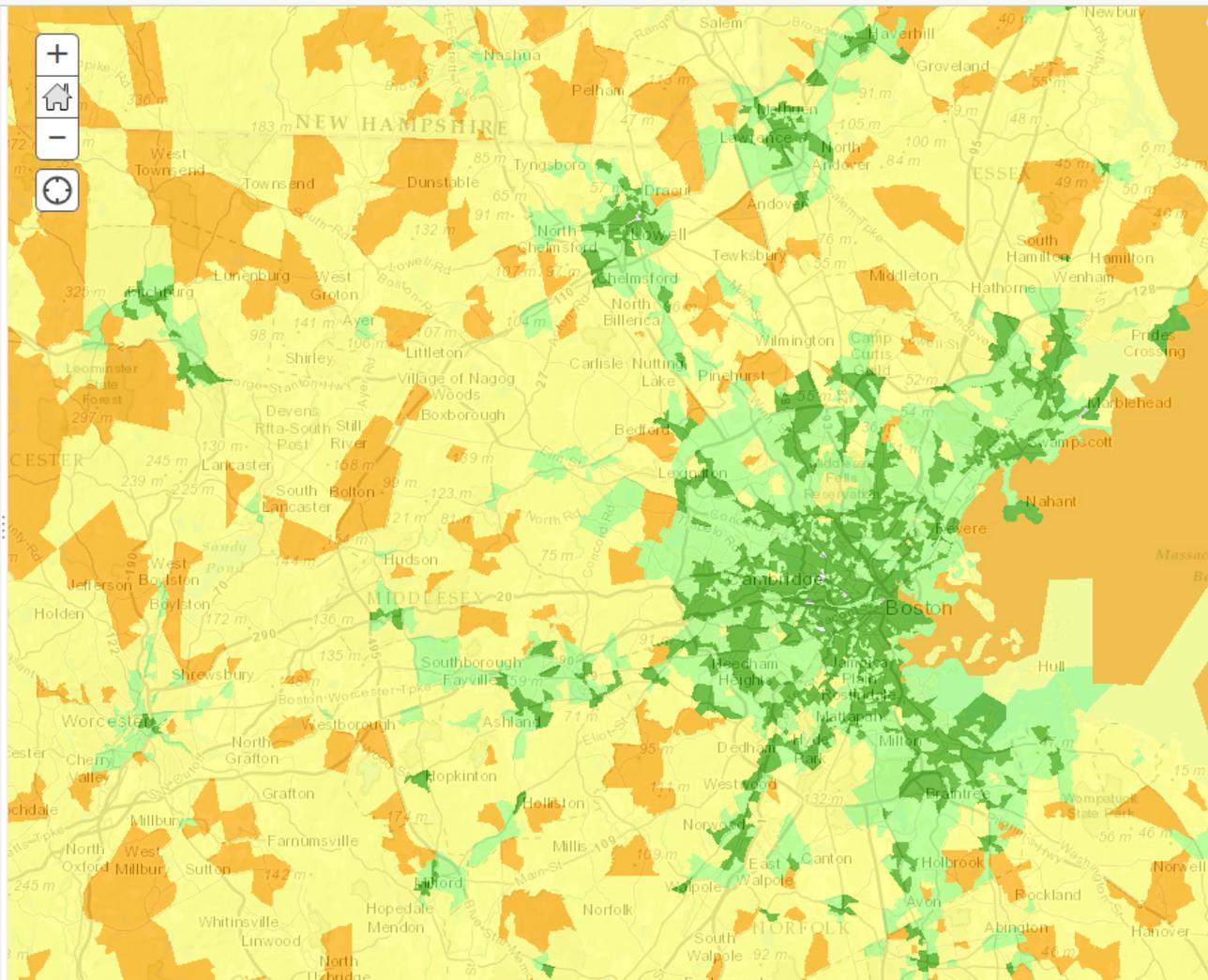


## Legend

### WalkabilityIndex

#### NationalWalkabilityIndex

- 1 - 5.75 (Least Walkable)
- 5.76 - 10.50 (Below Average Walkable)
- 10.51 - 15.25 (Above Average Walkable)
- 15.26 - 20 (Most Walkable)



# GSA / EPA Tool

## Smart Location Calculator



### Smart Location Calculator

Measuring the environmental benefits of workplace location efficiency



60 School St, Boston, Massachusetts, 02108, USA

Employees:

Male:  %

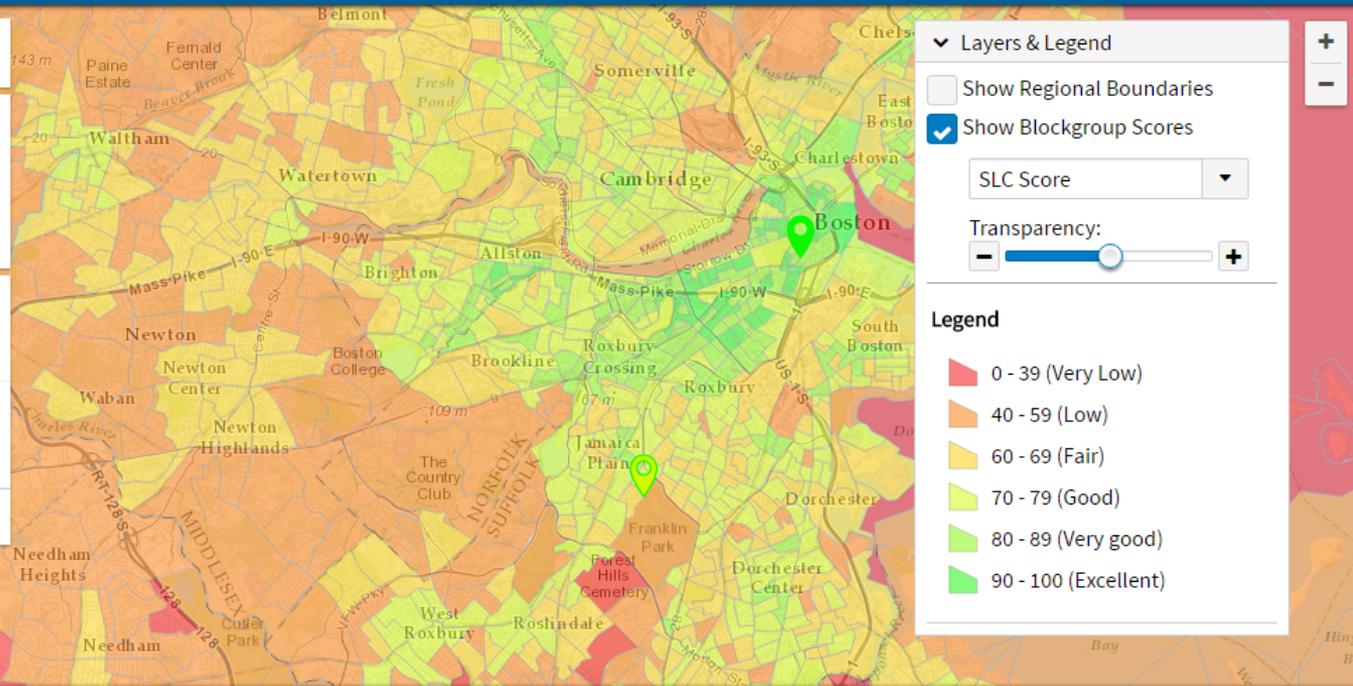
60 School St  
Boston, Massachusetts 02119

**74**  
Smart Location Index

60 School St  
Boston, Massachusetts 02108

**91**  
Smart Location Index

[Export all](#) [Compare statistics](#)



**Layers & Legend**

Show Regional Boundaries

Show Blockgroup Scores

SLC Score:

Transparency:

**Legend**

- 0 - 39 (Very Low)
- 40 - 59 (Low)
- 60 - 69 (Fair)
- 70 - 79 (Good)
- 80 - 89 (Very good)
- 90 - 100 (Excellent)

How it works:  
[Background](#) [Data & Methodology](#)

Resources:  
[User Guide](#) [FAQ](#)

Feedback:  
[slc@gsa.gov](mailto:slc@gsa.gov)



<https://www.slc.gsa.gov/slc/#>

# Applications of the Data



- AARP Livability Index
- Livable Transit Corridor Evaluation Tool
- National Environmental Database

# Related Federal Open Data



- EJ Screen
- National Sustainability Atlas
- Location Affordability Portal