# **Economic Vitality and Quality of Life**

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# **Economic Vitality**

Travel Time to Work	
Measure at a Glance	Evaluation Factors
Category: Economic Vitality and Quality of Life	Performance Measure Type: Intermediate Output
Subcategory: Economic Vitality	Used By: R , L
	Relationship with Goal: Direct
	SMART Amendable: High
	Data Collection: Medium
	Data Continuity: High
	Data Reliability: High
	Cost: High
	Required: Not required
	Existing Tahoe Measure: Yes, threshold

### **Indicator Overview**

#### Description

This indicator measures the time it takes workers to communte from home to work. The measure includes all time between the home and place of work including; time waiting for transit, time spent in traffic, picking up carpool passengers, etc. The measure is generally reported as an average travel time for a sepcified population within a geographic region, that is calculated by dividing the total time by the number of workers.

### **Human and Environmental Drivers**

Environmental: Poor weather conditions (eg. snow, fog) can increases travel time.

**Human:** Geographic distance between home and work generally increases travel time. Thus increased travel times are often associated with sprawling residential development outside of urban cores where jobs are located. Congestion on roadways during communiting hours is associated with increased travel time. Road work, poor road conditions, and/or accidents that limit road capacity all increase travel times. Availablity and accessibility of modes of transportation other than private vehicles generally decreases travel time. Dense areas with mixed-use development/ transit-oriented development can decrease travel time if workers live in closer proximity to places of work. Lower fuel costs are associated with increasing utilization of private automobiles and can increase travel times due to congestion. Congestion pricing, charging a fee to road users during rush hours, can reduce travel time by encouraging less affluent commuters or commuters with greater flexibility to commute at non-peak times. Telecommuting and flexible work schedules can also reduce demand at peak hours and thus decrease travel times. Increasing population and higher levels of employment can increase travel time by increasing demand on transportation infrastructure.

### **Application**

### In the Basin

No current in-basin use.

### **External uses**

Sacramento Council of Governments (SACOG) uses two variations of the measure to measure accessibility. SACOG uses the "Percent of Population within 30 minutes of Jobs and Higher Education" to understand the accessibility to employment and education facilities using transit in the region (Sacramento Area Council of Governments 2016a). SACOG uses "Total Jobs within 30-Minute Drive" to understand accessibility via auto (Sacramento Area Council of Governments 2016a).

City of Pasadena uses the "Average Number of Jobs within a 25-Minute Transit Ride of City Residents" to understand auto access to jobs (Dock 2014).

San Diego Association of Governments uses the "Average Peak-Period Travel Time to Work", "Commute Time by All modes", and "Percent of Population within 30 Minutes of Jobs & Higher Education" to understand social equity (San Diego Association of Governments 2015).

Santa Barbara County Association of Governments uses the "Commute Time by SOV" to understand the region's productivity (Santa Barbara County Association of Governments 2016).

**City/County Association of Governments of San Mateo County** uses "Commute Time by Transit", "Commute Time by Carpool", and "Commute Time by All Modes" to understand Level of Service (City/County Association of Governments of San Mateo County 2015).

### **Literature or Guidance Documents**

No literature or guidance documents used.

### **Relationship with Goal**

**Resident Quality of Life:** This measure relates to the resident quality of life goal because commute times are inversely correlated with quality of life. Studies have also found that increasing time spent in a car, can increase the likelihood of obesity (Frank et al. 2004).

**Economic Vitality:** This measure relates to economic vitality because shorter commute times generally increase worker productivity.

### Variations of the Measure / Alternatives to the measures

There are a number of variations of the measure that can be grouped by the limits they place on subsets of the population, mode of transit, or that specify a threshold travel time for reporting.

- 1) Commute Time by Transit Travel time based only by workers commuting via transit.
- 2) Commute Time by Carpool Travel time based only by workers commuting via carpool.
- 3) Commute Time by All Modes -
- 4) Commute Time by SOV Travel time based only by workers commuting via single occupancy vehicle.
- 5) Total Jobs within a 30-Minute Drive Number of jobs within a 30-minute drive from a specified location.
- 6) Percent of Population within 30 Minutes of Jobs and Higher Education Proportion of workers who can commute home after work within 45 minutes.
- 7) Percent of PM Peak Period Work Trips within 45 Minutes of Home Proportion of workers who can commute home after work within 45 minutes.

### References

(City/County Association of Governments of San Mateo County 2015)

(Dock 2014)

(Frank et al. 2004)

(Metropolitan Transportation Commission n.d.)

(Pinsker 2015)

(Riverside County Transportation Commission 2011)

(Sacramento Area Council of Governments 2016a)

(Sacramento Area Council of Governments 2016b)

(San Diego Association of Governments 2015)

(Santa Barbara County Association of Governments 2016)

(Shariff & Shah 2008)

(United States Census Bureau 2016)

Travel Distance to Work	
Measure at a Glance	Evaluation Factors
Category: Economic Vitality and Quality of Life	Performance Measure Type: Intermediate Output
Subcategory: Economic Vitality	Used By: F, R, L
	Relationship with Goal: Indirect
	SMART Amendable: High
	Data Collection: Medium
	Data Continuity: High
	Data Reliability: High
	Cost: High
	Required: Not required
	Existing Tahoe Measure: No

#### Description

This indicator measures the one-way commute distance people travel from their home to work place.

### **Human and Environmental Drivers**

**Environmental:** Job availablity/location and housing costs.

Human: Travel distance to work is a function of choices individuals make about where to live relative to where they work.

### **Application**

### In the Basin

No current in-basin use.

### **External uses**

The **United States Census Bureau** uses "Travel Distance to Work" to determine people's commuting time to work. (US Census 2015a)

### **Literature or Guidance Documents**

No literature or guidance documents used.

### **Relationship with Goal**

**Connectivity:** The measure relates largely to the connectivity goals as it analyzes the factor of distance travelled to place of work as a determinant of mode of transportation.

**Environmental - Air Quality:** This measure relates to air quality due to the fact that integration of long range transportation, alternative to automobile, would result in improved air quality. The larger the distance travelled to work, the more likely an individual is to choose to travel to work by automobile as opposed to active or transit-based transportation. The shorter the distance travelled to work, the more likely an individual is to choose alternative forms of transportation aside from an automobile. Increase in distance increases potential for livability in places outside of an individual's place of work.

**Economic:** Increase in availability of transit and active transportation networks extending into long distances can increase job opportunities and mobility for all (especially low income).

### Variations of the Measure / Alternatives to the measures

Variations of the measure calculate average travel distance to work based by mode or commute type (e.g. drive alone, carpool, transit, bike, or walking).

### References

(Kain 1962)

("Large Urban Transit Systems" n.d.)

(US Census 2015a)

(US Census 2015b)

(San Diego Association of Governments 2015)

(Santa Barbara County Association of Governments 2013)

Economic Impacts of Transportation Investment (Jobs Created)	
Measure at a Glance	Evaluation Factors
Category: Economic Vitality and Quality of Life	Performance Measure Type: Outcome
Subcategory: Economic Vitality	Used By: S
	Relationship with Goal: Indirect
	SMART Amendable: High
	Data Collection: Low
	Data Continuity: Low
	Data Reliability: Low
	Cost: Medium
	Required: Not required
	Existing Tahoe Measure: No

### Description

This indicator measures the return on investment into transportation based projects on economic indicators. This pertains specifically to creating, sustaining, and permitting accessibility to new jobs.

#### **Human and Environmental Drivers**

**Human:** Creation of transportation investment projects (i.e. construction of highways, bike paths, etc.) directly correlates with a positive return from the intial investment to positive economic indicators (i.e. decrease in rate of unemployment). **Economic:** Investment into transportation related projects has positive impacts on the economy directly by creating manufaturing jobs for the creation of the roadways. Investment indirectly by allowing current jobs to be sustained, new jobs to become accessible, and general output to increase. This positive impact on jobs in the area ultimately results in a positively correlated rate of return, especially in relation to the volume of people utilizing said means of transportation. This means that areas with larger populations (and thus investment and job needs) will benefit greater from investment.

### **Application**

### In the Basin

No current in-basin use.

### **External uses**

**Florida Department of Transportation (FDOT)** uses the "Economic Impact of Transportation Investments" to understand the economic benefits of FDOT's Five Year Work Program for highway, rail, seaport, and transit investments (FDOT 2009).

### **Literature or Guidance Documents**

No literature or guidance documents used.

### Relationship with Goal

**Economic Vitality:** This measure relates to economic vitality because of the positive impact that transportation investment has on employment in the surrounding area.

**Resident Quality of Life:** This measure relates to residential quality of life because it increases accessibility to jobs. This results in either accessibility to what may be a better job for a certain resident or allow said resident to spend less time commuting and more time elsewhere.

#### Variations of the Measure / Alternatives to the measures

No variations.

### References

(American Public Transportation Association 2009)

(Berechman et al. 2006)

(Florida Department of Transportation n.d.)

(OSTER, JR et al. 1997)

Housing and Transportation (H+T) Affordability Index	
Measure at a Glance	Evaluation Factors
Category: Economic Vitality and Quality of Life	Performance Measure Type: Intermediate Output
Subcategory: Economic Vitality	Used By: R
	Relationship with Goal: Direct
	SMART Amendable: High
	Data Collection: High
	Data Continuity: High
	Data Reliability: High
	Cost: Low
	Required: Not required
	Existing Tahoe Measure: Yes, non-threshold

#### Description

This indicator measures the cost of housing as well as the cost of transportation, H+T provides a more comprehensive understanding of the affordability of place. Dividing these costs by the representative income illustrates the cost burden of housing and transportation expenses placed on a typical household.

### **Human and Environmental Drivers**

**Environmental:** "H+T Index"; households with greater access to multimodal transportation have a higher "H+T Index"; location-efficient mortgages (LEM) decrease housing costs and thus, increase the "H+T Index"; transit-oriented development (TOD) tax abatement incentivizes multi-family and mixed use development along transit routes which increases the "H+T Index". Housing and transportation together make up the largest portion of costs in most households. And the affordability of housing is strongly linked with available options for transit, walking, and bicycling — which all cost less than owning, maintaining, and driving a car. By supporting transportation alternatives and shortening trips, our region can reduce the costs of congestion and travel for all residents

**Human:** By providing residents with safe, reliable, and economical transportation choices, more people will be able to walk, bike, and use public transit to get around — making driving a choice rather than a necessity. Having transportation options allows older residents to stay in their homes.

### **Application**

### In the Basin

No current in-basin use.

### **External uses**

**Portland Metro** uses the "Percent of Income Consumed by Housing and Transportation Costs" measure to understand the number of cost-burdened households in the region (Metro 2014).

San Diego Association of Governments uses the "Percent of Income Consumed by Out-of-Pocket Transportation Costs" measure to understand social equity in the region (San Diego Association of Governments 2015).

### **Literature or Guidance Documents**

No literature or guidance documents used.

### **Relationship with Goal**

**Resident Quality of Life:** This measure relates to the resident quality of life goal because the index determines the housing and transportation cost associated with living in neighborhoods across the nation.

**Economic Vitality:** This measure relates to economic vitality because the portion of income individuals spend on housing and transportation helps determine if residents are receiving living wages and if jobs and housing are located in areas that promote or discourage econommic growth.

## Variations of the Measure / Alternatives to the measures

Change in Percent of Income Consumed by Transportation Costs.

### References

(Center for Neighborhood Technology 2006)

(City of Portland Bureau of Planning and Sustainability 2010)

("Housing and Transportation Affordability Index" n.d.)

(Metro 2014)

(San Diego Association of Governments 2015)

Economic Impacts of Freight Transportation	
Measure at a Glance	Evaluation Factors
Category: Economic Vitality and Quality of Life	Performance Measure Type: Intermediate Output
Subcategory: Economic Vitality	Used By: F, S
	Relationship with Goal: Indirect
	SMART Amendable: High
	Data Collection: Low
	Data Continuity: Low
	Data Reliability: Low
	Cost: Low
	Required: No
	Existing Tahoe Measure: No

#### Description

This indicator measures the impact of freight transportation on general revenue as well as potential maintenance and retrofit costs acrued from accomodation.

#### **Human and Environmental Drivers**

**Economic:** Increase in the total number of freight that is able to pass through and into the area increases overall economic revenue. Increase in sales generated from freight stops at gas stations in the area increases overall revenue for the city. Increase of investment into trade corridors to maximize efficiency and competitiveness of freight transportation increases economic impacts of freight transportation. Increase in freight efficiency increases output from the region. Transportation investment for roadways will see a return on investment. Increase in utility of roadways without proper retrofitting decreases the total return on freight transportation investment.

**Human:** Increase in flow of heavy freight traffic benefits the overall revenue for the city.

**Environment:** Increase in level of freight vehicles travelling through corridors may increase emissions if they are idling in traffic which decreases air quality. Loading and unloading should occur outside of typical commute hours to reduce conflicts with pedestrians and bicycles, creating a safere environment for non-auto travel. Freight loading and unloading should also occur during times where noise is most tollerated.

### **Application**

In the Basin

### **External uses**

California Department of Transportation uses economic impact of freight transportation under the second goal of stewardship and efficiency to determine cost efficiency of transportation projects (California Department of Transportation 2015)

The **United States Department of Transportation** uses factors affecting shipment levels to help determine the overall economic impact of freight (United States Department of Transportation n.d.)

### **Literature or Guidance Documents**

N/A

### Relationship with Goal

**Economic Vitality:** This measure relates to the economic vitality goal because the return on investment from freight based infrastructure and development can increase the level of economic vitality within the region.

**Environmental - Air Quality**: This measure relates to the air quality goal because the impact of an increase in freight traffic or an increase in the free flow of freight traffic both impact air quality levels.

# Variations of the Measure / Alternatives to the measures

N/A

### References

(California Department of Transportation 2015)

(Federal Highway Administration 2015)

(Freight Policy Transportation Institute of Washington State University 2013)

(United States Department of Transportation n.d.)

# **Quality of Life**

Transportation-Related Physical Activity	
Measure at a Glance	Evaluation Factors
Category: Economic Vitality and Quality of Life	Performance Measure Type: Intermediate Output
Subcategory: Quality of Life	Used By: R
	Relationship with Goal: Indirect
	SMART Amendable: High
	Data Collection: Low
	Data Continuity: Low
	Data Reliability: Low
	Cost: Medium
	Required: Not required
	Existing Tahoe Measure: Yes, non-threshold

### **Indicator Overview**

### Description

This indicator measures the propensity of individuals to engage in physical activity during transportation.

### **Human and Environmental Drivers**

**Environmental:** A large deterent to walking and biking as a means of transportation is due largely to existing challenging topogrophy. Steep terrain and poor roadway quality in a certain area may be a deterant for individuals to engage in physical activity. Lack of quality integrated design based in alternative transportation (i.e. distinct bike lanes, separated walk and bike paths, comfortable sidewalks, etc.) can also be a deterant from engaging in physical activity as means of transportation. Integration of quality design, both aesthically and to combat difficult geologic components, can motivate people to engage in physically active means of transportation when sidewalks and protected bikeways are present, it not only looks safe but feels safe.

### **Application**

### In the Basin

No current in-basin use.

#### **External uses**

### **Literature or Guidance Documents**

No literature or guidance documents identified.

### **Relationship with Goal**

**Resident Quality of Life:** This measure relates to the resident quality of life goal because it promotes health and socially interactive lifestyles within the community. Engaging in physically active lifestyles promotes healthy living by combatting obesity and heart problems. This also promotes socially active communities, with people to directly interacting with those surrounding them as opposed to being insulated from human interaction in private vehicles.

**Connectivity - Active Transportation:** This measure relates to the active transportation goal because it directly analyzes the potential for people to engage in physically active transportation.

### Variations of the Measure / Alternatives to the measures

Total Time Engaged in Transportation-Related Physical Activity per capita and the Percent of the Population Engaging in 20 Minutes or More of Daily Transportation-Related Physical Activity.

### References

(Association of Bay Area Governments & Metropolitan Transportation Commission 2013)

("Means of Transportation to Work for Workers 16 Years and Over (American Community Survey (5-Year Estimates))" n.d.) (Sallis et al. 2004)

(San Diego Association of Governments 2015)

Accessibility Score		
Measure at a Glance	Evaluation Factors	
Category: Economic Vitality and Quality of Life	Performance Measure Type: Intermediate Output	
Subcategory: Quality of Life	Used By: S, R, L	
	Relationship with Goal: Indirect	
	SMART Amendable: High	
	Data Collection: Low	
	Data Continuity: Medium	
	Data Reliability: Medium	
	Cost: Medium	
	Required: Not required	
	Existing Tahoe Measure: No	

### Description

This indicator measures the ease of travel to destinations, activities, or services by any mode excluding private automobile. "Accessibility Score" is calculated based on the distance to jobs, services, goods, and transit-oriented communities from one's home. A higher "Accessibility Score" is correlated to greater accessibility.

### **Human and Environmental Drivers**

**Environmental:** Congestion reduces accessibility; increase in transit and HOV increases accessibility, efforts to increase automobile accessibility may reduce the accessibility of other modes; destinations/ areas served by multiple modes have greater accessibility; available and accurate user information improves accessibility of all modes; greater security/safety/visibility at transit stations/ stops increases transit accessibility; improving public awareness of travel/ user information improves accessibility; greater integration between modes improves accessibility; bike parking improves bike accessibility; increasing bike/ ped network connectivity improves accessibility; higher transit cost/ other transportation costs decrease accessibility; high density and mixed-use development improves accessibility; grid street system increases connectivity which improves accessibility; development in central locations (downtown, central business districts, etc) improves accessibility; two-way streets increase connectivity (for bikes, transit, vehicles) which increase accessibility;

### **Application**

### In the Basin

No current in-basin use.

### External uses

The **New York State Association of Metropolitan Planning Organization** uses both "Walk Score" and "Accessibility Score" to understand accessibility in the region (New York State Association of Metropolitan Planning Organizations 2006a).

The City of Pasadena uses the "Walk Score" measure to understand proximity and quality of pedestrian environment (Dock 2014).

**California Department of Transportation** uses the "Accessibility Score" measure to understand the quality of life of Californians (California Department of Transportation 2015).

### **Literature or Guidance Documents**

California Department of Transportation recommends the use of the Accessibility Score measure to assess the quality of life of Californians (California Department of Transportation 2015).

New York State Association of Metropolitan Organizations recommends the use of the Pedestrian Accessibility Score measure to assess pedestrian accessibility (New York State Association of Metropolitan Planning Organizations 2006b).

### **Relationship with Goal**

**Quality of Life:** This measure relates to quality of life because greater accessibility improves residents' ability to easily access desired amenities and services.

### Variations of the Measure / Alternatives to the measures

Variations of this measure primarily focus on travel mode, types of amentiites, and time within which ameneties are reachable. Walk Score is a propreitary variation of the measure produced by a company of the same name. Walk scores are calculated based on the number of amenities available within a thirty minute walk of a location. Walk score uses a decay function to more heavily weight amenities in closer proximity, with full points being awarded for amenities within a 5-minute walk and no points for amenities beyond a thirty minute walk from the site. Walk scores are weighted from 1-100 with higher scores indicating great walkability. The company also offers similar scores for transit and bike.

# References

(California Department of Transportation 2015)

(Dock 2014)

(Litman 2017)

(New York State Association of Metropolitan Planning Organizations 2006a)

("Walk Score" n.d.)

Population Access to Amenities/Services	
Measure at a Glance	Evaluation Factors
Category: Economic Vitality and Quality of Life	Performance Measure Type: Intermediate Output
Subcategory: Quality of Life	Used By: R , L
	Relationship with Goal: Indirect
	SMART Amendable: High
	Data Collection: High
	Data Continuity: Medium
	Data Reliability: Medium
	Cost: Medium
	Required: Not required
	Existing Tahoe Measure: Yes, non-threshold

#### Description

This indicator measures how accessible amenities/services are to the population based on travel modes. TRPA currently uses Percentage of Overnight Lodging and Recreation Areas with Transit, Bicycle, and Pedestrian Access to measure the percentage of tourist units and recreation areas within a 1/4 mile of a transit stop or Dial-a-Ride, or within a 1/2 mile of a bicycle path, lane or route. This measure also calculates tourist units and recreation areas in pedestrian-friendly neighborhoods.

#### **Human and Environmental Drivers**

**Environmental:** TOD/ mixed-use development and high density development increase transit/active transportation access; Improve safety to promote walking and biking (lighting, crosswalks, signage, buffered bike lanes/ separated bike paths); Integrating transit, biking, and pedestrian infrastructure will increase transit and active transportation access; limiting barriers (expressways/ highways, etc.) along pedestrian and bike routes increases transit/ active transportation accessibility.

### **Application**

### In the Basin

TRPA currently uses the "Percentage of Overnight Lodging and Recreation Areas with Transit, Bicycle, and Pedestrian Access" in it's transportation model to measure the percentage of tourist units and recreation areas are within a 1/4 mile of a transit stop or Dial-a-Ride, or within a 1/2 mile of a bicycle path, lane, or route. This measure also calculates tourist units and recreation areas in pedestrian-friendly neighborhoods.

### **External uses**

**Florida Department of Transportation** uses the "Miles of State Highway System with Bicycle and Pedestrian Facilities" measure to understand availability of alternative transportation modes and quality of life (Florida Department of Transportation n.d.).

Santa Cruz County Regional Transportation Commission uses the "Percent of Disadvantaged People that are within a 30-Minute Walk, Bike, or Transit to Key Destinations" measure to understand disadvantaged people's accessibility to jobs, schools, health care, and other regular needs in the region (Santa Cruz County Regional Transportation Commission 2014).

Sacramento Area Council of Governments uses the "Environmental Justice and Non-Environmental Justice Areas within 30-Minute Transit and Car Trips to Jobs, Retail, Higher Education, or Parks" measure to understand transit and auto accessibility (Sacramento Area Council of Governments 2016b).

Santa Cruz County Regional Transportation Commission uses the "Percent of People that are within a 30-Minute Walk, Bike, or Transit to Key Destinations" measure to understand people's accessibility to jobs, schools, health care, and other regular needs in the region (Santa Cruz County Regional Transportation Commission 2014).

**Sacramento Area Council of Governments** uses the "Growth in Dwelling Units within a Half-Mile of Quality Transit" measure to understand transit-oriented development in the region (Sacramento Area Council of Governments 2016a).

**Chicago Metropolitan Agency for Planning** uses the "Percentage of Population with Access to Transit" measure to understand transit access in the region (Chicago Metropolitan Agency for Planning 2010)

**City of Pasadena** uses the "Percent of Jobs within 0.25 Miles of Transit" measure to understand proximity and quality of the transit network in the region (Dock 2014).

**Mid-Ohio Regional Planning Commission** uses the "Percent of Population within 0.75 Mile of Transit" measure to understand access to transportation choices in the region (Mid-Ohio Regional Planning Commission 2012).

San Diego Association of Governments uses the "Percentage of Population Within 0.5 Miles of a High Frequency Transit Stop" measure to understand the social equity in the region (San Diego Association of Governments 2015).

Santa Barbara County Association of Governments uses the "Population Within 0.5 Miles of a High Frequency Transit Stop" measure to understand transit accessibility (Santa Barbara County Association of Governments 2016).

San Diego Association of Governments uses the "Percentage of Population/Employment within 0.5 Miles of a Transit Stop" measure to understand social equity (San Diego Association of Governments 2015).

San Diego Association of Governments uses the "Percentage of Population/Employment within 0.25 Miles of a Bike Facility" measure to understand social equity (San Diego Association of Governments 2015).

**City of Pasadena** uses the "Percentage of Population/Employment within 0.25 Miles of a Bike Facility" measure to understand the proximity and quality of the bicycle network in the City (Dock 2014).

Sacramento Area Council of Governments uses the "Growth in Employees within a Half-Mile of Quality Transit" measure to understand transit-oriented development in the region (Sacramento Area Council of Governments 2016a).

Mid-Ohio Regional Planning Commission uses the "Density of People and Jobs within 0.75 Miles of Arterials and Above" measure to understand redevelopment and infill in the region (Mid-Ohio Regional Planning Commission 2012).

**Mid-Ohio Regional Planning Commission** uses the "Percent of Population and Jobs within 0.75 Mile of Bikeways" measure to understand access to transportation choices in the region (Mid-Ohio Regional Planning Commission 2012).

**San Diego Association of Governments** uses the "Percent of Population within 15 Minutes of Goods and Services" measure to understand social equity (San Diego Association of Governments 2015).

### **Literature or Guidance Documents**

No literature of guidance documents identified.

#### **Relationship with Goal**

**Economic Vitality:** This measure relates to economic vitality because improving accessibility to amentities/services allows more people to patron local businesses and strengthen the region's economy. It also increases the popensity of non auto travel which is less expensive.

**Quality of Life:** This measure relates to quality of life because providing greater accessibility to amentities/ services improves quality of life.

### Variations of the Measure / Alternatives to the measures

Percent of population with access to amenities/jobs/transit within a specified distance or travel time and travel mode (SOV, Bike, Ped, Transit), Growth in Dwelling Units within a Half-Mile of Quality Transit, Percentage of Population with Access to Transit, Transit or Bike/Ped Infrastructure within 2 Miles of a Town Centers, Growth in Employees within a Half-Mile of Quality Transit, Percent of Recreation Areas with Bike/Pedestrian Access, Percent of Population and Jobs within a Specified Distance from Arterial Roads, Bikeways, or Transit.

### References

(Atlanta Regional Commission 2015)

(Chicago Metropolitan Agency for Planning 2010)

(Chicago Metropolitan Agency for Planning 2013)

(Denver Regional Council of Governments 2011)

(Dock 2014)

(Florida Department of Transportation n.d.)

(Metro 2014)

(Mid-Ohio Regional Planning Commission 2011)

(Mid-Ohio Regional Planning Commission 2012)

(Mid-Ohio Regional Planning Commission 2016)

(National Center for Transit Research 2002)

(Sacramento Area Council of Governments 2016a)

(Sacramento Area Council of Governments 2016b)

(San Diego Association of Governments 2015)

(Santa Barbara County Association of Governments 2016)

(Santa Cruz County Regional Transportation Commission 2014)

(Tahoe Regional Planning Agency 2010)

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