

# 2019 PERFORMANCE MEASURE UPDATE



Objective 1A

PM1

### Regional Vehicle Connectivity

Our regional road network should make it possible to move between key locations in a reasonable amount of time. This measure identifies those key locations, then calculates the average vehicle travel time during the morning peak travel period.

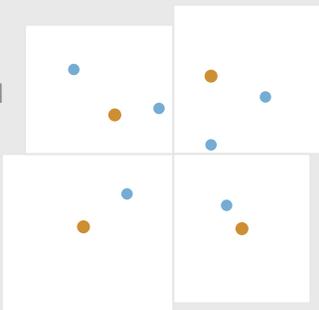
Data

# 25.4

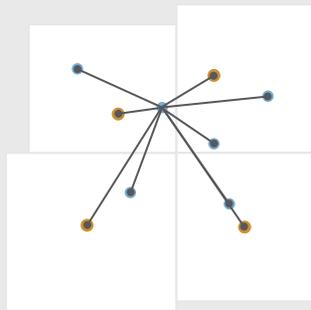
**AVERAGE MINUTES OF TRAVEL TIME DURING PEAK MORNING TRAFFIC BETWEEN ACTIVITY CENTERS**

How is it Measured?

Step 1  
Identify regional centers



Step 2  
For each center, measure travel time to all others



Step 3. Repeat for all centers; average all times

Objective 1B

PM1

### Percentage of People within the Region with Access to a Connected Bikeway

Access to a bikeway allows more people to bike safely for commuting or recreation. Connected bikeway networks allow people to travel further by bike. Access is defined as residents that live within a 1/2 mile of a connected bikeway.

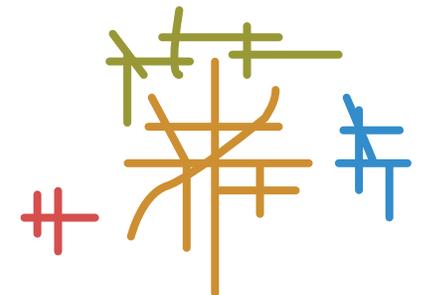
Data

# 48%

**OF THE REGIONAL POPULATION HAS ACCESS TO A CONNECTED BIKEWAY**

How is it Measured?

Connected bikeways are those where two or more bikeways cross, creating connections. This measure divides the number of people who live within 1/2 mile of the most-connected bikeways by the number of people in the Metropolitan Planning Area.



# 2019 Regional Performance Measures (Ver. 2) Changes



During the 2020 Performance Measure update, the 2019 Performance Measure document was also updated. The following are changes that have been made for the updated, second version of 2019's data:

## **Equity Accessibility Gap**

- Long Range Transportation Plan Performance Measure number was corrected from "Objective 3B PM2" to "Objective 3B PM1"
- Data was updated from 45% to 56.4%
- Performance Measure Description updated

## **Percent of Environmental Justice Population Near Frequent Transit**

- Long Range Transportation Plan Performance Measure number was corrected from "Objective 3C PM1" to "Objective 3B PM 2"

## **Number of People in Central Indiana with Access to Higher Education Facilities by Fixed-Route Transit**

- Long Range Transportation Plan Performance Measure number was corrected from "Objective 4A PM1" to "Objective 3C PM1"
- People that have access to higher education facilities and training centers by transit number was corrected from "611k" to "61k"

## **Automobile Accessibility Index**

- Long Range Transportation Plan Performance Measure number was corrected from "Objective 4A PM2" to "Objective 4A PM1"

## **Transit Job Accessibility Index**

- Long Range Transportation Plan Performance Measure number was corrected from "Objective 3B PM2" to "Objective 4A PM2"

## **Percentage of Pavement on Major Roads in the Region in Poor Condition**

- Long Range Transportation Plan Performance Measure number was corrected from "Objective 7C to PM1" to "Objective 7C PM4"

## **Number of Residents that can Access Grocery Stores by Bike, Sidewalk, or Transit**

- Long Range Transportation Plan Performance Measure number was corrected from "Objective 9A PM2" to "Objective 8B PM1"

Objective 1B

PM2

## Percentage of People within the Region with Access to a Connected Sidewalk

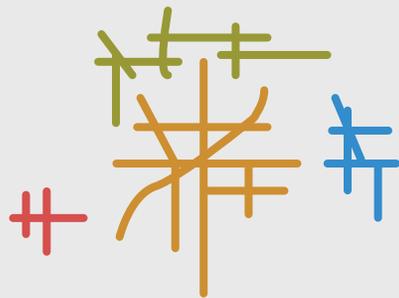
Sidewalks help people move around neighborhoods, access transit, and stay healthy. They are important for people with disabilities, older residents, and children to be comfortable and safe walking. Access is defined as living within 200 feet of a sidewalk.

Data

**49%**  
OF THE REGIONAL POPULATION  
HAVE ACCESS TO A SIDEWALK

### How is it Measured?

This measure divides the number of people who live within 200 feet of a sidewalk by the number of people in the Metropolitan Planning Area.



Objective 1C

PM1

## Transit Ridership Per Capita

Transit systems are one of many transportation choices. The higher the number of transit trips per person in a population, the better the access and convenience of the transit system. This measure includes unlinked transit trips taken on IndyGo's and Access Johnson County's fixed-route and paratransit (demand response) services.

Data

**5.2**  
TRANSIT TRIPS PER PERSON (2017)

### How is it Measured?

#### Step 1

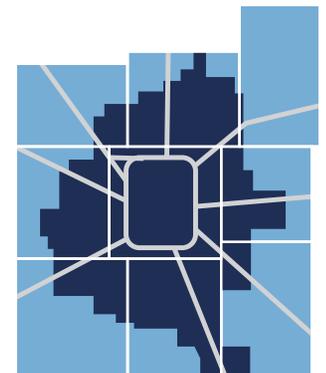
Transit providers count every passenger that boards a vehicle.



#### 8-COUNTY

#### Step 2

The rider counts are divided by population estimates for the 8-county region (from ESRI Community Analyst).



Objective 1C

PM2

## Percentage of People within the Region with Access to Fixed-Route Transit

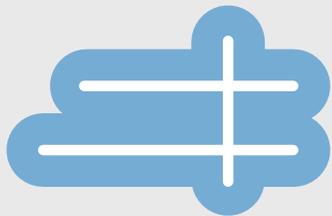
Scheduled, fixed-route transit provides a transportation option for people who can access it. Transit service (frequency/hours/etc.) may improve as the number of people who can access them and use them increases. Ten minutes is considered the maximum time people are willing to walk to a transit stop (~1/2 mile).

Data

**31.4%**  
OF THE REGIONAL POPULATION HAS ACCESS TO FIXED-ROUTE TRANSIT

How is it Measured?

MPA



**Step 1**  
A 1/2 mile buffer is drawn around fixed-route transit lines. People in the buffer have access to transit. ESRI Community Analyst estimates the population within the bus stop buffer.



**Step 2**  
The number of people within the buffer is divided by population estimates for the MPA (from ESRI Community Analyst).

Objective 1C

PM3

## Transit Ridership Per Capita along Frequent Transit Routes

Frequent transit routes are those with buses coming every 15 minutes or less. These routes often have higher ridership than others because riders do not need a schedule to know that the next bus will come "soon".

Data

**15.3**  
TRANSIT TRIPS PER PERSON ALONG FREQUENT TRANSIT ROUTES (2017)

How is it Measured?

MPA

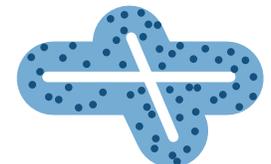
**Step 1**  
Transit providers count every passenger that boards a bus on the high frequency routes.



**Step 2**  
A 1/2 mile buffer is drawn around fixed-route transit lines.



**Step 3**  
The rider counts are divided by population estimates for the buffer (from ESRI Community Analyst).



Objective 3A

PM1

## Transportation Costs as a Percent of Median Income

Transportation costs are the second largest expense in a household and where a person chooses to live, along with the transportation options available at that location, are important determinants for transportation costs. Transportation costs are considered affordable when they are less than 15 percent of a household's income. By tracking transportation costs, we understand the burden the existing transportation system places on individual households.

Data

**24%**  
OF HOUSEHOLD INCOME GOES TO  
TRANSPORTATION COSTS

How is it measured?

**Auto  
Ownership**

**Auto  
Use**

**Transit  
Use**

The Housing and Transportation (H+T) Affordability Index uses three elements in their transportation costs model.

The estimate of transportation costs is divided by the median household income within the MPO's metropolitan planning area.

Objective 3B

PM1

## Equity Accessibility Gap

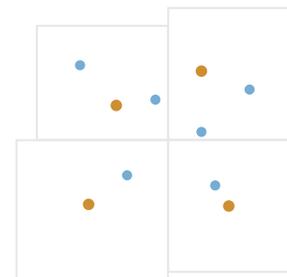
Accessibility to jobs is one of the key functions of the transportation system. The Equity Accessibility Gap measures the difference in access to jobs within 30 minutes of equity and non-equity populations. Ideally the measure should be 0%; a 100% means twice as much job accessibility for non-equity populations in 30 minutes compared to equity populations. Moving the measure requires more jobs in equity areas or better integration of lower income housing in the region. It does not consider skill level for jobs. Locations for equity populations are based on a 2016 equity analysis, identifying zones where the low income or non-white populations existed at a rate that exceeded the region's overall rate for those populations.

Data

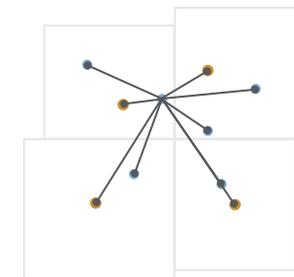
**56.4%**  
GAP BETWEEN EQUITY ZONE ACCESS TO  
EMPLOYMENT AND NON-EQUITY ZONE ACCESS  
TO EMPLOYMENT

How is it measured?

Step 1  
Identify equity zones and non-equity zones. Identify zones with jobs



Step 3. Separate equity zones from non-equity zones



Step 2  
Measure travel time between zones, selecting travel times under 30 min

Objective 3B

PM2

### Percent of Environmental Justice Population Near Frequent Transit

This is a measure of the percentage of the environmental justice population that can access frequent transit routes. "Frequent transit" is a fixed-route transit line where the bus comes every 15 minutes or less. "Environmental Justice Population" includes all non-white or Hispanic people and people (by household) living in poverty. "Access" means within walking distance of a stop on a frequent transit route, which is defined as a 10 minute walk (1/2 mile).

Data

**NON-WHITE / HISPANIC  
POPULATION WITH  
FREQUENT TRANSIT ACCESS**

**13%**

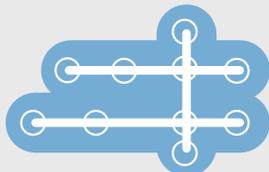
**HOUSEHOLDS IN  
POVERTY WITH FREQUENT  
TRANSIT ACCESS**

**16%**

How is it measured?

Step 1

ESRI Community Analyst counts households in poverty and the non-white or Hispanic individuals within a 1/2 mile walk of stops on bus routes that run at least every 15 minutes.



Step 2

ESRI Community Analyst counts the same population in the MPO's metropolitan planning area.

Step 3

The regional population is divided by the EJ population from Step 1.



Objective 3C

PM1

### Number of People in Central Indiana with Access to Higher Education Facilities by Fixed-Route Transit

Higher education is a means to opportunity and generally higher wages. Transportation can be a factor that limits access to higher education for people. Central Indiana is defined as the 9-county Central Indiana region, fixed-route transit is service from IndyGo and Access Johnson County, and higher education facilities are junior colleges, colleges, and universities.

Data

**61K**

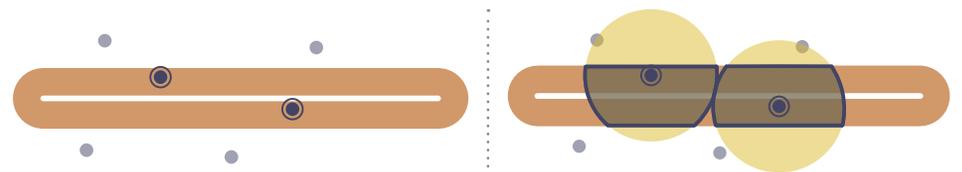
**PEOPLE HAVE ACCESS TO HIGHER  
EDUCATION FACILITIES AND  
TRAINING CENTERS BY TRANSIT**

**84%**

**OF HIGHER EDUCATION  
FACILITIES ARE ACCESSIBLE  
BY FIXED-ROUTE TRANSIT**

How is it measured?

A half-mile buffer is drawn around all road links with transit. This is overlaid with Transportation Analysis Zone demographic data to calculate the population within the buffer. This data is overlaid with InfoUSA data, which displays all higher education facilities within the MPO counties (including Madison County).



Objective 4A

PM1

### Automobile Accessibility Index

The Automobile Accessibility Index is the percentage of households in Central Indiana (9-county region) that can reach a job within a 30-minute car trip during peak morning travel.

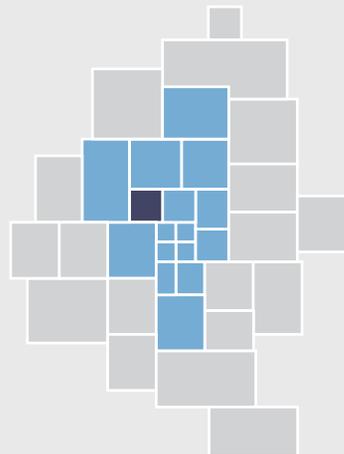
Data

# 99.5%

OF CENTRAL INDIANA'S HOUSEHOLDS ARE ACCESSIBLE TO A JOB BY AUTOMOBILE IN 30 MINUTES

How is it measured?

The **Dark zone** can access the **light zones** in 30 minutes by car. Total the jobs in **light zones** and average by population in the **dark zone**.



Objective 4A

PM2

### Transit Job Accessibility Index

The Transit Job Accessibility Index is the percentage of households in Central Indiana (9-county region) that can reach a job within a 60-minute transit trip during peak morning travel.

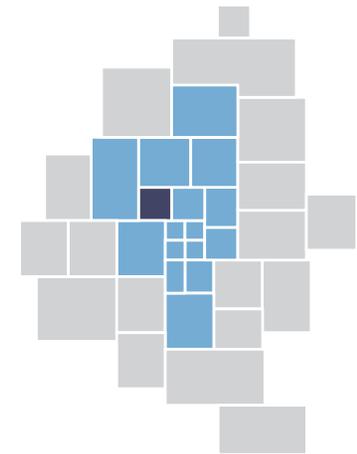
Data

# 42%

OF CENTRAL INDIANA'S HOUSEHOLDS ARE ACCESSIBLE TO A JOB BY TRANSIT IN 60 MINUTES

How is it measured?

The **Dark zone** can access **light zones** in 60 minutes by bus. Total the jobs in **light zones** and average by population in the **dark zone**.



Objective 7C

PM4

**Percentage of Pavement on Major Roads in the Region in Poor Condition**

Measurement of major regional roadways' pavement condition is an important performance measure that affects safety and efficiency of surface transportation facilities.

Data

**GOOD**  
**60.47%** of road pavement is in Good condition.

**FAIR**  
**25.49%** of road pavement is in Fair condition.

**POOR**  
**13.87%** of road pavement is in Poor condition.

**NO SCORE**  
**0.17%** of road pavement has no score.

How is it Measured?

The City of Indianapolis uses the Pavement Condition Index (PCI), which rates pavement condition on a 0 to 100 point scale. Other local governments in the MPO's metropolitan planning area use the Pavement Surface Evaluation and Rating (PASER) measure, which rates condition on a 0 to 10 point scale. A breakdown of how the scores were distributed between the categories is listed below:

Good: A PCI of 56 or greater; A PASER of 6 or greater

Fair: A PCI between 41 to 55; A PASER of 4 to 5

Poor: A PCI between 1 to 40; A PASER of 1 to 3

Objective 7A

PM3

**Percentage of Non-NHS Bridges in Poor Condition**

This performance measure examines bridges off\* the National Highway System, providing a comprehensive overview of bridges in Central Indiana (8-county region). "Poor condition" is defined by the federal rule governing this performance measure.

\* Condition of bridges on the National Highway System are measured by INDOT.

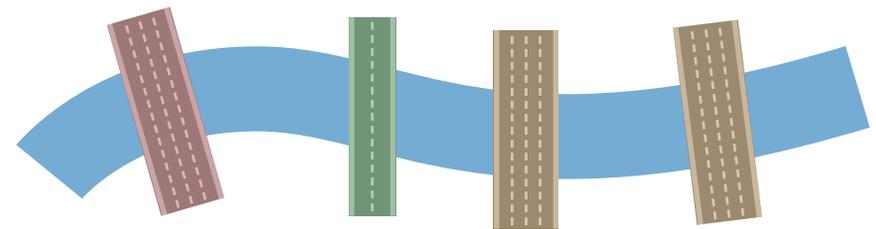
Data

**GOOD**  
**46.48%** of all non-NHS bridge surface area in Central Indiana is in good condition.

**FAIR**  
**48.33%** of all non-NHS bridge surface area in Central Indiana is in fair condition.

**POOR**  
**5.2%** of all non-NHS bridge surface area in Central Indiana is in poor condition.

How is it Measured?



Counties regularly inspect and rate bridges. They report that data to the National Bridge Inventory. For this measure, the MPO compares the square meter area of non-NHS bridges in bad condition to the total area of all non-NHS bridges.

Objective 8A

PM1

## Land Consumption

This measure allows us to track the expansion of the urbanized area and monitor how quickly greenfield development is converting open land into developed land.

Data

# 422K ACRES

**OF DEVELOPED LAND IN THE MPO'S METROPOLITAN PLANNING AREA**

### How is it Measured?

Property class codes for parcels in the MPO's metropolitan planning area from the Indiana Department of Local Government Finance (DLGF) are used to identify vacant and developed parcels. The area of vacant parcels is then subtracted from the total land area.

For this measure agricultural (non-homestead) parcels are considered vacant.

Objective 8B

PM1

## Number of Residents that can Access Grocery Stores by Bike, Sidewalk, or Transit

Access to healthy foods for people who don't have access to a car is an important quality of life indicator and social determinant of health. Grocery stores provide better access to healthy food choices than convenience or specialty food stores. Access means a half-mile (10 minute), 2.5 mile bike (15 minute), or half-mile (10 minute walk) to transit and from transit to a grocery store.

Data

**TRANSIT**

# 406K

residents can access a grocery store by fixed-route transit.

**BICYCLE**

# 585K

residents can access a grocery store by bicycle.

**WALKING**

# 65K

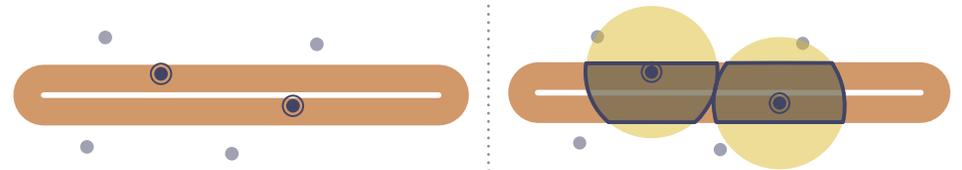
residents can access a grocery store by walking.

### How is it measured?

For each mode (bike, walking, transit)...

Map the infrastructure (bike path, sidewalk, transit route) and the grocery stores. Select those stores that are near the infrastructure.

Draw a buffer around those stores, representing how far you might travel by each mode to get there.



People inside the purple buffer, above, are close enough to access the sidewalk, bike path, or bus route, and they are close enough to get to the grocery store.

