



# PlanIt

Webinar Series for Comprehensive Plan Updates

## Economic Data: What's Out There, And How Can It Enhance The Comp Plan?

Presented by Todd Graham  
December 1, 2016



# Regional and local economics as a planning concern

- Metropolitan Council's *Thrive* plan discusses economic competitiveness as key to prosperity

**Economic development** strategies, decisions, investments

Financial and human resources, technologies, **and place readiness**

Regional & local government role: Infrastructure, land, places that enable connections of resources



**Economic competitiveness** in global, national markets

Resulting in business attraction and retention, production and exports



These dynamics allow **prosperity**

Great quality of place and infrastructure stewardship are foundations – and results!





# Today's webinar

- A broad scan of **economic data** at a meaningful scale
  - What's available at neighborhood or city level?
  - Where to find the data?
  - What questions does it answer?
- Learning objective: Using the data to **inform planning in your community**





# Today's webinar

- Local employment and local industries
- Workforce in your community
- Commuting and the jobs/workers balance



- Quarterly Census of Employment & Wages (QCEW)
- Local Origin-Destination Employment Statistics (LODES) from Census
- Industry clusters by county at ClusterMapping.us
- Listings of major businesses in your area
- Met Council's local employment forecasts





# Quarterly Census of Employment & Wages

- Data collected by Minnesota DEED
- What's counted? Jobs with wages/ salaries, counted at worksite locations
- Drill down by location or by industry sector
- 1975-2015, all counties: [www.BLS.gov/cew/](http://www.BLS.gov/cew/)
- 2000-2015, Minnesota counties *and cities*: [apps.deed.state.mn.us/lmi/qcew/](http://apps.deed.state.mn.us/lmi/qcew/)
- 2000-2015, metro area cities: [www.metrocouncil.org/data](http://www.metrocouncil.org/data)





# Quarterly Census of Employment & Wages

- What questions does it answer
  - Number of jobs sited in community
  - Geographic distribution of jobs in the larger area
  - How employment level has grown over time
  - Industry mix of the community

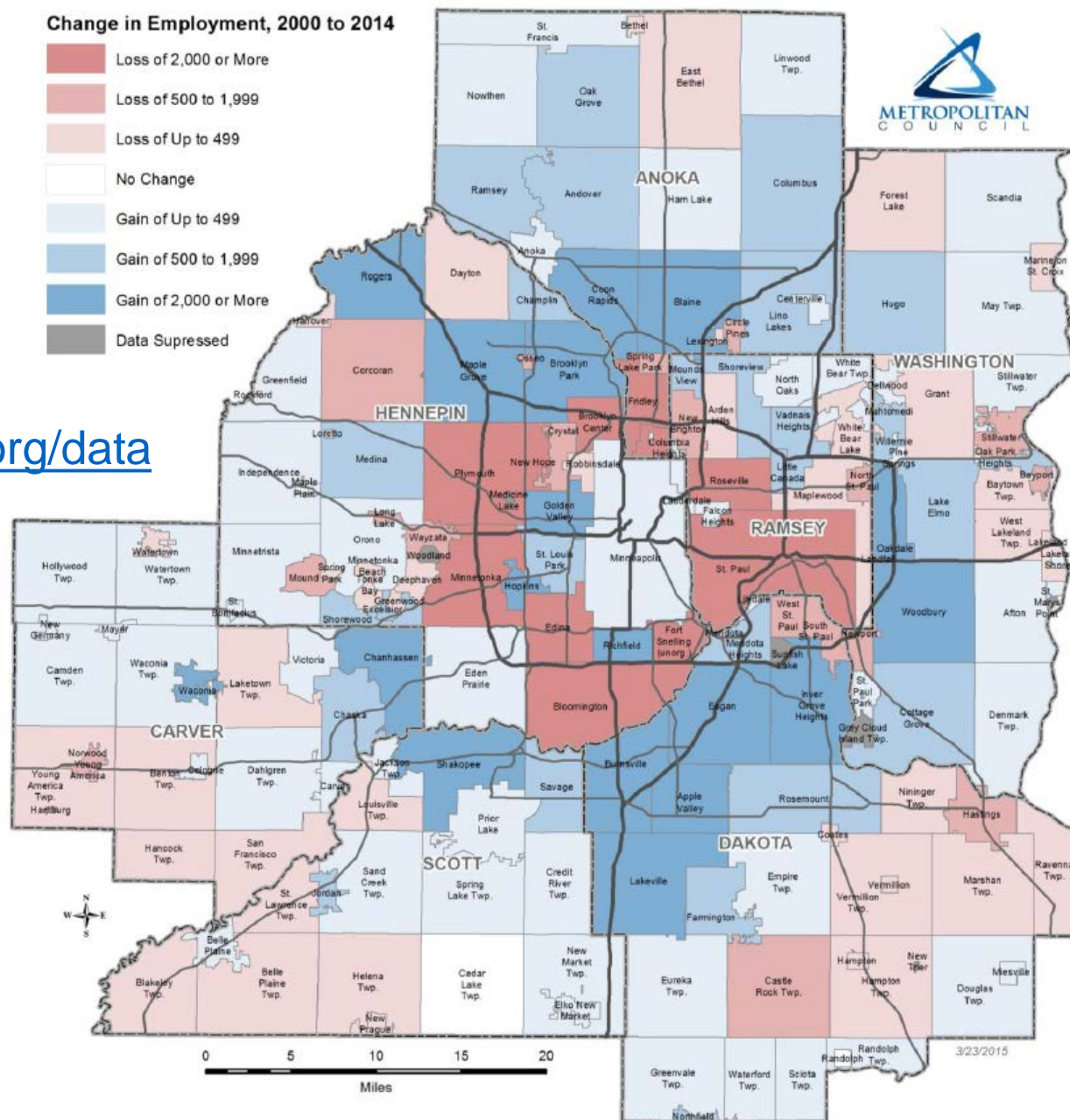


## Employment change by community, 2000-2014

[www.metrocouncil.org/data](http://www.metrocouncil.org/data)

Change in Employment, 2000 to 2014

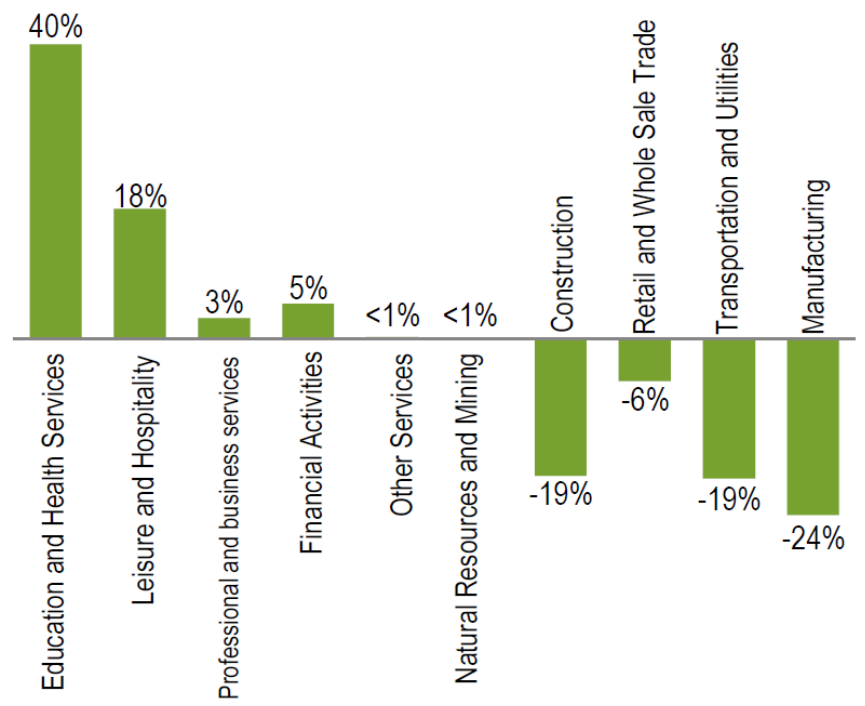
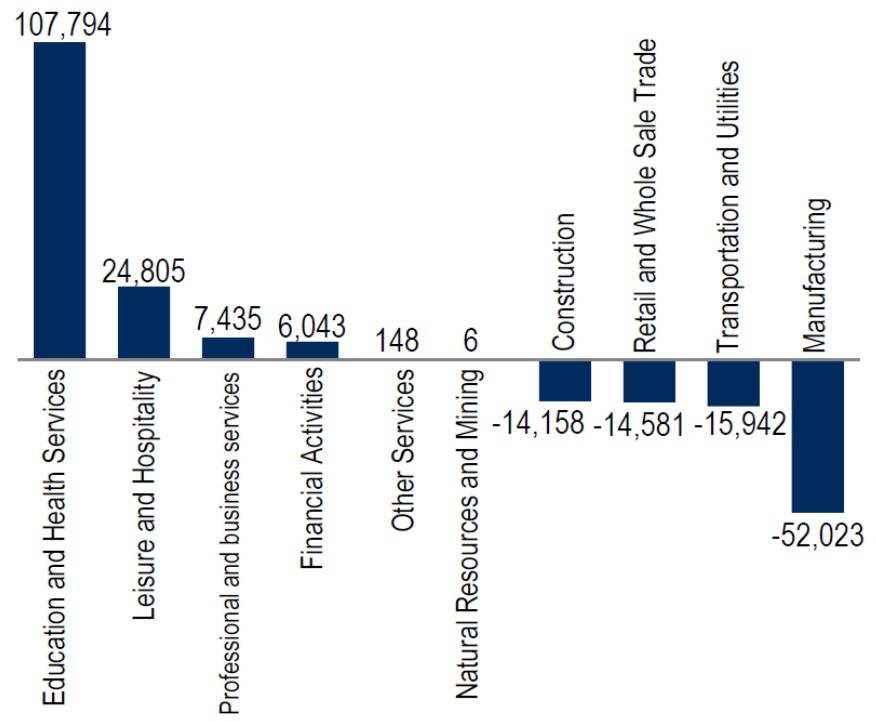
- Loss of 2,000 or More
- Loss of 500 to 1,999
- Loss of Up to 499
- No Change
- Gain of Up to 499
- Gain of 500 to 1,999
- Gain of 2,000 or More
- Data Suppressed





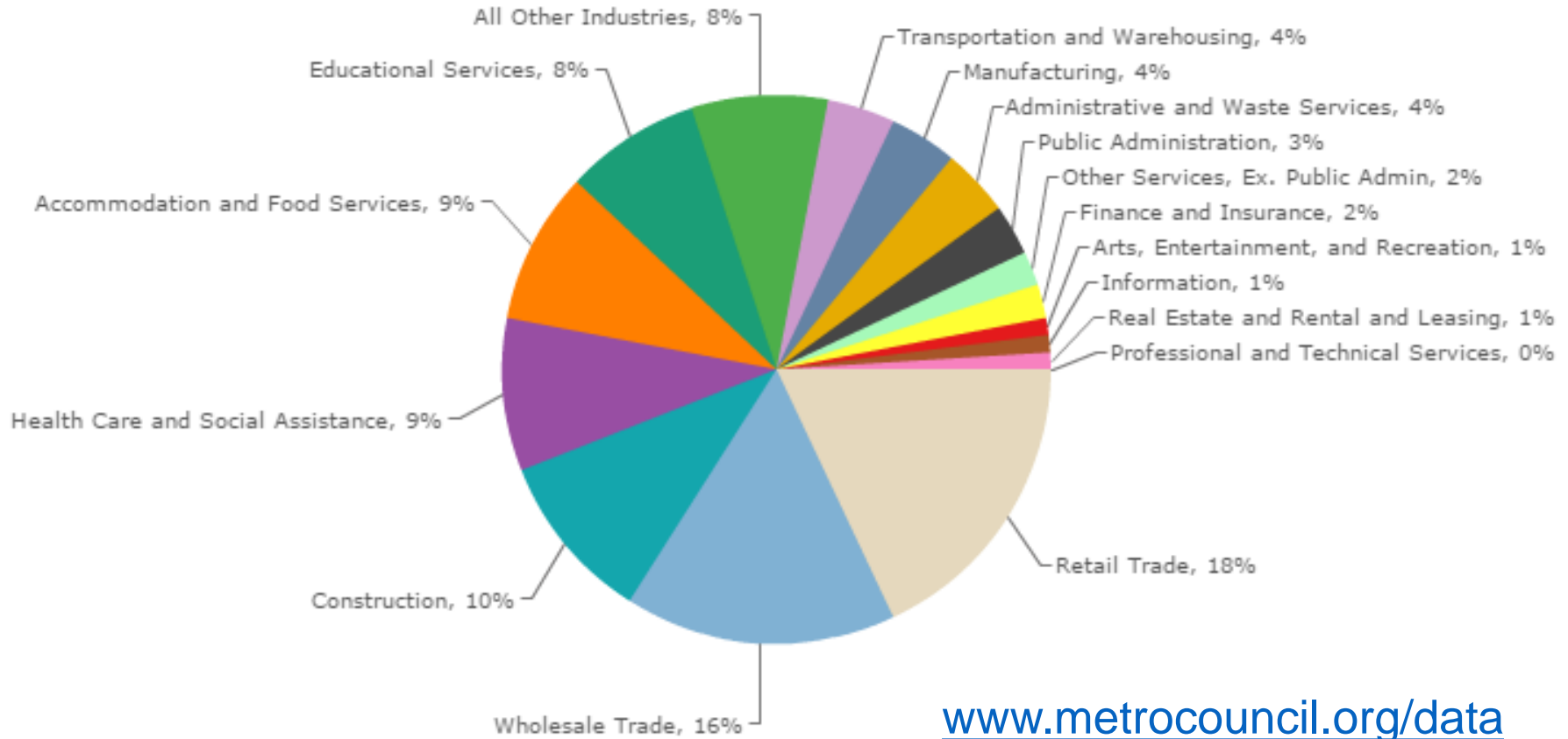


## Employment change by industry sector, Twin Cities metro, 2000-2014





## Employment by industry: Inver Grove Heights, 2015



## Local Origin-Destination Employment Statistics (LODES) from Census

- Data collected by MN DEED – and combined by Census with demographic details
- What's counted?
  - **Jobs counted at worksite locations**
  - Workers counted at home locations
  - Commute flows between home and work
- Geographically detailed to Block level
- 2004-2014, nationwide data:  
[lehd.ces.census.gov/data/](http://lehd.ces.census.gov/data/)



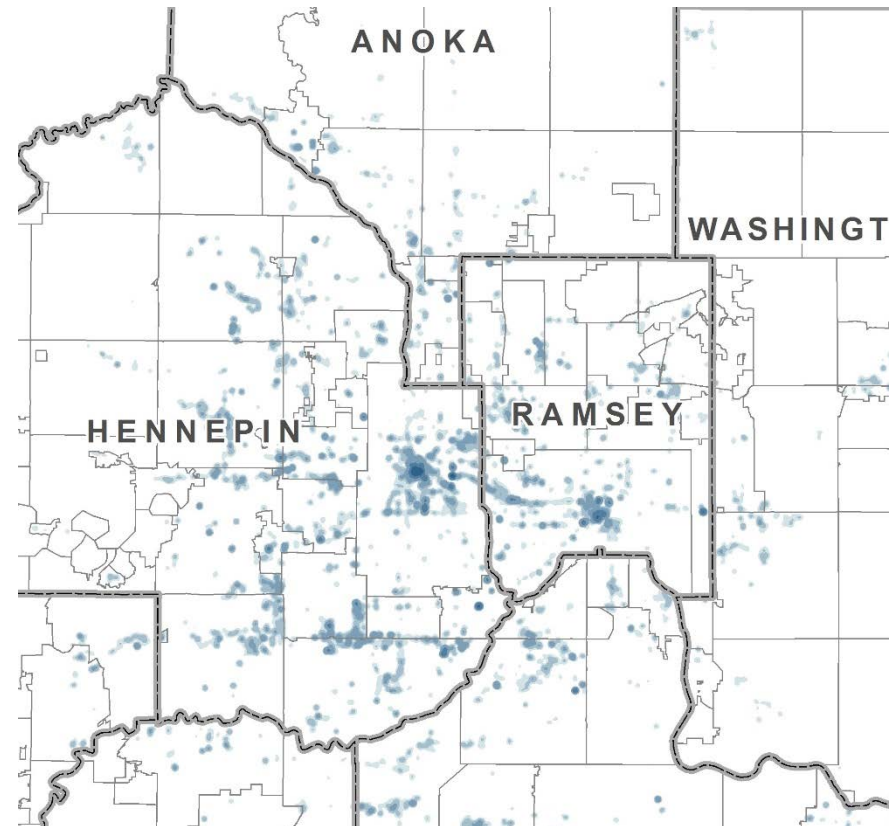
## Which to use: LODES or QCEW?

- When to use LODES instead of QCEW
  - When you need greater geographic detail (sub-city)
  - When you want to know demographics of job-holders: age group, race, high or low wage level
  - When you want to know where the workers live
- Limitations of the LODES data
  - Census “fuzzes” exact locations to protect employer identities
  - 2-3 year wait for Census to publish the data



# Identifying job centers with LODES data

- Met Council mapped the employment data
- Identified regional and subregional job centers based on
  - Job density
  - Contiguity of employment
  - Total employment





ANOKA

# Regional and Sub-regional Centers 2014

WASHINGTON

HENNEPIN

RAMSEY

Downtown  
MPLS

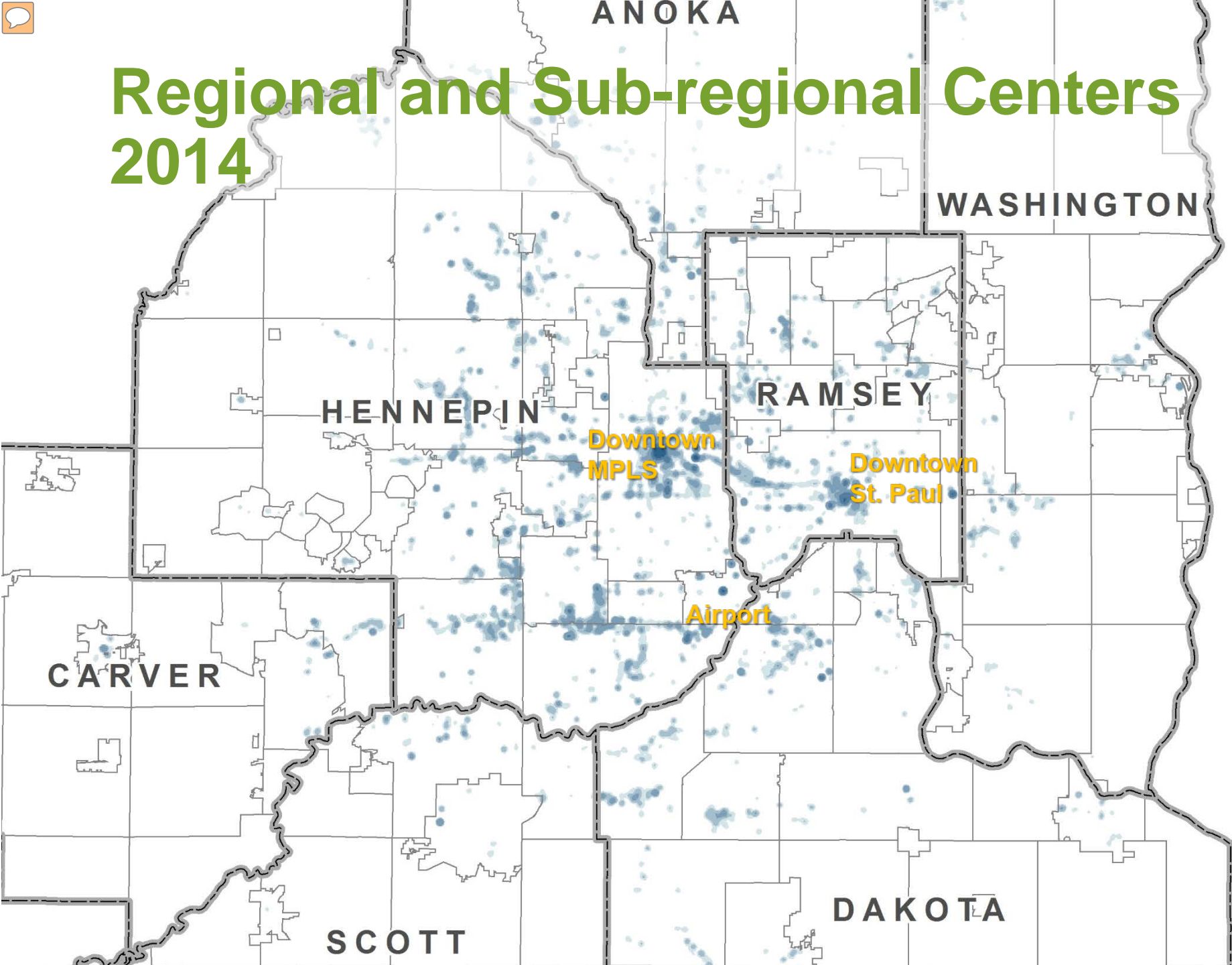
Downtown  
St. Paul

Airport

CARVER

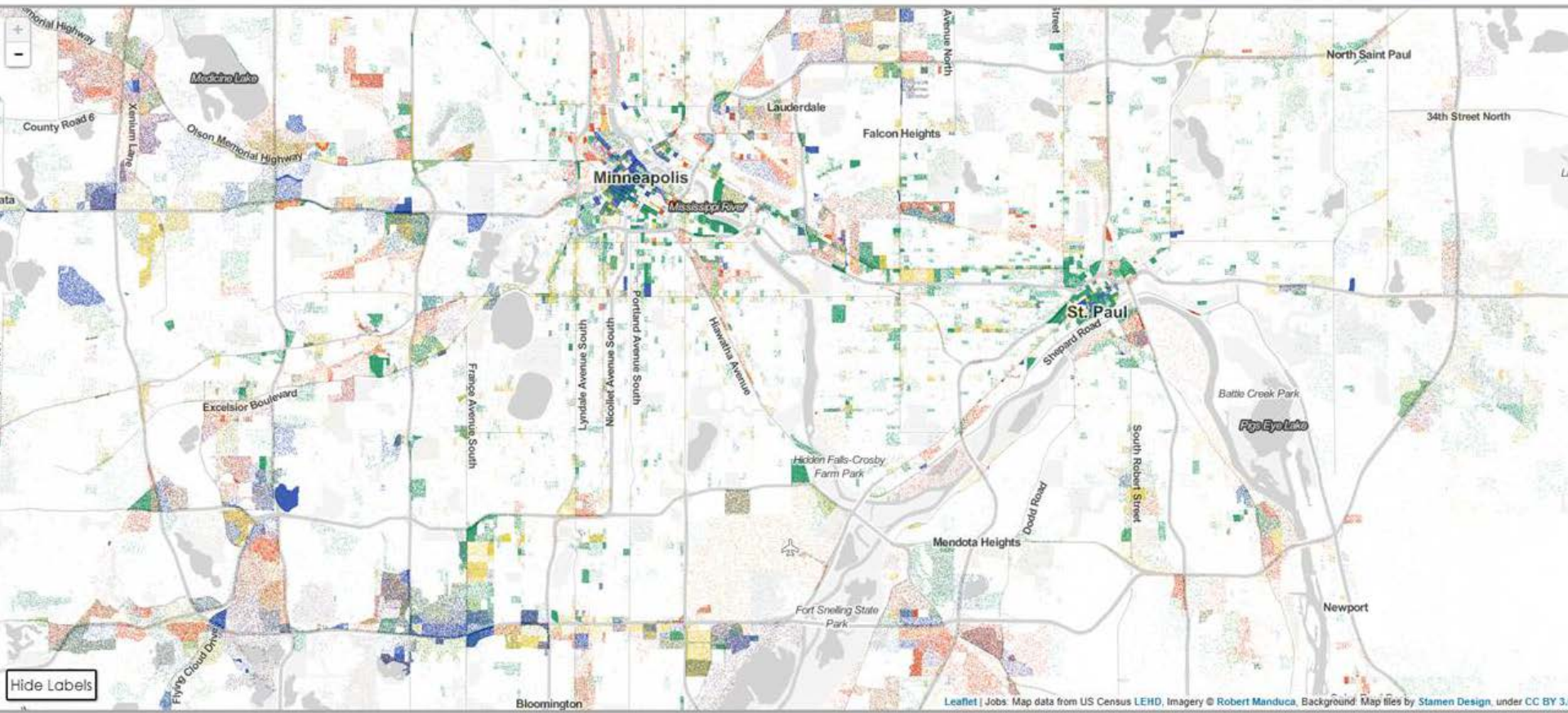
SCOTT

DAKOTA





# Local employment and local industries



One Dot = One Job. **Manufacturing and Trade** - Professional Services - Healthcare, Education, and Government - Retail, Hospitality, and Other Services

About - FAQ - Inspiration - Me

[www.robertmanduca.com/projects/jobs.html](http://www.robertmanduca.com/projects/jobs.html)

**PlanIt**



## About industries: NAICS

- Data concerning industries use North American Industry Classification System (NAICS)
  - Firms or worksites self-identify their main line of business – that’s their industry
  - Industry can be a highly specific line of business (example: paper products) or may be more summarized (manufacturing)
  - Industry membership is correlated with land use needs, but not perfectly – industries are complex, and real estate needs vary





# Industry clusters by county at ClusterMapping.us

- Data can be found here:  
[ClusterMapping.us/region/county/anoka\\_county\\_mn/](https://ClusterMapping.us/region/county/anoka_county_mn/)
- Detailed NAICS industries combined into groupings of related industries
  - Shared workflows, supply chains
  - Use of same or similar technologies, skills, resources
- Comparisons across counties or industry clusters: the county's share of national employment, national ranking, growth

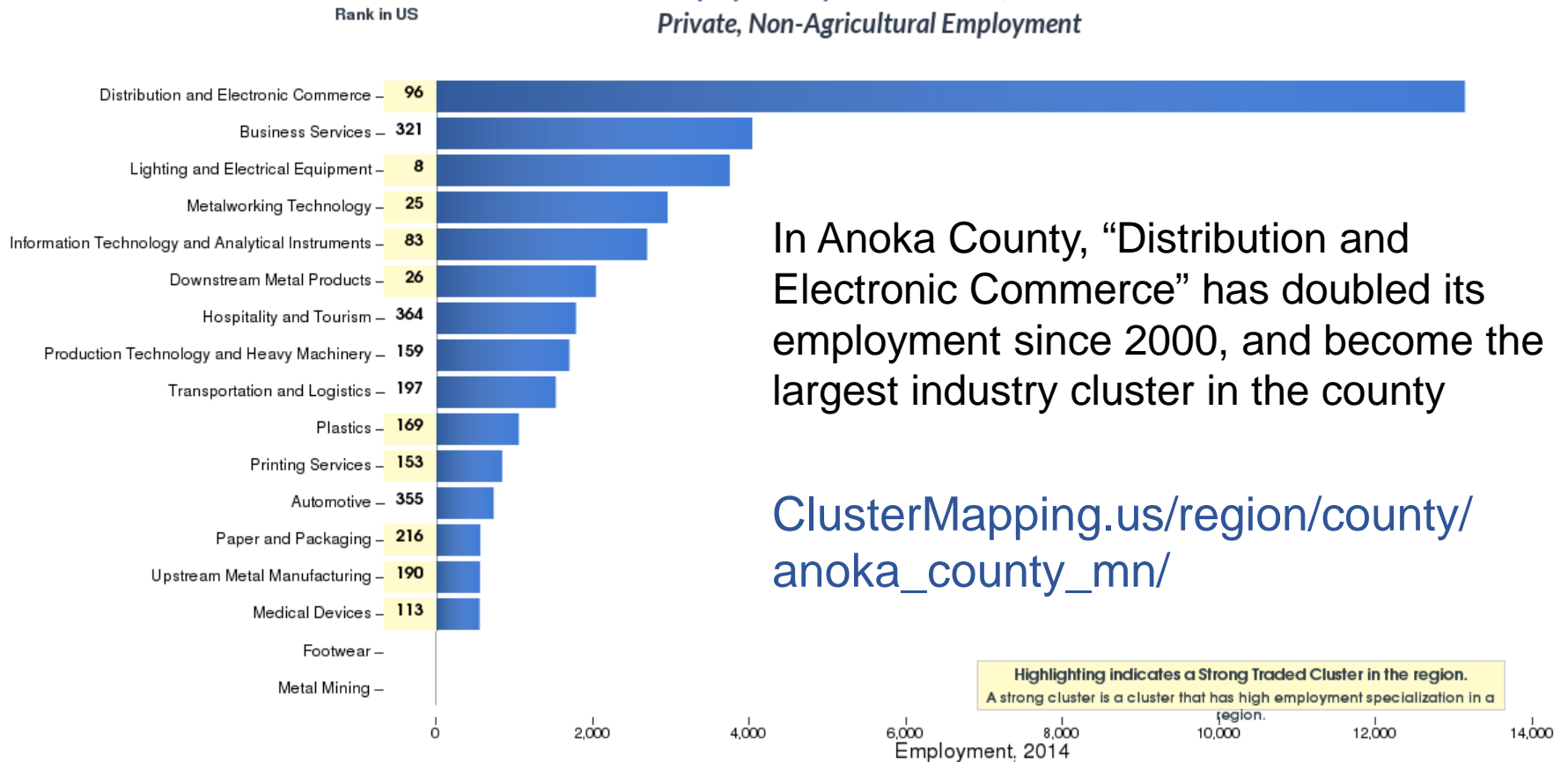




## Largest industry clusters, Anoka County, 2014

### Anoka County

Employment by Traded Cluster, 2014  
Private, Non-Agricultural Employment



In Anoka County, “Distribution and Electronic Commerce” has doubled its employment since 2000, and become the largest industry cluster in the county

[ClusterMapping.us/region/county/anoka\\_county\\_mn/](http://ClusterMapping.us/region/county/anoka_county_mn/)

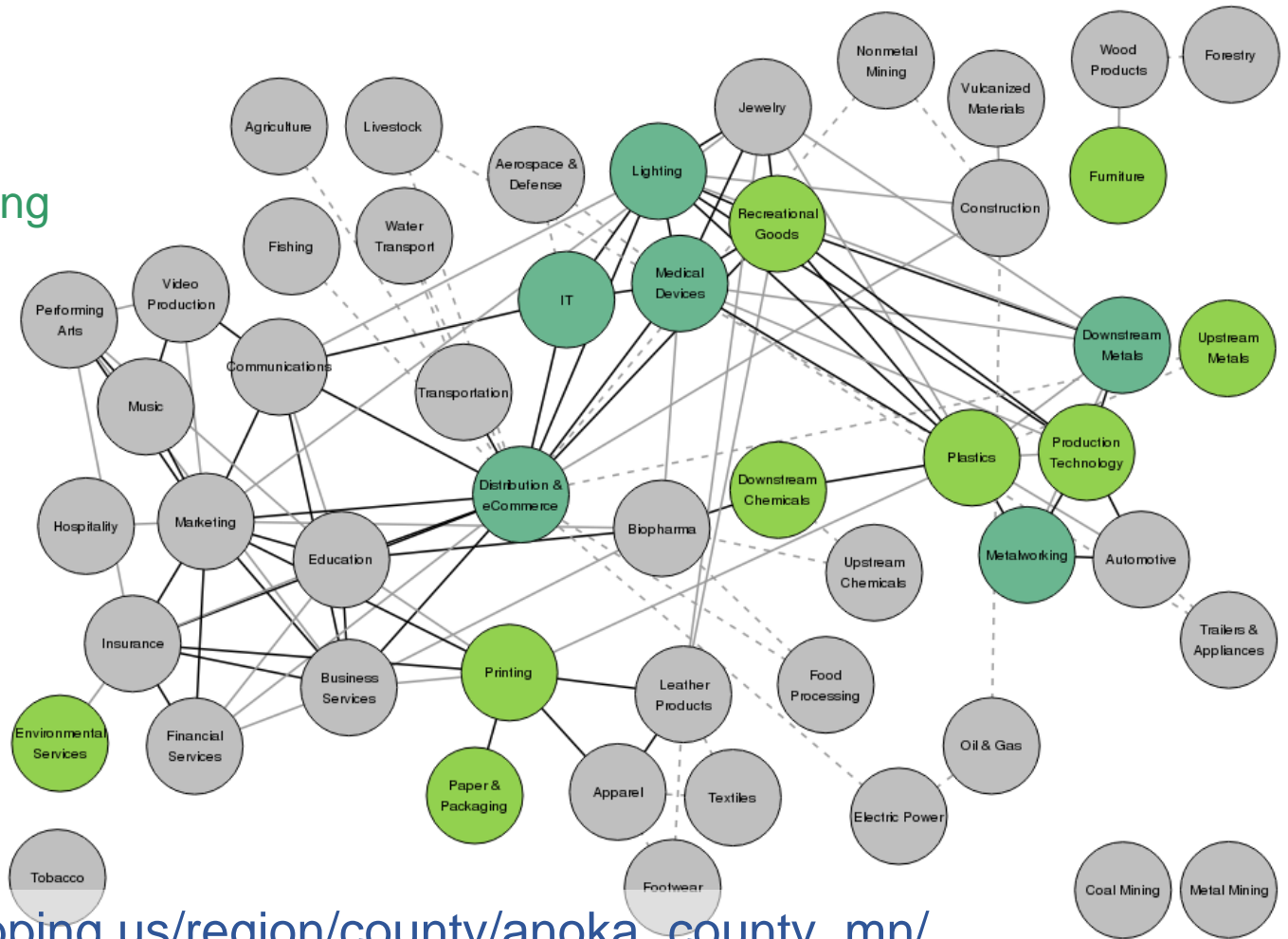




## Porter model of industry cluster linkages

Dark green:  
Top 10% industry  
concentration among  
US counties

Light green:  
Top 25% industry  
concentration



[clustermapping.us/region/county/anoka\\_county\\_mn/](http://clustermapping.us/region/county/anoka_county_mn/)



# Local employment and local mix of industries

- Listings of major businesses in your area
  - May be useful for further research
  - Dun & Bradstreet and InfoUSA are private data vendors that sell business listings databases
  - For occasional or one-time use, try the Business Finder tool at CareerOneStop.org:  
[www.careeronestop.org/toolkit/jobs/find-businesses.aspx](http://www.careeronestop.org/toolkit/jobs/find-businesses.aspx)



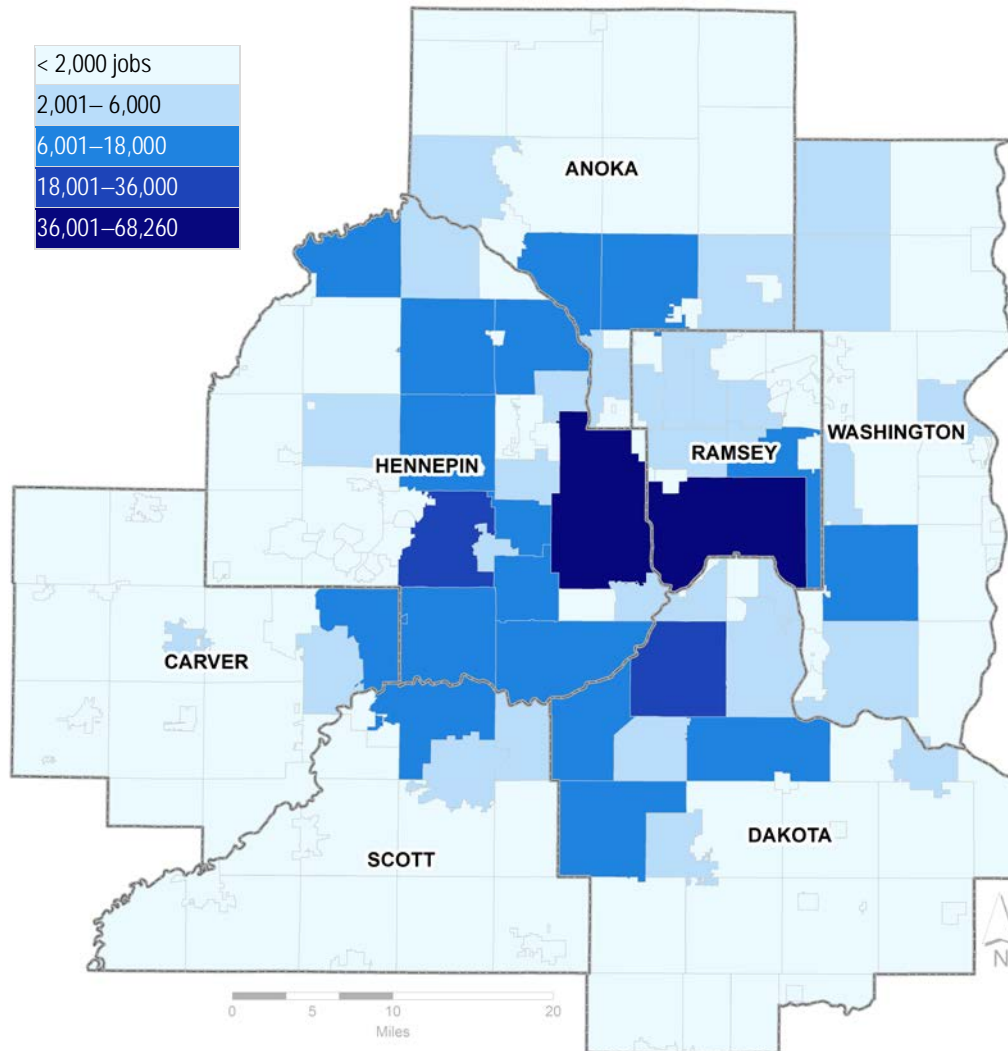
# Met Council's local employment forecasts

- Planning for 2040, where will employment grow?
- Met Council's method: Forecasting where growth will most likely occur, considering starting point situation, geography and accessibility to destinations, land supply, and other local conditions
- The forecast results are useful for regional context





## Forecasted employment growth, 2010-2040



- The region will gain 490,000 jobs over 30 years
- The greatest job growth will be in existing centers and places with transportation linkages

[www.metrocouncil.org/forecasts/](http://www.metrocouncil.org/forecasts/)



# Met Council's local employment forecasts

- Community-level forecasts are online: [www.metrocouncil.org/forecasts/](http://www.metrocouncil.org/forecasts/)
- Also TAZ-level forecasts for 3,030 zones: [gisdata.mn.gov/dataset?q=TAZ+forecast](http://gisdata.mn.gov/dataset?q=TAZ+forecast)
  - Note: TAZ forecasts are work-in-progress and can be adjusted by local governments during the planning process



- Census's American Community Survey (ACS)
  - What's counted? People counted at home locations
- Local Origin-Destination Employment Statistics (LODES) from Census
  - What's counted? Employed workers counted at home locations





# What is the American Community Survey?

- It's a survey. A sample of a few hundred households per area is sufficient to make generalizations about the population of that area.
- ACS has national extent, designed to allow geographic comparison anywhere in the nation



# Census collects survey responses from a few hundred households in every tract!

United States  
**Census**  
Bureau

Census Explorer

[www.census.gov/censusexplorer/censusexplorer.html](http://www.census.gov/censusexplorer/censusexplorer.html)



1990  
Census



2000  
Census



2012  
5-year ACS

Select a Measure

Median Household Income

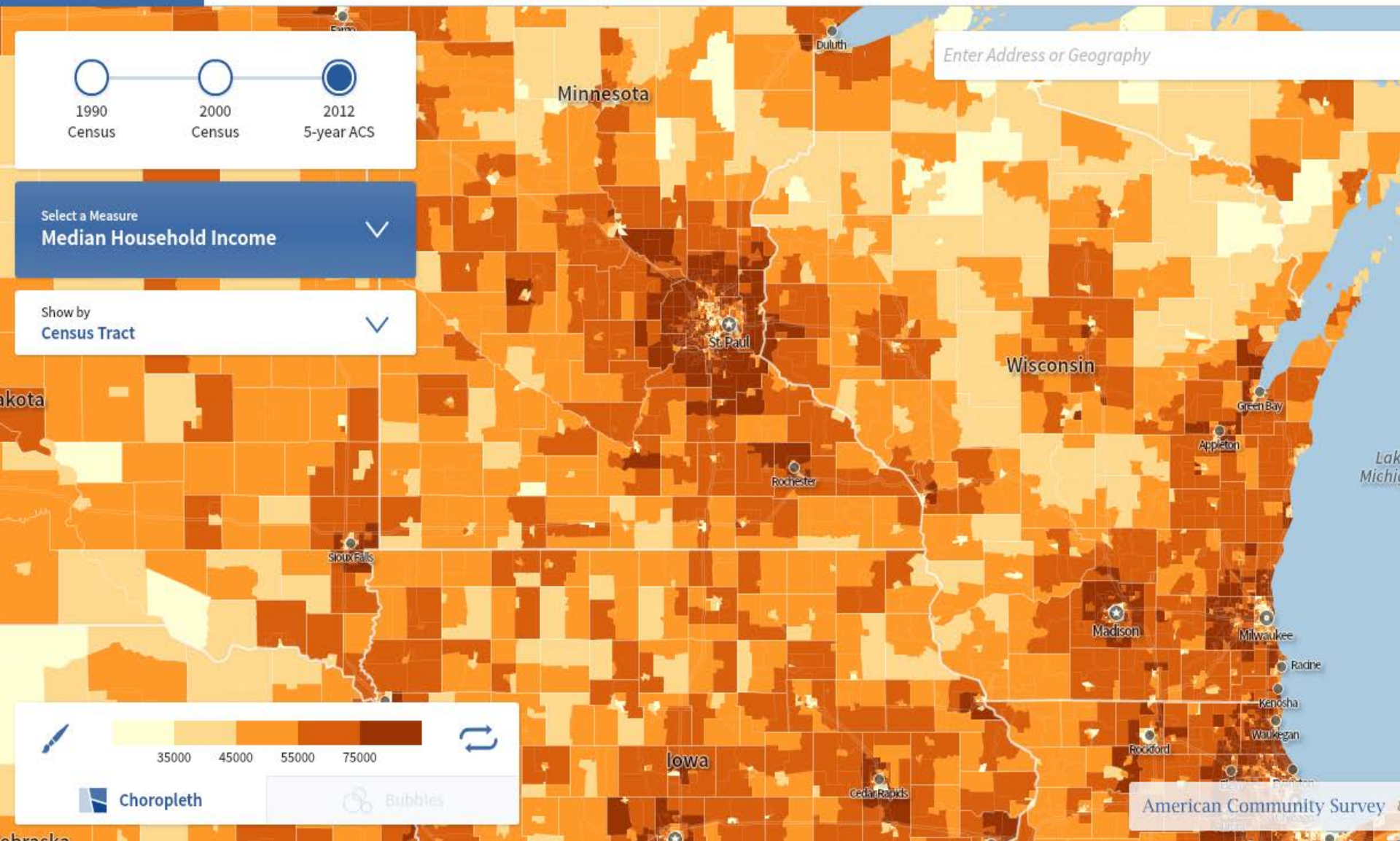


Show by

Census Tract



Enter Address or Geography



35000 45000 55000 75000

Choropleth

Bubbles

American Community Survey

# What is the American Community Survey?

- It's a survey. A sample of a few hundred households per area is sufficient to make generalizations about the population of that area.
- ACS has national extent, designed to allow geographic comparison anywhere in the nation
- ACS includes over 100 questions, covering social, economic, and housing characteristics
- Its scale and scope make ACS a definitive source for socioeconomic data



# Workforce data from American Community Survey

- Provides age, race, highest level of education, type of college degree, workforce participation, general occupational sector
- Data available from several websites, including [www.metrocouncil.org/data](http://www.metrocouncil.org/data)
- Most comprehensive for multiple tables and GIS files: National Historical GIS [www.nhGIS.org](http://www.nhGIS.org)
- Easiest to use for one-at-a-time tables [www.censusreporter.org](http://www.censusreporter.org)



# Workforce data from American Community Survey

- Every topic in Census ACS has a table ID number
  - Adults by highest level of education:  
[censusreporter.org/tables/C15003/](https://censusreporter.org/tables/C15003/)
  - Labor force and unemployment rates:  
[censusreporter.org/tables/B23025/](https://censusreporter.org/tables/B23025/)
  - Labor force and unemployment by age group:  
[censusreporter.org/tables/C23001/](https://censusreporter.org/tables/C23001/)
  - Employed workers by occupation:  
[censusreporter.org/tables/C24010/](https://censusreporter.org/tables/C24010/)



## Employed workers by occupation

censusreporter.org/tables/C24010

Census Reporter

Start typing to profile a place...

Search for data

### Table C24010: Sex by Occupation for the Civilian Population

Show data from this table. Choose a place or summary level

county subdivisions

[censusreporter.org/tables/C24010/](https://censusreporter.org/tables/C24010/)

in

Minnesota

#### Table C24010

[Change](#)

Other versions of this table

- [White alone](#)
- [Black or African American Alone](#)
- [American Indian and Alaska Native Alone](#)
- [Asian Alone](#)
- [Native Hawaiian and Other Pacific Islander Alone](#)
- [Some Other Race Alone](#)
- [Two or More Races](#)
- [White Alone, Not Hispanic or Latino](#)
- [Hispanic or Latino](#)

#### Table universe: Civilian Employed Population 16 Years and Over

##### Columns in this table

Total:

Male:

Management, business, science, and arts occupations:

Management, business, and financial occupations:

Management occupations

Business and financial operations occupations

Computer, engineering, and science occupations:

Computer and mathematical occupations

Architecture and engineering occupations

Life, physical, and social science occupations

Education, legal, community service, arts, and media occupations:

Community and social service occupations

Legal occupations

##### Background on table topics

[Topic pages](#) describe concepts covered by the ACS. For background on the topics in Table C24010, see:

- [Commute](#)
- [Employment](#)
- [Age and Sex](#)

##### Detailed table

The Census offers a version of this table with an expanded set of columns.

[Switch to Table B24010](#)

Total:

Male:

## Employed workers by occupation

censusreporter.org/data/table/?table=C24010&geo\_ids=060|05000US27053&primary\_geo\_id=05000US27053#valueType|estimate

Census Reporter

Start typing to profile a place...

or Search for data

### Sex by Occupation for the Civilian Employed Population 16 Years and Over

Table

Map

Distribution

Download data

Table C24010

[Change](#)

ACS 2014 5-year

Add data for more places below; visualize or download this data with controls at right.

Selected geographies

County subdivisions in Hennepin County, MN

Add a geography

Find a place

Add all counties in ...

[Minnesota](#)

[United States](#)

Divide Hennepin County, MN into ...

[county subdivisions](#)

[census tracts](#)

[block groups](#)

[places](#)

[congressional districts](#)

[state houses \(upper\)](#)

[state houses \(lower\)](#)

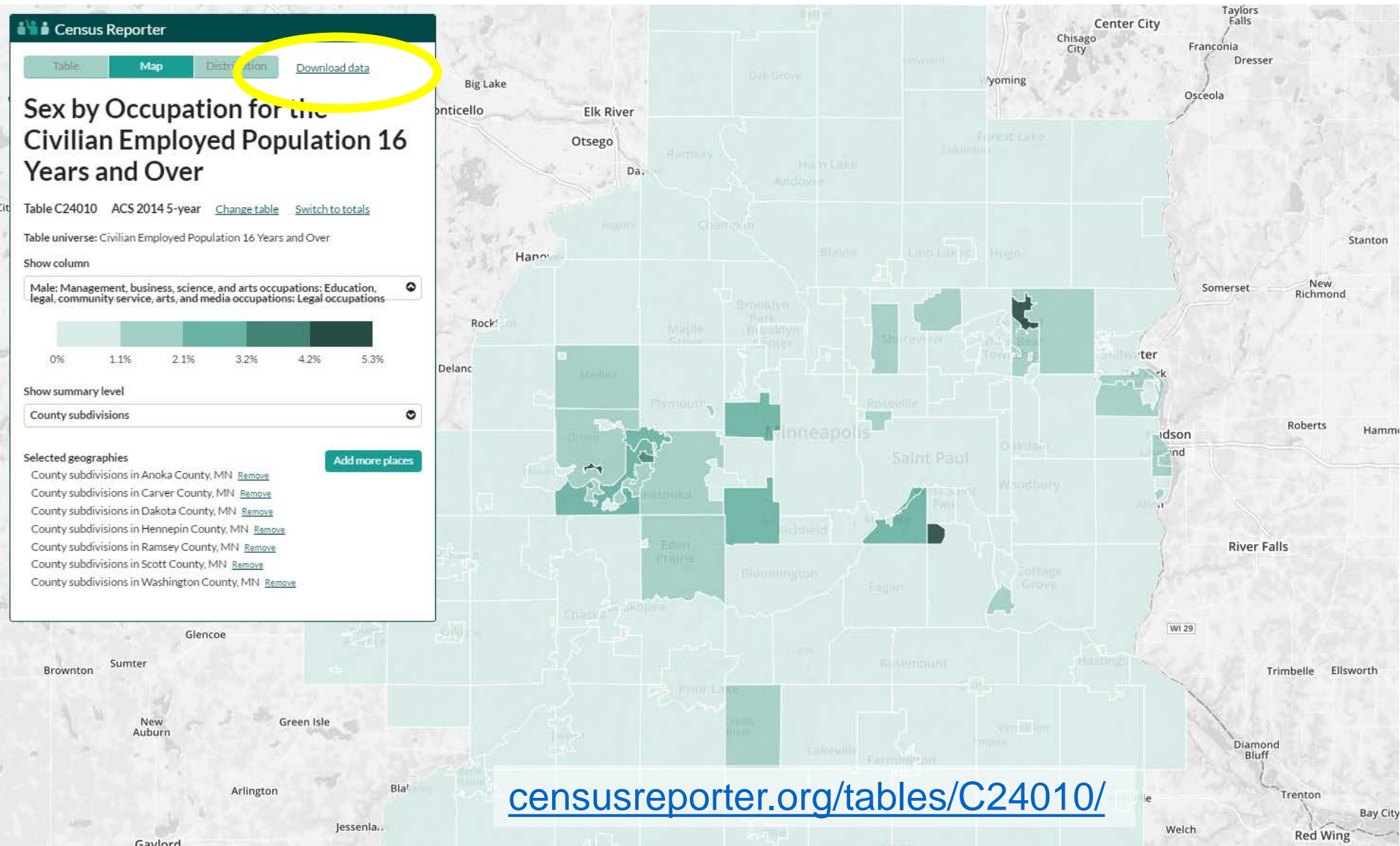
Table universe: Civilian Employed Population 16 Years and Over

[Switch to percentages](#)

Click a row to highlight

Column	<a href="#">Bloomington city, Hennepin County, MN</a>	<a href="#">Brooklyn Center city, Hennepin County, MN</a>	<a href="#">Brooklyn Pa</a>
Male:	23,189 ±684	7,210 ±393	18,900 ±1,000
Management, business, science, and arts occupation...	8,861 ±423	1,727 ±226	6,150 ±300
Management, business, and financial occupations:	4,175 ±323	477 ±105	2,800 ±150
Management occupations	2,551 ±252	296 ±94	1,840 ±100
Business and financial operations occupations	1,624 ±213	181 ±57	960 ±50
Computer, engineering, and science occupations:	2,617 ±272	651 ±119	1,620 ±80
Computer and mathematical occupations	1,632 ±234	345 ±94	940 ±50
Architecture and engineering occupations	872 ±171	248 ±99	540 ±30
Life, physical, and social science occupations	113 ±64	58 ±50	100 ±20
Education, legal, community service, arts, and med...	1,691 ±220	461 ±153	1,140 ±60
Community and social service occupations	231 ±99	127 ±114	280 ±150
Legal occupations	352 ±113	23 ±25	100 ±50
Education, training, and library occupations	648 ±135	190 ±80	400 ±20
Arts, design, entertainment, sports, and media occ...	460 ±110	121 ±82	320 ±150
Healthcare practitioners and technical occupations...	378 ±123	138 ±85	580 ±300
Health diagnosing and treating practitioners and o...	261 ±100	42 ±34	260 ±100
Health technologists and technicians	117 ±61	96 ±71	320 ±150
Service occupations:	2,495 ±404	1,372 ±283	2,060 ±100

## Where lawyers, legal professionals live





# About occupation categories

- Government statistics agencies use Standard Occupation Classifications (SOC) to categorize fields of work
- Hundreds of specific occupations
- Census tabulations roll up occupations into major categories
  - 11 managerial and professional categories
  - Sales worker category
  - Office worker category
  - 5 service worker categories
  - 6 blue collar, production worker categories



# What ACS tells us about the workforce

- Communities vary. Knowing the workforce will be useful in business recruitment
  - What is the availability of college graduates?
  - What is the occupational make-up of workforce?
- Strength (or scarcity) of workforce specialty usually a result of historical industry presence, or housing market characteristics
- Unemployment or below average labor force participation may be indicators deserving attention





1990  
Census



2000  
Census



2013 ACS  
2012 CBP

Select a Measure  
**In labor force**



Show by  
**Census Tract**



McLeod

Carver

Hennepin

Anoka

Andover

Champlin

Coon Rapids

Blaine

Maple Grove

Brooklyn Park

Endley

Shoreview

New Brighton

White Bear Lake

Washington

Ramsey

Maplewood

Minneapolis

St. Paul

Woodbury

Minnetonka

St. Louis Park

Edina

Richfield

South St. Paul

Inver Grove Heights

Cottage Grove

Chanhassen

Eden Prairie

Bloomington

Eagan

Shakopee

Savage

Burnsville

Apple Valley

Lakeville

Dakota

Scott



Shaded Area


Bubbles

# Local Origin-Destination Employment Statistics (LODES) from Census

- What's counted?
  - Jobs counted at worksite locations
  - **Workers counted at home locations**
  - Commute flows between home and work
- Geographically detailed to Block level
- 2004-2014, nationwide data:  
[lehd.ces.census.gov/data/](http://lehd.ces.census.gov/data/)
- OnTheMap interactive data tool:  
[onthemap.ces.census.gov](http://onthemap.ces.census.gov)



Selection Preview:



Confirm Selection

Confirm and Add Advanced Selection

Help?

Drawing Tools

Navigation

Draw Polygon (Freehand)

Draw Line

Draw Point(s)

Edit Drawn Shape

Clear Selection

Add Layer Selection

County Subdivisions

Add Buffer to Selection

Do Not Buffer

Simple/Ring  
Radius: \_\_\_\_\_ miles

Donut  
Inside Radius: \_\_\_\_\_ miles  
Outside Radius: \_\_\_\_\_ miles

Plume  
Start Radius: \_\_\_\_\_ miles  
End Radius: \_\_\_\_\_ miles

Import Geography

Import from KML

Import from SHP

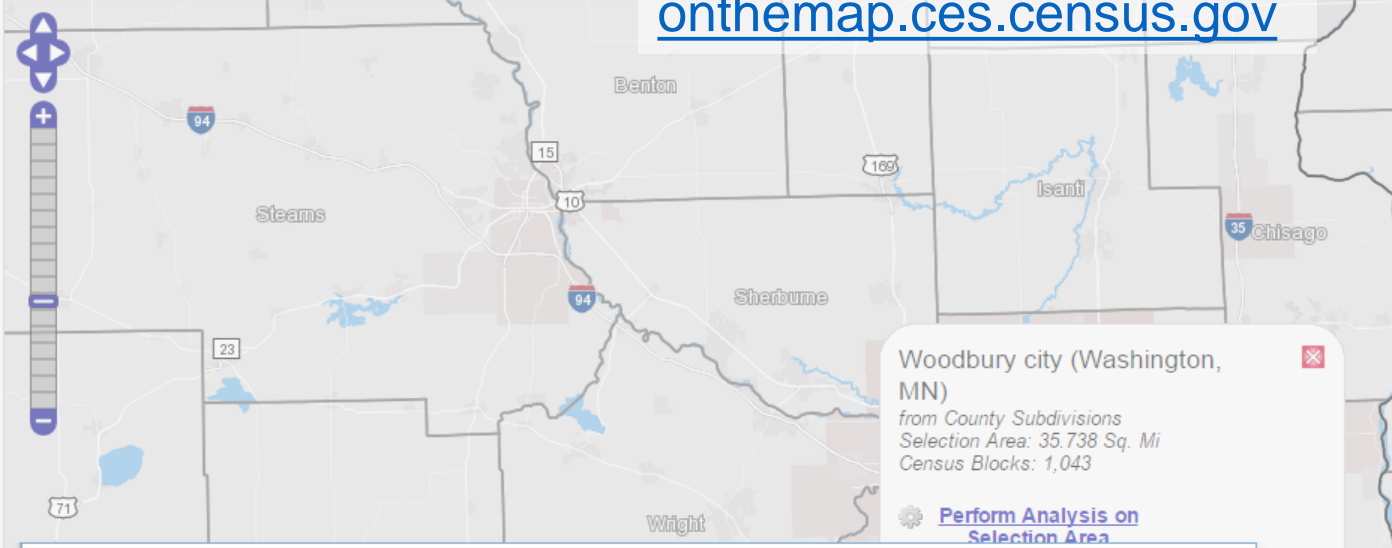
Import from GPS

Previous Shapes

Woodbury city (Washington, MN)  
from County Subdivisions

Reuse Selection

Delete Selection



### Analysis Settings

#### Area Profile Analysis in 2014 by Primary Jobs

**Home/Work Area**  
Determines whether the selection area is analyzed on where workers live ("Home") or where workers are employed ("Work").

Home  
 Work

**Analysis Type**  
Determines the type of results that will be generated for the selected area.

Area Profile  
Labor Market Segment: All Workers

Area Comparison  
Areas to Compare: Places (Cities, CDPs, etc.)  
Labor Market Segment: All Workers

Distance/Direction

Destination  
Destination Type: Places (Cities, CDPs, etc.)

Inflow/Outflow  
Note: Home/Work choice does not affect results

**Year**  
Determines the year(s) of data that will be processed in the analysis.

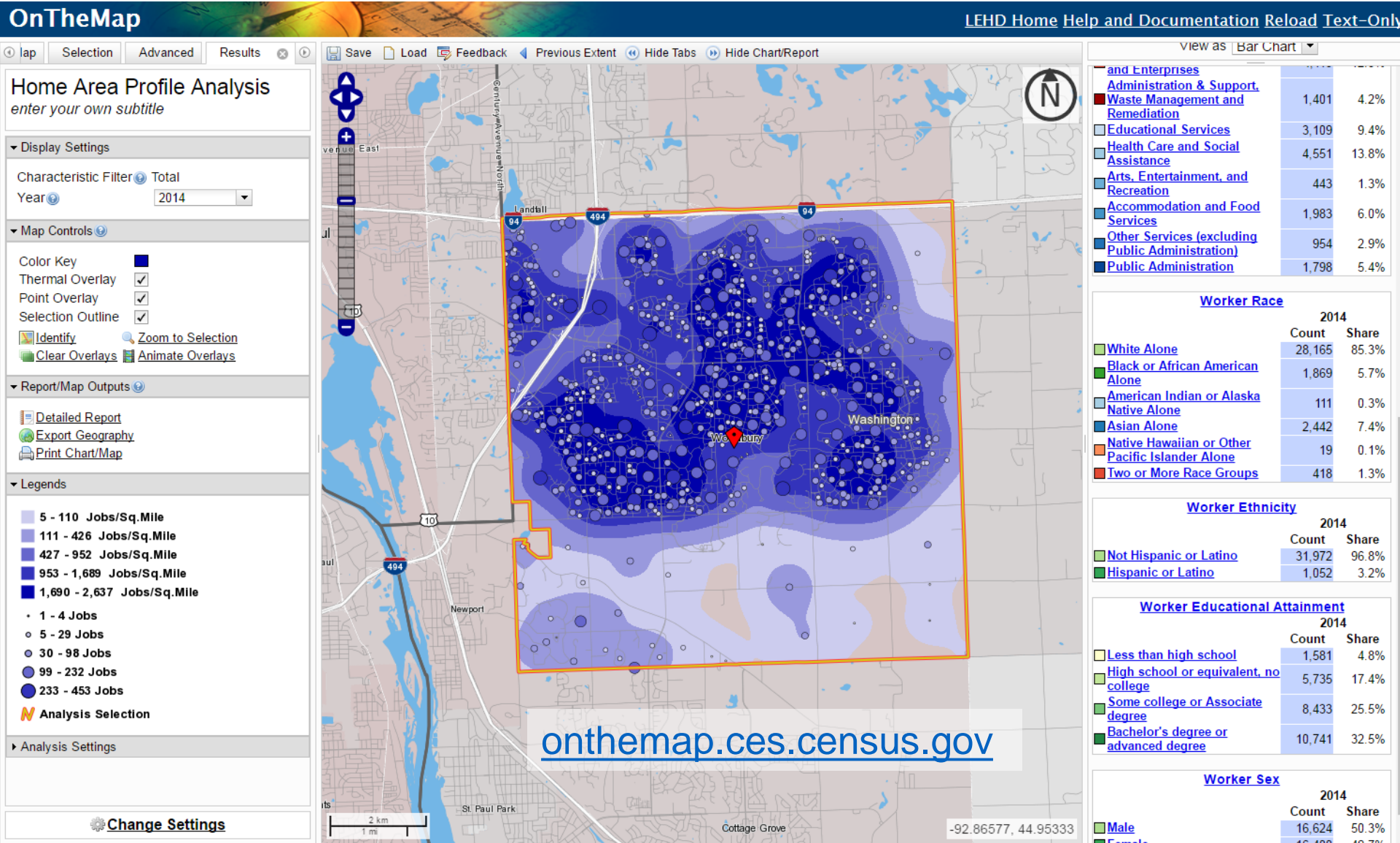
2014  
 2013  
 2012  
 2011  
 2010  
 2009  
 2008  
 2007  
 2006  
 2005  
 2004  
 2003  
 2002

**Job Type**  
Determines the scope of jobs that will be processed in the analysis.

All Jobs  
 Primary Jobs  
 All Private Jobs  
 Private Primary Jobs

Cancel **Go!**

## OnTheMap home area profile: Woodbury



## Which to use: LODES or ACS?

- LODES has many of the same details as American Community Survey: age group, race, high or low wage level
- When to use LODES instead of ACS
  - When you need detailed custom geography: For example, neighborhoods or zones built up from Blocks.
  - When comparing, side-by-side, workers and jobs: LODES provides both worker counts and job counts that match



- Census's American Community Survey (ACS)
- Local Origin-Destination Employment Statistics (LODES) from Census





# Commuting data from ACS

- Census's American Community Survey (ACS) has data on means of travel to work and commute time (minutes to work, one-way)
  - Again, ACS available from several websites, including Met Council's Community Profiles: [www.metrocouncil.org/data](http://www.metrocouncil.org/data)
  - Means of travel to work: [censusreporter.org/tables/C08301/](http://censusreporter.org/tables/C08301/)
  - Travel time to work: [censusreporter.org/tables/B08303/](http://censusreporter.org/tables/B08303/)



## Commuting statistics: Plymouth

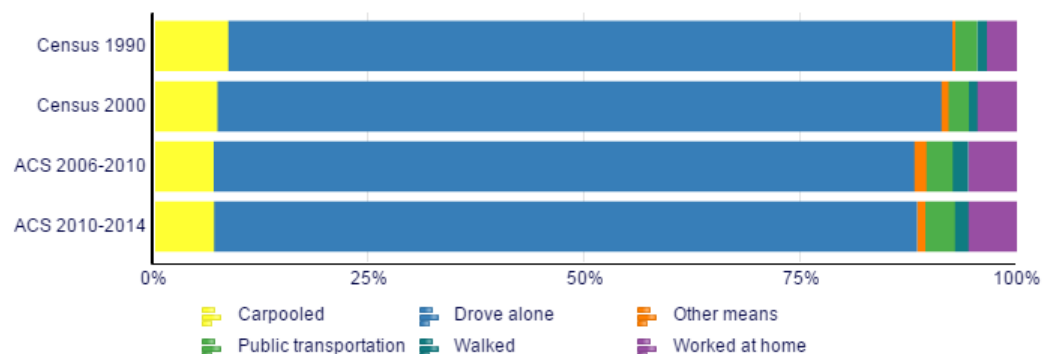
- In Plymouth, the median commute is 20-24 minutes

[www.metrocouncil.org/data](http://www.metrocouncil.org/data)

PlanIt



### Means of Transportation to Work, Plymouth Residents



Source: U.S. Census Bureau Decennial Census and American Community Survey.

[Download chart data](#)

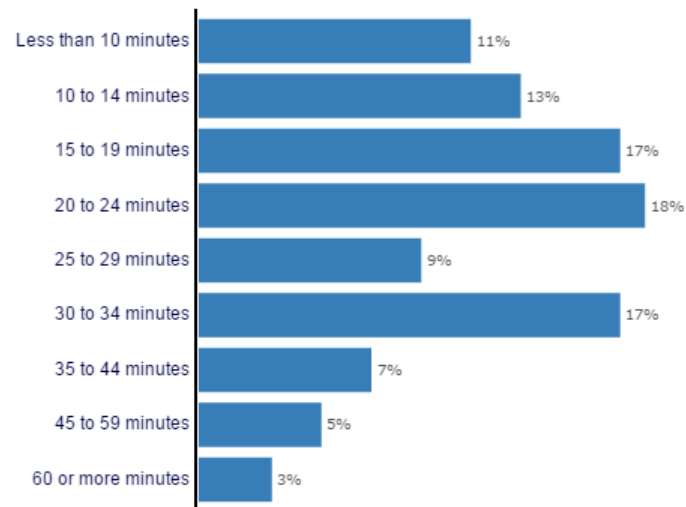
[Back to top](#)

Waiting

Select data to chart:

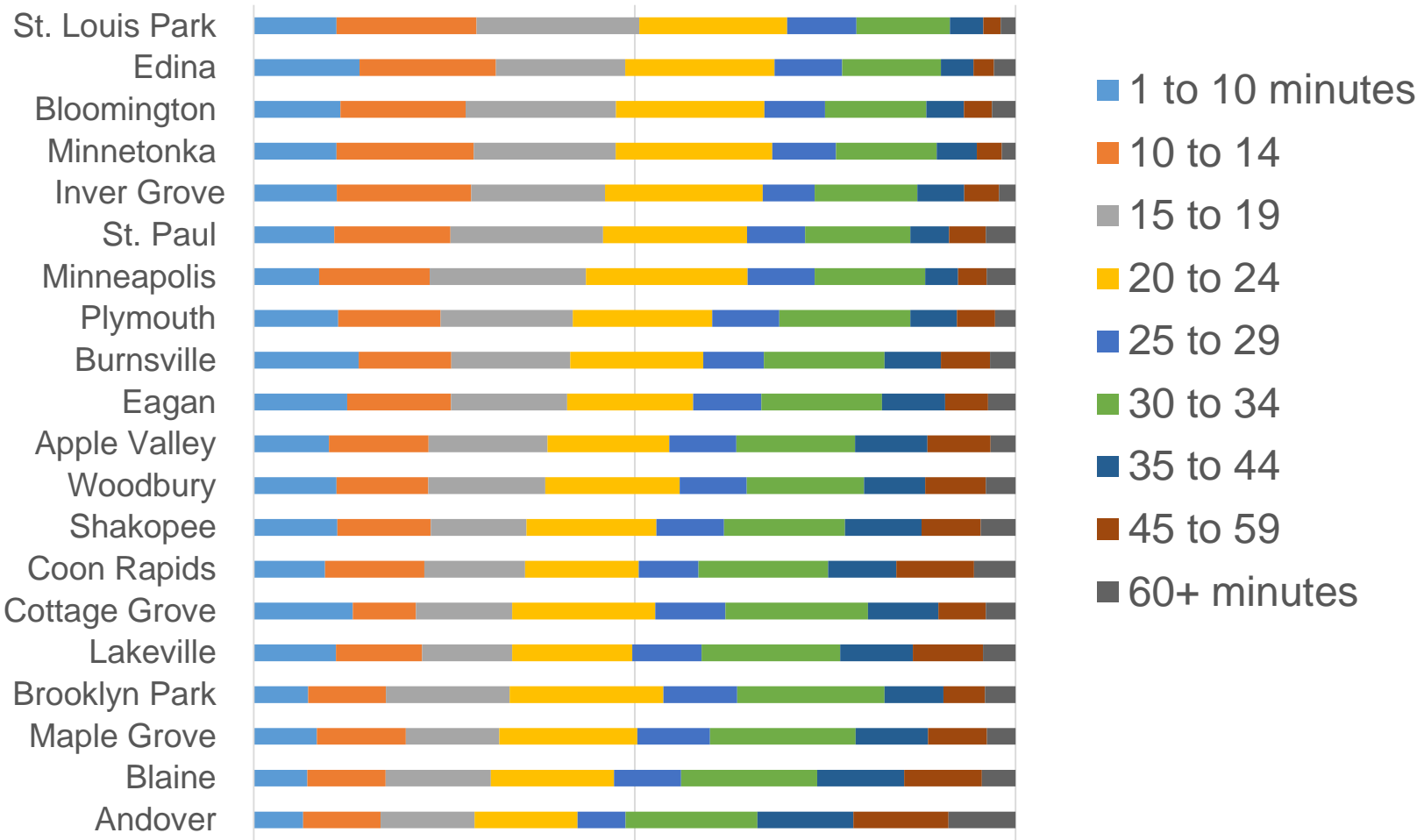
Census 1990  Census 2000  ACS 2006-2010  ACS 2010-2014

### Travel Time to Work, Plymouth Residents



Source: U.S. Census Bureau Decennial Census and American Community Survey. The universe is residents age 16 and over who worked outside the home.

# Commute times of city residents, 2010-14

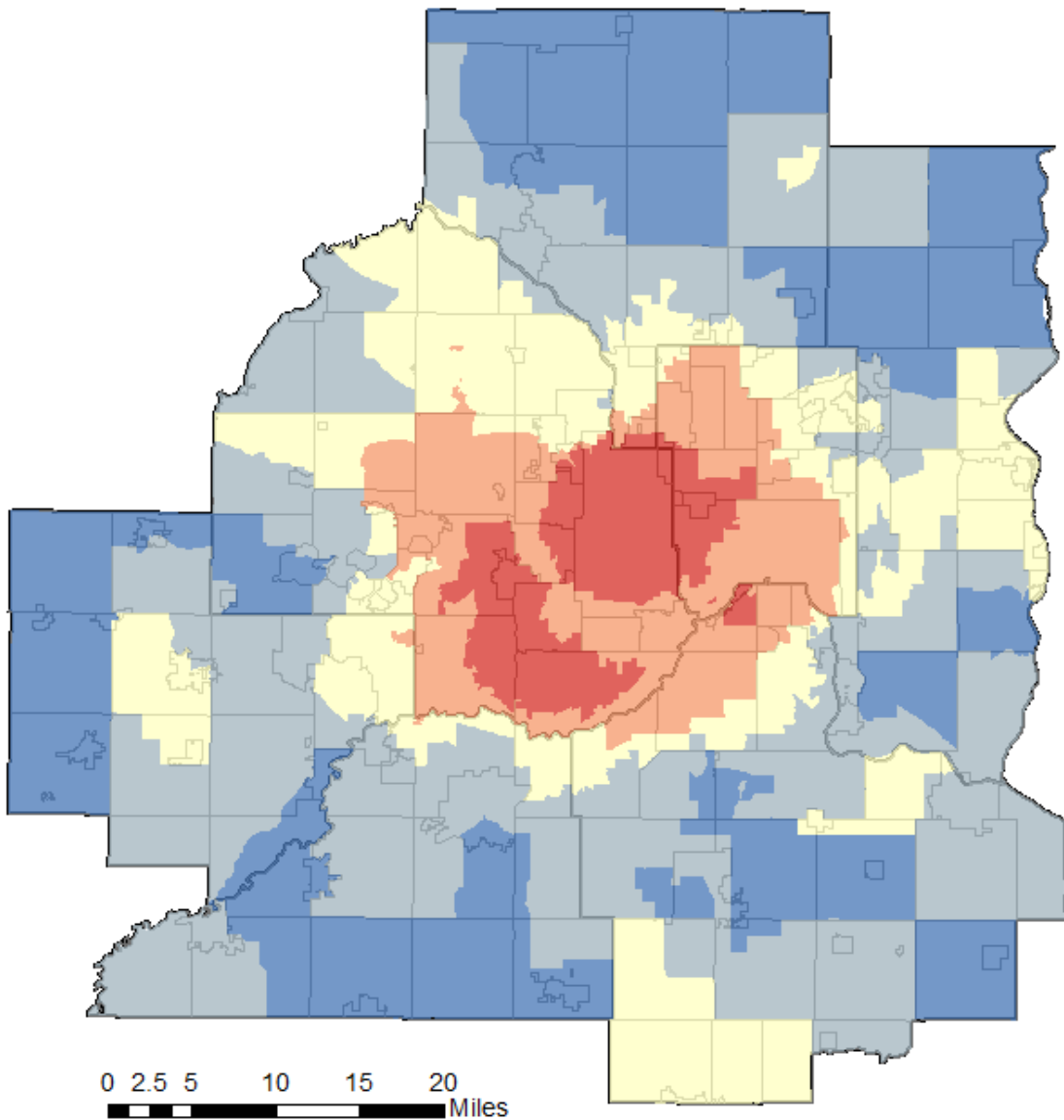
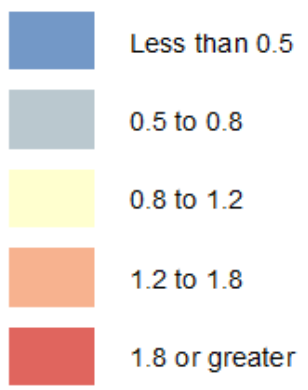


0% 50% 100%

Source: Census, ACS, 2010-14

# Commuting and the jobs/workers balance

## Jobs Per Worker Ratio in 5-Mile Radius, 2014



Source: Met Council  
analysis of Census  
Bureau, LODES, 2014

# Local Origin-Destination Employment Statistics (LODES) from Census

- What's counted?
  - Jobs counted at worksite locations
  - Workers counted at home locations
  - **Commute flows between home and work**
- Top 10 origins and destinations in Met Council's Community Profiles: [www.metrocouncil.org/data/](http://www.metrocouncil.org/data/)
- OnTheMap interactive data tool: [onthemap.ces.census.gov](http://onthemap.ces.census.gov)



# Commuting patterns for Blaine

Select data to chart:

- 2014 ▾
- 2014
- 2013
- 2012
- 2011
- 2010
- 2009
- 2008
- 2007
- 2006
- 2005
- 2004

Top ten workplaces of people who live in Blaine

Workplaces	Workers
Minneapolis	5,780
Blaine	3,320
St. Paul	2,216
Fridley	1,669
Coon Rapids	1,416
Roseville	1,067
Plymouth	870
Maple Grove	750
Golden Valley	647
Brooklyn Park	642
Other	10,756

Top ten residences of people who work in Blaine

Residences	Workers
Blaine	3,320
Coon Rapids	1,789
Minneapolis	1,035
Lino Lakes	960
Andover	888
St. Paul	781
Ham Lake	746
Brooklyn Park	536
East Bethel	488
Fridley	437
Other	9,025

Note: Workplaces and residences not in the top 10 are counted in "Other".

Source: U.S. Census Bureau Local Employment-Household Dynamics.

Download chart data: [Commuteshed - Laborshed](#)



## OnTheMap laborshed for workplaces in Blaine, 2014

OnTheMap
LEHD Home Help and Documentation Reload Text-Only

Start Base Map Selection Results

Save Load Feedback Previous Extent Hide Tabs Hide Chart/Report

### Distance/Direction Analysis

*Work to Home*

Display Settings

Labor Market Segment: **All Workers**

Year: 2014

Map Controls

Color Key

- Thermal Overlay
- Point Overlay
- Selection Outline

Identify Zoom to Selection

Clear Overlays Animate Overlays

Report/Map Outputs

Detailed Report

Export Geography

Print Chart/Map

Legends

- 5 - 15 Jobs/Sq.Mile
- 16 - 47 Jobs/Sq.Mile
- 48 - 100 Jobs/Sq.Mile
- 101 - 173 Jobs/Sq.Mile
- 174 - 269 Jobs/Sq.Mile

- 1 - 3 Jobs
- 4 - 10 Jobs
- 11 - 22 Jobs
- 23 - 40 Jobs
- 41 - 62 Jobs

Analysis Selection

Change Settings

### Job Counts by Distance/Direction in 2014

All Workers

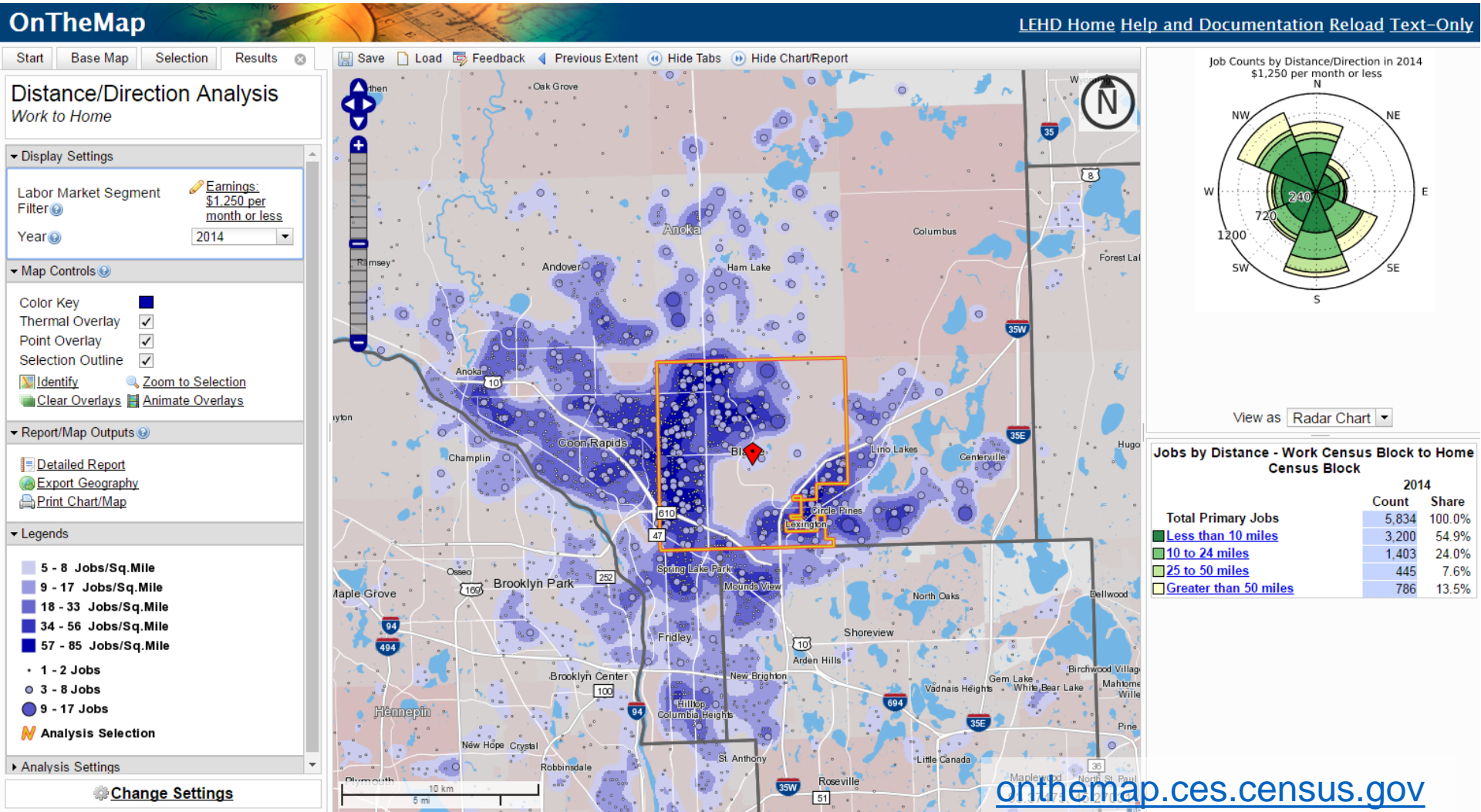
View as: Radar Chart

### Jobs by Distance - Work Census Block to Home Census Block

	2014	
	Count	Share
<b>Total Primary Jobs</b>	21,424	100.0%
Less than 10 miles	10,571	49.3%
10 to 24 miles	6,477	30.2%
25 to 50 miles	2,265	10.6%
Greater than 50 miles	2,111	9.9%

[onthemap.ces.census.gov](http://onthemap.ces.census.gov)

## OnTheMap laborshed for workplaces in Blaine, 2014, low wage jobs & workers



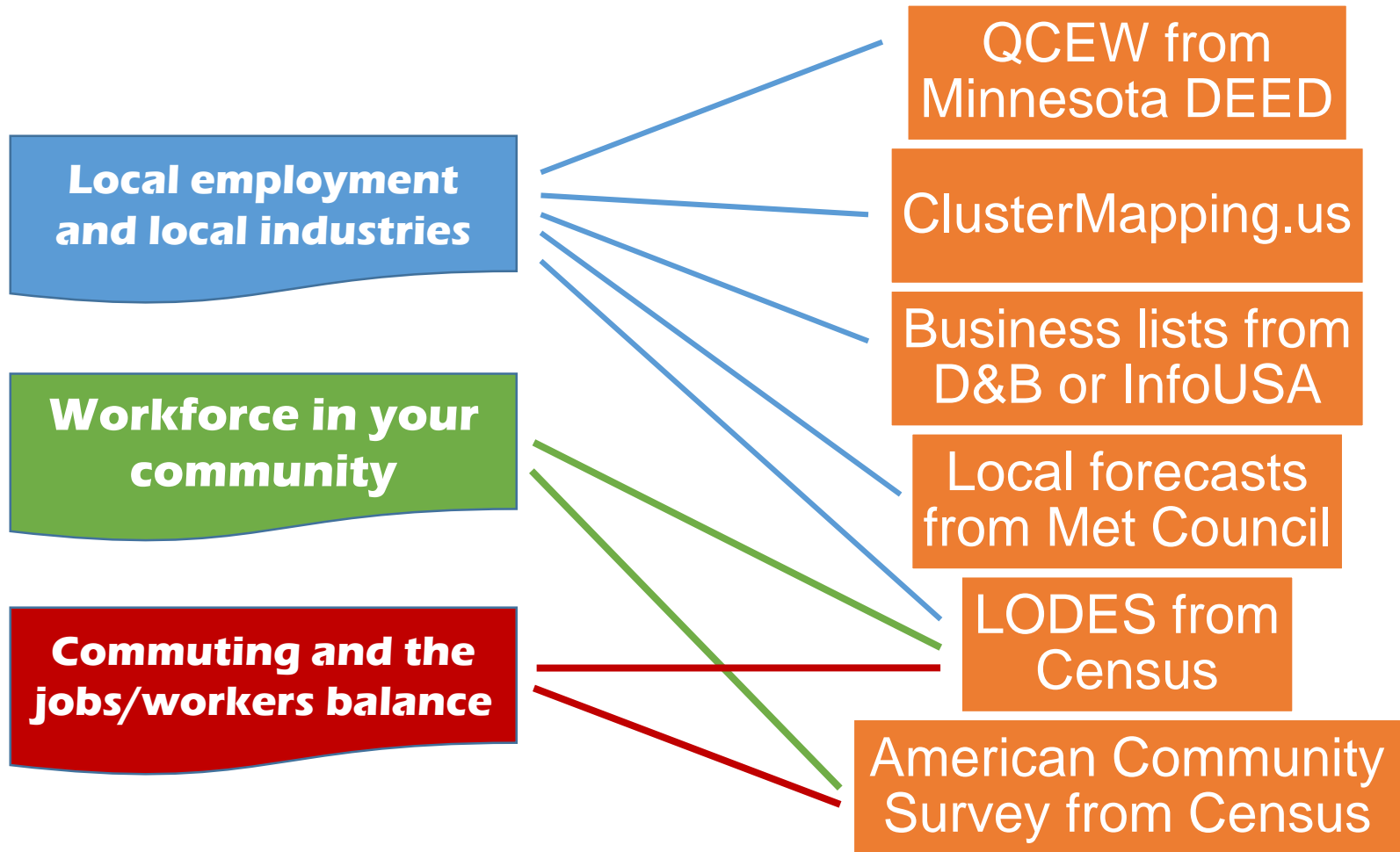


# Local Origin-Destination Employment Statistics (LODES) from Census

- What questions does LODES answer
  - Where local firms draw their workforce from
  - Where residents are commuting to – that is, can residents find work close to home?
  - Is there a balance of jobs and workers?
- Take aways
  - Good accessibility to employment should result in shorter commutes
  - Relative balance of jobs and workers matters
  - If there's an imbalance... implications for needed workforce housing – or needed business retention and attraction



# Data sources reviewed





# Today's webinar

- A broad scan of **economic data** at a meaningful scale
  - What's available at neighborhood or city level?
  - Where to find the data?
  - What questions does it answer?
- Learning objective: Using the data to **inform planning in your community**





# Resources

**LOCAL PLANNING  
HANDBOOK**

<http://metro council.org/Handbook.aspx>

**PlanIt**

<http://www.metro council.org/Handbook/PlanIt.aspx>

**Data and Maps**

<https://metro council.org/Data-and-Maps.aspx>

**Community  
Profiles**

<https://stats.metro council.state.mn.us/profile/Default.aspx>





# Questions?

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Requests for data and reports:

[research@metc.state.mn.us](mailto:research@metc.state.mn.us)



# Upcoming Events

## Plant Comprehensive Planning Conference

Tuesday, December 13, 2016  
Earle Brown Heritage Center  
6155 Earle Brown Drive  
Brooklyn Center, MN  
8:00 AM – 5:00 PM

