



Understanding Communities with Data & Maps

DRCOG's
Suite of Tools

Presented by:

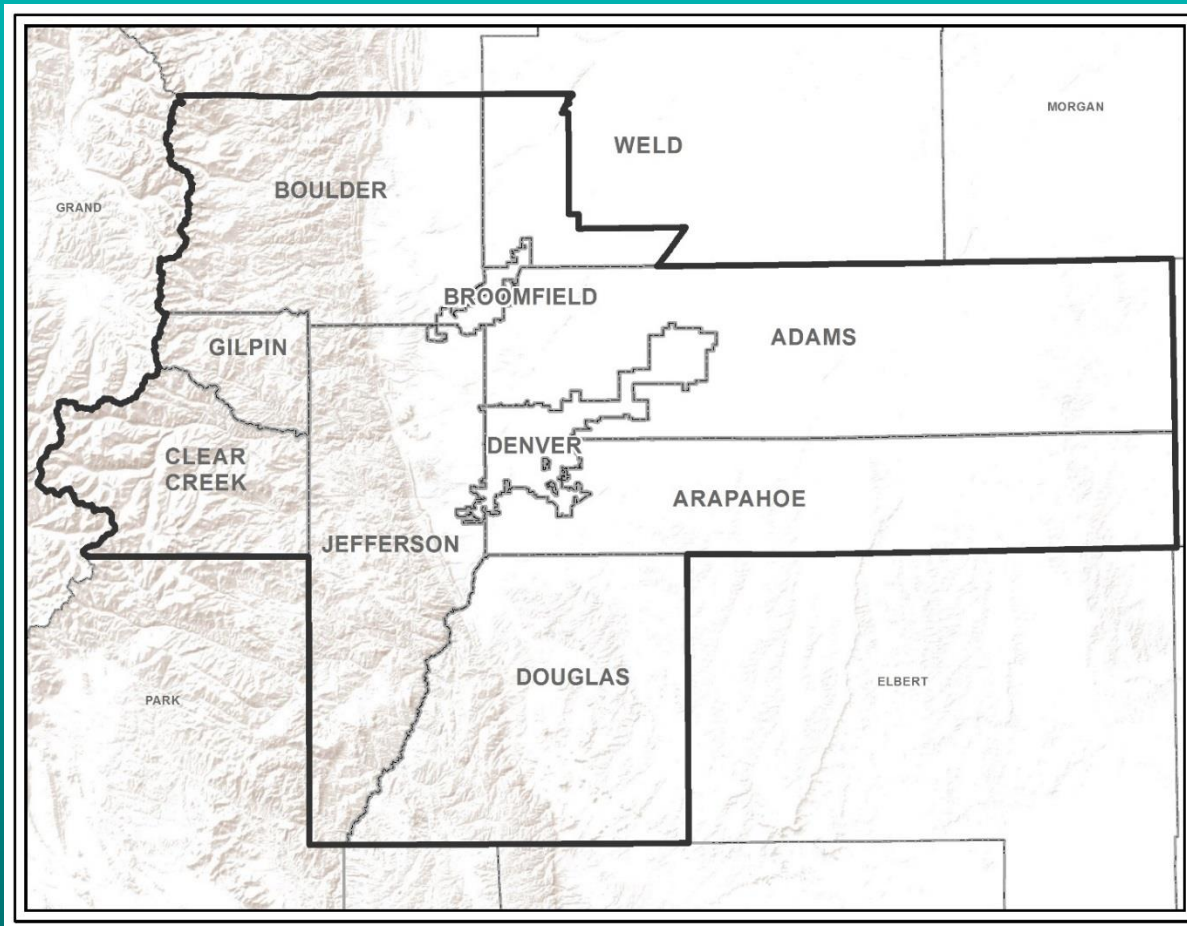
Ashley Summers

June 23, 2017



Where is DRCOG?

Denver Regional Council of Governments





What is DRCOG?

- **Mission Statement**

The Denver Regional Council of Governments is a planning organization where local governments collaborate to establish guidelines, set policy and allocate funding in the areas of:

- Transportation and Personal Mobility
- Growth and Development
- Aging and Disability Resources

- **Vision Statement**

Our region is a diverse network of vibrant, connected, lifelong communities with a broad spectrum of housing, transportation and employment, complemented by world-class natural and built environments.



Data & Maps

Denver Regional Equity Atlas

<http://www.denverregionalequityatlas.org/>

Denver Regional Visual Resources

<https://drcog.org/services-and-resources/denver-regional-visual-resources> OR <https://drcog.org/drvr>

Regional Data Catalog

<http://gis.drcog.org/datacatalog/>



Denver Regional Equity Atlas

- Purpose
 - To allow interaction with data at a local level
 - To provide detailed tract-level analysis with dynamically updated charts and graphs
 - To allow the creation of custom maps
- Background
 - Original version completed by Mile High Connects in 2011
 - Series of static maps at a regional scale
 - Shows housing, education, employment, demographic, and health data in relation to transit



Denver Regional Equity Atlas

- **Audience**

- The primary audience for this tool is service providers, researchers without the resources of a professional, and community groups needing to advocate for equity on their own behalf.
 - Groundwork Denver – support for a grant application
 - FRESC- preparation for a focus group with national AARP policy committee for background on areas with high concentrations of 55+ population compared with areas with rent-burdened housing
 - Denver Urbanism blogger – investigating housing density near light rail stations



Denver Regional Equity Atlas



MileHighConnects
Opportunity for all through transit

What is DRCOG?



DENVER REGIONAL EQUITY ATLAS

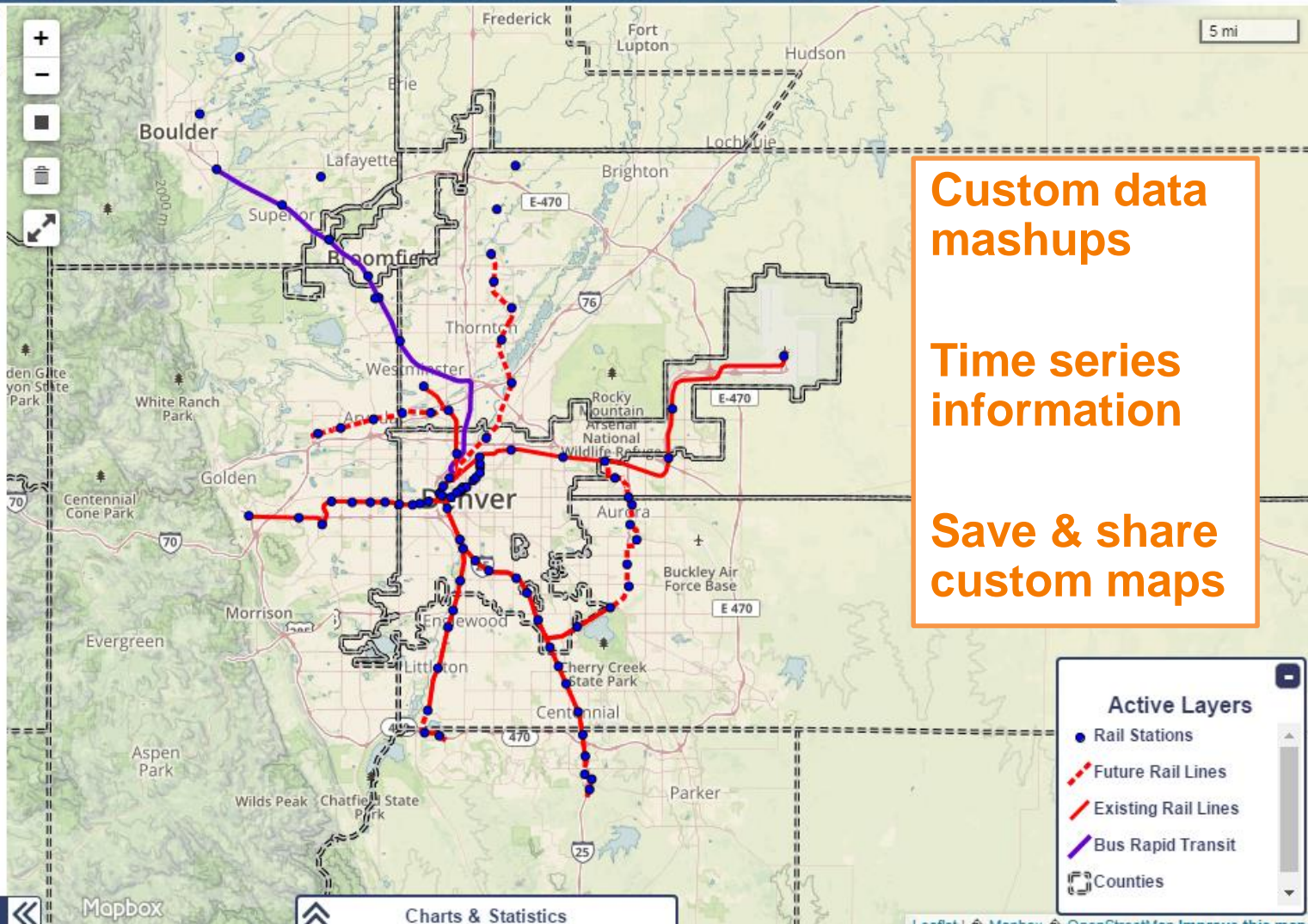
[Register](#) or [Log In](#)



RE 1.0 Maps...

[Log in to access saved maps](#)

- ☒ Base Maps
- ☒ Boundaries
- ☐ Demographics
- ☐ Education
- ☐ Employment
- ☐ Health
- ☐ Housing
- ☒ Transportation



Custom data mashups

Time series information

Save & share custom maps

Active Layers

- ☒ Rail Stations
- ☒ Future Rail Lines
- ☒ Existing Rail Lines
- ☒ Bus Rapid Transit
- ☒ Counties



Denver Regional Equity Atlas



DENVER REGIONAL EQUITY ATLAS

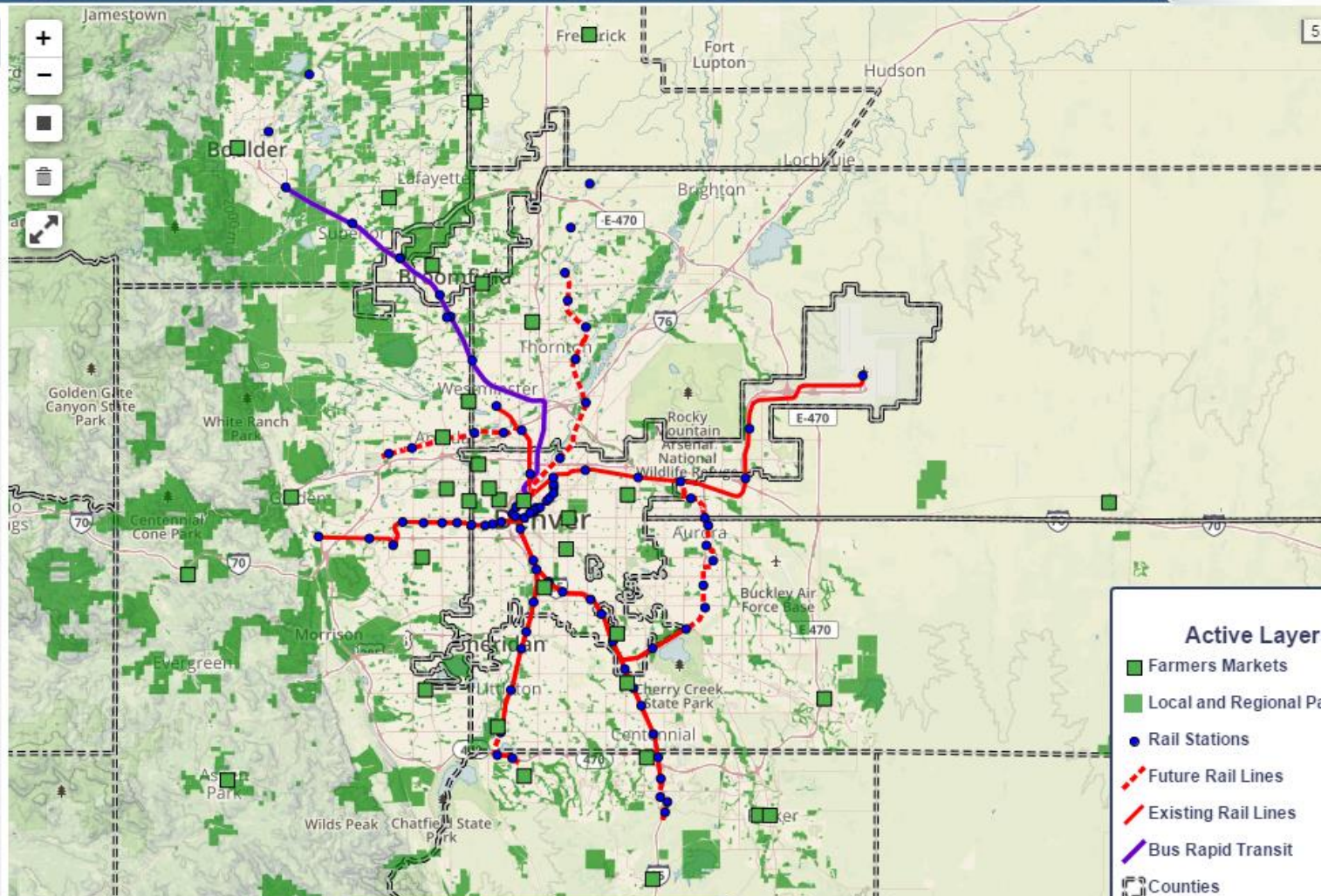
Register or Log In



REA 1.0 Maps...

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- ☒ Base Maps
- ☒ Boundaries
- ☐ Demographics
- ☐ Education
- ☐ Employment
- ☒ Health
 - ☐ Adult Asthma Rate
 - ☐ 2009
 - ☐ 2013
 - ☐ Adult Obesity Rate
 - ☐ 2009
 - ☐ 2013
 - ☐ Blocks by Area (8 acre)
- ☒ Farmers Markets
- ☐ Health Facilities
- ☐ Hospitals
- ☒ Local and Regional Parks
- ☐ Low Access to Healthy Food
- ☐ Trauma Centers



Active Layer

- ☒ Farmers Markets
- ☒ Local and Regional Parks
- ☒ Rail Stations
- ☒ Future Rail Lines
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- ☒ Counties

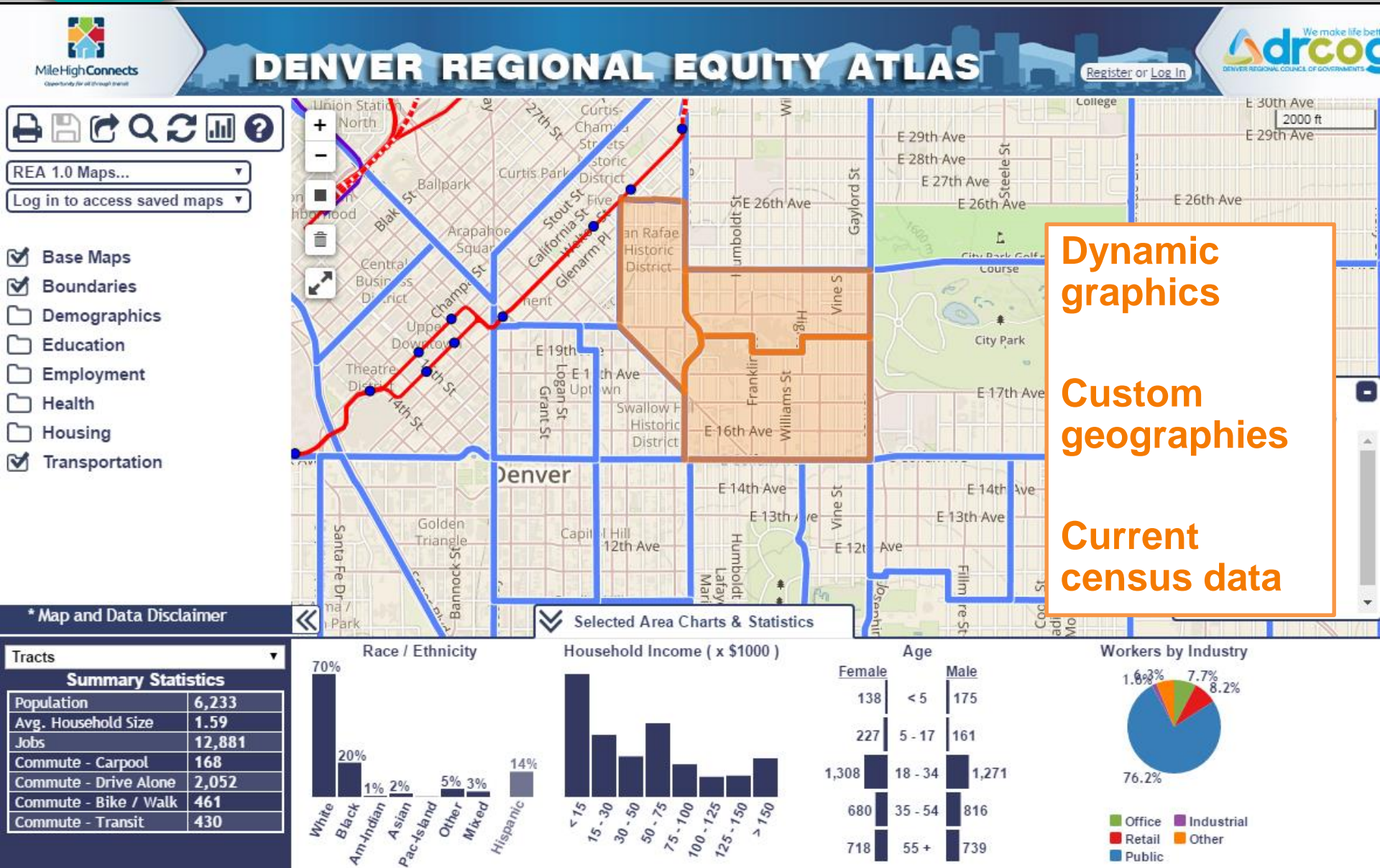
* Map and Data Disclaimer

Charts & Statistics

Leaflet | Mapbox, OpenStreetMap, Im



Denver Regional Equity Atlas





Denver Regional Equity Atlas



Mile-High Connects
Northwest Colorado

DENVER REGIONAL EQUITY ATLAS

DRCOG
DENVER REGIONAL COUNCIL OF GOVERNMENTS
"10 miles & better"

	Category", and is randomly distributed by Census tract		http://codataengine.org/find/2010-colorado-number-jobs-naics-code-census-block-0	
Public Jobs	Each dot represents 100 jobs of the employment type "Public", and is randomly distributed by Census tract	LEHD, Data Engine	http://lehd.ces.census.gov/data/#lodes http://codataengine.org/find/2010-colorado-number-jobs-naics-code-census-block-0	Census block Economy
Retail Jobs	Each dot represents 100 jobs of the employment type "Retail", and is randomly distributed by Census tract	LEHD, Data Engine	http://lehd.ces.census.gov/data/#lodes http://codataengine.org/find/2010-colorado-number-jobs-naics-code-census-block-0	
HEALTH				
Low Access to Healthy Food	Percentage of the total population that is low-income and has low food access (more than one mile from a supermarket or large grocery store)	USDA Food Environment Atlas, Data Engine	http://www.ers.usda.gov/data-products/food-access-research-atlas/download-the-data.aspx#Uq5PAZK1Epk http://codataengine.org/find/2013-access-healthy-food-colorado-census-tract http://codataengine.org/find/access-healthy-food-colorado-census-tract-2013	
Adult Asthma Rate	County-level adult asthma rates in Metro Denver Region	Colorado Department of Public Health and Environment BRFSS survey,	http://rctod.org/wQ34oT http://codataengine.org/find/adult-asthma-rate-county-metro-denver-region-2009	County Health Health Conditions 2009 2011/12

Metadata with links to public data

Download the raw data for further analysis



Denver Regional Visual Resources

- **Purpose**
 - Online repository of data-driven infographics that explain the state of our region
 - One-stop shop for data, webmaps, and story-telling visualizations
 - An aesthetically-pleasing “guided tour” approach to explaining a particular topic/issue
 - Topics in transportation, economics, and demographics
- **Audience**
 - Users seeking a more curated experience while maintaining interactive data exploration



Denver Regional Visual Resources

DRCOG Jurisdiction

Region ▼

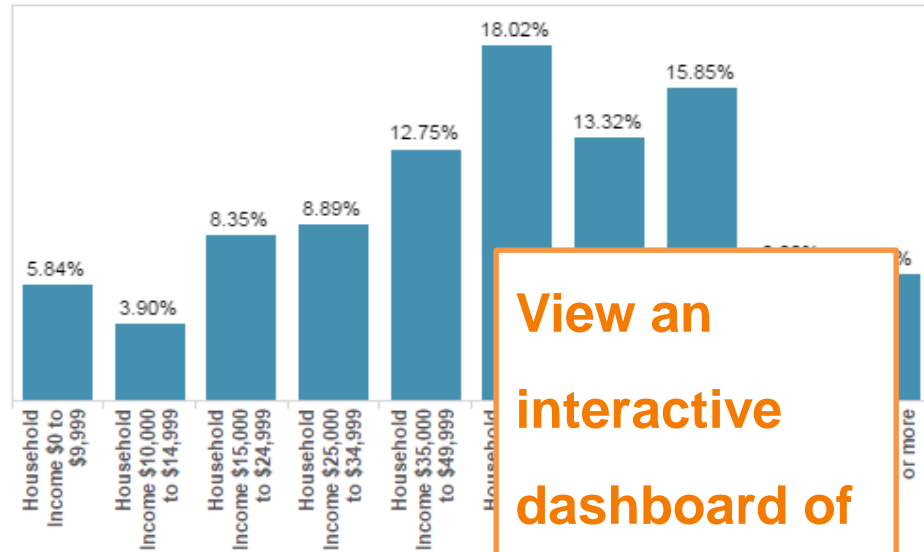
Demographics

DOLA Population	3,158,994
Households	1,170,990
Average Household Size	3
Median Age	36
Median Household Income (\$)	67,046
High School Diploma or More (%)	90
Bachelor's Degree or More (%)	71
Drive-alone Commuters (%)	75
Unemployment Rate (%)	6

Housing

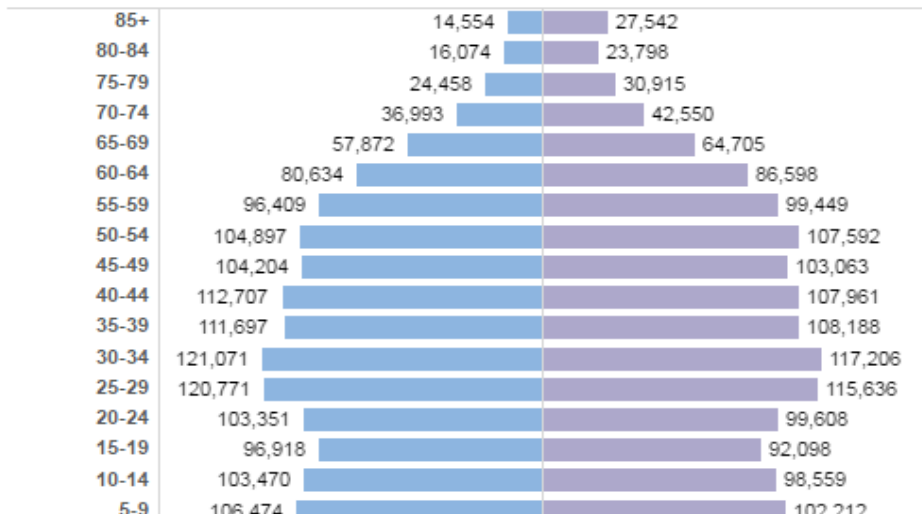
Housing Units	1,235,027
Occupied Housing	1,170,990
Owner-occupied Housing	739,994
Median Home Value (\$)	276,849
Median Monthly Owner Costs (\$)	1,432
Renter-occupied Housing	430,996
Median Monthly Renter Costs (\$)	1,089
Multifamily Housing	379,442
Vacant Housing	64,037

Income (Percent of total 2015 dollars)

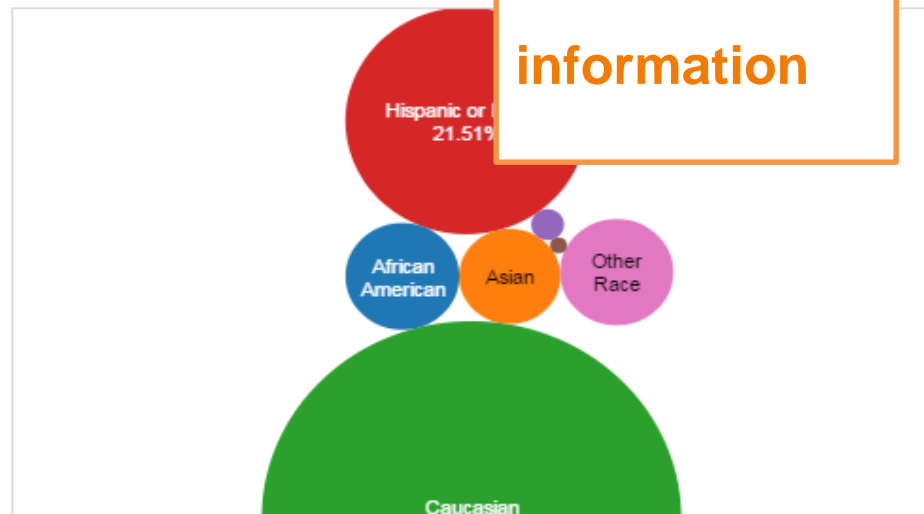


View an
interactive
dashboard of
demographic
information

Population Pyramid (Count by age group)



Race/Ethnicity (Percent)





Denver Regional Visual Resources

DRCOG Jurisdiction 1

Region

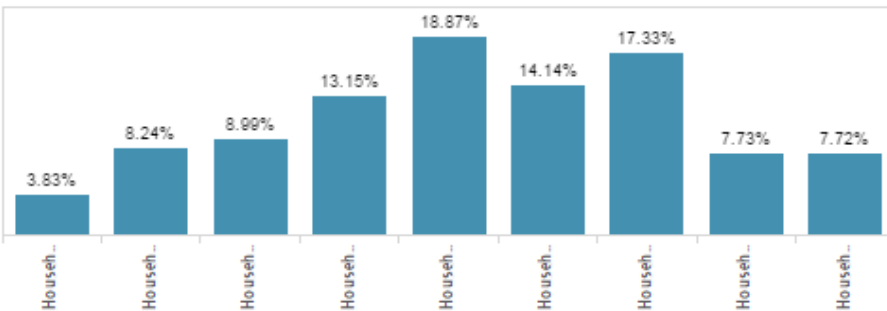
Demographics

DOLA Population	3,158,994
Households	1,170,990
Average Household Size	3
Median Age	38
Median Household Income (\$)	67,046
High School Diploma or More (%)	90
Bachelor's Degree or More (%)	71
Drive-alone Commuters (%)	75
Unemployment Rate (%)	8

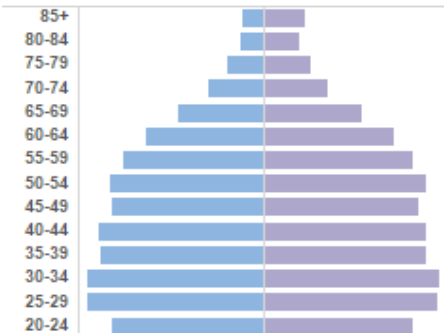
Housing

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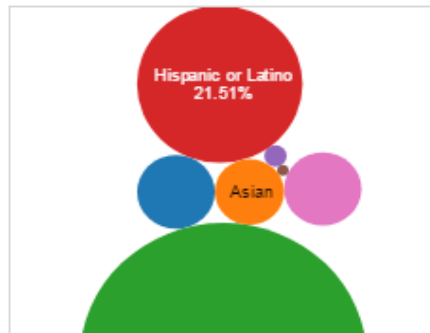
Income (Percent of total 2015 dollars)



Population Pyramid (Count by age group)



Race/Ethnicity (Percent of total)



DRCOG Jurisdiction 2

Adams County

Demographics

DOLA Population	490,829
Households	156,628
Average Household Size	3
Median Age	33
Median Household Income (\$)	58,946
High School Diploma or More (%)	82
Bachelor's Degree or More (%)	53
Drive-alone Commuters (%)	78
Unemployment Rate (%)	8

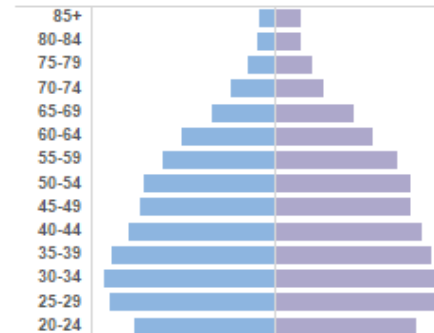
Housing

Housing Units	165,046
Occupied Housing	156,628
Owner-occupied Housing	101,043
Median Home Value (\$)	198,800
Median Monthly Owner Cost..	1,325
Renter-occupied Housing	55,585
Median Monthly Renter Cost..	1,039
Multifamily Housing	356
Vacant Housing	418

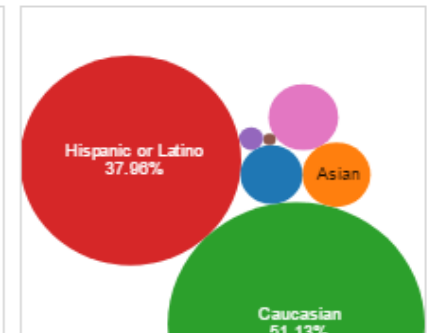
Income (Percent of total 2015 dollars)



Population Pyramid (Count by age group)



Race/Ethnicity (Percent of total)



Compare a community to the region or compare 2 communities



Denver Regional Visual Resources

DRCOG Jurisdiction

Region

Pick a Topic

Commuting
Aging
Commuting
Demographics
Employment
Housing
Healthcare
Income

Commuting

	2010	2011	2012	2013	2014	2015
Percentage of Commuters with a Commute Less than 30 min	61	61	61	61	60	60
Drive-alone Commuters (%)	75	75	75	75	75	
Carpooled Commuters (%)	10	10	9	9	9	
Public Transportation Commuters (%)	5	5	5	4	4	
Bicycle Commuters (%)	1	1	1	1	1	
Pedestrian Commuters (%)	2	2	2	2	2	
Workers Working Home (%)	6	6	7	7	7	

Source: "American Communities Survey 5-Year 2015." US Census Bureau. <http://factfinder.census.gov>.

Characteristics of Commuters

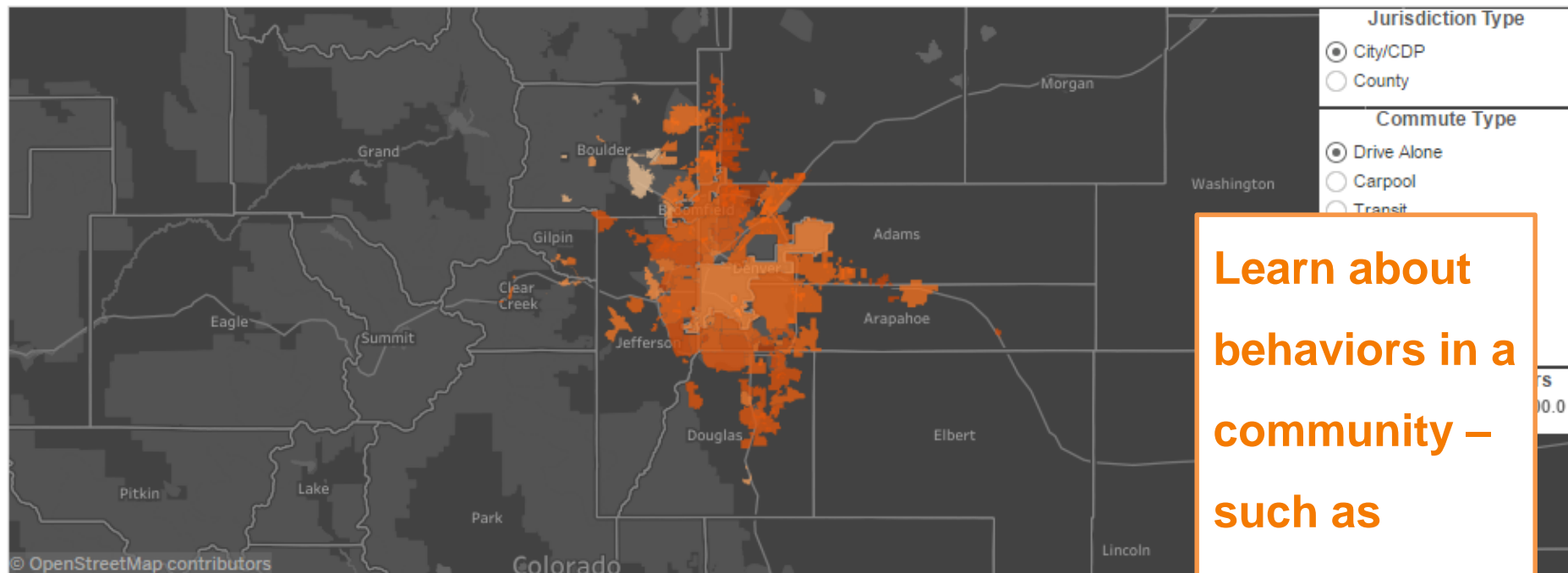
	2010	2011	2012	2013	2014	2015
Median Earnings for Drive-alone Commuters (\$)	40,126	40,980	41,541	41,693	42,128	42,027
Median Earnings for Carpooled Commuters Commuters (\$)	29,833	30,337	30,933	30,999	30,949	31,252
Median Earnings for Public Transportation Commuters (\$)	33,537	34,302	32,513	33,283	32,928	32,137
Median Earnings for Pedestrian Commuters (\$)	19,407	20,438	20,567	21,378	21,534	21,906
Median Earnings for Workers at Home (\$)	40,207	39,687	37,998		39,198	39,387

View regional
and
community
data in 7 topic
areas over 6
years



Denver Regional Visual Resources

Step 1: Choose a commute type to see it on the map and in the lists



Source: "American Communities Survey 5-Year 2013." US Census Bureau. 2015. <http://factfinder.census.gov>.

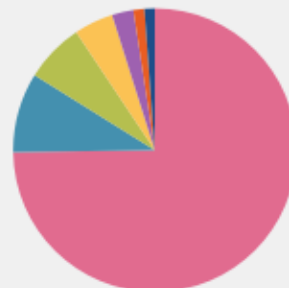
Top City/CDP Drive Alone

Lakeside	100.0%
Dove Valley CDP	89.0%
Todd Creek CDP	89.0%
West Pleasant View CDP	87.7%
Firestone	86.4%
Dacono	85.7%
Bennett	84.9%
Stonegate CDP	82.8%
Columbine Valley	82.4%
Shaw Heights CDP	82.2%

Top Counties Drive Alone

Weld County	79.7%
Douglas County	79.5%
Jefferson County	78.1%
Arapahoe County	78.1%
Broomfield County	77.3%
Adams County	77.1%
Gilpin County	75.7%
Clear Creek County	70.6%
Denver County	69.6%
Boulder County	64.5%

Step 2: See commuting by jurisdiction



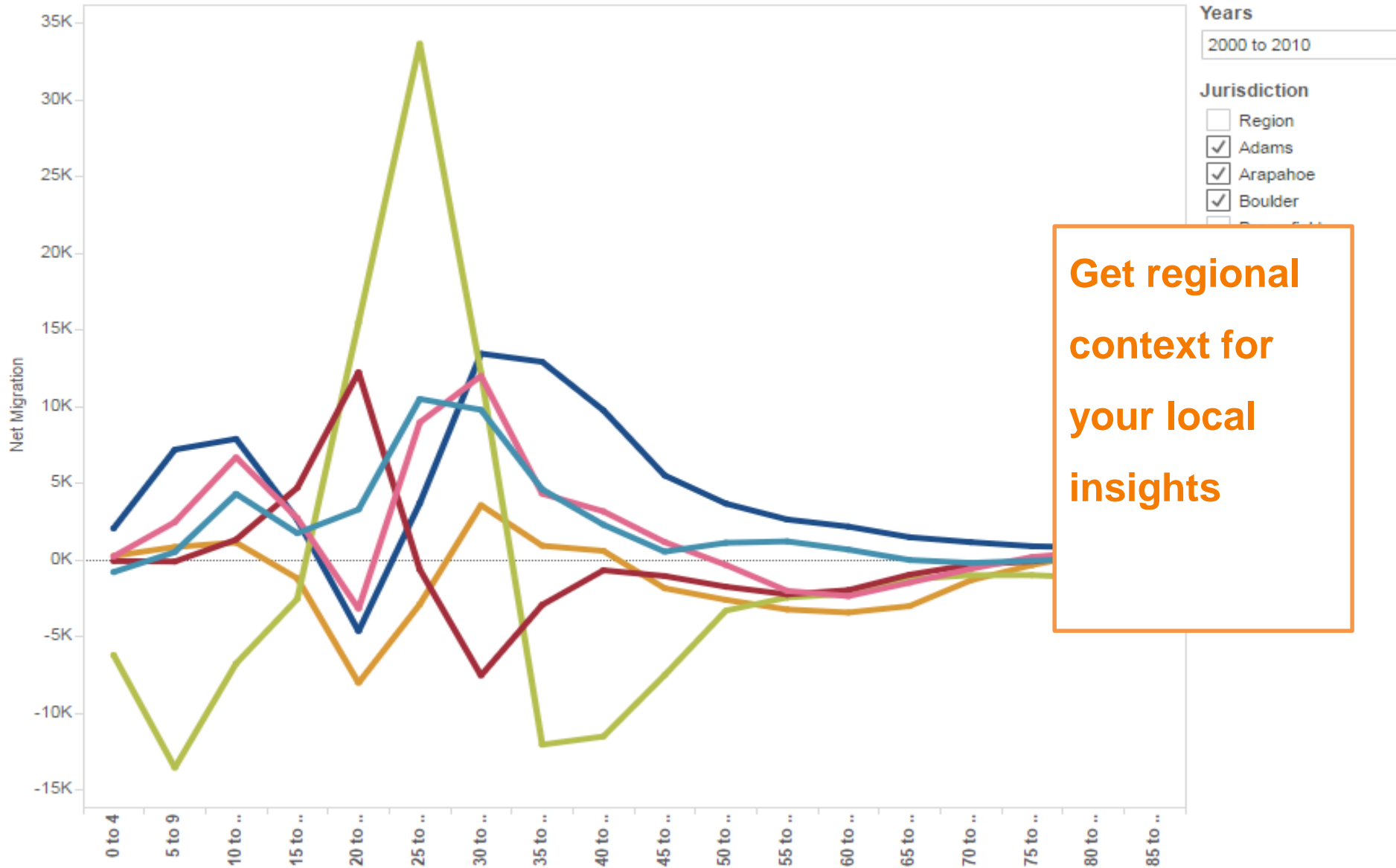
Commute Type

- Drive Alone
- Carpool
- Telework
- Transit
- Walk
- Bicycle
- Other

Learn about behaviors in a community – such as commuting



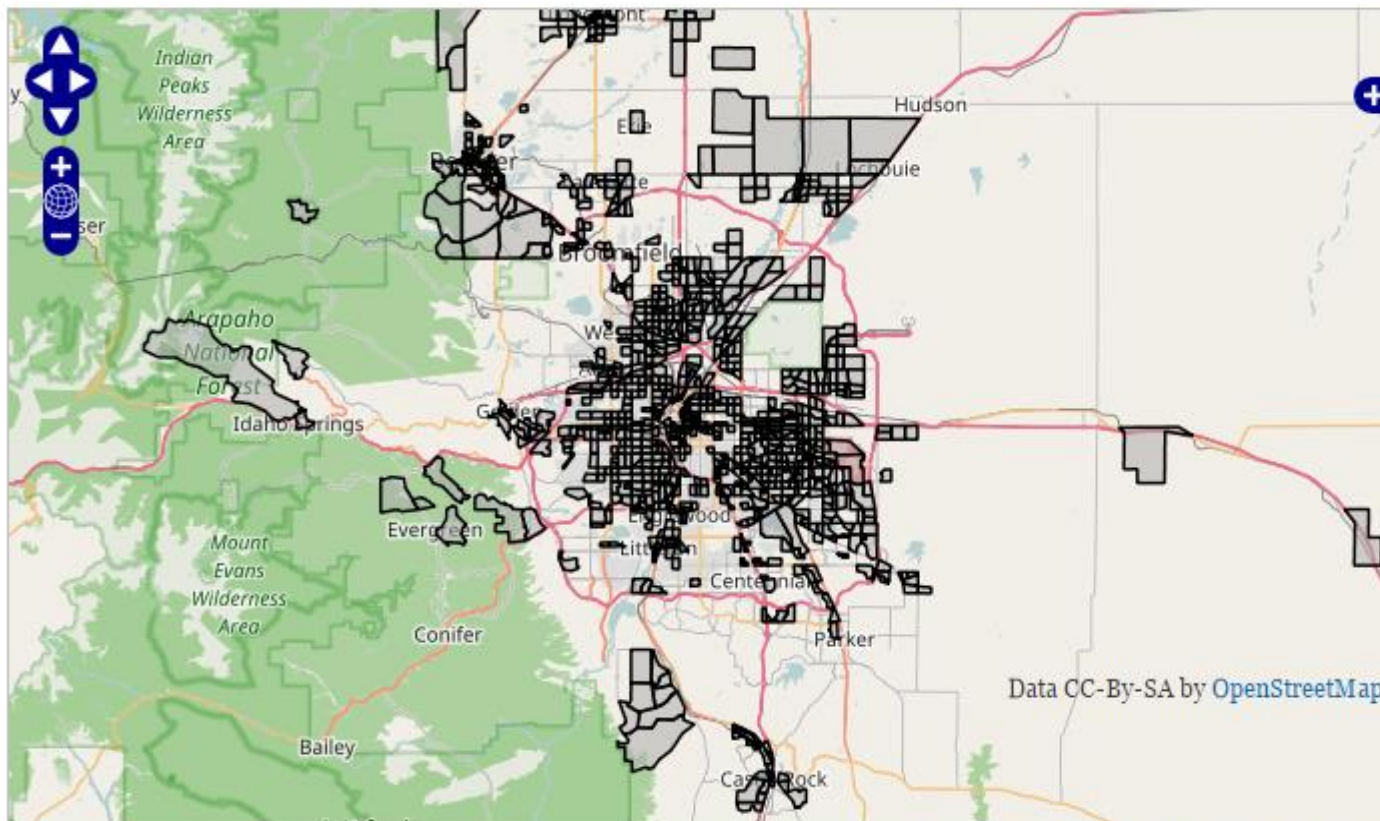
Denver Regional Visual Resources





Regional Data Catalog

Environmental Justice 2014



Data CC-BY-SA by OpenStreetMap

Click on the map to see feature information.

▼ Geodata Links

KML URL: [KML](#)

WMS URL: [WMS](#)

Shapefile:  [environmental_justice_2014.zip](#)

Data Spotlight

[Community Profiles](#) and [Legislative Profiles](#) are now available!

The [Data Portal](#) is now online for our member governments.

Download raw data to do your own analysis

Search



[Simple Web Map](#)
[Add WMS layer](#)
[Identify API function](#)



Email me at asummers@drcog.org

QUESTIONS?