The data consortium consists of Denver Regional Council of Governments members and regional partners with an interest in geospatial data and collaboration. The data consortium newsletter improves communication among local geographic information systems professionals and features updates from all levels of government as they relate to data and geospatial initiatives in our region. This newsletter is published quarterly.

Participate in a research study on geospatial skills

Article submitted by Rebecca L. Powell, Ph.D., Department of Geography/College of Natural Sciences and Mathematics. Rebecca can be reached at rebecca.l.powell@du.edu or 303-871-2667.

Practitioners and researchers at the Denver Regional Council of Governments, University of Colorado Denver, and University of Denver invite you to participate in a research study about geospatial skills. Researchers are surveying professionals, educators and students to understand potential gaps between geospatial training and workplace demands.

"Geospatial" refers to any work that relies on understanding geographical information. It's a broad term that encompasses topics like cartography, web mapping, geospatial data collection, analysis, data management and remote sensing.

Your involvement in the project is voluntary. The survey takes 5-20 minutes. Not participating will not affect your relationship with DRCOG, University of Colorado Denver or University of Denver. However, your involvement will help researchers understand how to better align skills taught in an academic setting with skills required in a professional setting in the geospatial industry. Findings from the study could help to develop recommendations for geospatial students, educators and professionals.

If you agree to be part of the study, start an anonymous survey about your geospatial

skills and your perceptions of market demand. Respondents may enter to win a $50 gift card!

For more information about the study, contact Rebecca Powell, associate professor, Department of Geography, University of Denver, at rebecca.l.powell@du.edu.

# Update to Colorado's new State Plane Coordinate System

Article submitted by Joey Stone, global navigation satellite system coordinator at Denver Water. Joey can be reached at joey.stone@denverwater.org or 303-607-3135.

The National Oceanic and Atmospheric Administration's National Geodetic Survey has announced a delay in the release of the modernized National Spatial Reference System. The National Geodetic Survey is now anticipating a complete rollout of the modernized National Spatial Reference System in the 2024-2025 timeframe. Although the National Geodetic Survey is delaying the release of the modernized National Spatial Reference System, Colorado Geodetic Coordination is still responsible for submitting the Low Distortion Projection layer parameters by March 2021.

The Colorado Geodetic Coordination has completed the preliminary projection designs and is currently soliciting feedback. A new Colorado Geodetic Coordination web experience has been set up to share Low Distortion Projection parameters and an online survey is available for facilitating the feedback process. The survey will be closed on Dec. 1. All Low Distortion Projection data and parameters can also be searched through ArcGIS online with the keywords "Colorado" and "LDP." Any questions or comments can be sent to ngs.colorado@gmail.com.

> visit the Colorado Geodetic Coordination web experience
>
> take the Low Distortion Projection parameters feedback survey
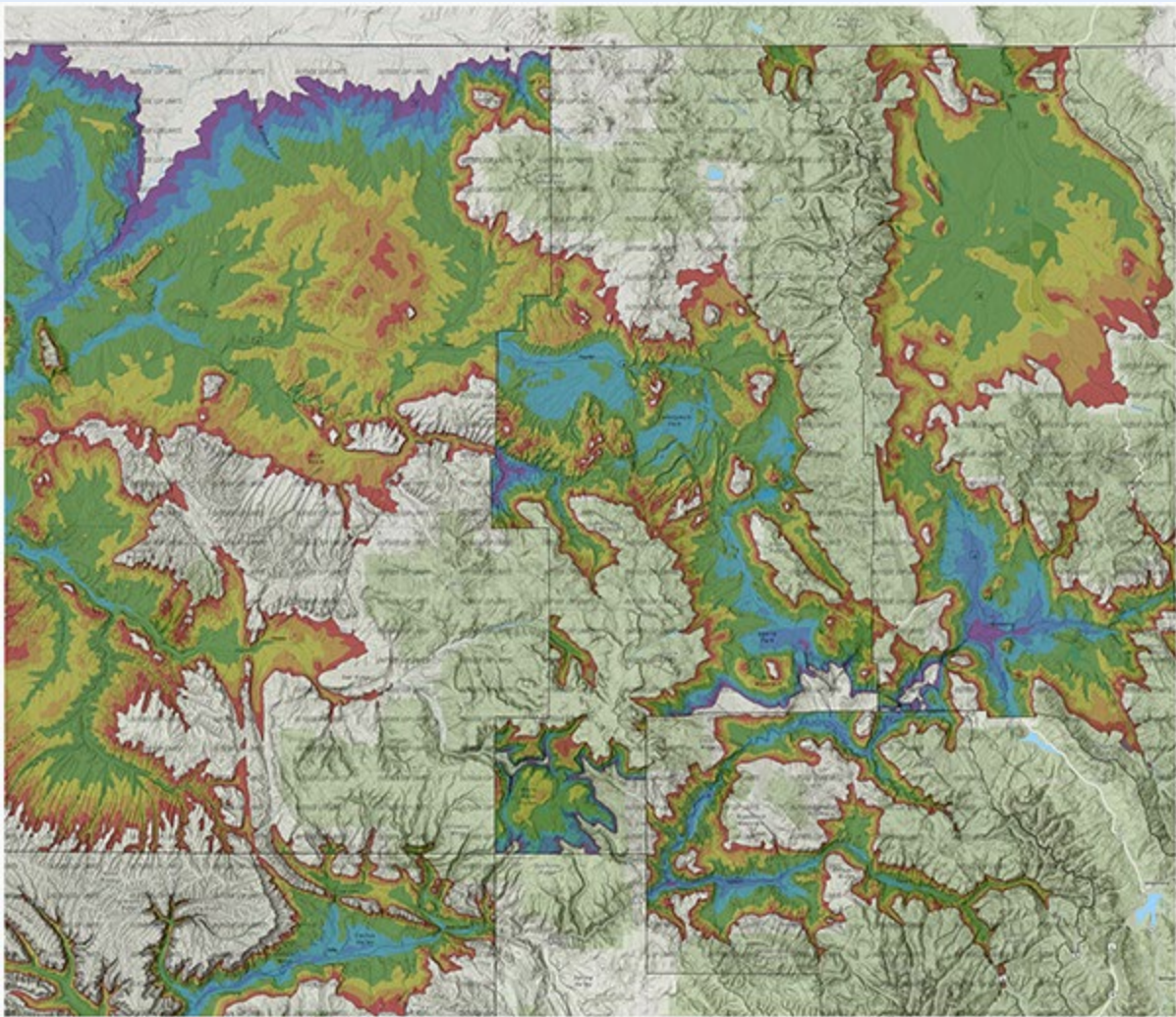
DRCOG partners with the GeoEx Center at Front Range Community College

Article submitted by Ashley Summers, geographic information systems professional, project management professional, information systems manager at DRCOG and Jamie Hoover, Ph.D., geospatial science faculty at Front Range Community College. Ashley can be reached at 303-480-6746 or asummers@drcog.org. Jamie can be reached at 303-678-3685 or jamie.hooever@frontrange.edu.

DRCOG is working with the GeoEx Center at Front Range Community College in a mutually beneficial partnership that will allow students to volunteer on important regional projects.

The GeoEx Center at Front Range Community College was created to develop a highly-skilled and diverse geospatial workforce. The GeoEx Center's goal is to reduce the employment barrier students face due to a lack of experience by offering them the opportunity to work on real-world geospatial projects. Students are paired with local, state and federal agencies, geospatial companies and other college departments.

Student volunteers will assist on DRCOG's Denver Regional Aerial Photography Project by reviewing imagery tiles for adherence to quality specifications. Over 6,000 square miles of high-resolution imagery is collected as part of the Denver Regional Aerial Photography Project, and most of the area is reviewed by the project partners that fund the effort. To assist those partners that have large areas of interest or resource limitations, the student volunteers will be available to ensure the deliverable meets expectations.

Learn more about the Front Range Community College geographic information systems program, including its Geographic Information Systems Certificate, associate degree and the new bachelor of applied science program.

DRCOG's 2050 small-area forecast

Article submitted by Geoffrey Chiapella, senior planner at DRCOG. Geoffrey can be reached at gchiapella@drcog.org or 303-480-5644.

By forecasting the growth of households and jobs in areas much smaller than counties, DRCOG staff can forecast future travel patterns to support the regional transportation planning process. A new small-area forecast of households and jobs is now available for use with upcoming travel demand and air quality conformity modeling for the *2050 Metro Vision Regional Transportation Plan.*

DRCOG's small-area forecasting process begins with county-level forecasts from the State Demography Office in the Department of Local Affairs. DRCOG then forecasts the distribution of the county-level household and employment growth across just over 2,800 small areas, known as transportation analysis zones. That information serves as one set of input assumptions for travel demand modeling efforts that forecast travel patterns between zones and on the transportation network.

To do this work, DRCOG staff rely on:

- A predictive model, known as UrbanSim, that uses nine discrete choice models that simulate household and employment location choices with real estate market dynamics and within natural and regulatory constraints.
- Extensive model inputs gathered from the U.S. Census Bureau, state and local governments and other sources to establish base year and other observable conditions; estimate, calibrate and validate model parameters; and estimate capacity for household and job growth.
- Feedback from local governments on preliminary model results to improve model inputs – DRCOG staff received nearly 900 comments from 31 local jurisdictions over two comment periods.

The resulting household and job forecast is available for viewing and downloading in a variety of formats on DRCOG's Regional Data Catalog.

New Denver Region Data Brief: Regional growth deceleration

Article submitted by Andy Taylor, regional planning manager at DRCOG. Andy can be reached at ataylor@drcog.org or 303-480-5636.

The Denver region could be home to 1.86 million households and 2.96 million jobs by 2050. However, the forecast includes less growth over the next 30 years than the region experienced over the last 30 years. Expect 14% fewer households and 21% fewer jobs to be added. Explore more about what's affecting the region's growth in the latest data brief.

To support decision-making, DRCOG staff maintain and analyze various datasets. The Denver Region Data Brief series is an opportunity to highlight insights from the datasets. Do you have questions or ideas for topics? Please contact Andy Taylor at ataylor@drcog.org.

Annual population growth rate
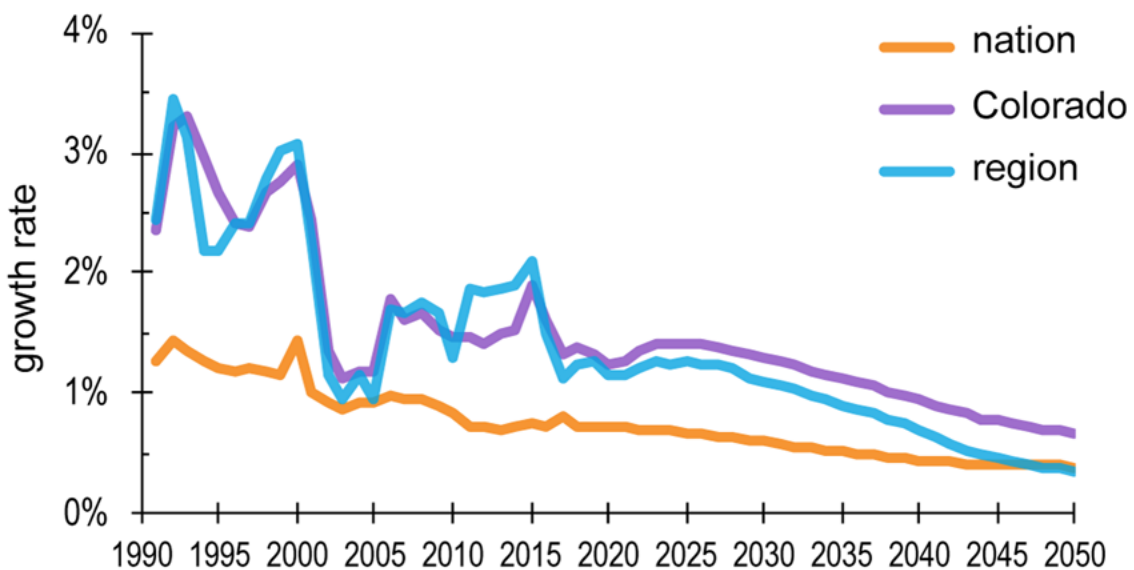
Data sources: "Components of Change — Regions," State Demography Office, Colorado Department of Local Affairs: https://demography.dola.colorado.gov/births-deaths-migration/data/components-change-regions/ (accessed September 2020); "Population Estimates, Vintage 2019," "Population Estimates, Intercensals 2000-2010," "Population Estimates, Intercensals 1990-2000, "Population Projections, 2017," U.S. Census Bureau: https://www.census.gov/data/developers/data-sets/popest-popproj.html (accessed September 2020).

Data note: Projections and forecasts appear smooth in comparison to the cyclic ups-and-downs shown for past estimates and observations.

DRCOG data acquisition updates

Article submitted by Ashley Summers, geographic information systems professional, project management professional, information systems manager at DRCOG. Ashley can be reached at 303-480-6746 or asummers@drcog.org.

Denver Regional Aerial Photography Project 2020

DRCOG collected 6,000 square miles of high-resolution imagery in the spring and summer of 2020 on behalf of 48 partners. All flights are now complete, and the imagery is being processed. Partners and volunteers will be performing quality control on the data from now until mid-January.

If you are not a project partner and would like to be, reach out to Ashley Summers at asummers@drcog.org. Read more about the imagery projects on the website.

Historical imagery is available for download via the Governor's Office of Information Technology FTP site.

Regional Lidar Project 2020

DRCOG received a grant from the U.S. Geological Survey in December 2019 to collect quality level 2 lidar in 5,000 square miles of the region and derive contours in most of the Denver metro area. Flights to collect the data are complete. Many thanks to the 32 local and state partners that committed funding to this project!

For more information, visit the website.

Do you have an interesting use case for lidar data? Tell us about it by emailing Ashley Summers at asummers@drcog.org.

Planimetric Data Project 2020

DRCOG is planning for the next planimetric data project. Funding partners are signing up now, and there is still time to be part of this project!

The project will be collecting building roofprints, edges of pavement, parking, sidewalks, ramps, trails, driveways and impervious surfaces throughout the Denver metro area. Collection is also planned to expand into Jefferson County this year.

If you are not a project partner and would like to be, reach out to Ashley Summers at asummers@drcog.org. Read more about the planimetric data projects on the website.

Things you might have missed

- The next Denver Regional Data Consortium meeting is Nov. 19 at 10 a.m.
- The GIS in the Rockies virtual conference just happened. Check out posters and presentations.

- View all OpenStreetMap Colorado meetups.
- View all GIS Colorado events.

Engage with us

- This quarterly newsletter reaches more than 300 people, has a higher-than-average open rate, and is written by professionals like you. It's the perfect place to show off your projects, highlight your great work and contribute ideas to the geographic information systems community in the Denver region. Newsletter release dates are the 15th of January, April, July and October (or the next business day afterward). Please contact Ashley Summers at 303-480-6746 or asummers@drcog.org to contribute.

- Did you miss a newsletter or a meeting? Visit our website for past newsletter issues and Denver Regional Data Consortium meeting materials.

We make life better!

drcog
DENVER REGIONAL COUNCIL OF GOVERNMENTS

f Share

🐦 Tweet

in Share

✉ Forward