Colorado
Secretary of State
BUSINESS INTELLIGENCE CENTER

2019 ANNUAL REPORT
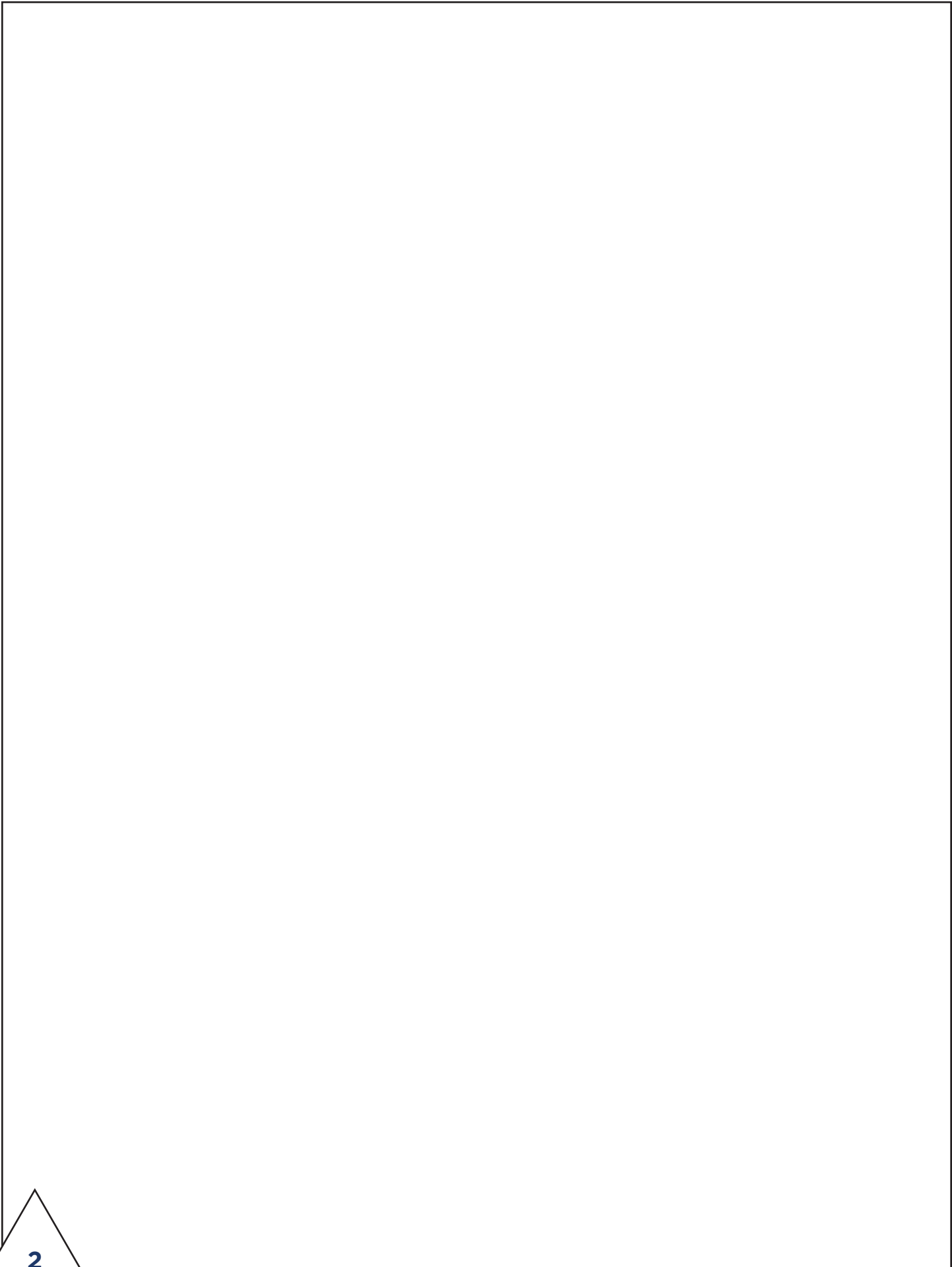
Table of Contents

Message from Secretary Griswold

My Fellow Coloradans,

Since joining the office, I have had the privilege of working on issues that impact individuals, businesses, and communities across Colorado. Having grown up in rural Colorado, I understand that Coloradans in every corner of our state need access to the resources that will ensure their success.

Our Business Intelligence Center (BIC) is dedicated to gathering, securing, and making available to the public vast amounts of data from state agencies and local authorities. Through outreach and technical support to both the public and private sector, the program helps facilitate using and understanding public data. BIC hosts meetings, trainings, public forums, and competitions to successfully connect government and public data with Colorado's entrepreneurs and innovators. Competitions like Go Code Colorado help Coloradans develop creative solutions to problems facing the business community and our state.

Our office works to solve problems and to help Coloradans pursue their own version of the American Dream. Thank you to the hundreds of talented individuals, state agencies, local authorities, universities, entrepreneurs, and analysts that are an integral part of BIC's success. We look forward to continuing to work together to provide tools to help Colorado businesses tackle emerging issues and to succeed.

Jena Griswold

Jena Griswold
Colorado Secretary of State

About the Business Intelligence Center

The Business Intelligence Center (BIC) - Per Colorado revised statute 24-21-116 (3), "The business intelligence center program is created within the department of state. The purpose of the program is to streamline access to public data and provide resources to make the data more useful…".

BIC's goal is to support the advancement of Colorado businesses by providing the freshest public data, insight and tools, across several focus areas:

- **Data Curation & Publishing**. As of 2019, BIC curated, published and maintained 280 data sets, with more added each year. Data is published through the Colorado Information Marketplace (CIM - data.colorado.gov) and is:

  - Guaranteed Fresh

  - Machine readable

  - Complete with an API and great metadata to provide useful context.

- **Technical Support & Engagement**. BIC provides technical support and engagement, training, and tools to government agencies and private industry. This helps get data published and provides much needed technical guidance to make more data accessible each year.

- **Community Engagement & Outreach**. Data is only useful when the public is aware it exists and it is applied to solve real-world business problems. BIC engages with the technology, data, education, and business communities to put the power of public data in the hands of Colorado businesses.

This 2019 Annual Report captures highlights of BIC program accomplishments across three key projects:

<div align="center">

Go Code Colorado

Data Education Workshops

Smart Data Analytics Summit and Challenge

</div>

2019
Go Code Colorado

In 2019, Go Code Colorado completed its sixth year. Using stakeholder feedback, BIC reevaluated the program's structure during 2019 planning.

This year's Go Code Colorado had two competition tracks. We added a new Business Analytics Track where teams competed with deep dives into data to analyze and provide powerful insights that benefit businesses in Colorado. The Business Product Track, our traditional Go Code Colorado competition format, again saw teams compete to create market relevant applications and tools for business decision makers in Colorado.

The Secretary of State's office awarded each of the top four winning teams $15,000, along with great mentorship, guidance, and technical resource opportunities.

Go Code Colorado is a community that brings together coders and developers, marketers, storytellers, entrepreneurs and others to help Colorado businesses succeed.

2019 Go Code Colorado

On the Road

Kick-Off Events
Denver & Grand Junction
February 20 & 27, 2019

Road Show Events
February – March 2019

Go Code Colorado takes our data and competition statewide each year with our annual Road Show. Events take place across Colorado and offer a chance to meet potential team members and event organizers, and allows future participants to learn more about how to set up for success. This year we visited Montrose, Grand Junction, Denver, Fort Collins, Colorado Springs, Pueblo, Boulder, and Durango!

Challenge Days
Denver and Grand Junction
March 23 & 30, 2019

Go Code Colorado hosted 2019 Challenge Days in two cities (Denver and Grand Junction) on consecutive weekends with opportunities to find a team, or find talent for an existing team. Participants met one-on-one with mentors and worked to further their projects in this dynamic team environment. Teams had until mid-April to submit for Semi-Final Judging, and three teams from each track and region were picked for the Final Competition Event.

Final Competition Event
Denver
May 30, 2019

At the Go Code Colorado Final Competition Event twelve finalist teams presented their submissions in two dynamic formats after which two winners from both the Business Product Track and the Business Analytics Track took home cash awards totaling $60,000.

2019 Go Code Colorado

Meet the 2019 Go Code Colorado Winners

Congratulations to the 2019 winners:

Trackers, EnrollMe, FlowCodeColorado and Sucesso

These multidisciplinary teams won amongst a competitive field that started with nearly 50 teams made up of more than 200 participants.
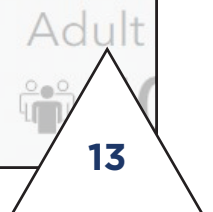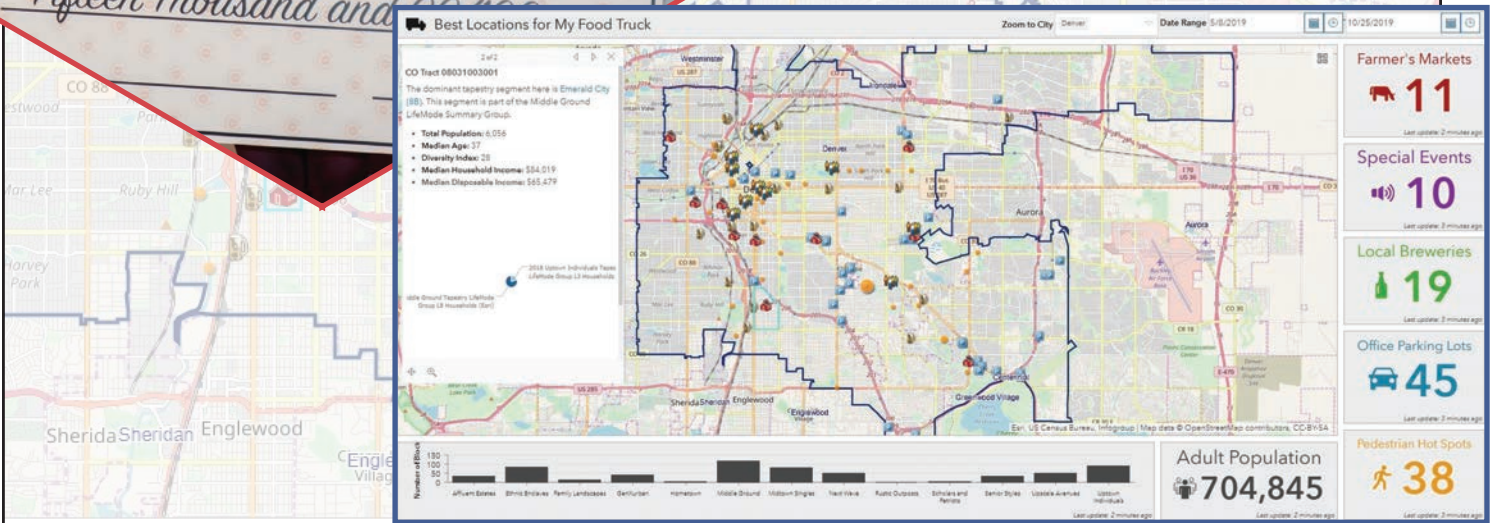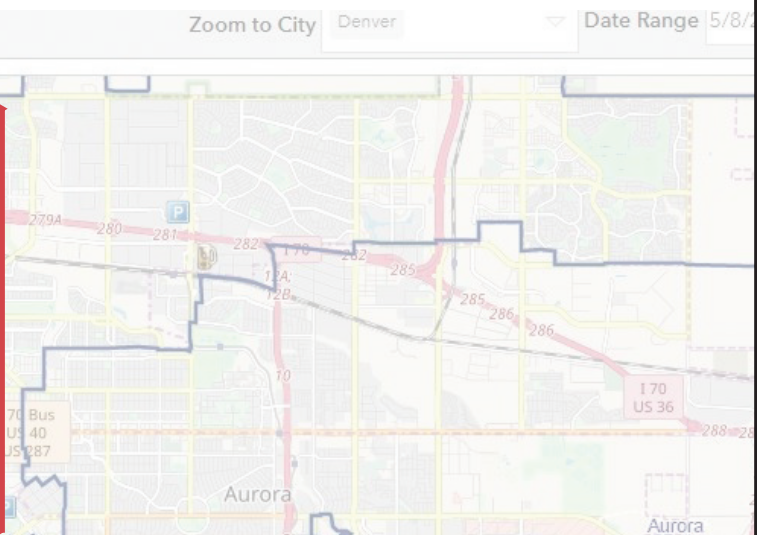
2019 Go Code Colorado Winners:
Business Product Track

Trackers (Boulder)

The **Trackers** team built an app - Position my Kitchen – that provides food truck vendors with a web application to locate optimum sites and times. The App uses public data about brewery and office locations, pedestrian traffic, farmers markets and Colorado events in combination with demographic data.
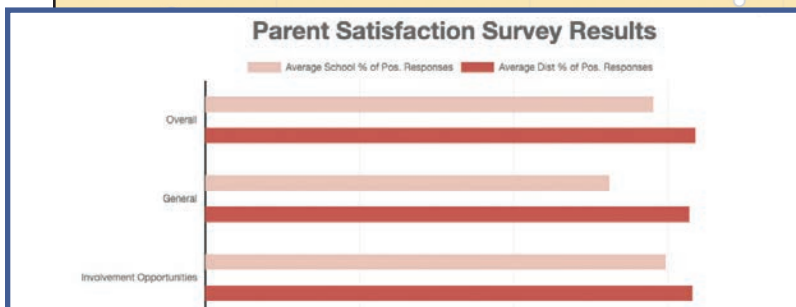
2019 Go Code Colorado Winners:
Business Product Track

EnrollMe (Denver)

EnrollMe built a web application for visualizing public school performance data so administrators of charter schools, new owners of charter schools, and any business owner looking to locate a new business can see high performing schools. Through a variety of metrics like current or historical performance and financial history users can determine how to open a new school or decide which neighborhood to locate their business in so their employees have access to quality education for their children.

2019 Go Code Colorado Winners:
Business Analytics Track

FlowCodeColorado (Fort Collins)

FlowCodeColorado focused their analysis on forecasting times when water surplus is released downstream (aka "free river" events) using publicly available historical data. This project intends to inform owners of oil and gas companies when they can capture water for their processing that would otherwise be purchased at non-surplus times.
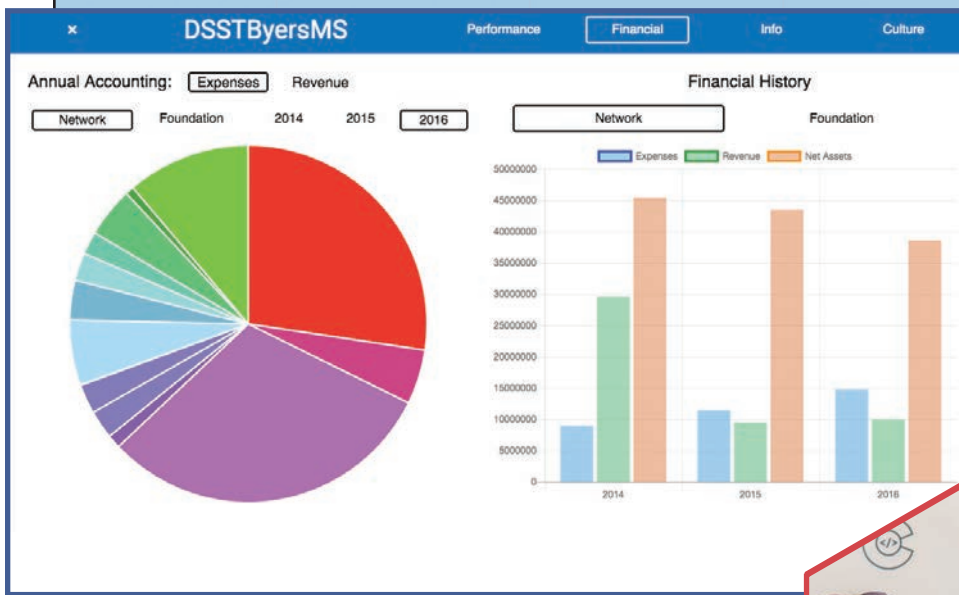
2019 Go Code Colorado Winners:
Business Analytics Track

Sucesso (Denver)

Sucesso created an analysis to provide pavement pricing and forecasting by combining public data on highway quality with projected needs. The analysis intends to provide insight to civil engineers and construction material procurement buyers looking to utilize recycled materials in future projects.
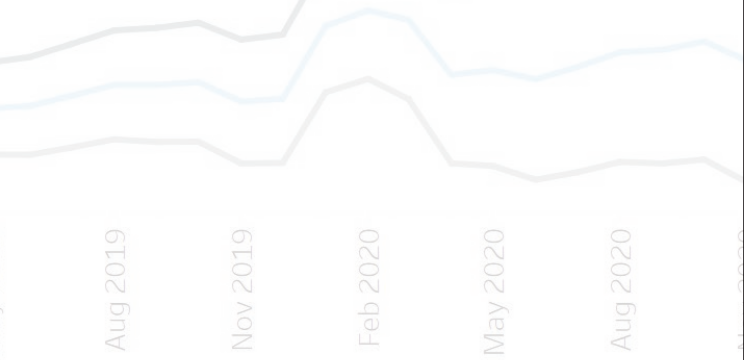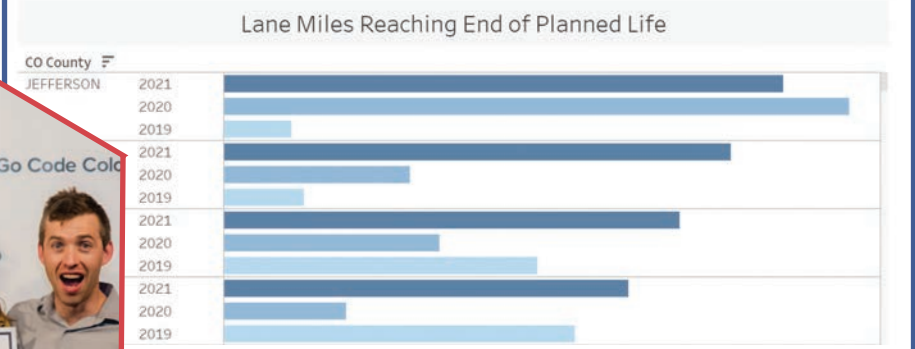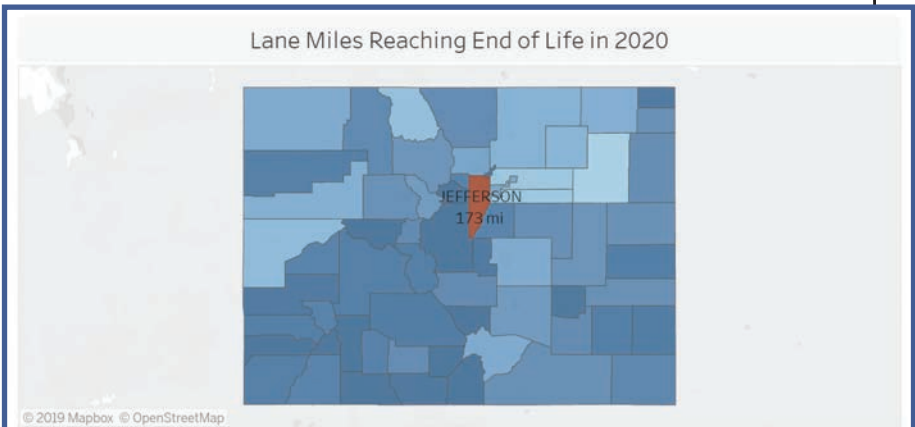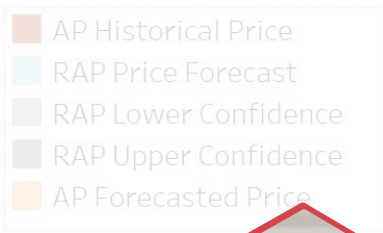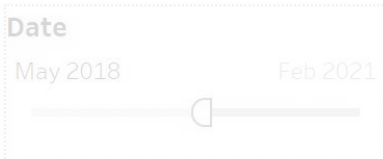
Community Engagement 2014 – 2019

People

Go Code Colorado is dedicated to growing a community of big thinkers, entrepreneurs, software developers, data analysts and scientists, designers, business and marketing professionals, and general doers who are all committed to using public data to create useful insights, analyses and tools for Colorado businesses.

Six Year Community Summary	
Event Series Participants	5,000+
Team Participants	1,000+
Teams	200+
Mentors	250+
Sponsors	20+
Contacts	8,500+
Email Subscribers	3,290

"I think there are a lot of people with ideas but no technical skills and a lot of people with technical skills but no ideas. Go Code Colorado allows those types of people to come together and build something great."

Finalist response from Survey Monkey 2019

Community Engagement 2014 – 2019

People (con't)

	2014	2015	2016	2017	2018	2019
PARTICIPANTS	130	161	174	241	200	218
TEAMS	25	31	35	43	38	44
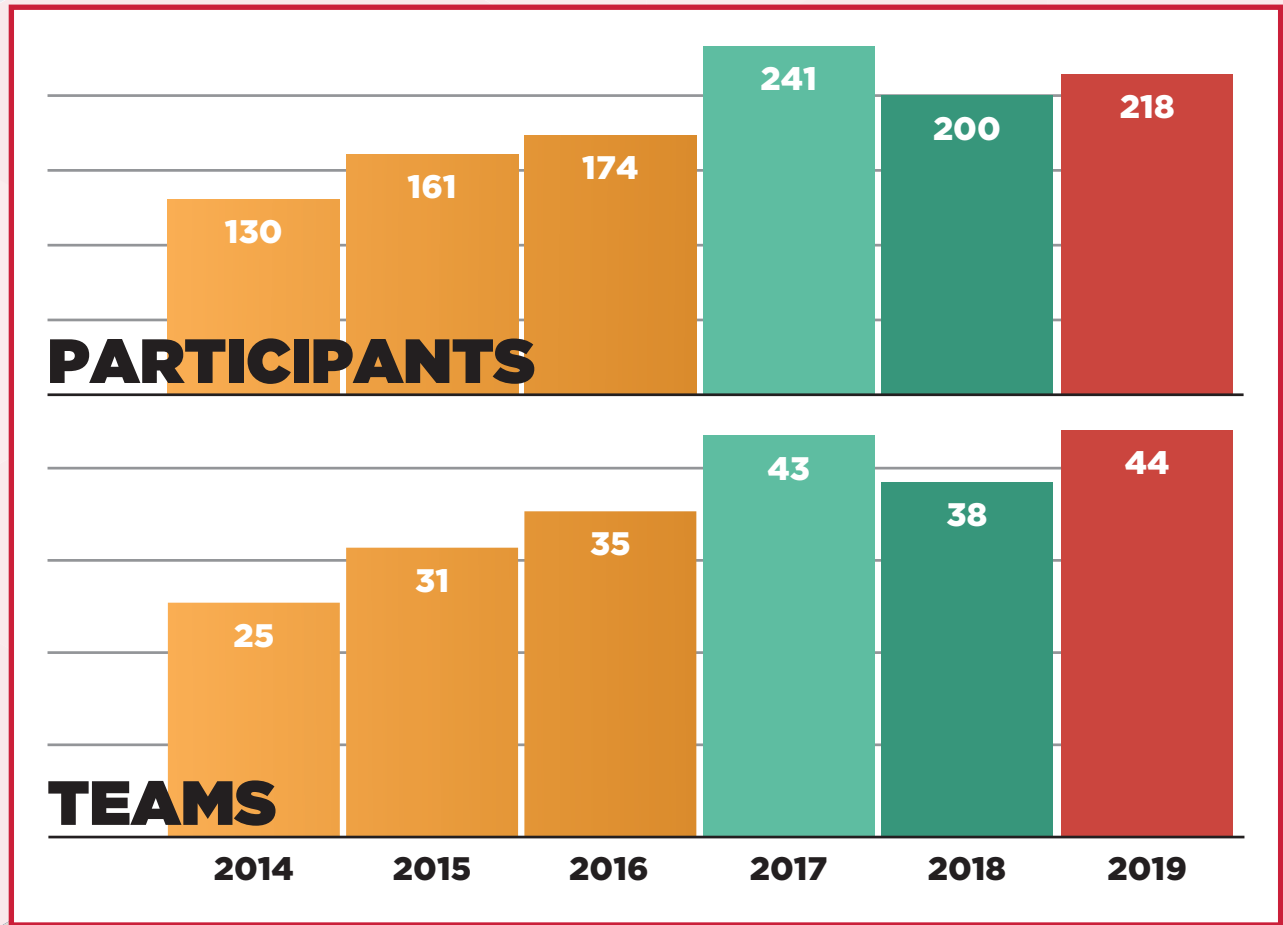
Community Engagement 2014 – 2019

Partners

Go Code Colorado has become a staple in the Colorado tech entrepreneurship community. Our partners support the competition and give our competitors an edge by sharing resources.

- **75 organizations providing support**

- **300+ Colorado Technologists connected with in-kind contribution of tools, technology, workspace and other resources**

Community Engagement 2014 – 2019

Agency Participation

The Business Intelligence Center works across many Colorado (and federal) departments, offices, and agencies. Our datasets are distinguished by the quality of metadata and "freshness" of the update cycle from State Agency sources to the Colorado Information Marketplace.

Federated datasets are published to a local data portal, and are also programmatically made available through a portal to portal connection.

Federal
USGS
US EIA
IRS
National Renewable Energy Laboratory

Colorado Department of...
Agriculture
Higher Education
Labor & Employment
Local Affairs - Housing
Local Affairs - Demography
Public Safety
Revenue
Regulatory Agencies
State
Transportation

Colorado State Offices
Energy Office
Office of Economic Development
Office of Information Technology

Local Colorado Agencies
Boulder County
Douglas County
Fort Collins City
Tri-County Health Department
City and County of Denver

Community Engagement 2014 – 2019

Data

Dataset Maintenance Over Time

Legend:
- Automated
- Manual
- Static

Dataset Maintenance and Federated Datasets on CIM

Legend:
- Federated Datasets
- Automated
- Manual
- Static
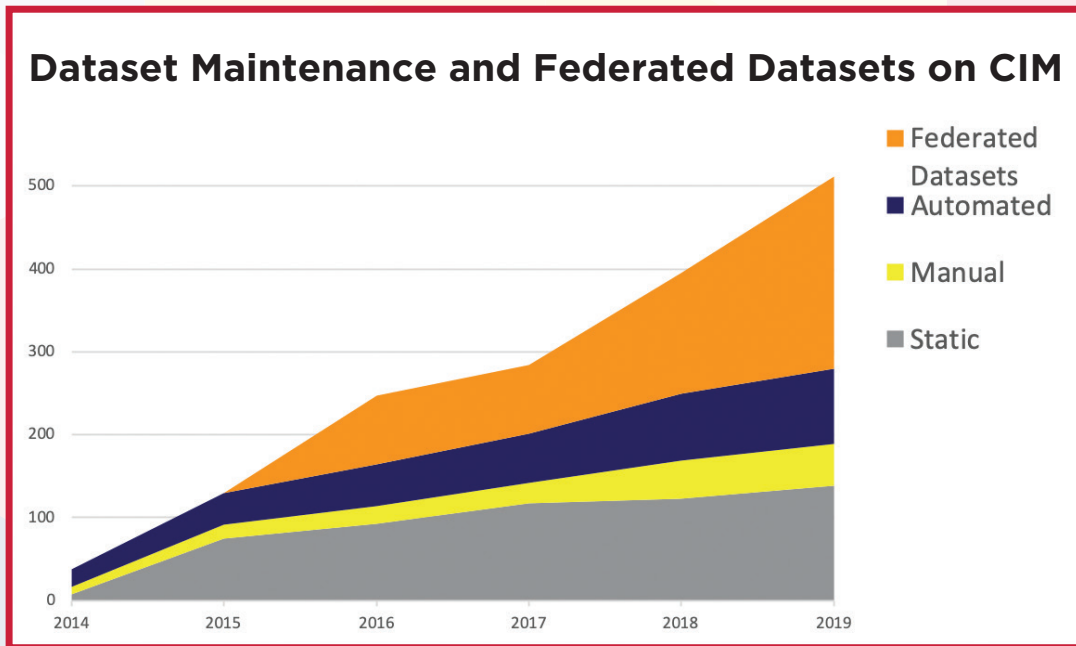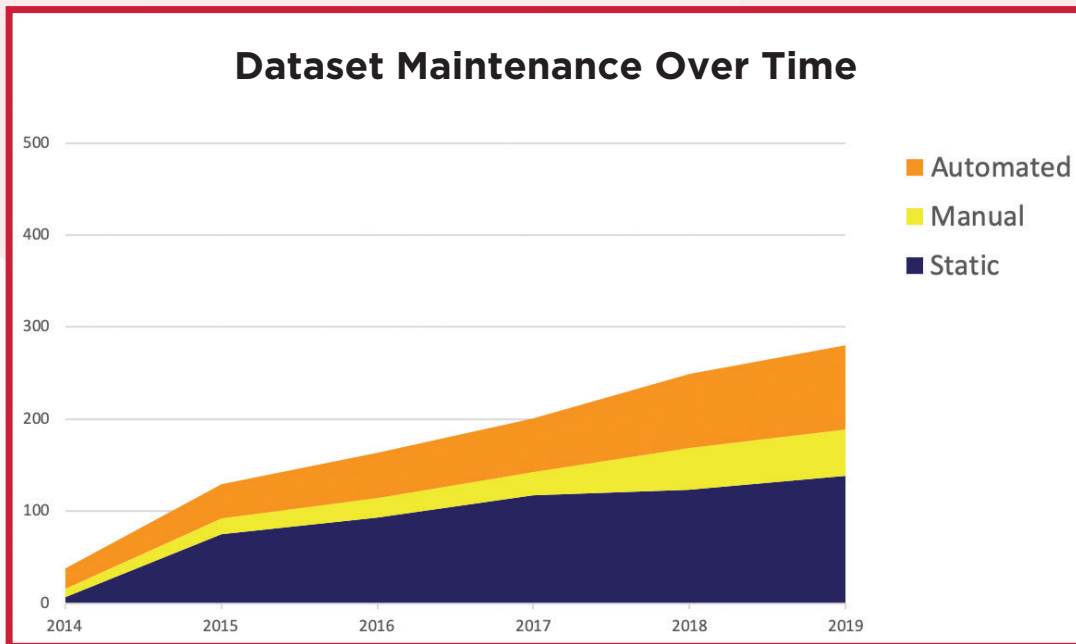
A data set is said to be federated when there is an agreement to share the data set between two sources or locations.

Business Intelligence Center datasets are distinguished by the quality of their metadata and regular updates as compared to other Federal/State/Local Agency sources on the Colorado Information Marketplace.

Community Engagement 2014 – 2019

Tech

Go Code Colorado prides itself in offering competitors the latest in tech tools and software to help them succeed during the competition as well as out in the workforce.

Slack is an instant messaging tool essential to production teams in the data and tech community.

Go Code Colorado
gocode.slack.com

- **781 Members**
- **60,000+ Messages Sent**
- **137 Tech Tickets (since 2015)**

GitHub is a technical repository platform that teams use to store their work and competition entries.

Go Code Colorado
Colorado, USA   github.com/GoCodeColorado

- **227 Repositories**
- **341 People**
- **235 Teams**

The Colorado Information Marketplace (CIM) is the State's centralized open data repository.

COLORADO
Information Marketplace

291 Results filtered by   Authority > Official x   Tags > gocodecolorado x

- **191 Data Tickets**
- **106 Data Analysis Support Issues**
- **46 Dataset Suggestions**

"It's wonderful to live in a state that is so clever in how it ties together economic opportunity, civic engagement, technology and data. Being a part of Go Code Colorado is a truly unique experience, one that brings extraordinary pride!"

Julia Richman, Chief Innovation and Technology Officer for Boulder County and finalist judge for Go Code Colorado

Data Education Workshops

The mission of the Business Intelligence Center (BIC) is to demonstrate the value of public data as a resource for business decision making. Within this mission, BIC has a goal to inform the Colorado business community about what data is available, and where it lives.

To help achieve this goal, BIC embarked on an information-gathering task using focus groups to provide real-world feedback on how businesses identify data to be used for decision-making, how it is accessed, and how is used. In 2018, BIC partnered with the Business Research Division (BRD) of Colorado University's Leeds School of Business to organize five focus groups around the state (Summit County, Morgan County, Grand Junction, Fort Collins, and Colorado Springs). The BRD facilitated focus group discussions, captured feedback and reported on the results. A diverse set of industries were represented (Athletic Coaching, Consulting, Co-working Spaces and Accelerators, Financials, Graphic Design, Marketing, Media, Recreation/Outdoor, Restaurants/Hospitality, and Tourism).

Key observations included:

- Generally, **all participants felt that more data would be very helpful in decision-making**.

- **Improved awareness of available data and where it can be found is needed**, including better promotion and information about state data. It was felt that it would be beneficial to Colorado's business climate long term to improve statewide data awareness and ease of access.

- **Data from the state needs to be more specific and accessible**. More specific data, particularly regarding industries, employment, and wages or labor costs, was cited as the data with the most potential to be used in short-, medium-, and long-term business decision making.

- **More qualitative and quantitative data was requested by participants**, such as commute times, hours worked, hours spent pursuing hobbies or time with family, real-time and expected infrastructure updates (closures, etc.), relocation preferences, livable wages for local areas, longevity, health outcomes, welfare, and quality of life. Providing this kind of data will help both policymakers and businesses plan for their future and the future needs of those they serve.

In 2019, based on the findings from the focus groups, BIC attacked the knowledge gap around what data was available and where it could be found. To do this, BIC worked with the BRD to develop a data workshop whose content would be used in presentations around the state and would also become an eLearning module on the Secretary of State's eLearning platform. The project kicked off in late 2018 and by the spring of 2019 the BRD delivered a four-hour interactive workshop. A plan was developed to roll out multiple presentations of the workshop (eight in total) around the state during summer and fall of 2019. The pilot workshop was held in Hugo, Colorado in March 2019. The feedback received from the workshop was informative and provided suggested tweaks to the content.

Data Education Workshops

Final Workshop Content

The BRD delivered the final workshop content in April 2019 and BIC is developing the accompanying eLearning module. BIC and BRD hosted the second workshop in Loveland in June and the third workshop in Ft. Collins in mid-July. BIC is finalizing plans with the BRD for workshops in Grand Junction (8/28), Ft. Morgan, Colorado Springs, Pueblo, Lamar, Alamosa, Durango, and Silverthorne during the summer and fall of 2019. Once completed BIC will publicize the eLearning module through various channels such as the Go Code Colorado website and GovDelivery. We will evaluate whether we offer more workshops across the State based on the reception and feedback our efforts receive.

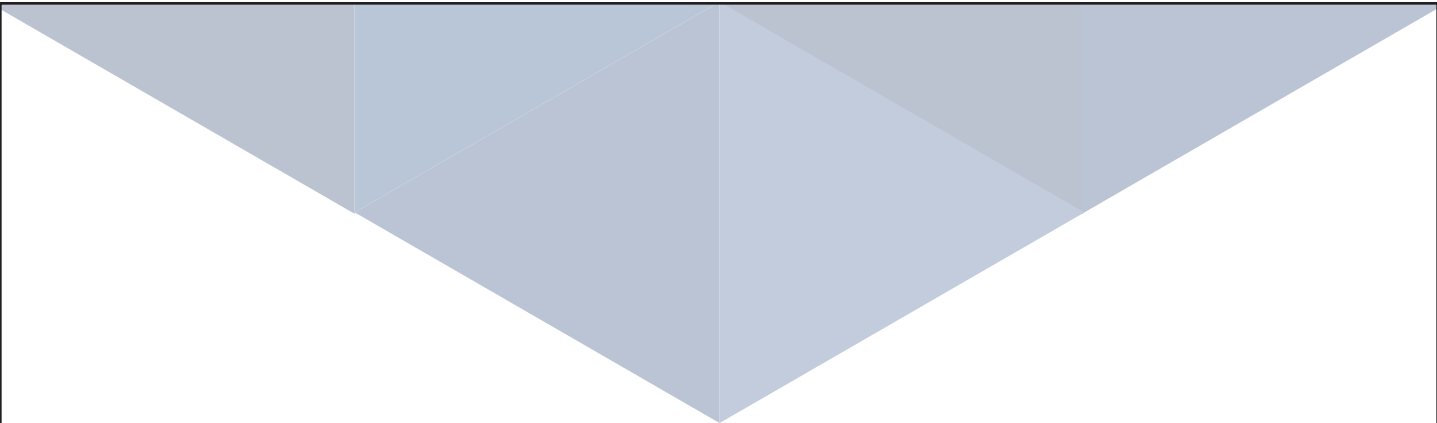| Workshop Schedule	
8:30-9:00	Introductions
9:00-10:00	Industries and Employment
10:00-10:30	Wages and Income
10:30-10:45	BREAK
10:45-11:45	Housing, Households, Property Taxes
11:45-12:25	Demographics and Population
12:25-12:30	Closing

"I wanted to thank you for putting together the pre-conference workshop on data literacy in Hugo, CO. I found it really useful, as well as our participants who attended the workshop. You each put a lot of work into it and it showed!"

- Data Workshop Participant

Smart Data Analytics Summit and Challenge

In 2018, BIC partnered with the Colorado Governor's Office of Information Technology to launch a new Smart Data Initiative that engaged Colorado State government program managers and leaders, as well as data analysts from government, nonprofit and private industry. The initiative explored and began to develop ways in which the value of public data can be preserved and maximized for positive impact on Coloradans and challenged teams to utilize relevant public data sets to develop analysis-based solutions to pressing problems in the state across three key topic areas:

- **Opioid Crisis**
- **Water Supply**
- **Smart Cities**

The initiative involved a Summit for State agencies and a Challenge kick-off event in November, followed by a five-week competition and Final Award Event in December.

The project saw more than 250 participants, and challenged both state agencies and the public to apply public data for community good.

WINNERS

Opioid SOS – As the Opioid Crisis category winner, this team created an interactive map of Denver that displays non-marijuana drug crimes, along with drug abuse clinics and Naloxone distribution centers.

Regis Waterlytics – As the Water Supply winner, this team explored the HB 1051 data with a dual focus on (1) water leakage, and (2) water production by population size.

Data Tigers – As the Smart Cities category and Overall Winner, this team conducted analysis of the past five years of crime data to understand the trends from the different aspects of crimes, such as year-over-year growth trends and crime rate by neighborhood.