

## Introduction

This paper provides an overview of the existing conditions and opportunities related to transportation in Clear Creek County. It was developed as part of the 2016 update to the *2030 Clear Creek County Master Plan*. This report is organized by the following topics, which are likely to be the most important transportation issues and opportunities the County will address as part of the updated Master Plan:

- Transportation Data and Trends
- I-70 Corridor
- Transit
- The Clear Creek Greenway
- County Roads

Existing plans and reports developed by the County, CDOT and other agencies that directly relate to transportation planning within Clear Creek County were reviewed. Important elements of each as they relate to transportation issues and opportunities in the County are discussed in the relevant sections within this document. These Plans include:

- *Silver Heritage Internal Transit Plan (2002)*
- *Clear Creek County Open Space Plan (2003)*
- *2030 Clear Creek County Master Plan (2004)*
- *Clear Creek Greenway Plan (2005)*
- *The Floyd Hill Gateway Sub Regional Master Plan (2009)*
- *Clear Creek County Citizen Survey (2010)*
- *I-70 Mountain Corridor Final Programmatic Environmental Impact Statement (2011)*
- *Clear Creek County Vision for the I-70 Mountain Corridor (2014)*
- *Advanced Guideway System (AGS) Feasibility Study (2014)*
- *Statewide Transit Plan (2015)*

## Data and Trends

This section provides a summary of transportation data and recent travel pattern trends within Clear Creek County. Major data points gathered include vehicle miles traveled (VMT), mode share, commute flows and crash data. Additional data related to transportation, such as population and employment trends, can be found in the Attachment

### ***Vehicle Miles Traveled (VMT)***

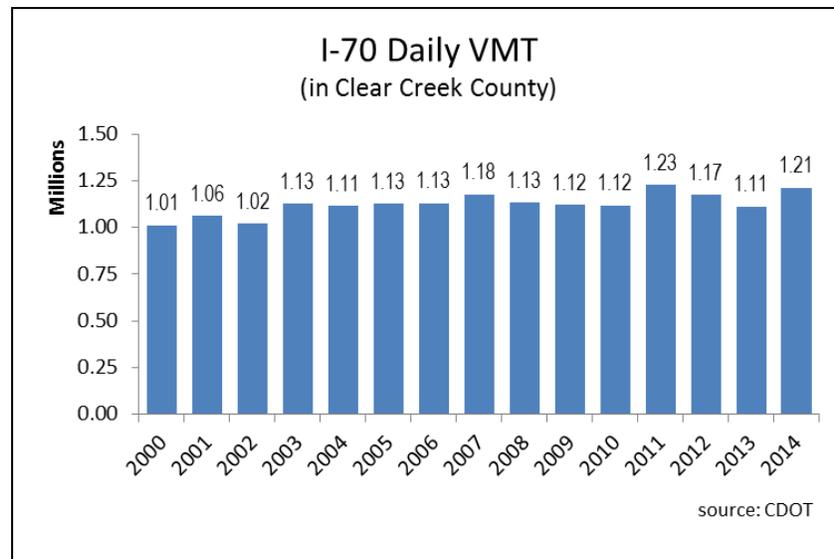
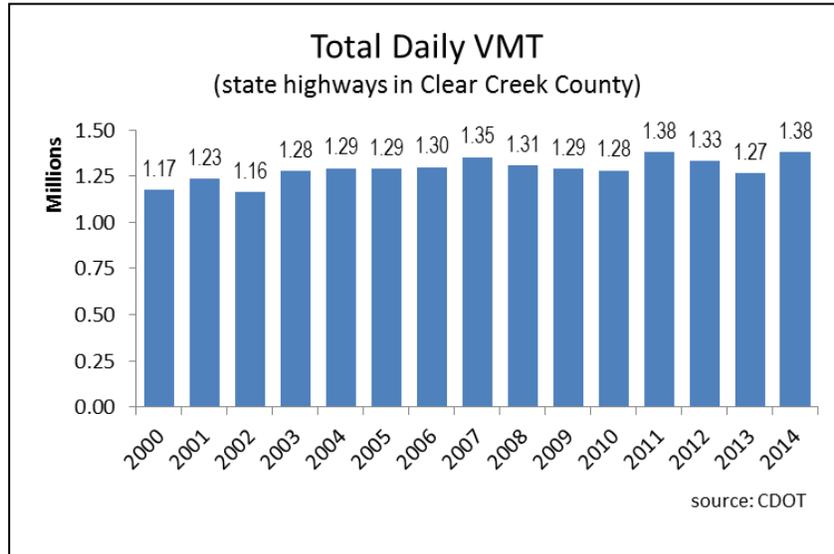
Vehicle miles traveled is the average traffic volume multiplied by the roadway length. CDOT estimates annual traffic volumes at various locations on all the State Highways within the County including: I-70, US-6, US-40, SH-5 and SH-103. Traffic volumes are not currently tracked on other roads in the County meaning VMT estimates are not available on those roads.

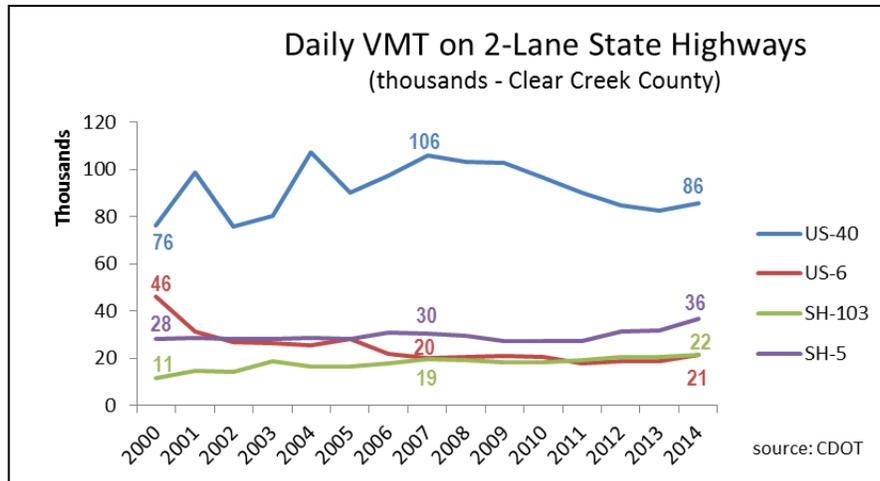
- The majority (88%) of the County's 2014 State Highway VMT occurred on I-70
- Average daily VMT through most of the County (including I-70) grew rapidly between year 2000 and 2007 (2.2% per year countywide), but has slowed significantly since 2007 (growing about 0.4% per year countywide)
- SH-103 has seen the most VMT growth of any of the State Highways in the county (92% since year 2000)

- Countywide VMT has increased by 20% since year 2000, but only by 3% since 2007

**Average annual VMT growth/decline by corridor in Clear Creek County**

Timeframe	Total	I-70	US-40	US-6	SH-103	SH-5
2000-2014	1.2%	1.4%	0.9%	-3.9%	6.5%	2.1%
2000-2007	2.2%	2.3%	5.5%	-8.1%	10.2%	1.0%
2007-2014	0.3%	0.4%	-2.7%	0.8%	1.6%	3.0%

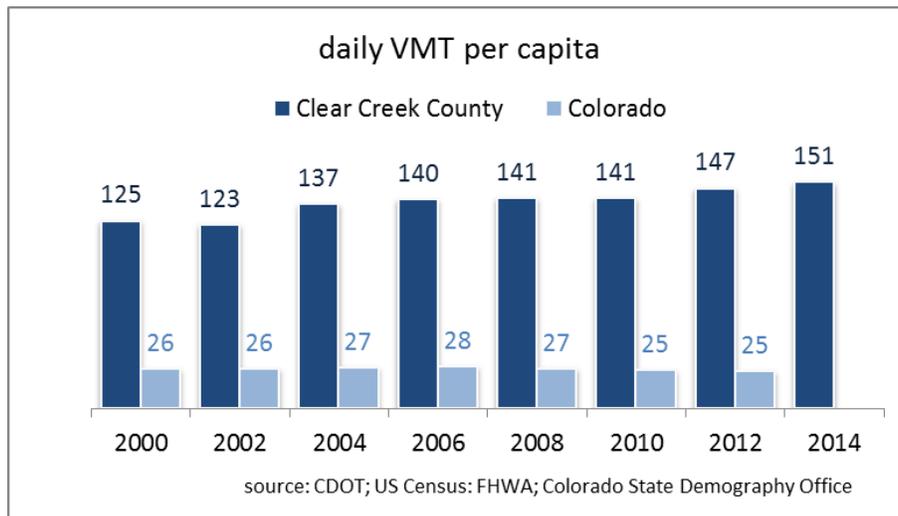




**VMT per Capita**

VMT per capita measures the amount of driving per person. Because so much of the VMT within Clear Creek County is generated by visitors (primarily passing through), this ends up not being a great measure of the amount County residents are driving. However, it is useful for understanding how much non-resident traffic is impacting VMT within the County.

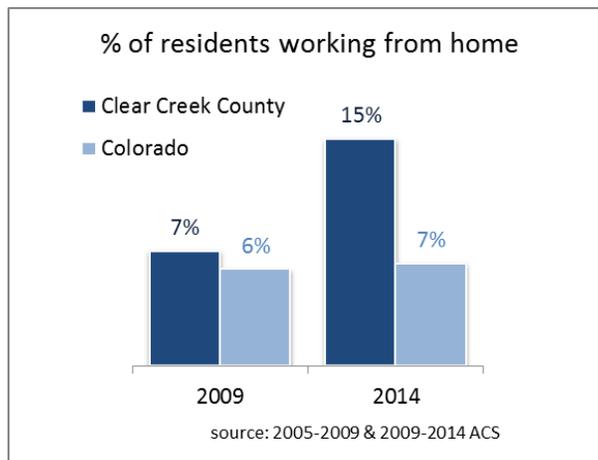
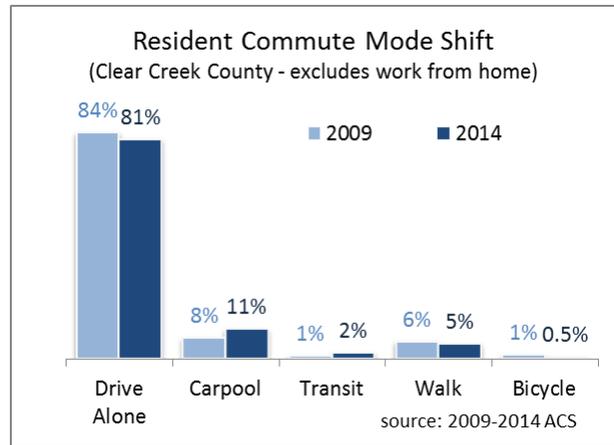
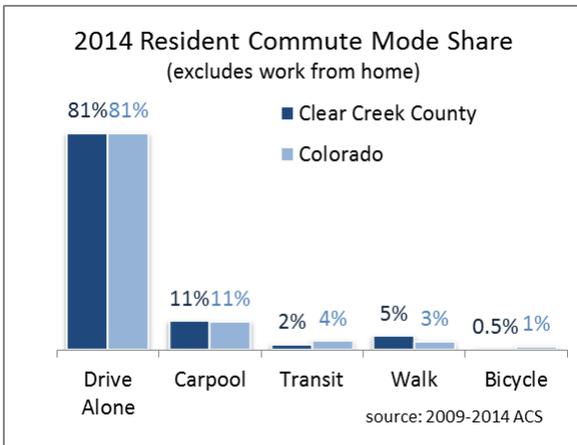
- Since year 2000 VMT per capita in Clear Creek County has grown by 21%, from 125 daily VMT per person to 151 daily VMT per person, including 4% growth since 2007 (this is a reversal of the trend in most places in the United States, including Colorado).
- The data significantly over-represents VMT per capita in Clear Creek County because of the large number of non-residents traveling through the County (in most rural places in the United States the average daily VMT per capita falls somewhere between 25 and 35 - about a fifth of the average in Clear Creek County)
- It is estimated that about 80% of the VMT in the County in 2014 was generated by non-residents and this number has grown from about 75% in year 2000
- It is estimated that most, if not all, of the growth in VMT since year 2000 in Clear Creek County has been generated by non-residents visiting or passing through the County



**Resident Commute Mode Share**

Resident commute mode share describes the percent of commute trips by transportation mode from residents living in Clear Creek County. Data comes from 5-year averages of the American Community Survey, which is conducted annually by the U.S. Census Bureau.

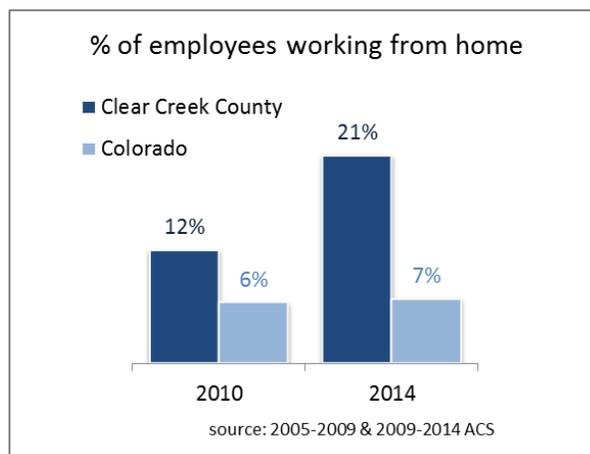
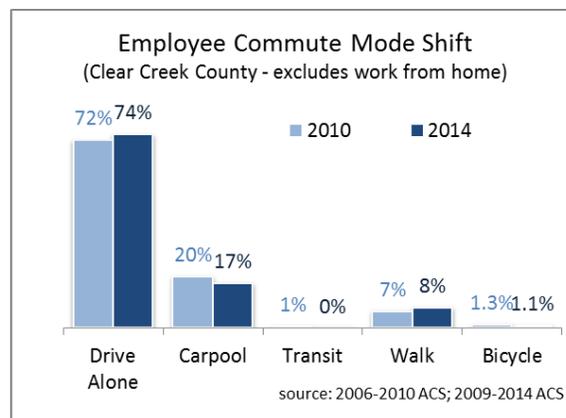
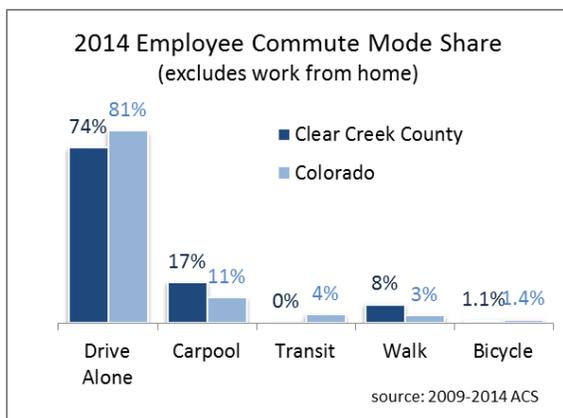
- About 15% of Clear Creek County residents work from home, which is double the percentage 5 years ago and double the State average
- Of the residents of Clear Creek County that work outside their home about 92% drove to work in 2014 (about the same as the Colorado average)
- Compared to Colorado commuters, Clear Creek County residents (who commute) are about twice as likely to walk to work and half as likely to use transit or bicycle to work
- Since 2009 a slightly higher percentage of residents who work outside their home are carpooling and using transit and a slightly lower percentage are driving alone and bicycling to work



**Employee Commute Mode Share**

Employee commute mode share describes the percent of commute trips by transportation mode from employees working in Clear Creek County. Data comes from 5-year averages of the American Community Survey, which is conducted annually by the U.S. Census Bureau.

- About 21% of employees working in Clear Creek County in 2014 were working from home, nearly double the percentage four years ago (12%) and three times the State average (7%)
- Compared to Colorado, a significant number of employees working in Clear Creek County (outside their home) carpool (17%) and walk to work (8%)
- Zero percent of commuters working in Clear Creek County commute by transit

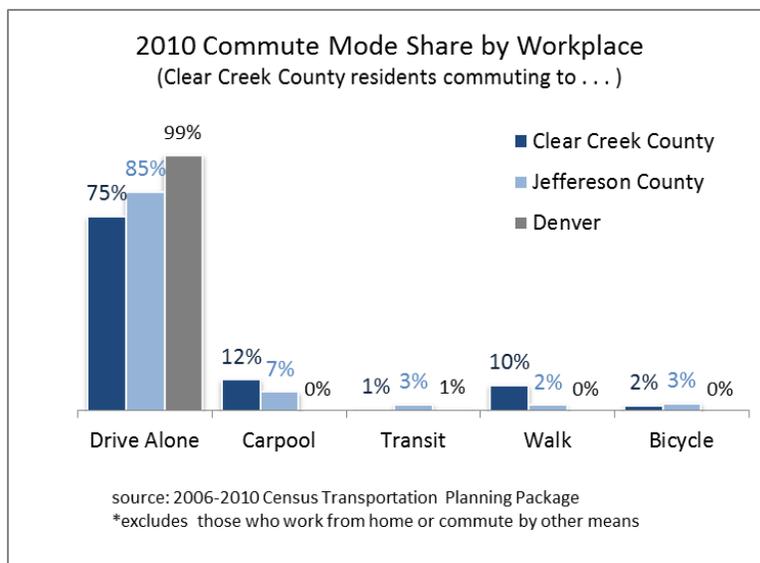


**Resident Commute Mode Share by Workplace**

Resident commute mode share by workplace describes the percent of commute trips by transportation mode from residents living in Clear Creek County to the three most common places of work for residents: Clear Creek County, Jefferson County and Denver. Together these places account for the majority of commute trips from Clear Creek County (see Commute Flows section below). Mode share data comes from the Census Transportation Planning Package (CTPP), which is based on 2006-2010 American Community Survey data.

- The single-occupant vehicle commute mode share is highest for residents working in Denver (99%) and lowest among residents working in Clear Creek County (75%)
- The transit mode share among Clear Creek County residents is higher for those working in Jefferson County (3%) than Denver (1%)

- The walk commute mode share among residents working in Clear Creek County is relatively high (10%)
- About 3% of residents working in Jefferson County are bicycling to work, compared to only 2% of those working Clear Creek County

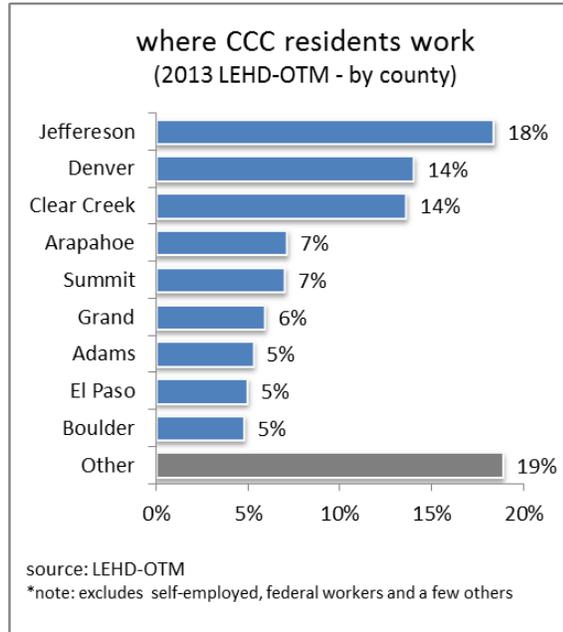
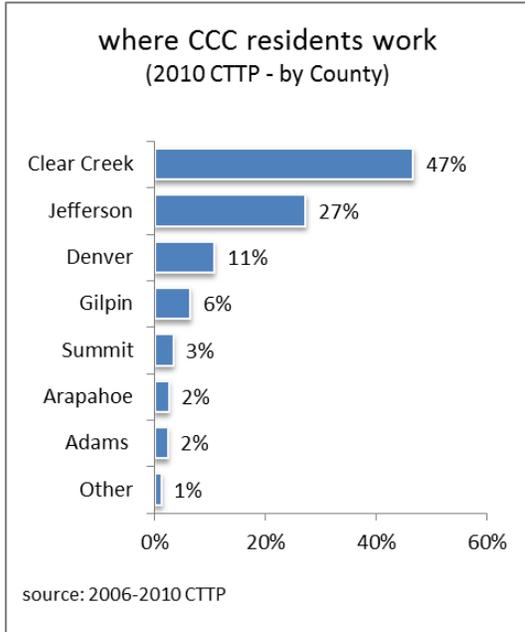
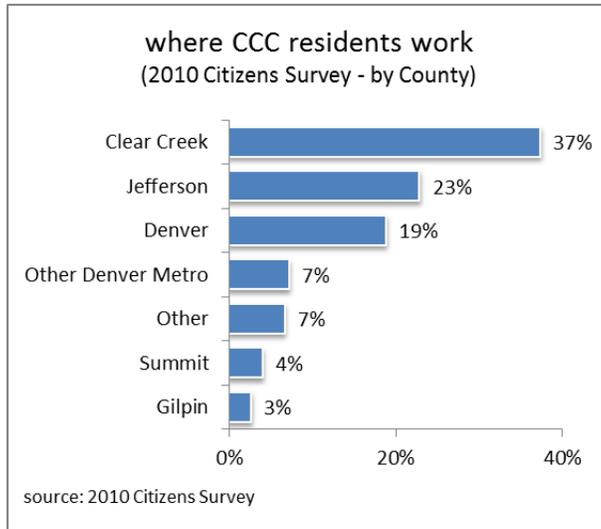


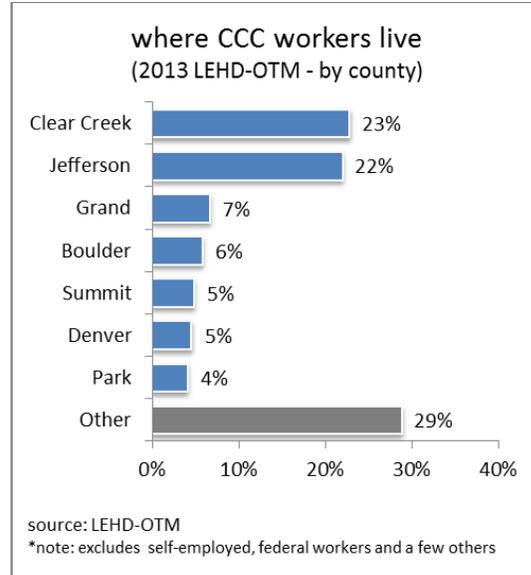
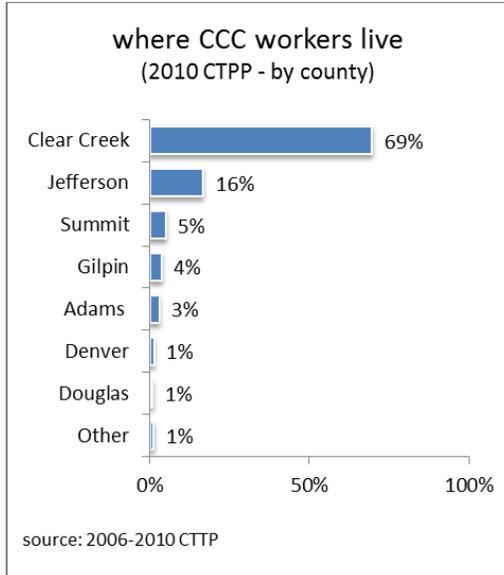
### Commute Flows

Commute flows describes both where Clear Creek County residents work and where the Clear Creek County workforce lives. There are two primary sources of data for commute flows: the Census Transportation Planning Package (CTPP) and the Longitudinal Employer Household Dynamics – On The Map (LEHD-OTM). In 2010, Clear Creek County also conducted a *Citizens Survey* that received about 1,310 responses from the estimated 5,200 employed residents in the County indicating their work location. Since the LEHD-OTM reflects more recent data (2013 compared to 2006-2010) and includes a larger sample size, it was chosen as the preferred source. However, each data source has its own strengths and weaknesses and the exact commute flow patterns probably fall somewhere between the two (see note)<sup>1</sup>. In 2010, Clear Creek County also conducted a *Citizens Survey* that received about 1,310 responses from the estimated 5,200 employed residents in the County indicating their work location.

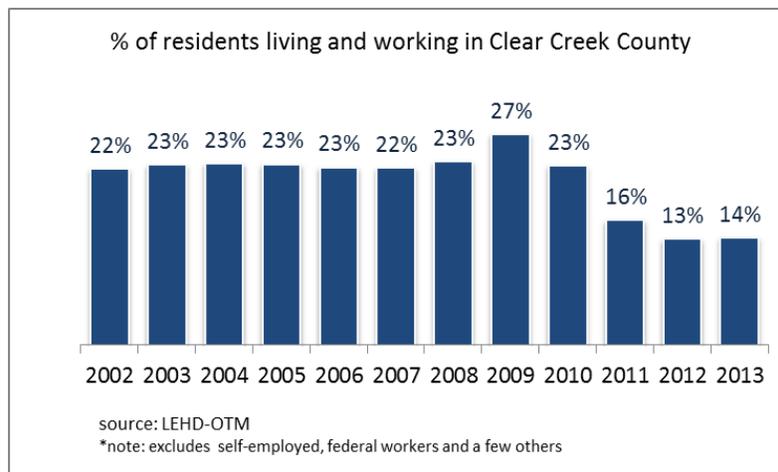
- In 2013, over 50% of Clear Creek County residents worked in the Denver Metro area outside Clear Creek County, including 18% in Jefferson County and 14% in Denver
- A significant portion of Clear Creek County residents commute over the Continental Divide to Summit (7%) and Grand (6%) Counties
- Only 23% of employees working in Clear Creek County also live in Clear Creek County and a significant percentage the Clear Creek County workforce commutes from Jefferson County (22%)

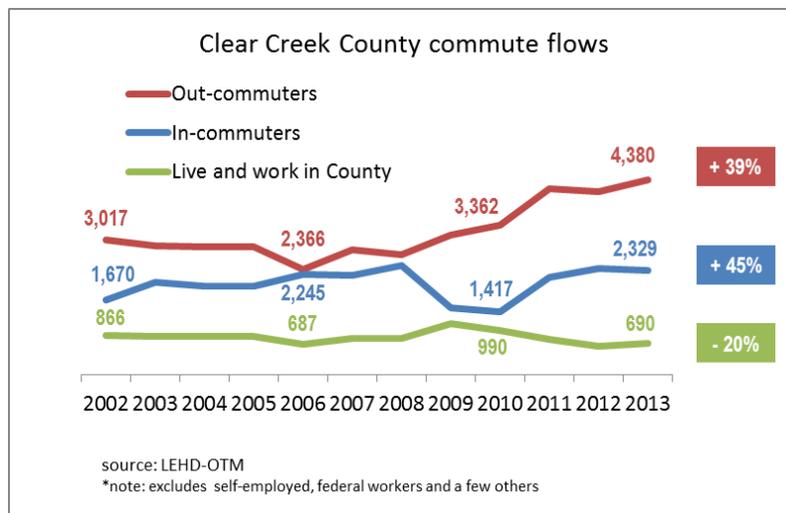
<sup>1</sup> *Note about commute flow data source:* The CTPP is based on American Community Survey data, which was collected 2006-2010. CTPP data includes a sample of about 8% of residents, and thus typically underrepresents some of the low percentage commute pairs. The LEHD-OTM is updated annually (and as recent as 2013) and nationwide includes about 90% of workers. However, it does exclude some key groups, including: self-employed persons, federal workers, military, railroad workers and some small employment groups. Thus, in Clear Creek County it likely underrepresents people working from home as well as federal employees working in Denver and Lakewood.



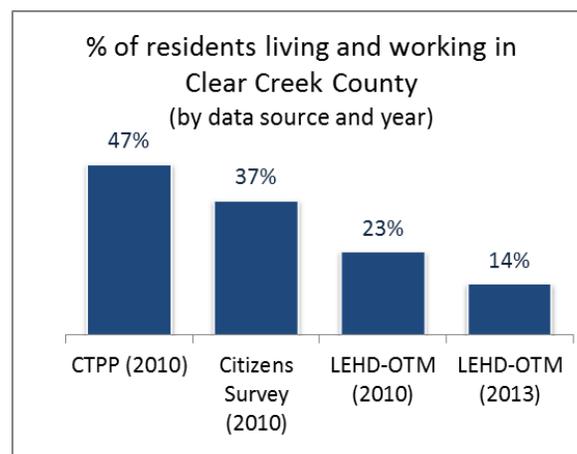


- The percent of residents living and working in Clear Creek County decreased by half 2009-2013 from 27% to 14% (note: the actual percentage of residents living and working in the County is probably higher than 14% when self-employed persons are included, but the decline over the last 4 years is what's notable here)
- The number of Clear Creek County residents commuting outside the County increased by 39% 2002-2013, while the number of people living and working in Clear Creek County decreased by 20%
- The number of employees commuting into Clear Creek County also increased 2002-2013 by 45%





Based on the CTPP data and the 2010 *Clear Creek County Citizens Survey*, the LEHD-OTM data likely underrepresents the percentage of residents working in Clear Creek County (see below).



### I-70 Corridor

The impact of Interstate 70 on Clear Creek County cannot be overstated. I-70 is the major east-west travel corridor and plays a significant role in regional and local mobility and thus economic development within the County. It connects the County to the rest of the State, while also providing critical local circulation (in some places it's the only road connecting communities within Clear Creek County). It provides the only continuous connection for local traffic between the major population centers within Clear Creek County, including Floyd Hill, Idaho Springs, DDL (Dumont/Downieville/Lawson), Empire, Georgetown and Silver Plume.

I-70 also has a significant physical presence and environmental impact on the communities it passes through. Because of the geographically narrow confines of the valley, I-70 was constructed through or immediately adjacent to most of the historic communities along Clear Creek (including Idaho Springs, Dumont, Downieville, Lawson, Georgetown and Silver Plume). As

a result, I-70 has become an integral part of the character of these places (for better and for worse). The highway generates noise, traffic congestion, environmental impacts and sometimes acts as a physical barrier to local circulation and land development within these communities. Given the close physical proximity of I-70 to these communities in Clear Creek County and the role the highway serves in providing local circulation and regional access, future changes to the corridor will be important to day-to-day life among County residents, visitors and employees.

### ***Existing and Planned Corridor Improvements***

The Colorado Department of Transportation (CDOT) maintains and manages I-70 and in recent years the segment through Clear Creek County has been the focus of a number of short and long term projects spearheaded by CDOT. Much of the focus on I-70 through Clear Creek County has been generated by increased peak hour weekend traffic (primarily in the summer and winter) caused by increased recreational travel between the Front Range and the mountain communities on the western side of the continental divide.

To address this issue, CDOT worked collaboratively with the local communities and Counties to develop a *Programmatic Environmental Impact Statement* (PEIS) for the I-70 Mountain Corridor (between E-470 and Glenwood Springs). The Final Record of Decision was published in 2011 and lays the foundations for numerous improvements to the corridor through 2050, some of which have already been implemented. This section provides a summary of the elements in Clear Creek County that CDOT has implemented to date, as well as near-term and long-term plans for the future:

#### **Completed I-70 Projects:**

- Veterans Memorial (Twin) Tunnels Expansion – Expanded both tunnels (located just east of Idaho Springs) from two to three lanes to relieve a critical bottleneck.
- Advanced Guideway System (AGS) Study – Examined the feasibility as well as potential technology, alignments and stations for a future high-speed transit system between Golden and Eagle. Major outcomes:
  - AGS is technically feasible, but not financially feasible at this time (estimated \$11-\$32 billion capital costs, depending on technology used)
  - Three potential technologies were deemed feasible: 120mph Maglev, High Speed Maglev (200+ mph), and High Speed Rail (200+ mph)
  - One station stop is planned in Clear Creek County, at either Idaho Springs, Empire Jct. or Georgetown (specific sites were identified for all three locations)
  - While AGS will not be pursued at this time it will still be included in the long-range *Colorado State Freight and Passenger Rail Plan*, to be implemented when funding is identified or when advancements in technologies reduce the cost
- Peak Period Shoulder Lane (PPSL) – Beginning in December, 2015 CDOT opened a 13-mile long tolled travel lane in an improved shoulder from Empire Junction to the Veterans Memorial Tunnel in the eastbound direction. The tolled travel lane will be open only during the peak travel times (weekends and Holidays) and uses dynamic pricing to ensure traffic is free-flowing at all times. Tolls are collected electronically so vehicles never need to slow down.

- Non-Infrastructure Improvements – To date, the non-infrastructure improvements that have been implemented include increased enforcement (such as requiring winter tires/chains) and a transportation demand management (TDM) program, providing traveler information and incentives to avoid travel during peak times.

#### **Future I-70 Projects (Near Term):**

The PEIS identified a number of what are referred to as the “Minimum Program of Improvements.” While funding has yet to be identified for all projects, these projects and programs are likely to be implemented in Clear Creek County in the near-term.

- Westbound Peak Period Shoulder Lane – Similar to the eastbound PPSL, it would be added from the Veterans Memorial Tunnel to Empire Junction.
- Floyd Hill to Veterans Memorial Tunnels – Addition of a third westbound travel lane, curve straightening, and continuous bike trail and frontage road from US-6 to Idaho Springs.
- Empire Junction/US-40 Interchange – Improvements.
- Bakerville to Eisenhower Tunnel – New westbound auxiliary lane for slow-moving vehicles.
- Truck Operation Improvements – Pullouts, parking and chain stations at multiple locations.
- Additional Interchange Improvements – At Hyland Hills, Base of Floyd Hill/US-6, Fall River Road, Downieville, Georgetown and Loveland Pass.
- Non-Infrastructure Improvements – Continued expansion of the TDM program to influence traveler behavior as well as the addition of bus, van or shuttle service in mixed traffic

#### **Future I-70 Projects (Long Term):**

In addition to the “Minimum Program of Improvements,” the PEIS identifies a “Maximum Program of Improvements.” The Maximum Program of Improvements require the Collaborative Effort Team (comprised of local stakeholders along the corridor, including Clear Creek County) to review and consider a set of triggers. The triggers include implementation of the Specific Highway Improvements (this includes auxiliary lanes approaching the Eisenhower Tunnel, six-lanes from Floyd Hill to Veterans Memorial Tunnel, and a new interchange at Empire Jct., all part of the Minimum Program of Improvements), plus either implementation of the AGS or evidence that AGS cannot be funded or implemented. Thus, while no timeline is set for these projects, they will likely be implemented on a longer time-frame if the need is still determined to exist in the future:

- Six-lane capacity from The Veterans Memorial Tunnel to the Eisenhower/Johnson Tunnels
- Four additional interchange modifications in the Idaho Springs area
- Curve safety modification project at Fall River Road

#### ***Implications and Opportunities***

The planned projects along I-70 have number of implications for the County. These include potential improvements to mobility and further opportunity for economic development as well as potential physical, visual or negative environmental impacts associated with an expanded

roadway. The County's role will be to proactively work with CDOT to ensure that the future changes support the County's economic, land use and transportation goals as well as to establish policies and infrastructure improvements that take advantage of the improvements along I-70. In 2014 the County produced *The Clear Creek County Vision for the I-70 Mountain Corridor*, which provides a comprehensive evaluation system of proposed CDOT projects that incorporates the values and strategies of the County. In addition to applying the outcomes of that document, potential actions for the County to take related to I-70 improvements include:

- County road improvements – This may include multimodal improvements to streets approaching I-70 interchanges and the frontage road network to improve safety, connectivity, multimodal travel and access
- Land Use Policy – Land use policy will be an important tool to support desired development along the I-70 corridor and around the interchanges
- Transit – While a timeline and specific operational details of future transit service in the I-70 corridor have yet to be identified, new bus service is specifically included as non-infrastructure improvement in the PEIS and given that AGS is likely a long way from implementation, bus service will play an important role in the corridor in the near future. It will be important for the County to identify and plan for future transit service to take advantage of the opportunity it presents to increasing mobility within and to the County. This will include identifying preferred stop locations and making infrastructure improvements and land use decisions around those locations.
- Multi-Use Trails – The Greenway Trail is an important project for the County and it closely follows the I-70 corridor. Future improvements to I-70 present an opportunity for the County to both leverage build-out of this trail and ensure that I-70 projects support (and do not preclude) development of a County trail network.

## Transit

Currently there is no fixed-route local public transit service within Clear Creek County. Greyhound provides limited regional intercity bus service and there is limited demand response service.

### ***Fixed-Route Transit Service***

Clear Creek County is not a part of the Regional Transportation District (RTD), which is the Denver Area transit provider. The closest RTD bus service is at the El Rancho Park-n-Ride at I-70 and Evergreen Parkway, which is served by the EV/ES/EX route. This route provides peak hour commuter bus service between Evergreen and Civic Center Station in Denver. Greyhound provides the only regularly scheduled bus service to the County via a bus stop in Idaho Springs. Currently, three Greyhound buses a day in each direction stop in Idaho Springs. Two operate between Denver and Grand Junction (with stops in Frisco, Vail and Glenwood Springs and continuing service to Las Vegas, NV and Los Angeles). The other bus operates between Denver and Salt Lake City via US-40 (with stops in Winter Park, Kremling, Steamboat Springs and Craig). Starting in 2015 CDOT began operating a once daily bus along I-70 between Denver Union Station and Glenwood Springs as part of its new Bustang service. The route includes multiple stops along I-70, but none are currently in Clear Creek County.

### ***Demand-Response Transit Service***

A limited amount of demand response transit service is offered in Clear Creek County:

- The Loveland Ski Area provides an employee shuttle for employees living in Clear Creek County
- The Senior Resource Center provides on-demand transportation services to people over the age of 60 in Clear Creek County (based out of Evergreen)
- High Country Shuttle provides on-demand service between Clear Creek County and DIA

### ***Potential for Clear Creek County-Denver Transit Service***

Momentum behind initiating transit service in Clear Creek County, particularly between Clear Creek County and Denver has been building for years. Expansion of public transit is mentioned in several recent plans:

- *Silver Heritage Area Internal Transit Plan (2002)* – Provided a comprehensive analysis and plan for providing transit to the Upper Clear Creek Corridor (Georgetown-Eisenhower Tunnel). The outcomes of the plan included a strategy for initiating fixed-route service from the RTD El Rancho Park-n-Ride to the Loveland Ski Area.
- *Clear Creek County Master Plan 2030 (2004)* – One of the objectives identified in this Plan is to expand public transit in Clear Creek County. Several future transit nodes are identified, including Floyd Hill, Idaho Springs, Dumont/Lawson, the US-40/I-70 interchange and Georgetown.
- *The Floyd Hill Gateway Sub Regional Master Plan (2009)* – One of the recommended actions of this development plan is to apply for a service annexation into RTD for the Floyd Hill Area.
- *I-70 Mountain Corridor Final Programmatic Environmental Impact Statement (2011)* – One of the non-infrastructure improvements as part of the Minimum Program of Services is to provide bus service in mixed traffic to connect local transit systems along the I-70 corridor
- *Advanced Guideway System (AGS) Feasibility Study (2014)* – This study found AGS (using high-speed rail or Maglev technology) to be technically feasible in the I-70 mountain corridor, but not financially feasible at this time. While this type of transit system is likely a long way from implementation, a stop would be included in Clear Creek County at one of three locations: Idaho Springs, Empire Junction or Georgetown. Site locations for each potential station are also identified.
- *Statewide Transit Plan (2015)* – This CDOT commissioned statewide transit plan recommends two new Regional Bus Routes that would pass through Clear Creek County: a Frisco-Denver route that would operate 16 runs/day, 7 days a week long-term and a Winter Park-Idaho Springs-Denver run that would operate 8 runs/day, 5 days a week long-term. The Plan also calls for a new facility for intercity bus services in Idaho Springs that will allow transfers to human service providers implemented over the short-term.

Recent travel patterns also suggest there may be an opportunity for transit service between Clear Creek County and Denver. Since 2002 the number of residents commuting to work outside the county increased 39% (the number of in-commuters commuting into the County for work also increased by 45%). As of 2013 about 49% of employed residents in Clear Creek County were commuting to the Denver Metro Area, including 18% to Jefferson County and 14% to Denver. Additionally, the transit commute mode share among County residents increased from 1% to 2% from 2009-2014 despite the fact that the County has no regularly scheduled transit service. This

suggests there has been an increase in the number of County residents driving to Jefferson County to use RTD to commute into the Denver Metro Area.

Several potential options exist for initiating transit service in Clear Creek County:

- Annexation into RTD – Part or all of the County could annex into the RTD service area. This would require some combination of voter approval, RTD board approval and collection of landowner signatures by petition. A 1% sales tax would be applied and in exchange RTD would provide transit service to the annexed portions of the County. Service levels and routing would be implemented based on demand and would most likely be oriented toward peak hour commuter service to Denver.
- Add a Clear Creek County stop to the I-70 Bustang Route – The County would work with CDOT to add a stop in Clear Creek County to the existing I-70 Bustang route and to future runs between Glenwood Springs and Denver. Currently one bus a day operates on this corridor, but does not stop in Clear Creek County (the nearest stops are in Frisco and the Federal Center in Lakewood). This may be the most easily implementable option. However, while it would bring regional transit to the County, the current bus schedule is not oriented around serving commuters. With a late morning arrival into Denver and an early evening departure the bus is more oriented toward meeting the demand of mountain residents periodically accessing services in Denver than daily commuters.
- Initiate bus routes programed in the Statewide Transit Plan – The County would work with CDOT, the I-70 coalition, DRCOG and neighboring Grand and Summit Counties to initiate one or both of the two routes recommended in the *Statewide Transit Plan* that would serve Clear Creek County (the Frisco-Denver and Winter Park-Denver routes). Clear Creek County would need to provide at least some of the funding for this service. The advantage of this option is that daily transit services would be provided not just between Clear Creek County and Denver, but also to the resort towns in Summit and Grand County meeting commuter and recreation travel needs to those places. Because these routes would serve a larger population than Clear Creek County, the County would take advantage of higher frequency service than a bus just serving Clear Creek County.
- County initiated commuter route to Denver – Under this option the County would fund and operate a new commuter route from Clear Creek County to Denver. A dedicated funding source would need to be provided (most likely from a property or sales tax increase). The County could contract to a private company or purchase and operate its own fleet which would also require a maintenance and storage facility. The advantage of this option is that the County would have authority to determine routes, stops and schedules. However, a much higher percentage of the costs of operations would fall to the County than some of the other options.
- Clear Creek County local circulator service – Under this option the County would fund and operate a local circulator between the towns and communities within Clear Creek County. The *Silver Heritage Area Internal Transit Plan* addressed some strategies to accomplish this. Similar to the previous option, funding and operations would come from the County. However, in low density areas such as Clear Creek County, local transit service typically works best as a feeder route to regional service. Therefore, demand for a local fixed-route transit service would be stronger by first initiating regional service. The *Silver Heritage Area Internal Transit Plan* would have connected service to RTD at the El Rancho Park-n-Ride.

## The Clear Creek Greenway

The Clear Creek Greenway is a proposed 36-mile long open space recreational corridor between Jefferson County and the continental divide running parallel to Clear Creek. At the heart of the proposed Greenway will be a non-motorized regional multiuse trail for bicycling, walking and horseback riding linking the major communities of Clear Creek County. The Greenway corridor would be the backbone of the County's pedestrian and bike network and would be a significant tourist draw.

### ***Greenway Plan***

The Greenway is the centerpiece and highest priority of the County's 2003 Open Space Plan. As a key recommendation of the last *2030 Clear Creek County Master Plan*, in 2005 the County published a *Clear Creek Greenway Plan* which identifies the future trail alignment, access points, land use components, design guidelines, implementation details and an implementation strategy. The trail will be designed as a 10' wide concrete path with 4' soft surface shoulders to provide a clear zone and accommodate joggers and horseback riders. The trail will be a regionally significant non-motorized corridor and is envisioned to connect the Continental Divide National Scenic Trail with the Platte River Greenway providing users with an opportunity to access and experience the rich scenic, recreational and historical assets in Clear Creek County. The trail will be an important element of increasing opportunities for recreational bicycling and active transportation within the County, which will serve to increase tourism to the County, support economic development, and expand the options for multimodal transportation.

### ***Implementation Status***

When the Greenway Plan was published in 2005 approximately 9 of the 36 miles of planned multiuse trail existed in four different segments. However, most of the built sections were either soft-surface or asphalt and of varying width, not up to the standards identified in the Greenway Plan (10' wide concrete with 4' shoulders). The existing trail segments at the time (in 2005) included:

- 1-mile segment from the US-6/I-70 interchange to the Hidden Valley interchange
- 1-mile segment from the Veterans Memorial (Twin) Tunnels to Idaho Springs
- 2-mile segment from just outside Georgetown to Silver Plume along I-70
- 5-mile segment from Bakerville to the Loveland Pass exit at I-70

As a direct recommendation of the Greenway Plan, in 2013 a nonprofit called the Clear Creek County Greenway Authority (CCCGA) was established to lead the development of the Clear Creek County Greenway ([www.ccgreenway.com](http://www.ccgreenway.com)). Since 2005, two additional segments of the Greenway Trail have been built by CDOT in conjunction with projects along I-70. These include the segment between the Hidden Valley interchange and the Veterans Memorial Tunnel and a short segment near Water Wheel Park in Idaho Springs.

In 2014, the CCCGA received \$2 million in RAMP funds from CDOT, plus an additional \$500,000 in matching funds from the County to put toward completing final design of a 14-mile segment of the Greenway corridor from Hidden Valley to Empire Junction (total estimated design cost is \$4 million). The CCCGA has developed a project schedule, including tasks to complete design of this segment by June of 2017 (assuming the remaining funds can be secured). Once final design

is complete this section will be shovel ready, which will make it a good candidate for a number of grant opportunities to complete construction (including GOCO and TIGER).

**Jefferson County Segment**

Jefferson County (JeffCo) is also working toward development of a trail along Clear Creek from the Clear Creek County line to the South Platte River which will be critical to providing connectivity to Clear Creek County. JeffCo has branded it as the Peaks-to-Plains Trail (<https://peaks2plains.wordpress.com>), which is being managed by JeffCo Open Space. Except for a short segment around Kipling Road, there is a continuous trail from the South Platte River to Golden. However, no trail currently exists between the US-6/I-70 interchange and Golden. To address this, JeffCo Open Space recently received grant funding and is currently constructing a 4-mile segment of the trail through Clear Creek Canyon, including a 1-mile segment in Clear Creek County. The first phase of this project is scheduled to open in June, 2016.

On January 20, 2016 the Peaks-to-Plains trail was identified by Governor John Hickenlooper in his State of the State address as one of the State’s 16 most important trail gaps. This is part of the State’s Colorado the Beautiful “16 in ‘16” initiative, and while no State funds have been identified yet, Great Outdoors Colorado (GOCO) has dedicated \$30 million in grant funding over the next four years to help complete some of these projects.

**County Roads**

There are over 880 miles of road in Clear Creek County. Of these, about 29% (or 254 miles) are maintained (to various degrees) by the County Road and Bridge Department. This includes 39 miles of paved and 215 miles of unpaved road. The other roads in the County are managed by CDOT, the U.S. Forest Service, Cities and Towns and private entities.

<i>Maintenance</i>	<i>Centerline Miles</i>	<i>Percent</i>
Private/Other	264	30%
County	254	29%
Forest Service	170	19%
CDOT	160	18%
Cities & Towns	39	4%
<b>Total</b>	<b>887</b>	<b>100%</b>

While the majority of the traffic volume in Clear Creek County is handled by I-70 and the other State Highways managed by CDOT, County Roads play a critical role in providing access and local circulation to the more rural parts of the County. With the exception of CR-381, which connects I-70 with US-285 over Guanella Pass (during the non-winter months), the majority of County Roads either dead-end or are primarily intended to provide local access to homes, businesses and recreational opportunities mostly in the rural parts of the County.

The County classifies their roadways into the following categories, with the higher priority roads receiving the highest levels of maintenance and snow removal:

- Primary – Highest traffic volumes; carry most of the County’s school bus and mail traffic; receive first day snow removal; includes all paved roads maintained by the County

- Secondary #1 – Gravel and graded roads that carry some school bus and mail traffic and typically receive first day snow removal
- Secondary #2 – Gravel and graded roads not approved for school bus/mail traffic and which receive 2<sup>nd</sup> or 3<sup>rd</sup> day snow removal
- Secondary #3 – Narrower dirt roads, with limited maintenance and grading, and 3<sup>rd</sup> or 4<sup>th</sup> day snow removal
- Secondary #4 – Mostly 4-wheel drive roads that are not part of the State of Colorado Road Mileage Tax System, receive maintenance only sparingly and do not receive any snow removal from the County

**Miles of County Maintained Road by Classification**

<i>Classification</i>	<i>Miles</i>	<i>Percent</i>
Primary	69	27%
Secondary #1	24	9%
Secondary #2	64	25%
Secondary #3	11	4%
Secondary #4	86	34%
Total	254	100%

***Issues and Opportunities***

Significant expansion of the County road network is not likely to occur in the future due to the limited availability of financial resources and lack of a concerted desire. However the County does face several major issues and opportunities related to its road network that are likely to be the focus of future planning and management:

- Maintenance – Because of the rugged mountainous terrain and weather in Clear Creek County, the road system requires a significant amount of maintenance. Additionally, due to its rural nature, Clear Creek County has a relatively extensive County Road network and yet limited resources. The combination of all of these factors poses a significant challenge to the County in keeping its road network passable and in a state of good repair. One strategy the County might consider to address this issue would be to reduce the classification of some of its more remote roads, or devolve ownership back to private landowners or developments, in order to focus its maintenance efforts on the more critical links.
- Complete Streets – The County does not currently have a complete streets policy and it’s unclear whether such a policy is desired or necessary. However, the County Roads are an important link in many places not just for vehicle circulation, but for people walking and biking (and would be important to future transit circulation). The need and demand for multimodal travel is only expected to grow in the future. In particular, the County Road network provides a critical missing gap in the multiuse trail network and the County is actively trying to increase recreational bicycling. Thus future planning and street design of County Roads should be done strategically, accounting for each road’s context and potential users, in order to improve the safety for all users and better address the needs of all modes of transportation.
- Frontage Roads – The frontage roads along I-70 play a significant role in mobility and local access in the County. They provide an alternative connection between the major communities in Clear Creek County (although missing gaps exist), are an important link for bicyclists and pedestrians who can’t use I-70, would be important to future transit

circulation, and provide resiliency in the street network when I-70 becomes blocked. Past issues related to the frontage roads include congestion and safety issues related to motorists using the frontage roads to skirt traffic on I-70 , as well as missing gaps in the network that force local trips to use I-70. Both the previous County Master Plan and the more recent *Clear Creek Vision for the I-70 Mountain Corridor* mention the desire to separate local and regional trips as much as possible and see further development of the frontage road network and improvements to I-70 interchanges as key to reaching this goal.

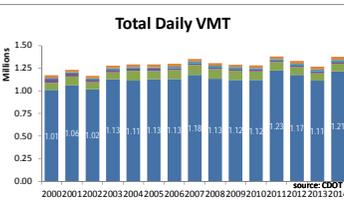
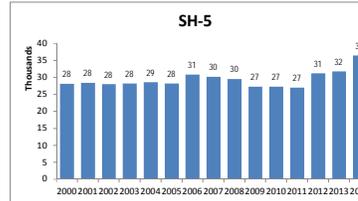
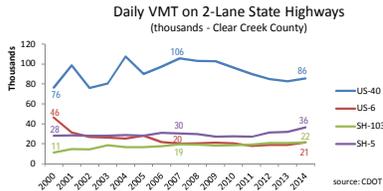
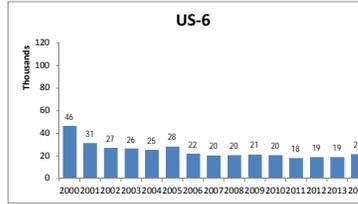
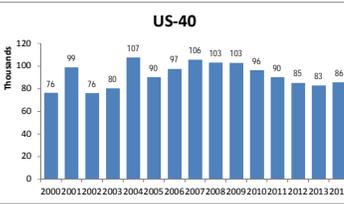
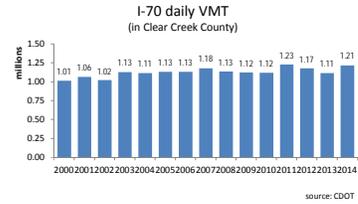
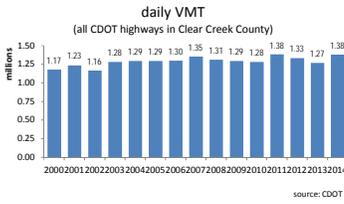
**ATTACHMENT**

Clear Creek County Daily Vehicle Miles Traveled - State Highway System

County	Total DMVT	Interstate	Principal Arterial Fwys and Exways	Principal Arterial Other	Minor Arterial	Major Collector	Minor Collector	Local	% I-70
2000	1,173,787	1,011,809	0	76,136	46,339	11,313	28,191	0	86%
2001	1,233,619	1,060,519	0	98,731	31,202	14,680	28,486	0	86%
2002	1,164,169	1,018,790	0	75,981	26,852	14,432	28,115	0	88%
2003	1,278,501	1,125,019	0	80,315	26,269	18,611	28,286	0	88%
2004	1,291,897	1,113,869	0	107,436	25,273	16,648	28,671	0	86%
2005	1,290,217	1,127,240	0	89,982	28,064	16,648	28,282	0	87%
2006	1,297,478	1,129,720	0	97,396	21,850	17,655	30,857	0	87%
2007	1,352,983	1,177,454	0	105,691	20,214	19,407	30,218	0	87%
2008	1,307,043	1,134,708	0	103,065	20,468	19,230	29,572	0	87%
2009	1,289,765	1,120,238	0	102,851	21,050	18,331	27,296	0	87%
2010	1,280,571	1,117,985	0	96,374	20,452	18,401	27,360	0	87%
2011	1,379,856	1,225,592	0	90,150	18,028	19,052	27,094	0	89%
2012	1,329,993	1,174,341	0	84,959	18,723	20,678	31,292	0	88%
2013	1,266,406	1,112,409	0	82,670	18,784	20,693	31,851	0	88%
2014	1,377,858	1,212,843	0	85,666	21,285	21,573	36,491	0	88%

	I-70	US-40	US-6	SH-103	SH-5
Since 2000	17%	20%	13%	-54%	91%
Since 2004	7%	9%	-20%	-16%	30%
Since 2007	2%	3%	-19%	5%	11%
annual	15%	16%	39%	-56%	72%
Since 2000	1.2%	1.4%	0.9%	-3.9%	6.5%
Since 2004	0.7%	0.9%	-2.0%	-1.6%	3.0%
Since 2007	0.3%	0.4%	-2.7%	0.8%	1.6%
2000-07	2.2%	2.3%	5.5%	-8.1%	10.2%

source: CDOT



Clear Creek County

County	Total DVMT	Population	DVMT per capita
2000	1,173,787	9,361	125
2001	1,233,619	9,464	130
2002	1,164,169	9,466	123
2003	1,278,501	9,517	134
2004	1,291,897	9,461	137
2005	1,290,217	9,392	137
2006	1,297,478	9,279	140
2007	1,352,983	9,333	145
2008	1,307,043	9,294	141
2009	1,289,765	9,060	142
2010	1,280,571	9,108	141
2011	1,379,856	9,015	153
2012	1,329,993	9,037	147
2013	1,266,406	9,029	140
2014	1,377,858	9,114	151

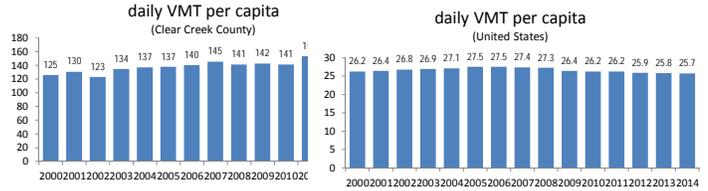
source: CDOT; US Census

2000-2014	21%
2000-2007	16%
2007-2014	4%

United States

Annual VMT (trillions)	Daily VMT (millions)	Population (millions)	DVMT per capita
2.70	7,397	282.2	26.2
2.75	7,534	285.0	26.4
2.81	7,699	287.6	26.8
2.85	7,808	290.1	26.9
2.90	7,945	292.8	27.1
2.97	8,137	295.5	27.5
3.00	8,219	298.4	27.5
3.01	8,247	301.2	27.4
3.03	8,301	304.1	27.3
2.96	8,110	306.8	26.4
2.95	8,082	308.1	26.2
2.97	8,137	310.5	26.2
2.96	8,110	312.9	25.9
2.97	8,137	315.2	25.8
2.98	8,164	317.7	25.7

source: FHWA; US Census



source

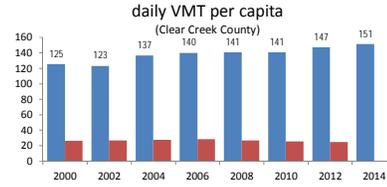
source: CDOT; US Census

Clear Creek County

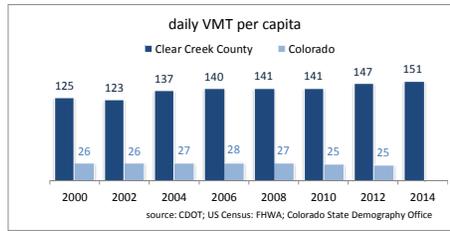
County	Total DVMT	Population	DVMT per capita
2000	1,173,787	9,361	125
2002	1,164,169	9,466	123
2004	1,291,897	9,461	137
2006	1,297,478	9,279	140
2008	1,307,043	9,294	141
2010	1,280,571	9,108	141
2012	1,329,993	9,037	147
2014	1,377,858	9,114	151

Colorado

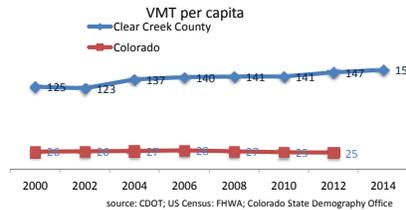
Annual VMT (millions)	Daily VMT (millions)	Population (millions)	DVMT per capita
41,771	114	4.34	26
43,545	119	4.51	26
45,891	126	4.61	27
48,641	133	4.75	28
47,860	131	4.90	27
46,940	129	5.05	25
46,796	128	5.19	25
	0	5.35	



source: CDOT; US Census



source: CDOT; US Census; FHWA; Colorado State Demography Office



source: CDOT; US Census; FHWA; Colorado State Demography Office

2014 Commute Mode Share

	2014 Clear Creek County		Colorado		commuters only	
	Clear Creek County	Colorado	Clear Creek County	Colorado	Clear Creek County	Colorado
Drive Alone	3,374	1,907,274	69%	76%	81%	81%
Carpool	453	250,136	9%	10%	11%	11%
Transit	89	82,367	2%	3%	2%	4%
Walk	222	76,376	5%	3%	5%	3%
Bicycle	22	33,553	0.5%	1%	0.5%	1%
Work From Home	713	166,368	15%	7%		
Other	110	27,947				
Total	4,873	2,516,074	100%	100%		
Total commuters only	4,160	2,349,706				

source: 2010-2014 American Community Survey

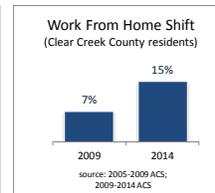
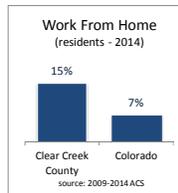
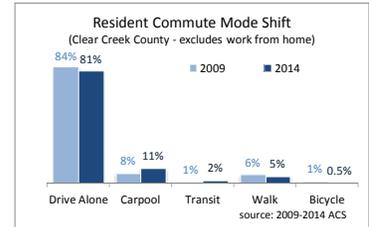
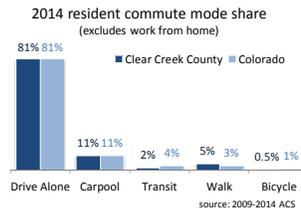
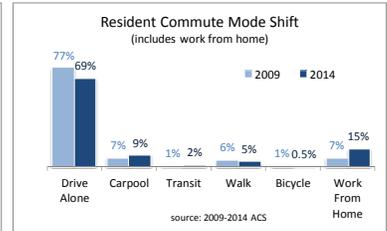
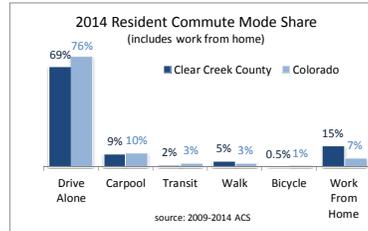
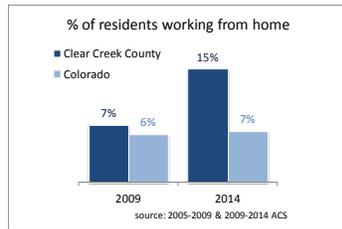
2009 Commute Mode Share

	2009 Clear Creek County		Colorado		commuters only	
	Clear Creek County	Colorado	Clear Creek County	Colorado	Clear Creek County	Colorado
Drive Alone	4,023	1,805,427	77%	75%	84%	81%
Carpool	371	255,216	7%	11%	8%	11%
Transit	48	78,955	1%	3%	1%	4%
Walk	305	74,227	6%	3%	6%	3%
Bicycle	65	28,521	1%	1%	1%	1%
Work From Home	385	148,954	7%	6%		
Other	128	29,093				
Total	5,197	2,391,300	100%	100%		
Total commuters only	4,812	2,242,346				

source: 2005-2009 American Community Survey

Work From Home	Clear Creek County	Colorado
2009	7%	6%
2014	15%	7%

Clear Creek County	15%
Colorado	7%



2014 Commute Mode Share		commuters only					
	Clear Creek County	Colorado	Clear Creek County	Colorado	Clear Creek County	Colorado	
Drive Alone	1,957	1,907,274	58%	76%	74%	81%	
Carpool	454	250,136	14%	10%	17%	11%	
Transit	3	82,367	0%	3%	0%	4%	
Walk	206	76,376	6%	3%	8%	3%	
Bicycle	28	33,553	0.8%	1.3%	1.1%	1.4%	
Work From Home	713	166,368	21%	7%			
Other	30	27,947					
Total	3,361	2,516,074					
Total commuters only	2,648	2,349,706	100%	100%			

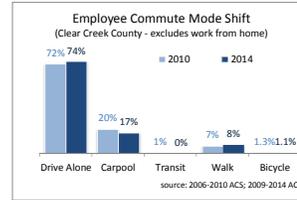
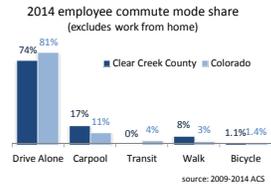
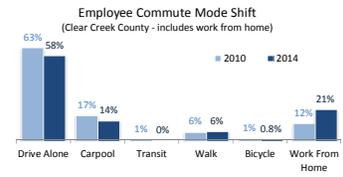
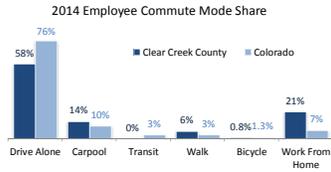
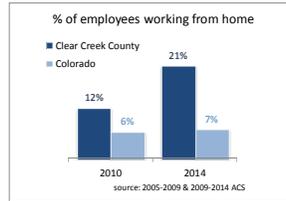
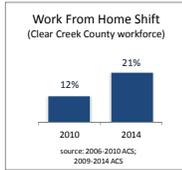
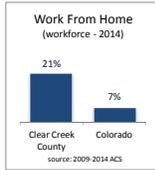
source: 2010-2014 American Community Survey

2010 Commute Mode Share		commuters only					
	Clear Creek County	Colorado	Clear Creek County	Colorado	Clear Creek County	Colorado	
Drive Alone	2,111	1,805,427	63%	75%	72%	81%	
Carpool	580	255,216	17%	11%	20%	11%	
Transit	22	78,955	1%	3%	1%	4%	
Walk	193	74,227	6%	3%	7%	3%	
Bicycle	39	28,521	1%	1%	1.3%	1%	
Work From Home	386	148,954	12%	6%			
Other	61	29,093					
Total	3,331	2,391,300					
Total commuters only	2,945	2,242,346	100%	100%			

source: 2006-2010 American Community Survey

Work From Home	Clear Creek County	Colorado
2010	12%	6%
2014	21%	7%

Clear Creek County 21%  
Colorado 7%

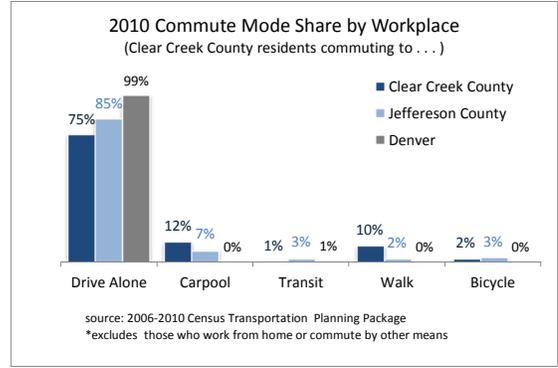


Resident Mode Share by Workplace (2010)

commuters only

	Clear Creek County	Jefferson County	Denver	Clear Creek County	Jefferson County	Denver
Drive Alone	1,470	1,165	530	75%	85%	99%
Carpool	235	100	0	12%	7%	0%
Transit	10	35	4	1%	3%	1%
Walk	195	30	0	10%	2%	0%
Bicycle	40	40	0	2%	3%	0%
Work From Home	385	0	0			
Other	20	0	0			
Total	2,355	1,370	534			
Total commuters only	1,950	1,370	534			

source: 2006-2010 CTPP

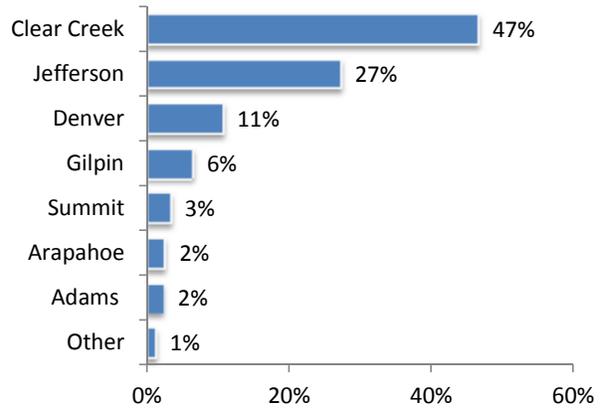


**Where CCC Residents Work (2010)**

County	#	%
Broomfield	4	0%
Larimer	4	0%
Eagle	15	0%
Weld	15	0%
Boulder	20	0%
<b>Other</b>	58	1%
<b>Adams</b>	115	2%
<b>Arapahoe</b>	125	2%
<b>Summit</b>	165	3%
<b>Gilpin</b>	320	6%
<b>Denver</b>	535	11%
<b>Jefferson</b>	1,370	27%
<b>Clear Creek</b>	2,345	47%
<b>Total</b>	<b>5,033</b>	<b>100%</b>

source: 2006-2010 CTPP

where CCC residents work  
(2010 CTPP - by County)



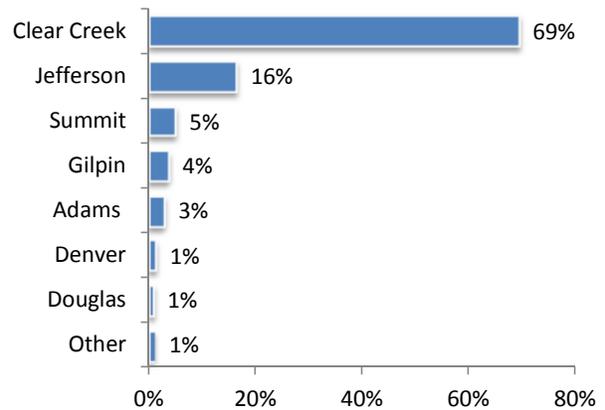
source: 2006-2010 CTPP

**Where CCC Workers Live (2010)**

County	#	%
Arapahoe	10	0%
Larimer	10	0%
Grand	15	0%
<b>Other</b>	35	1%
<b>Douglas</b>	25	1%
<b>Denver</b>	40	1%
<b>Adams</b>	95	3%
<b>Gilpin</b>	120	4%
<b>Summit</b>	165	5%
<b>Jefferson</b>	555	16%
<b>Clear Creek</b>	2,345	69%
<b>Total</b>	<b>3,380</b>	<b>100%</b>

source: 2006-2010 CTPP

where CCC workers live  
(2010 CTPP - by county)



source: 2006-2010 CTPP

**Where CCC Residents Work (2013)**

County	#	%
Other	957	19%
Boulder	243	5%
El Paso	252	5%
Adams	268	5%
Grand	300	6%
Summit	355	7%
Arapahoe	361	7%
Clear Creek	690	14%
Denver	711	14%
Jefferson	933	18%

source: 2013 LODES

**Where CCC Workers Live (2013)**

County	#	%
Teller County, CO	7	0%
Laramie County, W	7	0%
Fremont County, CC	8	0%
Mesa County, CO	9	0%
Broomfield County,	12	0%
El Paso County, CO	20	1%
Eagle County, CO	37	1%
Gilpin County, CO	40	1%
Larimer County, CO	44	1%
Chaffee County, CO	46	2%
Douglas County, CO	64	2%
Routt	76	3%
Lake	79	3%
Weld	80	3%
All Other Locations	80	3%
Adams	87	3%
Arapahoe	88	3%
Jackson	88	3%
Other	872	29%
Park	124	4%
Denver	138	5%
Summit	146	5%
Boulder	176	6%
Grand	202	7%
Jefferson	665	22%
Clear Creek	690	23%

source: 2013 LODES

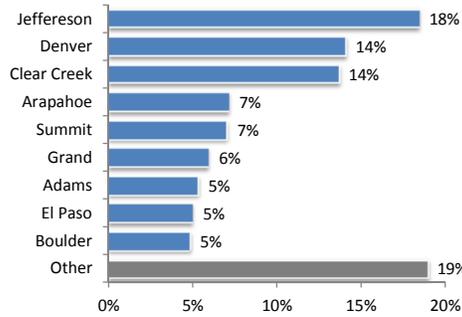
**Residents live and work in CCC**

Year	#	%
2002	866	22%
2003	850	23%
2004	859	23%
2005	852	23%
2006	687	23%
2007	810	22%
2008	820	23%
2009	1,141	27%
2010	990	23%
2011	782	16%
2012	634	13%
2013	690	14%

**Commuter flows**

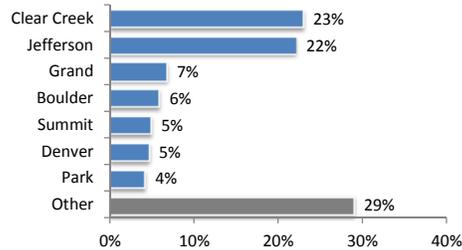
Year	In-commuters	Out-commuters	live and work in County
2002	1,670	3,017	866
2003	2,075	2,882	850
2004	1,975	2,870	859
2005	1,991	2,874	852
2006	2,245	2,366	687

**where CCC residents work  
(2013 LEHD-OTM - by county)**



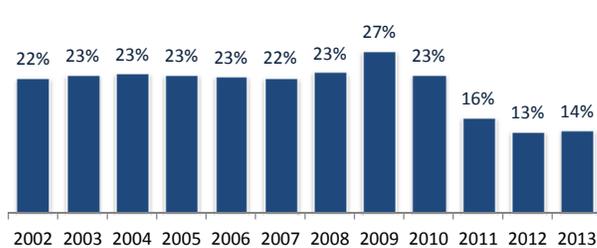
source: LEHD-OTM  
\*note: excludes self-employed, federal workers and a few others

**where the CCC workforce lives  
(2013 LEHD-OTM - by county)**



source: LEHD-OTM  
\*note: excludes self-employed, federal workers and a few others

**% of residents living and working in Clear Creek County**



source: LEHD-OTM  
\*note: excludes self-employed, federal workers and a few others

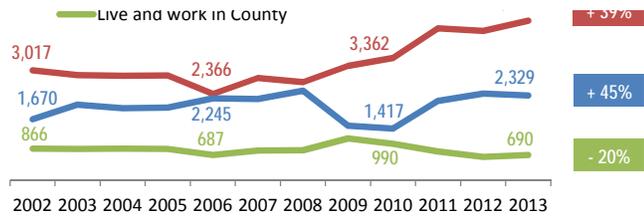
**Clear Creek County commute trends**



since 2002

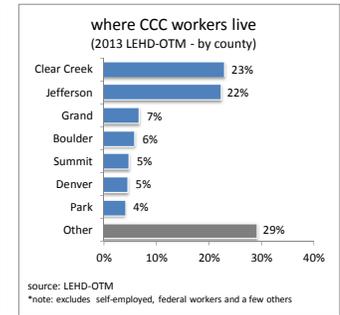
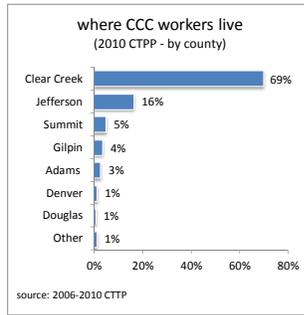
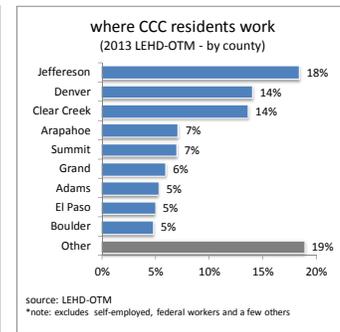
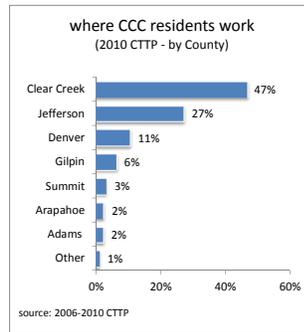
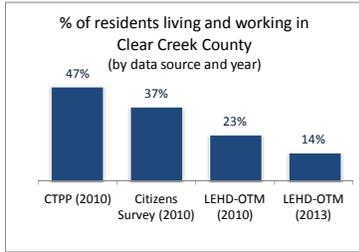
4,380 20%

2007	2,228	2,809	810
2008	2,456	2,694	820
2009	1,497	3,138	1,141
2010	1,417	3,362	990
2011	2,173	4,175	782
2012	2,379	4,103	634
2013	2,329	4,380	690
since 2002	39%	45%	-20%



source: LEHD-OTM  
 \*note: excludes self-employed, federal workers and a few others

Clear Creek County Residents Working From Home	
CTPP (2010)	47%
Citizens Survey (2010)	37%
LEHD-OTM (2010)	23%
LEHD-OTM (2013)	14%



### Where CCC Residents Work (2010)

County	#	%
No Response	62	5%
<b>Gilpin</b>	35	3%
<b>Summit</b>	53	4%
<b>Other</b>	87	7%
<b>Other Denver Metr</b>	94	7%
<b>Denver</b>	244	19%
<b>Jefferson</b>	296	23%
<b>Clear Creek</b>	483	37%
<b>Total</b>	<b>1,292</b>	<b>100%</b>

source: 2010 Clear Creek County Citizens Survey

