

NEIGHBORHOOD AND BUILT ENVIRONMENT



**“THE NEIGHBORHOODS PEOPLE LIVE IN
HAVE A MAJOR IMPACT ON THEIR HEALTH
AND WELL-BEING.”**

-HEALTHY PEOPLE 2030

WHY IT MATTERS IN THIS ASSESSMENT

Here we examine the built environment and environmental health factors in Mesa County by looking at the capacity of institutions within the county to effectively and efficiently execute their role. We find that in recent years, Mesa County residents have voted to prioritize funding for schools and public safety agencies, which have allowed them to update, expand, and create new facilities.

Other institutions that contribute to the neighborhood and built environment for Mesa County residents include grocery stores, parks and green space, and libraries. Grocery stores are plentiful in Mesa County, but centralization leads many households, especially in rural areas, to travel long distances to reach a store. Parks and green space are increasingly valued by residents, and this is reflected in city and county agencies defining broad goals and intentions for these spaces across the county. Libraries fill critical roles in offering internet and computer access to community members, alongside operating one of the largest and most economically efficient materials lending programs in the state.

People’s homes can have a major impact on their health and economic stability. We find that the proportion of households lacking complete plumbing, kitchen, and telephone facilities is low, but higher than state and national averages. Housing costs are a burden for nearly one-third of Mesa County households, and over half of renting households. Nearly half of Mesa County residents live outside of an incorporated municipality.

Lastly, we examine environmental hazards, specifically radon, water quality, air quality, as well as efforts to ensure our food establishments are safe and healthy through retail food inspection.

SCHOOLS



Many measures of capacity and expenditures are available for schools, but they rarely come with targets to indicate ideal levels. Here we compare pupil-teacher ratios and per-pupil spending in Mesa County, Colorado, and our comparison communities, and find that Mesa County has comparatively low pupil-teacher ratios and comparatively high per pupil spending.

Capacity, safety, and functionality contribute to the effectiveness of schools on delivering quality education and improving student quality of life. At District 51, aging and ineffective school structures require updating. Routine safety inspections are performed by Mesa County Public Health.

PUPIL-TEACHER RATIOS

Mesa County and Colorado share the same average of 16.9 pupils per teacher.

Comparison Communities

- Bozeman, MT: 16.1 pupils per teacher.
- St. George, UT: 22.4 pupils per teacher.
- Bend, OR: 22.6 pupils per teacher.

- Mesa County Elementary schools average 16.4 and range 10.6-19.9.
- Mesa County Middle Schools average 15.4 and range 11.3 to 16.7.
- Mesa County High Schools average 18.7 and range 11.3 to 21.6.

PER-PUPIL SPENDING

Mesa County spends approximately \$600 more per pupil than Colorado in general, and the majority of school funding comes from state and local resources rather than federal sources. All Mesa County districts spend more than Bozeman, MT or St. George, UT. Since assessments are not directly comparable across different states, it's difficult to accurately judge whether this increased spending is improving student outcomes or teacher retention.

● ● ● AREA OF ACTION

- Examine relationship of school funding to student outcomes and staff retention.

TOTAL PER PUPIL EXPENDITURE IN MESA COUNTY, COLORADO, THE US, AND COMPARISON COMMUNITIES (2018-2019)

	Total Per Pupil Expenditure (PPE)	State/Local PPE	Federal PPE
Mesa County	\$11,903	\$11,341	\$570
Colorado	\$11,288		
US	\$12,612		
De Beque	\$13,437	\$12,933	\$504
Plateau Valley*	\$10,261	\$9,732	\$529
District 51	\$12,024	\$11,449	\$575
Bozeman, MT	\$9,497	\$9,024	\$474
St. George, UT	\$8,379	\$7,617	\$720

*Plateau Valley funding averages are brought down by Grand Mesa High School (GMHS) receiving considerably less funding from these sources. When GMHS is removed from the analysis, Plateau Valley averages \$11,240 total per pupil.

BUDGET IMPACTS OF COVID-19

Initial reports of decreasing state and local tax bases because of the impacts of COVID-19 raised grave concerns about budget cuts for schools and other publicly funded organizations, and significant cuts were made in order to balance the budget for the 2020-2021 fiscal year. However, the state legislature's chief budget writer has suggested that the impact on the economy on a large scale has been less than predicted due in part to availability of various funding sources, and additional cuts likely won't be necessary.

FACILITIES

At the March 16, 2021, School District 51 Board Business Meeting, the board revealed the 2021-2030 Long Range Facility Master Plan.

"While the district has chipped away at more than \$50 million in top-priority maintenance projects at many of District 51's 47 schools thanks to the 2017 Bond Measure, millions in facilities needs remain across the district." -Email Communication to Parents

Across four levels of priority, the board identified one new school to be built, five to be completely replaced, and 14 that require renovations or partial replacements.

The board proposed requesting \$506,225,000 over three or four bonds. A \$150 million bond would cost the owner of a \$300,000 home an estimated \$6.25 per month.



INSPECTIONS

K-12 SCHOOLS

Schools are inspected for sanitation and safety by Mesa County Public Health using a risk-based approach. High-risk schools (e.g. those with chemistry labs and art studios) are inspected at least once per year, while lower-risk schools are inspected every 2-3 years.

Cafeterias are inspected separately by the retail food inspection team (see page 133).

There are 55 schools in Mesa County. In 2020, 5 routine inspections were conducted, and in 2019, 23 routine inspections were conducted. 17 routine inspections are planned for 2021.



LICENSED CHILD CARE FACILITIES

Mesa County Public Health (MCPH) regulates and educates licensed child care facilities to keep kids healthy and safe. The child care team also works with facilities to prevent illness, support immunizations, and conduct health screenings.

In 2019, MCPH child care inspectors completed 152 regular licensing inspections and 130 additional inspections (including new licenses, complaints, injuries, probation, and others) of the 147 licensed child care facilities in Mesa County.

In 2020, inspectors completed 140 regular licensing inspections and 115 additional inspections of the 142 licensed child care facilities in Mesa County.

With two inspectors completing routine health inspections for these facilities as well, this amounted to 150 inspections per person in 2020. While there are no defined guidelines on the number of inspections an inspector should manage in a year, this workload appears manageable at current staffing levels.

In 2021, MCPH expects to complete 131 regular licensing inspections and 43 health inspections, in addition to the other necessary inspections which typically make up 45% of the total inspections conducted.



PUBLIC SAFETY

Public safety encompasses law enforcement, fire and emergency services, code enforcement, and more. Here we highlight the capacity and effectiveness of Mesa County's public safety officers with regards to crime, code enforcement, and fire services in Grand Junction, and consider the impacts of voter-approved tax revenue on these agencies.

CRIME

Mesa County has six policing jurisdictions: Mesa County Sheriff's Office, Grand Junction Police Department, Fruita Police Department, Palisade Police Department, Collbran Marshal's Office, and De Beque Marshal's Office. Police departments and marshal's offices have jurisdiction within incorporated towns and cities in Mesa County, and the sheriff's office is responsible for unincorporated regions of the county.

Many of these agencies have mutual aid agreements that allow them to easily support each other, which is especially important in eastern and southern Grand Junction where the municipal boundaries can leave people in adjacent neighborhoods under different law enforcement jurisdictions.

The incidence of violent crimes, property crimes, and vehicle theft decreased between 2017 and 2019. Mesa County law enforcement agencies have a higher crime clearance rate than the US rate for all three types of crime. Clearing a crime is achieved when an individual is arrested, charged, and prosecuted for the crime, or when an individual is identified as the perpetrator, located, and evidence gathered to prosecute but the crime is unable to be prosecuted for reasons outside of the control of law enforcement, such as when the suspect has died.

2017



738

Violent Crimes



4,383

Property Crimes



318

Vehicle Thefts

2018



531

Violent Crimes



4,021

Property Crimes



263

Vehicle Thefts

2019



499

Violent Crimes



3,764

Property Crimes



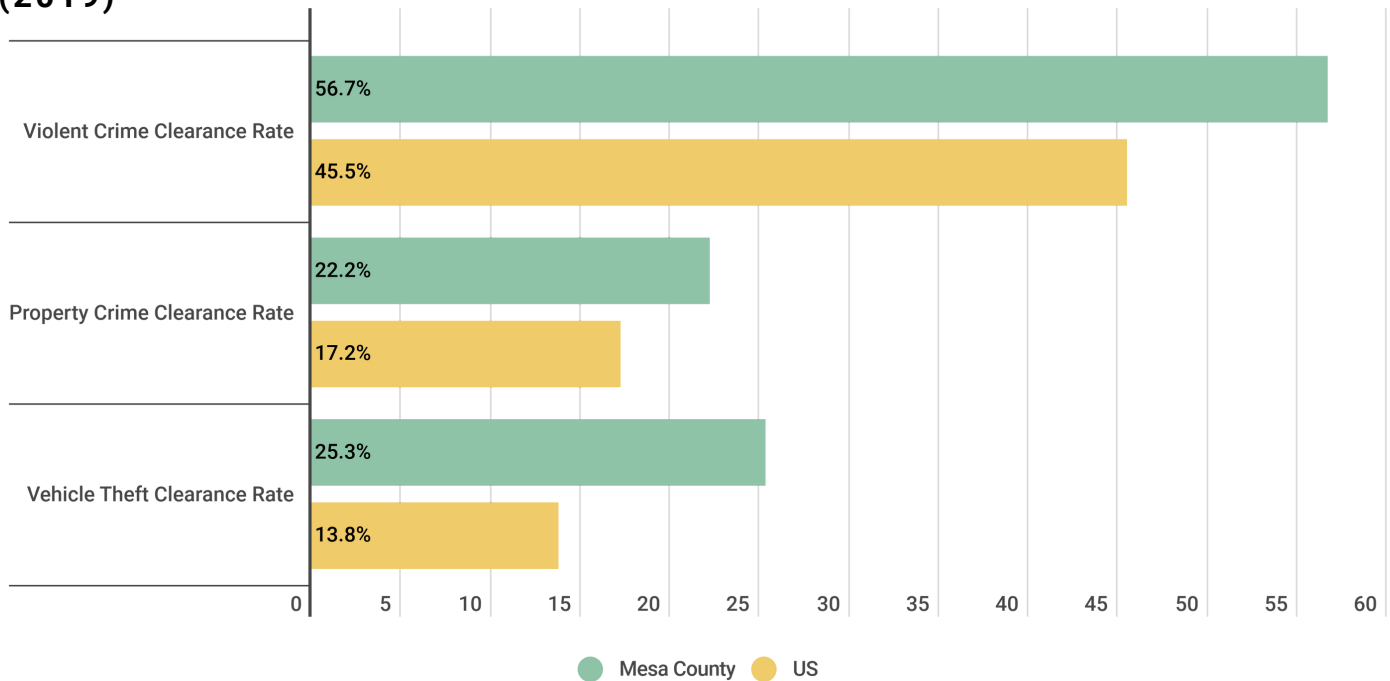
277

Vehicle Thefts



**VIOLENT CRIMES IN MESA COUNTY DECREASED BY 32%
BETWEEN 2017 AND 2019.**

CRIME CLEARANCE RATE BY TYPE OF CRIME IN MESA COUNTY AND THE US (2019)



Collbran and De Beque did not submit incident-based reports to the FBI between 2017-2019.

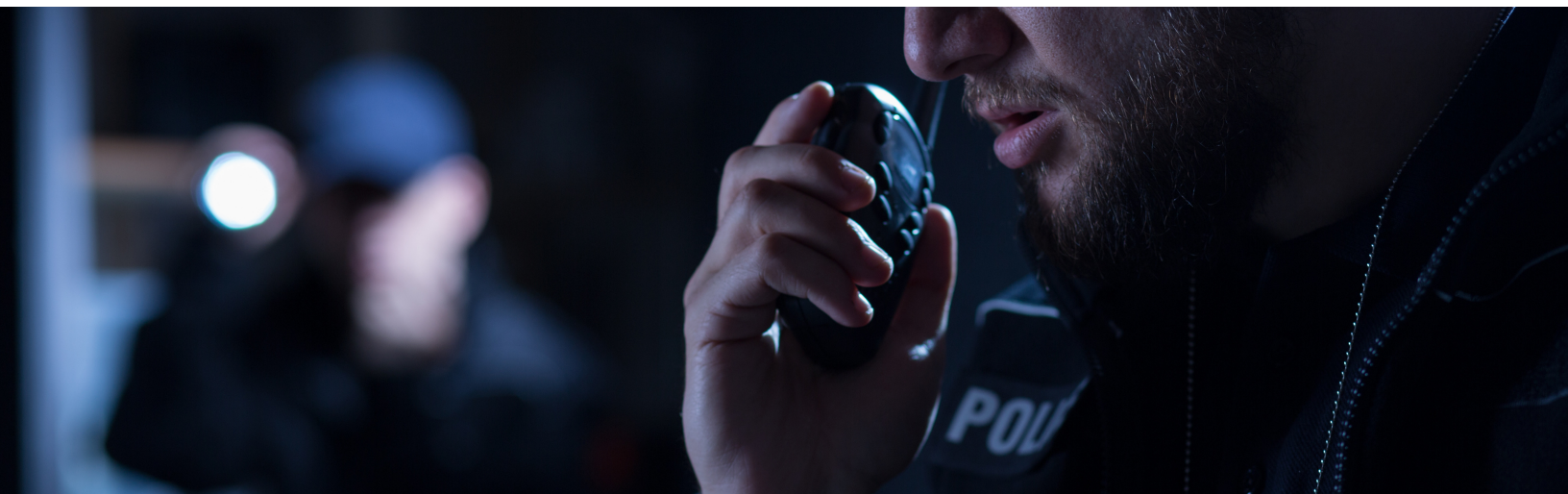
INTERSECTING ISSUES



For information about law enforcement's role in intervening with people experiencing mental health and substance use crises, see page 109.

AREA OF ACTION

- Assess the rates of infractions not included in violent crime and property crime databases that impact public safety, including traffic violations such as speeding, failure to stop, and texting while driving. Compare local rates and burden on law enforcement with comparison communities.



CODE ENFORCEMENT

In Mesa County, code enforcement is handled by city and county offices. The goal of code enforcement agencies is to maintain and improve the safety and aesthetic appearance of Mesa County neighborhoods.

The City of Grand Junction Code Enforcement Office most often receives complaints regarding accumulation of junk and rubbish, outdoor storage, RV and trailer storage, and junk vehicles. They open a case for every complaint received, and the addition of a second officer in 2019 allows them to address all complaints and take on a small number of proactive cases as well. Typically, education and voluntary compliance requests are successful, but when they are not, enforcement officers can add administrative citations which carry fines starting at \$150, and approximately one percent of cases result in a summons to municipal court.

The Mesa County Code Compliance Office serves all unincorporated regions of the County, ranging from the rural west, east, and south areas to developed areas such as Clifton, Fruitvale, and the Redlands. When property owners are cooperative and need assistance in coming into compliance, Mesa County can often offer help through free landfill passes or temporary dumpsters. Currently, the largest burden on the office is in dealing with non-cooperative property owners or those with repeated violations. The Code Compliance Office lacks the necessary enforcement options for egregious noncompliant properties and is currently developing a citation for health and safety violations in partnership with other county agencies to open more enforcement opportunities.

Mesa County Public Health provides funding for one full-time Mesa County code compliance officer in an effort to build capacity for addressing health-related code compliance issues such as junk, trash, air quality, and other public health nuisances. The office reports having enough staff to address its caseload with the tools available, but expresses concern that these tools are inadequate to mitigate the health and safety impact of habitual and egregious violations.

The most successful intervention the Mesa County Code Compliance Office has implemented recently is the Mesa County neighborhood/environmental clean-up project that provides residents of Clifton a similar opportunity to Grand Junction's Spring Clean-Up days.

The project has grown since its start in 2019, and approximately 4,000 parcels will be included in 2021. The goal of the project is to improve health and safety, lower crime rates, and lower code compliance caseloads in Clifton, the most populated area of unincorporated Mesa County.

●●● AREA OF ACTION

- Develop a clear enforcement process for health and safety violations for Code Compliance.
- Look for opportunities to continue and expand neighborhood clean-up days as a proactive way to engage residents and neighborhoods.



SPOTLIGHT ON FUNDING

PUBLIC SAFETY SALES TAX

In 2017, Mesa County voters approved a 0.37% sales tax to benefit public safety agencies in Mesa County. The measure was supported by nearly two-thirds of voters, and provided \$7,840,927 of revenue in 2020, an increase of 4% over 2019. The primary beneficiary is the Mesa County Sheriff’s Office, followed by the District Attorney, with local fire and police departments also receiving a small portion.

According to MCSO deputies, this measure has significantly impacted the MCSO operating budget—nearly 40,000 people live in the unincorporated but developed communities of Clifton, Fruitvale, and the Redlands, and in many ways MCSO does “urban policing on a rural budget.”

FIRE DEPARTMENTS

Mesa County has 10 fire protection districts. 53.8% of the population of Mesa County is served by the Grand Junction Fire Department.

Grand Junction made 31,841 responses to 16,774 calls in 2019, with an average of 45.9 calls per day. The majority of calls 13,574 (80.1%) were for emergency medical services, with 285 (1.7%) calls for fires.

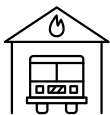
In 2019, “amid rising call volume and increasingly busy shifts,” Grand Junction voters approved a ballot initiative to increase Grand Junction sales tax by 0.5% to “bolster stretched police and fire agencies.” - Grand Junction Fire Department 2019 Annual Report

Funded by the sales tax increase, Fire Station 6 opened November 9, 2020, with 22 additional people hired to staff the station. Two additional stations are scheduled for completion by 2024, along with 57 additional firefighters, EMTs, and paramedics.

●●● AREA OF ACTION

- Mesa County is a mix of incorporated towns and cities and unincorporated communities and rural regions. Assess best practices for law enforcement agencies working under these conditions.

2



Two additional fire stations are scheduled for completion by 2024.

57



57 additional firefighters, EMTs, and paramedics are expected to be added by 2024.



GROCERY STORE ACCESS

“RESIDENTS ARE AT RISK FOR FOOD INSECURITY IN NEIGHBORHOODS WHERE TRANSPORTATION OPTIONS ARE LIMITED, THE TRAVEL DISTANCE TO STORES IS GREATER, AND THERE ARE FEWER SUPERMARKETS... ADULTS WHO ARE FOOD INSECURE MAY BE AT AN INCREASED RISK FOR A VARIETY OF NEGATIVE HEALTH OUTCOMES AND HEALTH DISPARITIES.”

-HEALTHY PEOPLE 2020

FOOD ACCESS

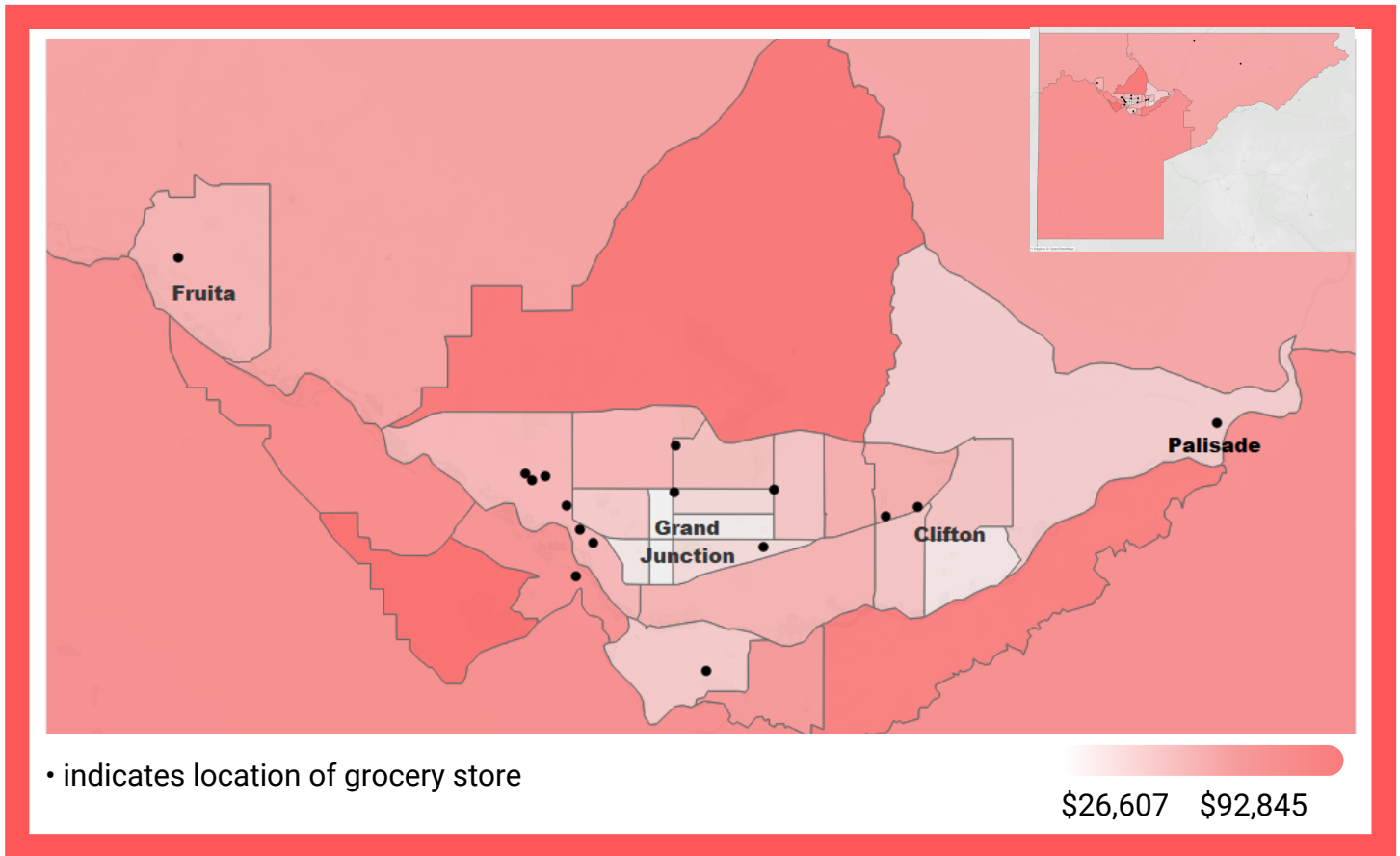
There are 18 grocery stores distributed throughout Mesa County, including stores like Walmart and Target that offer a significant grocery section and Fisher’s Market, which has fewer options but a wide variety of types of food available.

Seven of the 18 stores are located close to the I-70 Business/Hwy 6 & 50 stretch on the west side of Grand Junction. Communities outside of Grand Junction often have no full grocery stores, and Fruita, Collbran, and De Beque each have one store. The map below shows that significant food access gaps remain for some neighborhoods, including rural areas.

● ● ● AREA OF ACTION

- Explore opportunities to increase food access in areas with limited or no options.

LOCATION OF GROCERY STORES AND MEDIAN HOUSEHOLD INCOME BY CENSUS TRACT IN MESA COUNTY (2019 & 2021)



PARKS AND GREEN SPACE

Grand Junction Parks and Recreation Department operates 35 city parks (350 acres), and a total of 1,842 acres of parks, school properties, and open space.

Within city limits, Fruita Parks and Recreation operates 11 Parks (45 acres of developed parkland), 5 open space/natural areas (217 acres), and 26 miles of trail (15 miles of hard surface primary trail, 4 miles of secondary trail, and 7 miles of soft surface trail). There are an additional 684 acres of park land and outdoor recreation facilities managed by HOA's, other governmental agencies, the school district and private businesses accessible to the public.

Mesa County has approximately 277 miles of non-motorized trails open to hikers, horseback riders, and bikers.



PARKS AND GREEN SPACE (CONT.)

By area, Mesa County is 72% public land managed by the Bureau of Land Management and the US Forest Service. These lands provide significant opportunities for outdoor recreation both for local residents and as a means of attracting tourism to the area.

In November 2020, the Mesa County Board of Commissioners adopted the Mesa County Resource Management Plan (RMP) which outlines desires for the use and management of federal lands within the County. The RMP prioritizes local input in federal decision making around resource management to promote multiple uses and purposes such as safety, health, welfare, commercial, and recreational opportunities.

LIBRARIES



LIBRARIES

The Mesa County Library (MCL) system provides a variety of services to Mesa County residents beyond its more than one million checkouts per year. MCL provides internet and computer access to patrons and guests that is used for critical communication with jobs, health care providers, and government institutions as well as entertainment. MCL patrons can also access educational courses for GED and High School completion, English Language Learning, Citizenship Exam preparation, and more.

In 2019, MCL had 1,326,006 checkouts and renewals, and 166,121 electronic materials checkouts. Patrons made 738,977 visits, and adult students completed 14,273 hours of study. In 2020, due to closures, checkouts and renewals declined to 1,062,056, while electronic materials checkouts increased to 230,824. Visits dropped to 322,232, but adult student hours increased to 16,037.

In 2019, the library received \$7,195,536 in revenue, with approximately 80% coming from property taxes, and the remainder from ownership taxes, fees, and donations. Total spending was \$6,356,940. In 2020, revenue was \$7,892,001, and total spending was \$6,529,509.



In 2020, patrons used eResources including online learning tools, language learning programs, and homework help tools, 150,289 times. This represented a decrease of only 5% from 2019 usage.

2019

- 101,390 COMPUTER USE SESSIONS
- 455,830 WIFI SESSIONS

2020*

- 38,458 COMPUTER USE SESSIONS
- 256,486 WIFI SESSIONS

***DESPITE THE LIBRARY BEING CLOSED FOR 18 WEEKS.**

8

BRANCHES

There are 13 library districts in Colorado that serve at least 25,000 people. Mesa County Libraries is one of eight of these districts with a budget excess.

Among these 13 districts, Mesa County Libraries has the 6th largest circulation rate but the 11th largest spending per capita, suggesting an efficient system.

COMPUTER AND INTERNET USE

The library provides computer access and wifi at all eight locations, with wifi connections available from 6 am to 10 pm seven days a week, even if the library is closed (including during the 2020 COVID-19 closures). When libraries are open, computer use sessions are available to library members as well as guests, making computers and internet access available to people who may not have proof of a current Mesa County address. In some communities such as Fruita, the library provides the only public printer.

Patrons routinely use library computers to access medical information, government information, and unemployment and other benefit websites. Some patrons use library computers to connect with a medical provider, and others write resumes and conduct job searches, in addition to those who are using the computers for recreation.



LIBRARIES ARE OFTEN A HAVEN FOR PEOPLE EXPERIENCING HOMELESSNESS.

LOCATING A WELLNESS DESK AT THE LIBRARY WILL PROVIDE AN ADDITIONAL ENTRY POINT TO COMMUNITY SERVICES AND ACCESS TO A PARTICULARLY VULNERABLE POPULATION WHO MAY HAVE UNMET MENTAL HEALTH NEEDS.

WELLNESS DESK

The new Wellness Desk service at Mesa County Libraries is a partnership between MCL and Mind Springs Health. Mind Springs Health provides the staff and expertise while the library offers space and access to the community. Community members can easily address mental health questions and concerns with qualified staff in a variety of ways, such as completing applications for services, making appointments and phone calls, as well as referrals and job support. The goal is to also offer this service to Spanish speaking residents when possible. These services are available at the Central library as well as some limited time at the Clifton branch.

HOUSING



LACK OF COMPLETE FACILITIES

The US Census tracks kitchen, plumbing, and telephone facilities in homes. “Local, state, tribal, and federal agencies use these data to plan and fund programs for housing assistance, rehabilitation loans, and other programs that help people access and afford decent, safe, and sanitary housing.” - US Census.



2.2%

1,358 Mesa County households have no telephone service available.



1.4%*

864 Mesa County households lack complete kitchen facilities.



0.3%*

185 Mesa County households lack complete plumbing facilities.

*higher than both state and national rates

HOUSING COST BURDEN

Households paying greater than 30% of their income for housing are considered cost-burdened by the Department of Housing and Urban Development. “Keeping housing costs below 30 percent of income is intended to ensure that households have enough money to pay for other non-discretionary costs” such as food, clothing, transportation, and medical care.

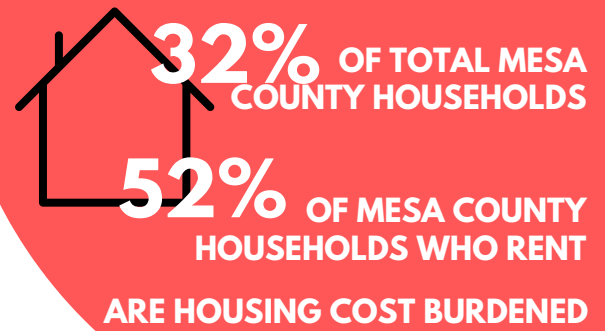
Mesa County has similar levels of cost-burdened households as Colorado and the US, and fewer cost-burdened households than all three comparison communities. The burden is not distributed equally across the county—Clifton, Collbran, and Palisade have the highest rates of cost-burdened households, and Loma, the Redlands, and the Rural South have the lowest.

NUMBER AND PERCENT OF COST-BURDENED HOUSEHOLDS IN MESA COUNTY, COLORADO, THE US, AND COMPARISON COMMUNITIES (2015-2019)

	Cost-Burdened Households	Percentage of Total Households that are Cost-Burdened
Mesa County	19,248	31.8%
Colorado	678,812	32.3%
US	37,249,895	31.8%
Bozeman, MT	7,850	41.0%
Bend, OR	13,645	36.9%
St. George, UT	9,440	32.6%

Cost burden and housing costs varied across renters and homeowners between 2015 and 2019. 52.0% of renters were cost-burdened, with average housing costs of \$963 per month. 29.3% of homeowners with a mortgage were cost-burdened, with average housing costs of \$1,313 per month. 9.0% of homeowners without a mortgage were cost-burdened, with average housing costs of \$474 per month.

There are housing assistance programs in Mesa County, but they vary in wait times to participate. Some qualifying households find themselves on wait lists that are many months or even years long. Others with additional qualifying characteristics such as a person with a documented disability may find their wait relatively short, or resources available immediately.



32% OF TOTAL MESA COUNTY HOUSEHOLDS
52% OF MESA COUNTY HOUSEHOLDS WHO RENT
ARE HOUSING COST BURDENED



AREA OF ACTION

- Identify resources for households that lack complete facilities.
- Determine current gaps in housing assistance and explore opportunities to increase availability of housing assistance for households in need.

INCORPORATION

79,117 Mesa County residents live in incorporated municipalities (52.3%). The remaining 47.7% live in unincorporated areas including the large western, eastern, and southern rural regions and more densely populated areas like the Redlands, Clifton, Fruitvale, and parts of Orchard Mesa. Residents of incorporated communities are under the jurisdiction of their city or town as well as Mesa County. They receive specialized services and amenities paid for by local taxes that are approved by voters within the municipality. Outside of incorporated areas, residents pay slightly lower taxes and receive fewer services and amenities as a result.

Many people choose to live in unincorporated areas because of the lower taxes. In rural areas, residents are generally aware of the trade off between the low population density they are seeking and the lack of amenities that come with it. In high-density unincorporated areas, however, this trade off is often less clear, and wide variation in household incomes can point to significantly different experiences for residents of these unincorporated areas. Generally, location is less of a barrier to services and amenities for residents with average or above household incomes—if their neighborhood lacks a recreation center, they can drive to one in a nearby community. However, location can pose a significant barrier for low-income residents who lack transportation or flexibility in work schedules to access resources in a different community.

48%

**OF MESA COUNTY
RESIDENTS LIVE IN
UNINCORPORATED
AREAS.**



ENVIRONMENTAL HAZARDS



Here we examine four types of environmental hazards: radon, drinking water quality, air quality, and retail food service. Radon poses a health and safety threat in Mesa County, but a smaller threat than in many areas of Colorado. Community water sources had only one contaminant with above-threshold levels in 2018, the most recent year data is available. Air quality data for Mesa County may not be accurately capturing the experience of local residents because few testing sites mean that localized air pollution issues aren't recorded. Mesa County inspects the approximately 750 retail food establishments with largely positive results, but the number of inspectors is significantly below federal standards.

RADON

"Radon is the number one cause of lung cancer among non-smokers. Radon is responsible for about 21,000 lung cancer deaths every year." -Environmental Protection Agency

23 out of 29 census tracts had 25% or more of their radon tests come back above the actionable level (4.0 pCi/L) in 2018.

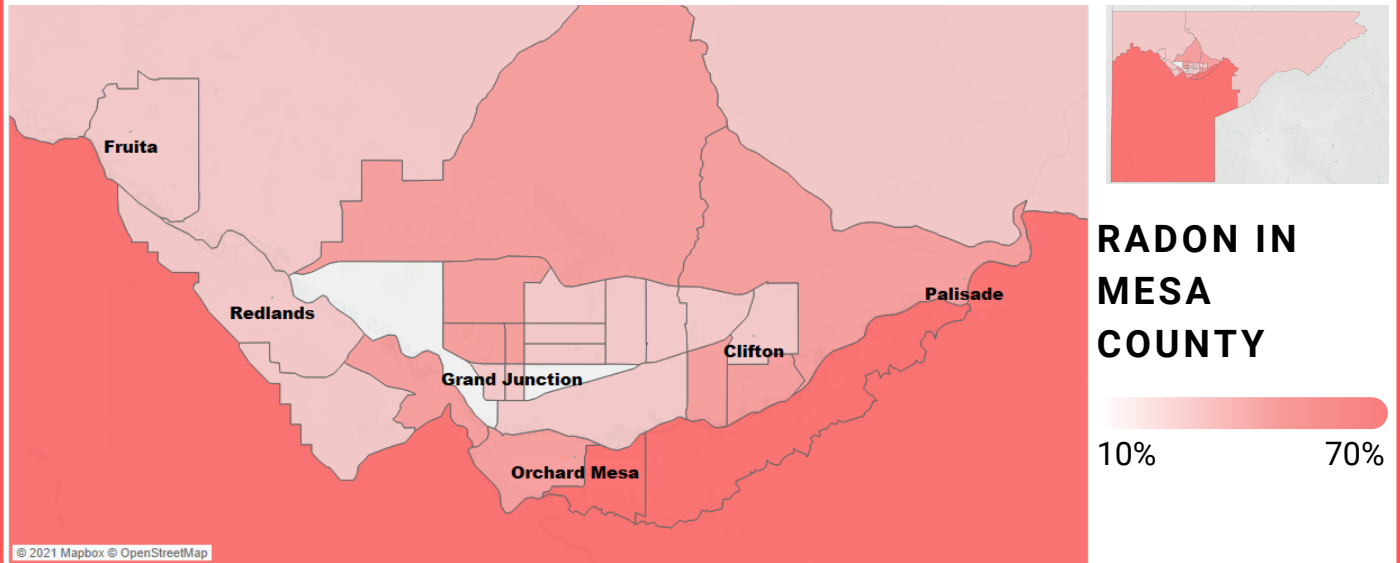
Per 100,000 people, Mesa County has approximately 20% more lung cancer cases than the state of Colorado. However, the role of radon in these cases is unclear, since Mesa County ranks 51st among Colorado counties for the percentage of radon tests with results over the action limit of 4 pCi/L.

Radon testing is voluntary and usually performed by the homeowner or a home inspector. The Colorado Department of Public Health and Environment offers a free radon test kit by mail. Radon mitigation requires drilling through a building's foundation and venting off-gassed radon with a series of powered fans. The cost of the mitigation can vary based on the building's construction, but a single-family home can cost \$1,300 or more.

●●● AREA OF ACTION

- Explore resources available to residents to assist with radon mitigation.
- Encourage and promote water testing for private water sources.
- Regularly review and monitor data from public water supply testing for neighborhoods across Mesa County to identify potential trends.

PERCENT OF HOME RADON TESTS WITH RESULTS OVER THE ACTION LIMIT (4 PCI/L) BY CENSUS TRACT IN MESA COUNTY (2005-2018)



DRINKING WATER QUALITY

Mesa County Public Health's water quality lab provides testing services for the Western Slope. Between 2019 and 2020, the MCPH Water Quality lab processed 7,601 samples from 17 counties in Colorado. Without the local lab, samples from the Western Slope would be sent to labs several hours away for analysis, adding time and expense.

Testing for private water sources such as wells that serve fewer than 50 people is voluntary. As a result, information about private wells in Mesa County is limited to land owners who have chosen to have their wells tested.

In 2018, Mesa County sources were tested for nine contaminants, and all sites were below Maximum Contaminant Level Thresholds for eight contaminants. Four of eleven sites tested above the threshold for Total Trihalomethanes (TTHM), a group of chemicals used for disinfecting drinking water that can result in liver, kidney, and central nervous system problems. Since these contaminants are typically a result of the disinfection protocol, the water treatment plants were able to address this issue through a reduction of chemical usage or further filtering techniques.

AIR QUALITY

Air quality is an increasingly important issue to local residents, especially as intensifying wildfires across the western United States create conspicuously-smokey air during the wildfire season. The 2020 wildfire season led to an unprecedented need for District 51 to cancel outdoor recess for all students due to air quality concerns.

Mesa County has two main pollutants that cause unhealthy air quality: ozone and particulate matter. Ozone is formed from two non-visible pollutants, nitrogen oxides (NOx) commonly emitted from vehicles and power plants, and volatile organic compounds (VOCs) emitted from vehicles, factories, gas stations, and paints. When these components combine with sunlight, the product becomes visible as what we commonly think of as “smog”.

The other common pollutant is particulate matter, which can be made up of particles emitted from construction sites, unpaved roads, and fires, or chemical pollutants emitted from power plants, industries, and automobiles.

BETWEEN 2017 AND 2020, MODERATE AIR QUALITY IN MESA COUNTY OCCURRED:

337
DAYS DUE TO
OZONE

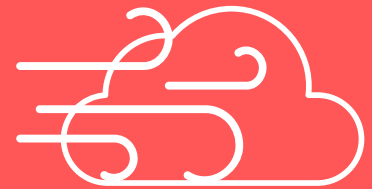
78
DAYS DUE TO
PARTICULATE MATTER

AIR QUALITY WAS

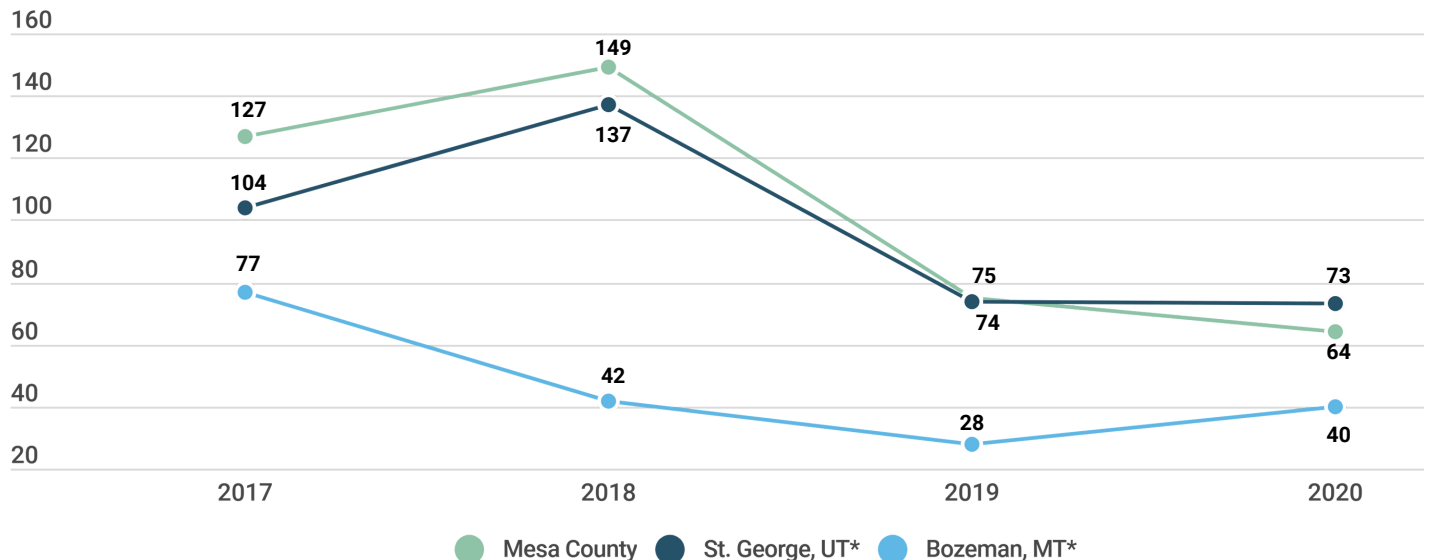
UNHEALTHY

9
DAYS

CAUSED BY OZONE



NUMBER OF MODERATE AIR QUALITY DAYS IN MESA COUNTY AND COMPARISON COMMUNITIES (2017-2020)



*Comparison communities were measured at the county level.

Between 2017 and 2020, Mesa County sensors detected a decreasing number of moderate air quality days, and very few unhealthy air quality days. This data may be limited by the use of very few sensors for official data collection. For example, not all of the days that required schools to cancel outside activities were recorded as “unhealthy” by the available sensors.

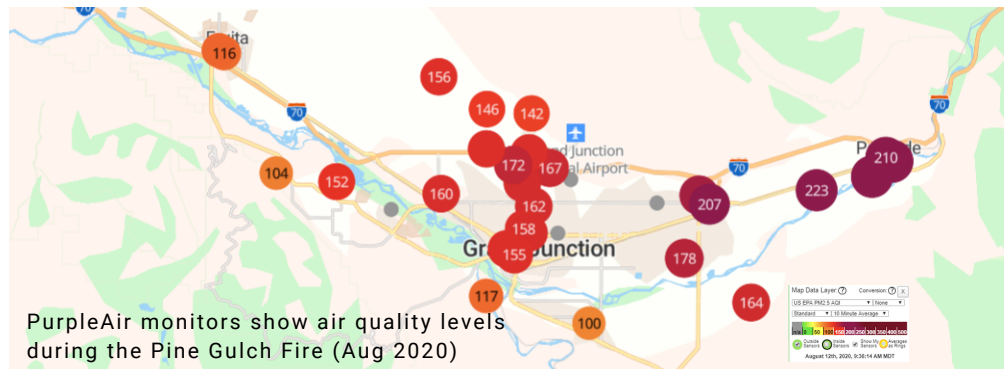


A new resource, PurpleAir, offers a dashboard map of dozens of sensors across Mesa County—some purchased by county and local governments, and some purchased by community members. While their testing methods are different from the standard sensors used to record air quality, they paint an important picture of the variation in air quality across Mesa County.

In Mesa County (outside of the City of Grand Junction, which maintains its own schedule), burn season runs approximately 40% of the year, from March-May and September-October. These months account for 36.6% of the days designated moderate or unhealthy air quality by standard sensors, but as discussed above, standard sensors are unable to report the local air quality, where burning may have an effect.

● ● ● AREA OF ACTION

- Access county-wide PurpleAir data to assess local trends in air quality and variation from standard sensor reports.
- Compile asthma attack data by month from multiple sources to assess possible effects of burn season on Mesa County adults and children with asthma.



IN 2019:



750
RETAIL FOOD
ESTABLISHMENTS

461
INSPECTIONS

17 REQUIRED
RE-INSPECTION

100% BROUGHT
INTO
COMPLIANCE

RETAIL FOOD INSPECTIONS

Mesa County has approximately 750 retail food establishments. In 2019, MCPH completed 461 retail food inspections. Of these, 17 were re-inspection, and 8 were in response to a complaint. Eventually, all of these establishments were brought into compliance.

According to the FDA Voluntary National Retail Food Program Standards, a benchmark for Mesa County inspections is 1,125 inspections per year, with each retail food inspector typically completing 280-320 inspections (among other duties) per year. Therefore, Mesa County requires at least 3.75 retail food inspectors.



● ● ● AREA OF ACTION

- Support a fully-staffed retail food inspection team to assure access to safe retail food establishments across Mesa County.



CONCLUSION

Mesa County residents are impacted by the health and safety of their neighborhoods and built environment at many levels. In recent years, the voting record has shown that Mesa County is willing to pay more in taxes to see increases in efficiency and effectiveness in schools and public safety agencies, and these institutions have applied the extra funds to new and improved facilities, increased staff, and new tools and programs.

Mesa County has many additional resources to promote health through neighborhoods and built environments, including a variety of grocery stores, libraries, and parks and green spaces. The challenge for these institutions is to provide access and opportunities for healthy behaviors to all Mesa County residents. Mesa County Libraries, in particular, makes this goal a clear part of its institutional mission and has initiated and expanded programs to offer a variety of services beyond book lending.

Environmental hazards are present in Mesa County, but systems are in place to protect residents. However, these systems are sometimes overstretched or understaffed. Residents are left to pursue their own, often expensive mitigations in the case of the presence of radon or poor water quality in private wells. Using standard measures, air quality appears to be improving, but this contradicts the experience of many Mesa County residents. Identifying better sampling methods that capture local experience, and clarifying any relationship between local air quality and asthma are important next steps to bring clarity to this issue.

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