

ECONOMIC TRANSITION AWAY FROM FEDERAL OIL AND GAS IN WESTERN COLORADO



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(Cover Photo: Leslie Kehmeir)

INTRODUCTION

Oil and gas production in Western Colorado has contributed to municipal and county coffers but comes with heavy costs to environmental and public health. Current planning efforts by the Bureau of Land Management (BLM) in their Colorado River Valley and Grand Junction field offices, in the form of a Supplemental Environmental Impact Statement (SEIS) for oil and gas leasing,¹ provide a venue for documenting costs and benefits of federal oil and gas production in Western Colorado and eliciting transition pathways that can decrease the social and environmental costs of oil and gas production.

To illuminate the regional economics associated with federal oil and gas production in Western Colorado, and in relation to the current BLM planning process, we provide an economic brief that summarizes the minor, and declining, role of oil and gas production in the regional economies of Mesa and Garfield Counties and investigate an economic transition away from federal oil and gas leasing in the region.

REGION OF ANALYSIS

Our analysis focuses on the two adjacent Western Colorado counties most affected by the upcoming SEIS – Mesa and Garfield Counties. Both counties are approximately 2 million acres in size, and both have substantial federal lands – Garfield County is 62% federal land and Mesa County is 73% federal land. The BLM is the primary federal land management agency in both counties; the BLM manages 35% of Garfield County and 46% of Mesa County.

Figure 1. Colorado and Region of Analysis



Source: CEI

Garfield County is home to fewer than 60,000 people and contains no large cities. Rifle and Glenwood Springs are the only two cities within Garfield County, and both have populations of approximately 10,000; all other Garfield County communities have smaller populations. However, Highway 82 and Interstate 70 provide ready access from the towns of Carbondale and Glenwood Springs to Aspen (located in adjacent Pitkin County) and Vail (located in Eagle County). In part due to this proximity to Aspen and Vail, Garfield County has historically had high in-migration rates. Garfield County contains many protected areas (over 160,000 acres of Wilderness and more than 85,000 acres of Inventoried Roadless Areas), all located on USFS-managed lands. The BLM manages a greater number of acres in the county than the USFS, suggesting there are unrealized opportunities for conservation on the County's BLM-managed lands.

Mesa County is home to nearly 160,000 people, many of whom reside in Grand Junction (the region's largest city containing nearly 65,000 people). Because Grand Junction is equidistant to Denver and Salt Lake City and is the largest town located between the two sizable metropolitan areas, it serves as a regional hub for Colorado's western slope and eastern Utah. Grand Junction offers relatively easy access to city amenities, but also offers a more affordable cost of living and ready access to public land recreation areas. Fruita is the only other city in Mesa County and has a population of less than 15,000. All other Mesa County

¹ U.S. Department of the Interior Bureau of Land Management. (2022). *Colorado River Valley and Grand Junction Field Offices Supplemental Environmental Impact Statement Scoping Packet*. [Colorado River Valley and Grand Junction Field Offices Supplemental Environmental Impact Statement Scoping Packet](#).

communities have notably smaller populations. Mesa County has many protected areas, including more than 100,000 acres of Wilderness (much of which is on BLM-managed land), almost 300,000 acres of USFS Inventoried Roadless Areas, and numerous natural amenities, including Grand Mesa and Colorado National Monument. The recreation opportunities, including world class mountain biking, offered by the County's ample protected areas have attracted amenity migrants and helped the County diversify its economic portfolio.



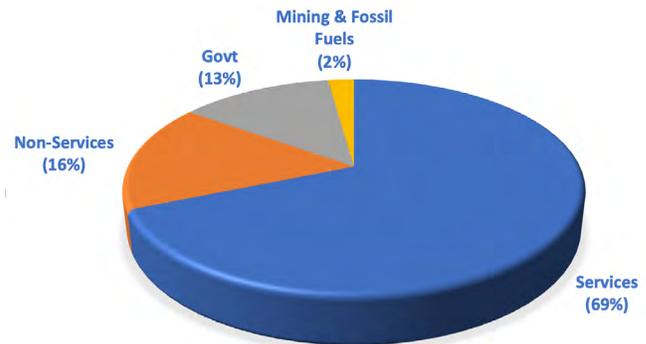
Deep Creek in the BLM Planning Area

Although oil and gas production is one potential use of federal lands, BLM has a multiple use mandate that does not align with the plans outlined in the BLM's 2015 Grand Junction and Colorado River Valley RMPs to leave the vast majority of the planning areas open to oil and gas leasing. Existing leases and wells negatively impact many aspects of public lands' resources, including ecosystem health, wildlife habitat, air quality, recreation quality, and the health of water resources. Even with immediate cessation of federal leasing, these negative impacts would continue for many years to come. The BLM is responsible for mitigating environmental impacts associated with oil and gas development. Compensatory mitigation to offset the impacts of existing and future oil and gas development could entail closing portions of the planning area to future leasing.

OIL AND GAS DEVELOPMENT IN THE REGION

The mining sector (which includes oil, gas, coal, and other forms of mining) provides a small portion of the region's total employment. In 2020 the region had a total of 125,210 jobs. The mining sector provided 2% of these jobs, while the services, non-services, and government sectors provided 69%, 16%, and 13%, respectively (see Figure 2).² Specifically, in 2020 the leading employers were government, health care & social assistance, and retail trade; these three sectors provided nearly 40% of the region's 2020 total employment.

Figure 2. Regional Employment 2020 (Mesa & Garfield Counties)



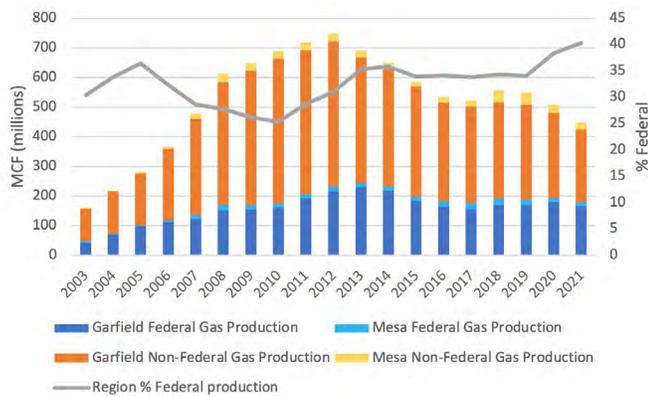
Source: Headwaters Economic Profile System – Department of Commerce and Bureau of Economic Analysis

Garfield County is one of the nation's top 25 natural gas-producing counties and dominates natural gas production in the region of analysis.³ Although the majority of the region's land is managed by the federal government, since 2003 federal lands have accounted for only 30% to 40% of the region's total natural gas production and 20% to 40% of the region's total oil production (see Figure 3 and Figure 4). The region's production levels of oil and natural gas peaked in 2012 and have steadily declined since.

² Data obtained from Headwaters Economics Economic Profile System: <https://headwatersecconomics.org/apps/economic-profile-system/>

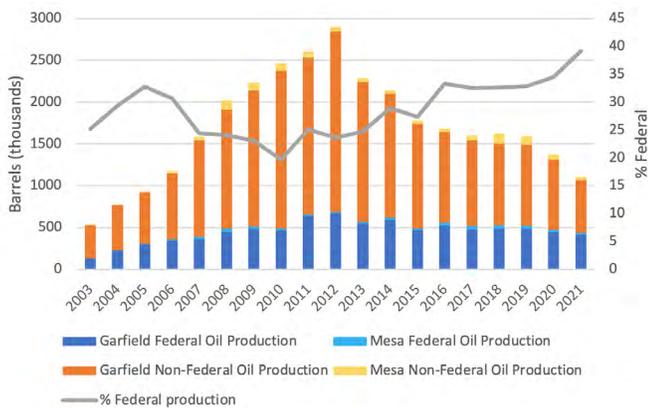
³ Raimi, D. (2021). *Mapping County-Level Exposure and Vulnerability to the US Energy Transition*. RFF Working Paper 21-36. Resources for the Future. <https://www.rff.org/publications/working-papers/mapping-county-level-exposure-and-vulnerability-to-the-us-energy-transition/>

Figure 3. Regional Natural Gas Production



Source: Office of Natural Resources Revenue

Figure 4. Regional Oil Production 2003-2021



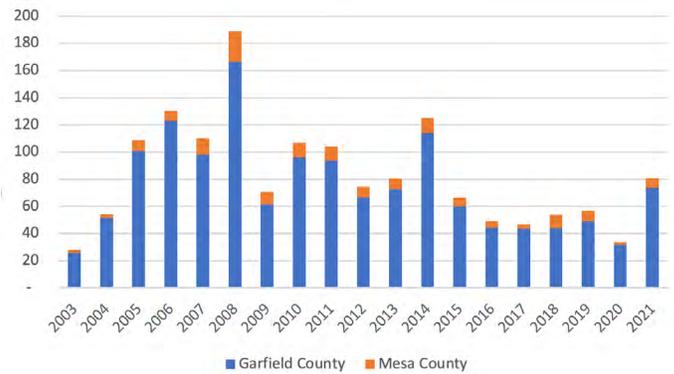
Source: Office of Natural Resources Revenue

In addition to providing employment opportunities for some of the region’s residents, the oil and gas industry also pays royalties and taxes that result in revenues for the two counties’ governments. The federal government collects royalties from oil and gas production on federal lands. Due to the boom-and-bust cycles of oil and gas production, royalties fluctuate significantly; between 2003 and 2021 oil and gas royalties associated with production from the region’s federal lands averaged \$83 million per year but varied between \$28 and \$189 million (Figure 5).⁴ Approximately half of federal royalties are distributed back to the states

4 Royalties (and all other dollar amounts herein) are reported in constant 2021 dollars. Nominal dollar amounts are converted to constant dollars using the Bureau of Labor Statistic’s Consumer Price Index Research Series (CPI-U-RS), available here: [Current versus Constant \(or Real\) Dollars | US Census](#).

of origin. Thus, between 2003 and 2019 average annual royalties paid to the State of Colorado due to production in Garfield and Mesa Counties were \$41 million (between \$14 and \$95 million each year), a portion of which was subsequently distributed to the associated counties.

Figure 5. County Oil & Gas Federal Royalties (2021 \$M)



Source: Office of Natural Resources Revenue

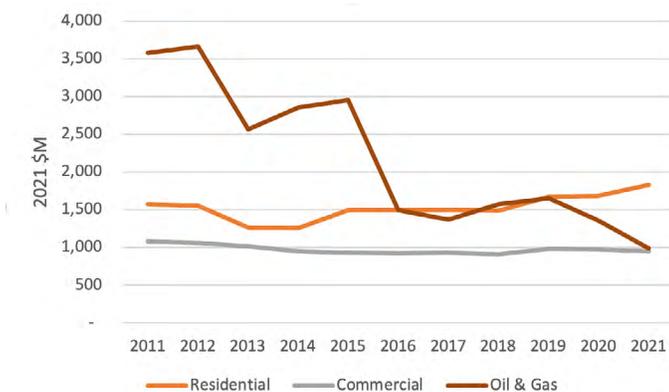
The State of Colorado imposes a 2% to 5% severance tax on oil and gas extraction (the rate depends on the gross income of the value of the extracted oil and gas).⁵ However, the effective severance tax rate is notably lower due to Colorado’s ad valorem tax credit and stripper well tax exemption.⁶ Research conducted by the Colorado Legislative Council Staff found that between 2008 and 2016 the effective severance tax rate ranged from 0.2% to 2.1%, yielding severance tax revenues⁷ for the State that ranged from \$24 to \$264 million (\$28 to \$332 million in constant 2021 dollars).⁸ In FY2017 industry tax credit claims were so high that Colorado collected no severance taxes and in fact had to refund more than \$14 million to oil and gas in-

5 Additional severance tax information can be found here: [Severance Tax | Colorado General Assembly](#).
 6 The ad valorem tax credit is equal to the ad valorem tax on production, while the stripper well tax exemption exempts up to 15 barrels of oil or 90,000 cubic feet of gas per producing day.
 7 Fifty percent of severance tax revenues are distributed to the Department of Natural Resources, and the other 50% is distributed to the Department of Local Affairs (DOLA). Seventy percent of the portion distributed to DOLA is put into a fund from which loans and grants are provided to local governments impacted by resource extraction. The remaining 30% of the DOLA portion is distributed to local governments based on factors that measure the level of oil, gas, and mining activity.
 8 Silbaugh, L. (2018, January 12). Effective severance tax rates on oil and gas. Colorado Legislative Council Staff Memorandum. <https://leg.colorado.gov/publications/effective-severance-tax-rates-oil-and-gas>

dustry taxpayers.⁹ In total, Mesa and Garfield Counties receive some portion of 15% of the annual severance taxes collected by the State, where the portion depends on the level of oil and gas activity within their boundaries compared to that within other Colorado counties. Between 2008 and 2016, Mesa and Garfield Counties received a portion of \$4.3 to \$49.8 million. In addition, they may have received additional loans or grants.

The oil and gas industry is also subject to ad valorem taxes imposed by counties and local municipalities. Although information regarding ad valorem taxes on oil and gas production is not readily available, information regarding assessed values is provided on county assessor websites.¹⁰ As depicted in Figure 6 below, the region's oil and gas assessed value dramatically declined after 2015, while the assessed value of residential property has risen almost 50% since 2014. Despite significant differences in assessment rates applied to residential and oil & gas property (for example in Garfield County during 2021, the assessment rates were 87.5% for oil and gas production, 29% for oil and gas property, and 7.15% for residential property), in 2019 the assessed value of residential properties surpassed that of oil & gas properties.

Figure 6. Regional Assessed Values



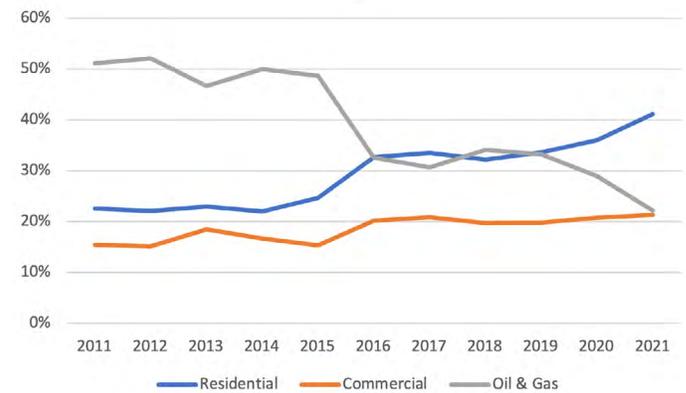
Source: Garfield County Assessor's Office ([Garfield County Assessor - Abstract of Assessment](#)) and the Mesa County Assessor's Office ([Mesa County Assessor - Summary of Levies](#))

9 Colorado Office of the State Auditor. (2020). Department of Natural Resources, Department of Revenue: Severance Taxes. [Severance Taxes Performance Audit | CO State Auditor](#)

10 Assessed value data was obtained from the Garfield County Assessor's Office ([Garfield County Assessor - Abstract of Assessment](#)) and the Mesa County Assessor's Office ([Mesa County Assessor - Summary of Levies](#)).

Between 2011 and 2015, oil and gas represented approximately 50% of the region's total taxable assessed value.¹¹ Since then, the assessed value of oil and gas has come to represent a smaller percent of the region's total taxable assessed value; by 2021 oil and gas represented only 22% of the region's total taxable assessed value. In 2021 oil and gas property taxes comprised less than 10% of Mesa County property taxes but 40% of Garfield County property taxes.¹² The relative importance of residential property taxes has increased since 2015, both as a direct consequence of declining oil and gas assessed values and due to rising residential property assessed values.

Figure 7. Percent of Region Total Taxable Assessed Value



Source: Garfield County Assessor's Office ([Garfield County Assessor - Abstract of Assessment](#)) and the Mesa County Assessor's Office ([Mesa County Assessor - Summary of Levies](#))

Relatively high assessment rates for oil and gas creates a strong relationship between the actual oil and gas value and the oil & gas assessed taxable value. In contrast the relatively low assessment rate for residential property creates a weak relationship between the actual value of residential properties and residential property assessed taxable value.¹³

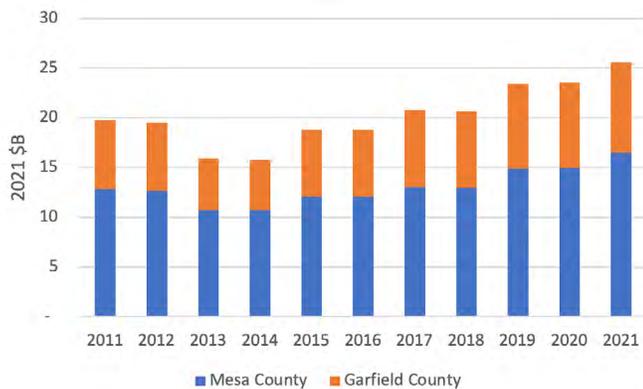
11 The oil and gas assessed taxable value data presented herein are slightly inflated due to how assessed taxable values are reported by the Mesa County Assessor. Because details required to separate oil and gas from other natural resources are not always provided, yet oil and gas constitutes most of the region's natural resource assessed values, we report all Mesa County natural resource assessed values as oil and gas assessed values.

12 Colorado Fiscal Institute. (2023). *Clearing the Air: The Real Costs and Benefits of Oil and Gas for Colorado*. <https://www.coloradofiscal.org/costs-benefits-oil-and-gas-colorado/library/reports/>

13 Assessment rates are set by the State Legislature.

The notably different assessment rates obfuscate differences in changes in actual residential and oil & gas values. We use assessment rates from 2011-2021 to estimate actual residential values, which have markedly increased since 2014 (see Figure 8). These calculations assume all residential properties are single-family homes (which have a slightly higher assessment rate than multi-family homes), and therefore somewhat underestimate total residential values. The region's estimated total residential property values increased more than 60% between 2014 and 2021.

Figure 8. Regional Estimated Residential Property Values



Source: Garfield County Assessor's Office ([Garfield County Assessor - Abstract of Assessment](#)) and the Mesa County Assessor's Office ([Mesa County Assessor - Summary of Levies](#))

Though oil and gas operations generate local, federal, and state tax revenues, the revenues are not a net benefit to the State when they are used to pay for regulating the industry, cleaning up pollution resulting from oil and gas industry operations, or compensating for losses caused by oil and gas development. Furthermore, taxes are often self-reported and are thus subject to error and underpayment, as demonstrated by the findings of a recent severance tax audit conducted by the Colorado Office of the State Auditor.¹⁴ The audit found that between 2016 and 2018 oil and gas operators failed to file more than 50,000 monthly well reports and filed more than 1,000 incomplete reports, resulting in sizable uncollected revenues.

¹⁴ Colorado Office of the State Auditor. (2020). *Department of Natural Resources, Department of Revenue: Severance Taxes. Severance Taxes Performance Audit | CO State Auditor*

Although the oil and gas industry provides employment and tax revenues, it is also responsible for significant and numerous health and environmental costs. While many such costs have not been quantified, a new report by the Colorado Fiscal Institute (CFI) estimates that between 2020 and 2030 more than \$13 billion in economic damages will result from CO₂ emissions emitted by Colorado's oil and gas industry.¹⁵ The CFI estimate assumes CO₂ emissions targets set by 2019 HB1261 are successfully met and uses the social cost of carbon set forth in Colorado law (\$68 per ton, which is on the low end of the \$61-\$169 social cost of carbon estimates derived by Resources for the Future¹⁶). In the event emissions reductions established by HB1261 are not met, economic damages will of course be higher.

TRANSITIONING THE REGION AWAY FROM FEDERAL OIL AND GAS

Oil and gas production on federal lands has certainly played a contributing role in the region's economic development during the 21st century, especially as unconventional drilling helped ramp up production in the late 2000s. However, findings from a county-level analysis of environmental vulnerabilities suggest that the region has suffered from environmental degradation due to the oil and gas industry – Garfield County has been subject to large numbers of toxic water discharges and high ambient ozone levels.¹⁷ Curtailing the region's reliance on the oil and gas industry would reduce upstream & downstream pollution and climate im-

¹⁵ Colorado Fiscal Institute. (2023). *Clearing the Air: The Real Costs and Benefits of Oil and Gas for Colorado*. <https://www.coloradofiscal.org/costs-benefits-oil-and-gas-colorado/library/reports/>

¹⁶ Rennert, K. et al. (2021). *The Social Cost of Carbon: Advances in Long-Term Probabilistic Projections of Population, GDP, Emissions, and Discount Rates*. RFF Working Paper 21-28. Resources for the Future. <https://www.rff.org/publications/working-papers/the-social-cost-of-carbon-advances-in-long-term-probabilistic-projections-of-population-gdp-emissions-and-discount-rates/>

¹⁷ Raimi, D. (2021). *Mapping County-Level Exposure and Vulnerability to the US Energy Transition*. RFF Working Paper 21-36. Resources for the Future. <https://www.rff.org/publications/working-papers/mapping-county-level-exposure-and-vulnerability-to-the-us-energy-transition/>

pacts, and would facilitate the development of a robust and more sustainable recreation- and natural amenity-based economy. In this section we explore whether the region is well situated to transition away from federal oil and gas production and develop a healthy economy free of dependency on the boom-and-bust cycle of oil and gas and its associated pollution.

There are several interrelated issues of concern when a community faces the prospect of transitioning away from the oil and gas industry, including ensuring sufficient tax revenues and employment opportunities and developing a robust economy capable of thriving in the long term. Although numerous towns and regions that have been subject to the boom-and-bust cycles of extraction industries would be hard pressed to address these concerns, Mesa and Garfield Counties appear well positioned to successfully navigate these challenges. Some factors and characteristics that will be central to Mesa and Garfield Counties' success include the presence of natural amenities and protected areas within the counties' borders to draw and support a natural amenity- and recreation-based economy, the small workforce employed by the oil and gas industry in the area (i.e., the industry is not a major employer in the region), and the region's proximity to Denver, Salt Lake City, Aspen, and Vail (and thus proximity to a multitude of urban amenities,

including two international airports). We explore these areas of concern in detail below.

TAX REVENUES

While royalties, ad valorem taxes, and severance taxes would be missed from federal oil and gas production, there are ways to make up for these losses, including payments in lieu of taxes (PILTs) and rising property, lodging, and sales taxes stemming from tourism and amenity migration. When considering tax revenues, it is important to consider not only the level of the tax revenues but also expected future trends (whether revenues are expected to increase or decrease and how rapidly) and consistency of revenues (severance taxes are a prime example of an inconsistent revenue source).

PILTs are federal payments to local governments to help offset losses of property taxes due to the presence of nontaxable federal lands within their borders. Payments are a function of federal acreage, prior year federal revenue-sharing payments, inflation, and population. Since 2013 the region has consistently received annual PILTs of approximately \$7 million.¹⁸

Furthermore, the rise in residential property values estimated above (Figure 8) may result in

¹⁸ Data obtained from Headwaters Economics Economic Profile System: <https://headwaters-economics.org/apps/economic-profile-system/>

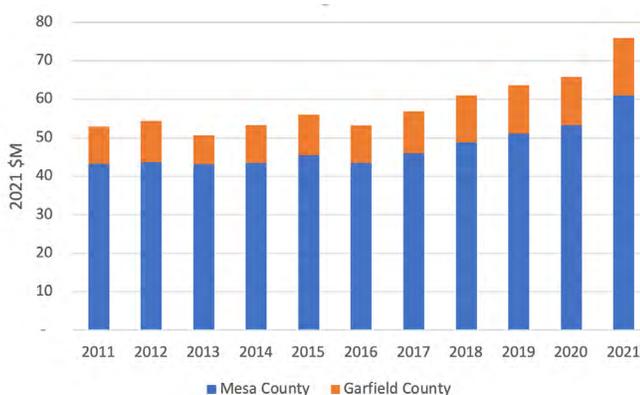


Western Colorado BLM Planning Area

higher residential property tax revenues.¹⁹ With a population more than double that of Garfield County, it is not surprising that the total value of Mesa County's residential properties is considerably higher. Residential property values are rising somewhat more rapidly in Garfield County where the city of Glenwood Springs and town of Carbondale are within an hour and a half drive of both Aspen and Vail and provide lower-cost housing options. The upward trend in residential property tax revenues is expected to continue due to population growth and amenity migration.

In addition to its impacts on residential property taxes, amenity migration also leads to increased sales tax revenues. Sales tax revenues are also positively impacted by tourism. Mesa and Garfield Counties both provide a history of annual sales tax revenues, which we summarize in Figure 9.²⁰ Since at least 2011, sales tax revenues have steadily increased such that between 2011 and 2021 the region's sales tax revenues increased almost 45%. Although Mesa County sales tax revenues are notably larger than those of Garfield County, sales tax revenues have been increasing more rapidly in Garfield County.

Figure 9. Regional Sales Tax Revenues



Source: [Mesa County Financial Services - Sales Tax](#) and [Garfield County Finance - Sales Tax](#)

¹⁹ An amendment to the State of Colorado Constitution fixed all assessment rates save for the residential assessment rate, which is updated every two years and set to keep the percent of property taxes paid by homeowners equal to that paid by businesses. Thus, a rise in residential property values will only result in higher property tax revenues if business property tax revenues have increased.

²⁰ Mesa County charges a 2% sales tax and provides revenue data here: [Mesa County Financial Services - Sales Tax](#). Garfield County charges a 1% sales tax and provides revenue data here: [Garfield County Finance - Sales Tax](#).

EMPLOYMENT

Given that the mining sector employs approximately 2% of the region's workforce and that roughly 40% of oil & gas production occurs on federal lands, we estimate that approximately 1% (2% * 40% ≈ 1%) of the region's workforce is dependent on federal oil & gas production for their employment. Thus, if no federal oil and gas production were to occur in the region, we estimate that perhaps 1% of the workforce would be at risk of losing employment. Employment impacts could in part be offset by transitioning the impacted workforce to plugging and cleaning up abandoned wells; the 2021 Bipartisan Infrastructure Law provides funding for the Federal Orphaned Well Program.²¹ Employment impacts could be further offset by energy transition jobs focused on capturing methane from existing wells & infrastructure (an important factor in reducing the emissions of climate-warming greenhouse gases and the focus of the Department of Interior's proposed new methane rules²²) and renewable energy development.

Even without a concerted effort to transition oil and gas jobs to cleanup and renewable energy jobs, there is evidence that the region is not overly dependent on the oil and gas industry for employment. In addition to employing only 2% of the workforce, the oil and gas sector does not appear to sufficiently influence the overall economy as to impact the region's unemployment rate (see Figure 10 and Figure 11). That is, there is no significant correlation between changes in oil & gas production levels and employment levels. A 2020 article in *The Colorado Sun* notes a falling unemployment rate and increasing job numbers despite layoffs within the oil and gas sector,²³ providing further

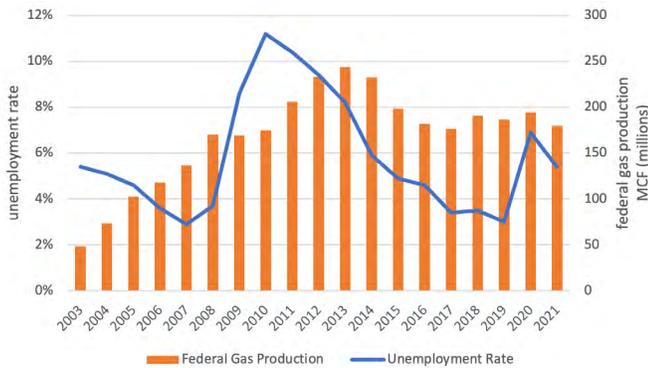
²¹ U.S. Department of the Interior Bureau of Land Management. (2022, August 18). *BLM announces \$1.1 million in contract awards to plug orphaned wells in Utah and California*. <https://www.blm.gov/press-release/blm-announces-11-million-contract-awards-plug-orphaned-wells-utah-and-california>

²² U.S. Department of the Interior Bureau of Land Management. (2022, November 28). *Interior Department takes action to reduce methane releases on public and tribal lands* [Press release]. <https://www.blm.gov/press-release/interior-department-takes-action-reduce-methane-releases-public-and-tribal-lands>

²³ Blevins, J. (2020, February 14). *The Western Slope's outdoor recreation economy had*

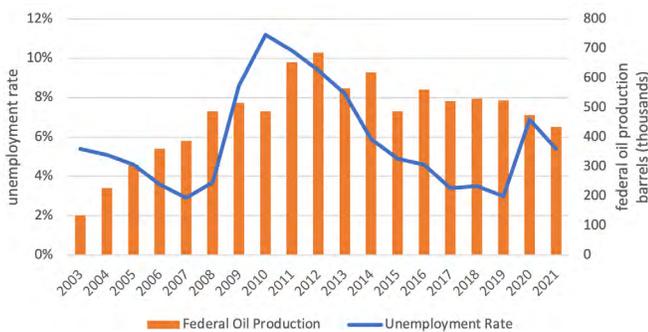
evidence for a weak or nonexistent correlation between oil & gas and the region's unemployment rate. Additionally, the national amount of federally leased oil and gas acres onshore has been shown to have zero correlation with overall oil and gas employment.²⁴

Figure 10. Regional Unemployment & Federal Gas Production



Source: Headwaters Economics Economic Profile System and Office of Natural Resources Revenue

Figure 11. Regional Unemployment & Federal Oil Production



Source: Headwaters Economics Economic Profile System and Office of Natural Resources Revenue

While the oil and gas industry provides only a small portion of the region's total jobs, the jobs provided by the industry are higher paying than jobs in other industries. Average annual wages paid for jobs in the region's oil and gas industry are 82% higher than wages paid by other industries

everything but a bachelor's degree. Colorado Mesa is changing that. *The Colorado Sun*. <https://coloradosun.com/2020/02/14/outdoor-recreation-bachelor-degree-colorado-mesa/>

24 Conservation Economics Institute. (2021). *Economic effects of pausing oil and gas leasing on federal lands*. https://www.conservacionecon.org/files/ugd/5fcd209_7856e482cb704aee-af50e85d25109de7.pdf?index=true.

in the region. However, research has shown major problems associated with oil and gas employment, despite high paying wages. Loomis et al.²⁵ found that the risk of fatality in mining, inclusive of oil and gas labor, is ten times greater than the risk of fatality in the leisure and hospitality industry. Likewise, the risk of non-fatal injury was 2.5 times greater for mining in Montana as compared to the leisure and hospitality industry. In essence, the oil and gas industry has to offer higher wages to account for higher risks associated with the industry's jobs, and the higher wages do not translate into improved well-being.

Additionally, oil and gas production are dominated by a transient workforce that are not as invested in the long-term prosperity of adjacent communities. To wit, over 60% of gas field employees in Wyoming were not local residents.²⁶ Oil and gas production is also dominated by out-of-region corporations, where profits are leaked from the front-line communities dealing with the local pollution and increased truck traffic. McDonald et al.²⁷ estimated that 73% of the economic activity in Colorado's Piceance Basin (including Mesa and Garfield Counties) leaked out of the basin and 79% of the associated oil and gas extraction revenues left the State of Colorado.

AMENITY MIGRATION, TOURISM, AND RECREATION

Outdoor recreation and amenity development play significant roles in Colorado's economy, and the economies of Mesa and Garfield Counties are no exceptions. The presence of natural amenities, investments in an outdoor economy, and access to urban areas are instrumental not only in attracting

25 Loomis, J. B., Kerkvliet, J., & Weiler, S. (2007). Are High Wage Jobs Hazardous to Your Health? The Myth That Attracting Higher Paying Extractive Industry Jobs Is a Desirable Community Economic Development Strategy. *Western Economics Forum*, 6(2), 1-5. <https://ageconsearch.umn.edu/record/92859/files/0602002.pdf>

26 Bureau of Land Management. (2006). *Draft Supplemental Environmental Impact Statement Pinedale Anticline Oil and Gas Exploration and Development Project Sublette County, Wyoming, Volume 1 of 2*. <https://www.govinfo.gov/content/pkg/FR-2006-12-15/pdf/E6-21309.pdf>

27 McDonald, L. A., Bender, H. W., Hurley, E., Donnelly S., & Taylor, D. (2007). *Oil and Gas Economic Impact Analysis*. Colorado Energy Research Institute, Colorado School of Mines, Golden, CO.

tourists and outdoor recreationists, but also in attracting amenity migrants – people relocating for quality-of-life purposes. Recent research illustrated that rural Western counties with high levels of public lands with greater protection were positively associated with greater migration rates and that oil and gas dependent counties in the rural West were negatively associated with migration rates from 1980-2010.²⁸ Public lands attract visitors, but also attract entrepreneurs, retirees, and businesses wishing to permanently relocate to the region.



The Palisade in the BLM Planning Area (Courtesy of Jon Mullen/Ecostock)

Concerted efforts are underway to promote the region to recreationists – since its inception in the 1990s the Outdoor Recreation Coalition has worked to promote outdoor recreation as a means of developing a healthy rural economy. Members of the local business community were instrumental in the creation of an outdoor recreation industry studies degree at Colorado Mesa University that commenced in 2020.²⁹ Grand Junction's new 140-acre business park (Riverfront at Las Colonias Park) is a recent effort to attract outdoor recreation businesses to the area. The Riverfront at Las Colonias Park is unlike other business parks; because Las Colonias includes a lake, climbing walls, ropes courses, bike tracks, and campsites, it offers a unique

28 Hjerpe, E., Hussain, A. & Holmes, T. (2020). Amenity Migration and Public Lands: Rise of the Protected Areas. *Environmental Management*, 66, 56-71. <https://doi.org/10.1007/s00267-020-01293-6>

29 Blevins, J. (2020, February 14). The Western Slope's outdoor recreation economy had everything but a bachelor's degree. Colorado Mesa is changing that. *The Colorado Sun*. <https://coloradosun.com/2020/02/14/outdoor-recreation-bachelor-degree-colorado-mesa/>

testing ground for outdoor recreation products. Recent trends in employment, unemployment, tax revenues, and property values suggest these and other efforts are meeting with success.

Between 2001 and 2019, employment in the region's arts, entertainment, and recreation industry grew faster than employment in most other industries. Rapid employment growth has also occurred in the education, real estate, health care, financial, and company management industries. These industries are high wage infilling sectors that grow as amenity-based development occurs, steadily growing and diversifying the regional economy. Other notable industries in the region include aerospace/aviation, agribusiness (including more than 30 wineries and Palisade peaches), and tech (geospatial, cybersecurity, and software development). The trend toward remote work (boosted by the COVID-19 pandemic) has helped fuel the growth of tech and other industries in the area.

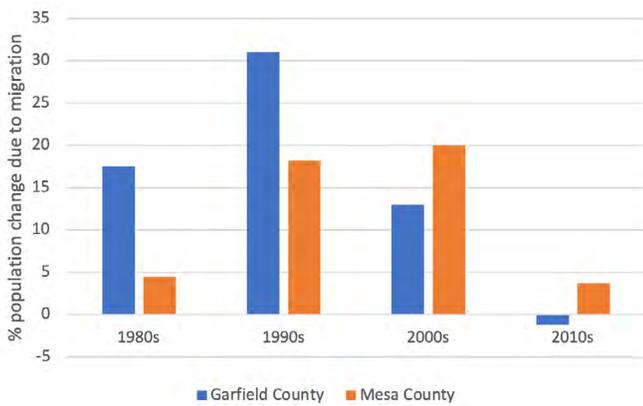
Easy access via air and vehicle travel is an important factor in the successful promotion of the region as a destination for tourists, outdoor recreationists, entrepreneurs, retirees, and businesses. As noted previously, Grand Junction is equidistant to Denver and Salt Lake City International Airports – both are within a four-and-a-half-hour drive – and there are several regional airports that provide easy and affordable access to other large airports. Interstate 70 provides easy access from Garfield and Mesa Counties to Denver and Utah.

Amenity migration peaked in the American West during the 1990s but continues to be a source of growth in some areas, particularly after the increased mobility resulting from the COVID-19 pandemic. Recent research found that Mesa and Garfield Counties rank 62nd and 36th, respectively, out of 356 Western rural counties in terms of highest average in-migration rates.³⁰ The levels of amenity development in the counties (inclusive of migration rates, housing prices, and seasonal housing)

30 Hjerpe, E., Hussain, A. & Holmes, T. (2020). Amenity Migration and Public Lands: Rise of the Protected Areas. *Environmental Management*, 66, 56-71. <https://doi.org/10.1007/s00267-020-01293-6>

rank 100th and 50th out of 356 rural Western counties, placing them in the top 28% and 14%, respectively, of Western rural counties with the highest levels of amenity development. This indicates the region has been a destination for amenity migrants and that housing prices are still somewhat affordable (at least in Mesa County) relative to the most amenity developed rural counties.³¹ However, migration data for the 2010s suggest a slowing of amenity migration to the region (Figure 12).

Figure 12. Net Migration Rates per Decade



Source: [Net Migration Patterns for US Counties | University of Wisconsin](#) for the 1980s, 1990s, and 2000s and from [Economic Profile System | Headwaters Economics](#) for the 2010s.

Residents are charged property taxes (in addition to sales taxes) that increase as the economic demand for relocating to Mesa and Garfield Counties increases. Thus, amenity migration and development exponentially boost property taxes by increasing the market price for living in Garfield and Mesa Counties. Limiting oil and gas development on federal lands will further increase the economic demand for living in Garfield and Mesa Counties by boosting conservation and outdoor recreation opportunities.

SUMMARY

Mesa and Garfield Counties have rich natural resources at their disposal with which to develop a robust, healthy, and sustainable economy. Oil and gas are some of the resources the region has historically relied on for its economic development, but in recent years the boom-and-bust cycle of the oil and gas industry and the associated environmental and public health concerns have led to increased interest in developing a more diversified economy that includes amenity development, recreation, renewable energy, and high-wage service industries. The region's numerous protected areas, its convenient access to Denver, Salt Lake City, the Denver and Salt Lake City International Airports, and its proximity to Aspen and Vail all increase the likelihood the region can successfully transition away from oil and gas toward a more sustainable economy.

Although the oil and gas industry provides higher-paying jobs than other industries, it provides only 2% of the area's total jobs. Furthermore, there is evidence that the oil and gas industry does not drive overall employment levels in the region; the last decade of declining oil and gas production has not been associated with rising unemployment levels. As the area transitions away from oil and gas, employment impacts can in part be offset through cleanup and mitigation jobs (via the Federal Orphaned Well Program and implementation of the BLM's newly proposed methane rules) and renewable energy development jobs.

The oil and gas industry also contributes to the region's economy via taxes and royalties. Replacing County revenues stemming from oil and gas production with revenues from other sources will be an important part of a successful transition, especially for Garfield County. As noted previously, it is important to consider the level of tax revenues as well as expected future trends (whether revenues are expected to increase or decrease and how rapidly) and consistency of revenues. Our research suggests that assessed values associated with oil and gas have been steadily and rapidly declining while residential assessed values

31 *Ibid.*

have been steadily increasing. This trend is expected to continue as the region further transitions away from oil and gas and toward a more diverse economy. Recently PILTs have been a steady and consistent revenue source for the region and are expected to remain so. Historical data show that sales and lodging taxes have provided a consistent and steadily growing revenue stream. The non-oil-and-gas revenue sources the region will need to rely upon have been consistent and steadily growing.

Contrary to public scoping comments submitted by Garfield and Mesa County Commissioners, our analysis indicates that imposing greater limits on which BLM lands are available for oil & gas leasing and greater accounting for the social costs of carbon (and methane), would have a minimal fiscal effect for Mesa and Garfield Counties and would create a rising tide for all other economic activities. Likewise, our results show that regional employment would be minimally affected if federal leasing of oil and gas in the Piceance Basin was reduced.

Oil and gas production has been steadily decreasing in the region for the last decade under various Administrations and under various changes in oil and gas market prices. This indicates waning economic demand for new oil and gas leases, especially on federal lands, and suggests that remaining BLM lands on the West Slope of Colorado that have not been leased for oil and gas are largely uneconomic prospects and better suited for conservation and non-extractive uses. The regional oil and gas industry is already planning around the steadily decreasing economic demand for Piceance Basin oil and gas, as Halliburton laid off 178 workers at its Grand Junction office in late 2019, saying it was a permanent employee loss.³² County leaders and local elected officials concerned with regional economic development should also follow suit in understanding the declining importance of Colorado West Slope oil and gas production and begin planning for a more environmentally and economically sustainable future.

³² Webb, D. (2019, October 9). Halliburton lays off 178 from Grand Junction office. *The Daily Sentinel*. https://www.gjsentinel.com/news/western_colorado/find-out-which-oil-company-laid-off-workers-in-it/article_a34e7286-ea58-11e9-be50-20677ce06c14.html



Dolores Point in the BLM Planning Area (Courtesy of Jon Mullen/ECOSTOCK)