



MOVING FORWARD

UTAH'S FUTURE BEYOND COAL

A REPORT BY
A·B·U
EDUCATION
FUND

EXECUTIVE SUMMARY


What does the future hold for Utah's public lands, including its National Monuments? Should they be used to create jobs, or is it more important to safeguard the environment?

As industry and employment data show, it is not an either/or proposition: Safeguarding the environment has proven to be a singularly effective way to create jobs in Utah. Our large and growing outdoor-recreation economy dwarfs the declining coal industry, although coal is most often proposed as a way to grow jobs on public lands. **In fact, outdoor recreation provides 76 times as many jobs in Utah as coal, while tourism alone brings in \$850 million more than coal in annual state and local tax revenue.**

The outdoor recreation economy extends beyond tourism, however, to include the manufacture, marketing, and sale of gear, vehicles, equipment, and clothing used in outdoor activities. It draws new businesses to Utah in a pattern of growth that has outperformed most other job sectors.

The coal industry, in contrast, has suffered a decades-long decline with decreases in demand, the rise of alternative fuels including natural gas, and lower employment as automation replaces workers. Utah's coal industry has mirrored national trends with the closing of mines and coal-fired power plants. Because the demand is dwindling, rather than the supply, proposals to mine coal that lies under the Grand Staircase-Escalante National Monument cannot solve the problem. It was tried in the three decades before the monument designation, and it failed each time for a variety of reasons that included the immense logistical problems posed by transporting coal from a vast, remote region without adequate roads or other necessary – and expensive – infrastructure.



A woman and two children are hiking on a dirt path through a slot canyon. The walls are made of smooth, reddish-brown sandstone. Green trees and bushes are growing in the canyon, and sunlight filters through the opening, creating a bright area in the distance. The woman is wearing a blue tank top and green shorts. The children are wearing green and blue clothing. The overall scene is bright and scenic.

The decline of coal does not have to mean the demise of hope for Utah’s “coal country,” however, as the transition from a coal-based economy presents a variety of opportunities for the region. Variety is the key, with diversified economies offering the greatest stability. Solar energy is likely to be part of that mix; with Utah ranked No. 2 in the nation for solar capacity installed per capita and No. 6 for total solar capacity installed, **the solar industry created more new jobs in the state in 2016 than the total employed by coal.**

The land itself stands as the region’s greatest economic asset, with its abundant beauty and seemingly limitless potential for outdoor recreation. Safeguarding that beauty, and maximizing the economic potential of outdoor recreation – including the goods and services that support it – can only benefit the quality of life and economic growth that bring Utah long-term prosperity.

A CHOICE BETWEEN JOBS AND THE ENVIRONMENT

The debate over whether to preserve, modify, or revoke the national monument designations of Bears Ears and Grand Staircase-Escalante has often been framed as a choice between jobs and the environment. Utah's public lands may be good for the soul, the argument often goes, but they're not good for the local economy; coal mines are needed to create jobs.

In fact, the opposite is true: As of 2013, the outdoor recreation industry had created 122,000 direct jobs in Utah,¹ while coal mining created only 1,605.² That is 76 times as many jobs in outdoor recreation as in coal, a gap that reflects the diverging prospects of the two industries.

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WHAT, EXACTLY, IS THE OUTDOOR RECREATION INDUSTRY?

What, exactly, is the outdoor recreation industry? It includes tourism and hospitality, of course, but it goes far beyond that. Think of all the outdoor activities people enjoy and spend money on: hunting, fishing, climbing, hiking, camping, skiing, biking, boating, and ATV riding, to name just a few. Now think of the gear, and vehicles, and equipment, and clothing people use for those activities. Now think of the manufacture, marketing, and sale of all those products. They are all part of the industry.

CAMPING

- RV campsite
- Tent campsite
- Rustic lodge

WATER SPORTS

- Kayaking
- Rafting
- Canoeing
- Surfing
- Scuba diving
- Boating

OFF-ROADING

- ATV
- ROV
- Dune buggy
- 4x4

FISHING

- Fly
- Non-fly

SNOW SPORTS

- Cross-country skiing
- Downhill skiing
- Nordic skiing
- Snowboarding
- Snowshoeing
- Telemark skiing

WHEEL SPORTS

- Bicycling (road)
- Bicycling (mountain)
- Skateboarding
- Rollerblading

HUNTING

- Shotgun
- Rifle
- Bow

TRAIL SPORTS

- Day hiking
- Backpacking
- Rock & ice climbing
- Trail running
- Mountaineering

WILDLIFE VIEWING

MOTORCYCLING

- On-road
- Off-road

“Utah’s outdoor recreation industry is a significant and growing part of the state’s economy, contributing well-paying jobs for highly skilled workers and a tax base that funds essential state services,” noted a publication from the Utah Governor’s Council on Balanced Resources. “Our close access to outdoor recreation contributes to a quality of life that ... is particularly attractive to companies and their employees looking to relocate.”³

In fact, the outdoor recreation industry provides jobs for engineers, marketing specialists, product developers, sales professionals, apparel designers, production specialists, warehouse managers, information-technology workers, retailers, ski instructors, river guides and recreational-vehicle mechanics - again, to name just a few - in addition to the many hotel and restaurant employees.

So how do the outdoor recreation industry's prospects stack up against those of coal, including the much-vaunted Kaiparowits Plateau coal at the center of the controversy over the Grand Staircase-Escalante National Monument?

THE NUMBERS TELL THE STORY



WAGES & SALARIES

OUTDOOR RECREATION INDUSTRY

Generates \$3.6 billion in wages and salaries annually in Utah, according to Outdoor Industry Association research⁴

COAL

Generates \$132.8 million in labor income annually in Utah, according to the Utah Governor's Office of Energy Development⁵



STATE & LOCAL REVENUE

OUTDOOR RECREATION INDUSTRY

Generates \$890 million annually in state and local tax revenue from tourism, which is just one segment of this industry, according to the Utah Governor's Council on Balanced Resources⁶

COAL

Generates \$40 million annually in state and local revenue, according to the Utah Governor's Office of Economic Development⁷

INDUSTRY GROWTH

OUTDOOR RECREATION INDUSTRY

Increased 5% per year even during the recession, "outperforming most other job sectors," according to the Utah Governor's Council on Balanced Resources⁸

COAL

Decreased 8.7% in the Natural Resources industry, which includes coal, according to the 2016 Economic Report to the Governor.⁹ "Output [in Utah] has been declining and mines have been shutting down because demand from the electric power sector has decreased," according to the U.S. Energy Information Administration, which notes that "California, which historically was Utah's largest coal customer, is in the process of eliminating coal use."¹⁰

COAL: STATE OF THE INDUSTRY

The coal industry in Utah, as in the rest of the U.S., has been in decline for years, a downward trend that most experts say is irreversible.

The main reasons for this:



**AUTOMATION
REPLACING WORKERS**



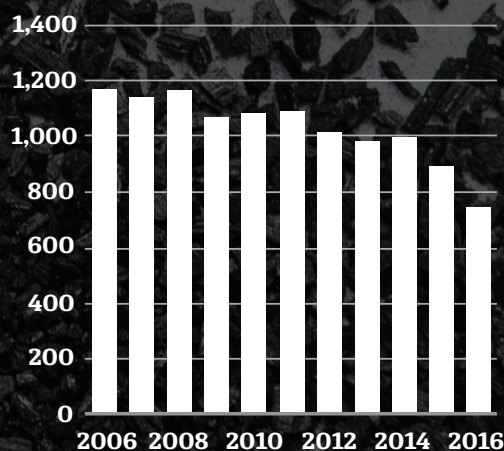
**DECREASE
IN DEMAND**



**CHEAPER
ALTERNATIVE FUELS**

The national numbers are grim. About 50 coal companies in the U.S. have declared bankruptcy since 2012, as noted by the Institute for Energy Economics and Financial Analysis.¹¹ Coal production in 2016 was down 17 percent from the previous year, reaching its lowest level since 1978, according to the U.S. Energy Information Administration;¹² coal-industry employment was down 28 percent between 2011 and 2015.¹³

U.S. coal production, 2006-16
million short tons



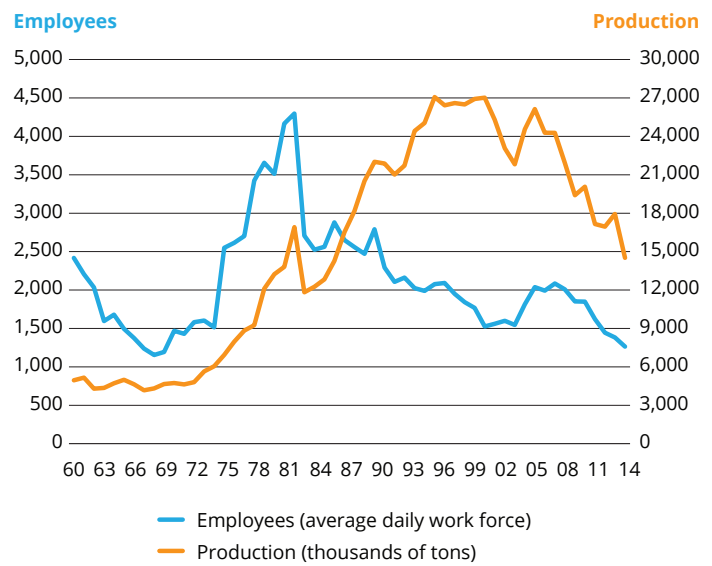
Source: U.S. Energy Information Administration,
Coal Data Browser

Utah mirrors the national trends in production, employment, and business outlook. Among the key findings of a report published this year by the non-profit, non-partisan Utah Foundation: Utah’s coal production dropped to its lowest point in 30 years in 2015, decreasing 46 percent since 2001. Corresponding to this, jobs dropped 17 percent.¹⁴

Even more telling for the industry: amid intermittent and permanent mine closures, the Utah Foundation report found, “Of the 22 [Utah] mines that have produced coal since 2001, only six produced coal in 2016, three of which produced coal each of those fifteen years.”¹⁵

The steady decline of Utah’s coal industry cannot be blamed on a lack of coal, and cannot be reversed by mining the coal beneath Grand Staircase-Escalante National Monument. The problem is not with supply, but rather with demand. According to the Rural Planning Group’s 2014 “Utah Coal” report, Utah’s 966 million tons of “feasibly recoverable” coal - a number that does not include coal from the Kaiparowits Plateau - would be enough to “keep Utah’s coal industry up and running for the next 57 years ... the biggest issue facing the state’s coal industry is not necessarily the scarcity of the fossil fuel, but the demand for an abundant resource.”¹⁶

Utah Coal Mine Employment Decreases with Innovation and Declining Production



Source: Utah Geological Survey, Utah Energy and Mineral Statistics.

THE STEADY DECLINE OF UTAH’S COAL INDUSTRY CANNOT BE BLAMED ON A LACK OF COAL, AND CANNOT BE REVERSED BY MINING THE COAL BENEATH GRAND STAIRCASE-ESCALANTE NATIONAL MONUMENT.

It’s an issue that has been addressed in other reports as well. “Overall, the state’s coal mines face weaker demand in the face of growing energy alternatives,” the Governor’s Office of Energy Development noted in 2015.¹⁷ The Utah Foundation report confirmed and expanded on this by saying, “Recent reductions in coal mine employment are due to a decrease in demand, the result of low natural gas prices.”¹⁸

In the U.S., coal consumption had fallen “by nearly a third since its peak in 2007.”¹⁹ And natural gas overtook coal as the main source of utility-scale electricity production in 2016, with renewables including utility-scale solar, wind, hydropower and biomass also on the rise.²⁰

Utah is unusual in having 75.5 percent of its electricity fueled by coal;²¹ in the U.S. as a whole, coal accounts for only about 30 percent of electricity generation.²² Yet signs of change in Utah are undeniable: Utah’s oldest coal-fired power plant was among the 94 that closed in the U.S. in 2015;²³ Utah’s largest coal-fired power plant is slated to close, “thanks

to a California prohibition on purchasing power generated from coal,” in 2025;²⁵ and the Bonanza Power Plant has agreed to limit its use of coal and may be facing “early retirement” in 2030, with the plant’s operator citing “a greater desire to include diversified alternative energy resources as part of the overall energy mix.”²⁶

Even in the coal mines that continue to operate, technology has steadily reduced the number of jobs available. Those jobs began disappearing years before the Environmental Protection Agency’s “Clean Power” regulations; years before the “war on coal”; years before Bears Ears and Grand Staircase-Escalante had been designated as National Monuments. In fact, automation caused coal jobs to drop by 58 percent nationally between 1980 and 2000, according to the Brookings Institution.²⁷



Autonomous trucks, loaders, crushers, and drilling systems are replacing humans—a trend that increases along with advances in technology.



**AUTOMATION CAUSED
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Here again, Utah's numbers mirror those of the nation as a whole. "As in the rest of the country, many of Utah's jobs losses have been due to increased productivity," noted the Utah Foundation. In the 20 years following peak employment in 1982, "Utah production [per employee per hour] had increased by 60% but with only one-third of the employees."²⁸

This stands in sharp contrast to gains posted by renewable energy sources such as solar and wind, which saw jobs increase – in 2016 alone – by 25 percent and 32 percent, respectively.²⁹ In fact, the national solar industry provides more than four times as many jobs as coal does in electric-power generation, according to the U.S. Department of Energy's 2017 Energy and Employment Report.³⁰

The contrast is even sharper in Utah, where solar jobs grew 65 percent - more than twice the national average - between 2015 and 2016, boosting the state to No. 7 in the nation for solar jobs per capita.³¹ This can be viewed as good news for those who work in the energy industry, as retraining coal miners to work in solar has often been proposed as a solution to job losses in the declining industry. A much-cited study published in the journal *Energy Economics*, for example, determined that "a relatively minor investment in retraining would allow the vast majority of coal workers to switch to [solar]-related positions even in the event of the elimination of the coal industry."³² The main objection to this type of proposal is that coal miners cannot simply move across the country for solar jobs. But for those already living in Utah, the recently announced "10 Year Solar Deployment Plan" offers a promise for the future.³³

"A RELATIVELY MINOR INVESTMENT IN RETRAINING WOULD ALLOW THE VAST MAJORITY OF COAL WORKERS TO SWITCH TO [SOLAR]-RELATED POSITIONS EVEN IN THE EVENT OF THE ELIMINATION OF THE COAL INDUSTRY."



KAIPAROWITS PLATEAU COAL

The push to reduce the boundaries of Grand Staircase-Escalante National Monument is driven, in large part, by the coal beneath the Kaiparowits Plateau. Billions of tons of coal have been locked up by the monument, opponents have claimed, robbing the state of potential jobs and revenue.³⁴ But the facts do not support their claim.

Back in the 1970s, a plan to build a Kaiparowits power plant was scuttled for “economic, regulatory and environmental reasons”; the plant would have “burned more than 1,000 tons of coal an hour and would have emitted about 300 tons

a day of atmosphere contaminants into an area that has eight national parks and three national recreation areas within 200 miles.”³⁵

In the 1980s, the Kaiparowits Plateau was included in a feasibility study on developing federal coal leases in seven Western states. The barriers to developing the Kaiparowits, according to the report, were “primarily related to nonenvironmental factors.”³⁶

Transportation logistics pose a major problem in this “large, isolated, rugged area,” the report determined, as “construction of the rail or slurry





transportation systems to connect the area with potential markets depends on a minimum production in the area of over 30 million tons per year - a scale that is unlikely to be reached in the next decade.”³⁷

In the 1990s, Andalex Resources made plans to build a massive coal mine on Kaiparowits. The logistics of those plans alarmed local residents, as they would require tons of coal each year to be trucked “through part of the Glen Canyon National Recreation Area, two proposed wilderness areas, a major mule deer

migration corridor, part of the Paiute Indian Reservation and five small towns.” A local citizens’ group, Taxpayers for Safe Utah Roads, estimated that road upgrades to support the mines could cost taxpayers \$75 million before any coal was produced.³⁸

Local citizens’ safety would also be compromised, according to a regional planning study which found that coal development would result in 125-370 additional traffic accidents per year, depending on the level of production.³⁹

COAL AND POLITICS

So why, when faced with a mountain of evidence on coal's decline, do Republican politicians dig in and insist this industry will rise again? Why do they ignore endless pages of headlines such as

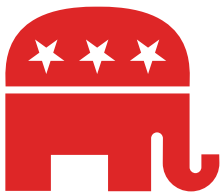
"Trump Can't Bring Back Mining Jobs, Coal CEO Warns"⁴⁰

"There is No Boom in Coal Jobs"⁴¹

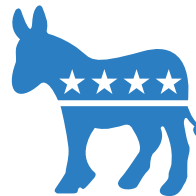
"Today's Energy Jobs are in Solar, Not Coal"⁴²

"Even With Trump as Cheerleader, the Coal Industry Can Only Decline"⁴³

The unsurprising reasons seem to be money and partisan ideology. The money trail of political donations from the coal industry is not difficult to follow:



Over \$4.2 million to Republicans, and less than \$138,000 to Democrats, in the 2016 election cycle⁴⁴



Over \$5.8 million to Republicans, and less than \$244,000 to Democrats, in the 2014 election cycle⁴⁵

\$240,000 to President Trump's campaign and \$1.1 million to pro-Trump groups Future 45 and Rebuilding America Now⁴⁶



\$25,000 to Sen. Orrin Hatch (R-UT) since 2012⁴⁷



\$21,895 to Sen. Mike Lee (R-UT) since 2012⁴⁸



\$8,000 to Rep. Rob Bishop (R-UT), \$5,756 to Rep. Chris Stewart (R-UT), \$3,000 to Rep. Jason Chaffetz (R-UT), all during the 2015-16 election cycle.⁴⁹

The return on their investment: more coal-friendly policies, including withdrawal from the Paris climate accord,⁵⁰ an executive order to review and replace the Clean Power Plan,⁵¹ and legislation repealing an Obama administration rule⁵² protecting streams from coal-mine waste. But even the CEO of one of America's largest coal-mining companies admits these policies will not bring back coal jobs as President Trump had promised. "I suggested that he temper his expectations. Those are my exact words," Robert Murray said. "He can't bring them back."⁵³

"I SUGGESTED THAT HE TEMPER HIS EXPECTATIONS. THOSE ARE MY EXACT WORDS. HE CAN'T BRING THEM BACK."

Less than a decade ago, Republicans were part of the debate on how to best fight climate change. Now, they deny the evidence for both climate change and the decline of coal. How to explain this about-face? "Most Republicans still do not regard climate change as a hoax," Republican strategist Whit Ayers told *The New York Times*. "But the entire climate change debate has now been caught up in the broader polarization of American politics. In some ways, it's become yet another of the long list of litmus test issues that determine whether or not you're a good Republican."⁵⁴

It does not have to be this way; a simple solution would be to prioritize economic benefit over ideology. In 2011, Republicans for Environmental Protection polled Utah residents about the impact of Grand Staircase-Escalante. The results: 62 percent said they saw the monument as an economic benefit.⁵⁵ Their opinion was backed by Headwaters Economics data showing jobs in communities around the monument increased 24 percent since 2001.⁵⁶ According to the President of the Escalante & Boulder Chamber of Commerce, Suzanne Catlett, "Our story in Escalante is just one of many examples of communities across our nation benefiting economically from national monuments and the protection of public lands."⁵⁷

"OUR STORY IN ESCALANTE IS JUST ONE OF MANY EXAMPLES OF COMMUNITIES ACROSS OUR NATION BENEFITING ECONOMICALLY FROM NATIONAL MONUMENTS AND THE PROTECTION OF PUBLIC LANDS."

OPPORTUNITIES FOR RURAL UTAH TRANSITIONING FROM A COAL BASED ECONOMY

While there is coal beneath Utah’s national monuments, it is not buried treasure. We will pay dearly to bring it to the surface, not only in financial terms but also in terms of cultural artifacts, ecological stability, and quality of life. Falling demand makes coal the fuel of the past. Likewise, technology that replaces workers with automation makes plentiful coal jobs a thing of the past.


The communities that make up Utah’s “coal country,” however, are poised to play a vital role in the state’s future. Certainly, the decline of coal has dealt a hard blow to rural communities depending on that industry. Jobs have been lost. While five of the seven counties most dependent on coal (Millard, Sanpete, Sevier, Kane and Uintah) have seen some population growth in the past six years, the populations of two—Carbon and Emery—have decreased.⁵⁸ Yet community leaders say there is cause for optimism. “We are at rock bottom now, and we are okay,” said Emery County Economic Development Director Jordan Leonard. “We lost 300-400 coal jobs, but are fighting back.”⁵⁹ His faith in the region’s resilience is shared by Matt Hilburn of the Economic Development Corporation of Utah, who told the Deseret News, “Everyone may not agree on coal, but what we all agree on is jobs. The unemployment rate provides a great opportunity. This is an available workforce. What that means is there is talent there.”⁶⁰

These are not just empty words, according to a recent Utah Foundation report on “Coal Communities,” which noted, “The key to this development is diversification.”⁶¹ This means, in part, shifting to new ways of generating electricity. It also means, according to the report, “Diversification of local economies in ways that are fitting to each of the individual communities, such as agriculture, tech jobs, manufacturing, and tourism ... communities will need to utilize their strengths, and turn some of their weaknesses to their advantage, such as marketing their higher unemployment rates as a potential for job creation.”⁶²

Millard County has accepted this challenge with what the Rural Planning Group has described as an “all of the above” approach, with plans to add natural gas, wind and solar to the energy-development mix.⁶³

The growth of Utah’s solar industry - now ranked No. 2 in the nation for solar capacity installed per capita and No. 6 for total solar capacity installed - also provides a way forward, with the industry having created 1,700 Utah jobs in 2016.⁶⁴ Having brought \$300 million in revenue to Utah in 2016, the solar industry “will draw new investments to Utah and continue to create new jobs and grow our economy,” noted Vicki Bennett, the sustainability director for Salt Lake City.⁶⁵



A night sky filled with stars, with a desert landscape below. In the foreground, a large rock formation with a natural arch is illuminated by a warm, orange glow from a low sun or moon, creating a silhouette effect. The background shows a dark horizon with some distant mountains under a starry sky.

Amid all the talk about investments and economic drivers, though, there is one resource that stands alone for its profound and incalculable value to Utah and its people. That is the land itself, with its abundant beauty and recreation potential. It is the reason that San Juan County, where Bears Ears National Monument is located, became the fastest-growing county in the entire U.S. this year. “It’s a great place to live. I think the people who are moving in are not coming for jobs or the economy,” said San Juan County Commission Chairman Phil Lyman. “They are moving here because it’s just a beautiful spot and beautiful people.”⁶⁶

With the quality of life and economic benefits provided by the outdoor recreation economy, we owe it to ourselves – and to our children, who represent the future – to safeguard the public lands and wilderness areas that are Utah’s real treasure. They hold the key to our long-term prosperity.

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