



**HANGING AROUND**  
Bob Cupp conducts  
an inspection atop the  
Royal Gorge Aerial Tram.





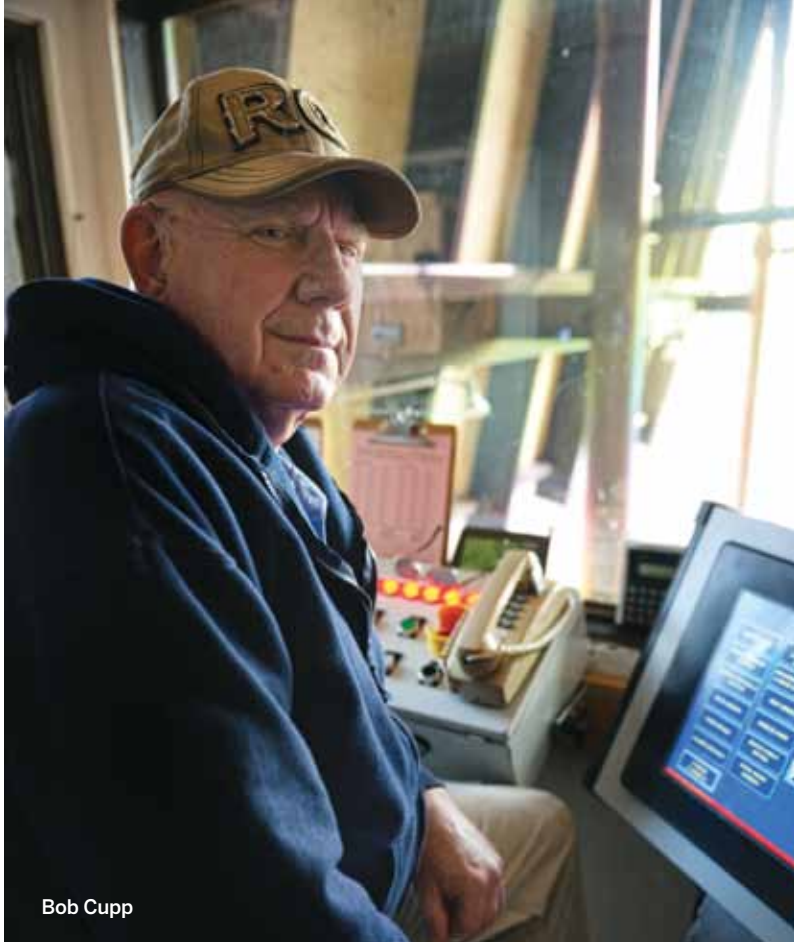
RISKY

# BUSINESS

From rockslide control and wildfire mitigation to livestock handling and aerial tram maintenance, Colorado's labor market has more than its share of occupational hazards. We talked to eight people whose careers might make you love your nine-to-five desk job just a *little* bit more.

**By Julie Dugdale**

PHOTOGRAPH BY JEFFERSON PANIS



Bob Cupp

# HIGH ANXIETY



**NAME** Bob Cupp  
**AGE** 70  
**TITLE** Tram senior operator, Royal Gorge Bridge & Park  
**ON THE JOB** Five years  
**LOCATION** Cañon City  
**TYPICAL TRAM OPERATOR SALARY** \$22,000 to \$23,000

A LOT OF PEOPLE ARE AFRAID OF HEIGHTS—but most of them probably don't clamp themselves to the outside of an aerial tram that runs from one side of the Royal Gorge to the other, suspended 1,178 feet above the Arkansas River. Once a month, Bob Cupp, who admits he has anxiety about heights, does just that. The tram, which ferries up to 190,000 passengers a year, requires regular inspection of its 2,200 feet of cables for flaws and imperfections. Cupp took the job to occupy himself after he retired from 33 years at the state Department of Corrections. "It took me six months to really get comfortable," Cupp says of being atop the tramcar, "because if you get a good gust of wind, 40 or 50 miles per hour, that thing swings pretty good."

Cupp's daily duties, which he splits with another tram operator, include servicing every part of the ride on both sides of the gorge, sometimes 30 or 40 feet above the ground: He greases the cable wheels, inspects

the tower buildings, mans the ride's control room, and occasionally assumes the conductor position on the tram. If there's an electrical outage—which happens a handful of times every year—and the tram grinds to a halt in the center of the gorge, passengers can thank Cupp for his speedy reboot with the gasoline motor. And although it's never occurred in real life, the operators are trained to evacuate the tram while it's suspended over the gorge; the maneuver requires exiting the car through a trap door, swinging out over the edge of the tram to a ladder, and climbing to the top of the cables. "Any time we're doing that, we're very cautious, and we're always harnessed in," Cupp says. "Every foot has to be placed carefully. The main thing is, we're here if something goes wrong. To do a job like this, you know what you have to do to be safe. And you just do it."



# Out Of Bounds



**NAME** Angela Hawse  
**AGE** 50  
**TITLE** Internationally certified IFMGA/AMGA mountain guide; heli-ski guide, Telluride Helitrax; senior guide, Exum Mountain Guides  
**ON THE JOB** 25 years  
**LOCATION** Ridgway  
**TYPICAL GUIDING WAGES** \$150 to \$450 per day

ANGELA HAWSE TRIGGERS AVALANCHES—on purpose. It's a critical part of heli-ski guiding that ensures the terrain you're about to schuss is stable. So Hawse seatbelts herself into the back of a helicopter, lights the fuses on bundles of explosives called "hand charges," leans out the door, and tosses them into the backcountry of the San Juan Mountains. "You've got anywhere from six to 12 minutes depending on the length of the fuse before it ignites. So you can hold it for five minutes before you start to

sweat," Hawse says. "Typically, when you throw a bomb on a slope, the slide either goes or doesn't, which gives you a good indication of the stability."

It's all so Hawse can take skiers to the highest terrain in the country via chopper for what many would consider a bucket-list experience: the ultimate untouched-powder day. The responsibility Hawse shoulders would paralyze most people: She has to make judgment calls about where to ski, what lines to choose, and whether a slope might fracture and slide. And she has to make sure it all happens before daylight runs out. Add to that unpredictable weather, varying levels of fitness, and occasional language barriers with foreign clients, and heli-ski guiding is as much about mental fortitude as it is about physical toughness. Hawse and her colleagues have it figured out, though: In 31 years of business, Telluride Helitrax has never lost a skier in an avalanche.

There are only eight women in the country with Hawse's level of mountain guide certification, but the job requires much more than that. "There's a high level of intuition involved that's beyond training," she says. "It just comes from experience in the terrain. It isn't just about the elements; it's also about the people, the conditions, the day, and even how I'm doing, physically and mentally. That's a big part of my daily decision-making that you can't learn in a book or by training."

JEFFERSON PANIS; OPPOSITE: COURTESY OF JEFF CRICCO/TELLURIDE HELITRAX





**DROPPING IN**

An epic day with Telluride Helitrax at Yankee Boy Basin outside Ouray.





**HOTSHOT**

Larry Money gears up for a day battling blazes.

# UP IN SMOKE



**NAME** Larry Money  
**AGE** 38  
**TITLE** Superintendent, Roosevelt Interagency Hotshot Crew  
**ON THE JOB** 15 years  
**LOCATION** Fort Collins  
**TYPICAL HOTSHOT WAGES** \$15 per hour, plus hazard pay and overtime; around \$40,000 per year

**SLOGGING UP A HILL IN 100-DEGREE HEAT** with 65 pounds of gear and water on your back while a wildfire rages beside you sounds like a cruel punishment. Except that it's not—at least, not for Larry Money and his crew of 20 hotshots. These elite wildland firefighters (there are five crews in Colorado) train as a unit for deployment to the most critical fires in Colorado and across the country.

Money's crew worked 19 blazes between May and October last year with only 20 days off. The shifts—Money begins scouting the fire line at 6 a.m.—are brutally long, typically lasting 14 to 16 hours. But fatigue isn't necessarily the biggest danger; nor is the heat or flames. "On the line, it's gravity," Money says. "Falling trees, rolling rocks, stuff falling *out of* the trees. Fire is a threat, but you can kind of see it and keep an eye on it. The things that get firefighters hurt more often are anything rolling down the hill at them."

By 10 p.m. on any given workday, the hotshots have been digging fire lines, hiking, sawing, and "mopping up" smoldering areas for nearly twice as long as the average American's workday. Sleep is essential. But there are no shelters in the wilderness, and tents take too much time to set up. So the hotshots use nothing more than sleeping bags laid on the hard ground.

Since 2001, more than 200 firefighters have been killed fighting wildland blazes across the country. The Roosevelt Hotshots have suffered just two injuries that required medical treatment in 12 years, but even with their safety record, it's still an extreme way to make a living. "When you're down to that last four to six weeks of the season, you're getting tired, you've been gone from home for forever, and you're just kind of beat up all the way around—mentally, emotionally, physically," Money says. "You'll have days when you're miserable, walking across the desert, looking at land that's still burning, and you've got 12 hours ahead with no shade. But the next day you go to another fire and forget all about it. Hotshots have short-term memories. That's why they come back every year."



Trees ablaze in the High Park Fire outside Fort Collins



## Cattle Call



**NAME** Brad Rock  
**AGE** 51  
**TITLE** Owner, Box Elder Ranch; vice president, Yuma County Farm Bureau  
**ON THE JOB** 28 years  
**LOCATION** Wray  
**TYPICAL FARMING SALARY** \$60,000 per year (median)

**"MY WIFE GOT RUN OVER BY AN ANIMAL** a year ago." It's not an incident most would associate with the family business, but for rancher Brad Rock, it was just another day on the job—except it ended in the hospital. Rock and his wife had been sorting heifers and steers at their eastern Colorado ranch when one became agitated and charged. "Normally if you put your hand up or holler, they'll stop," Rock says. "This one was upset and didn't; it ran into the gate and knocked her

into the fence. It knocked her out."

Every year, an average of 22 Coloradans are killed in agriculture-related accidents, and more than 1,600 injuries occur on Colorado farms—50 of which result in permanent disabilities. This isn't hard to imagine if you take a peek at Rock's feed machines and trucks, which are outfitted with large augers (drilling devices) and chains. "If you're not paying attention and stick your hand in the wrong spot at the wrong time," he says, "you could have an arm or a foot severed." Which is even more difficult to deal with when the nearest hospital is 40 miles away. It could take an ambulance up to an hour to arrive at an accident—and that's *after* someone finds you.

Rock and his staff of seven run the third-generation farm and feedlot, which stretches out over 40 miles near the Kansas and Nebraska borders. Tasks begin at 5:30 a.m. with cattle feeding; an hour later, the crew starts working about 6,000 acres of corn, alfalfa, wheat, soybeans, sunflowers, millet, and hay. During harvest season, workdays can stretch to 16 hours. If bad weather rolls in, they toil until the work is done—exhaustion notwithstanding—to make sure the animals and crops are protected. "The biggest issues farmers have with death from heavy equipment operation are fatigue and the push against Mother Nature," Rock says. "Everybody's pushing so hard to beat the storm or salvage a crop. It can be trying to get all that done and not do something stupid."

**ON THE WEB** Visit [5280.com/riskybusiness](http://5280.com/riskybusiness) to meet more Coloradans whose jobs require extensive safety training or nerves of steel—or both.





# If A Tree Falls...



**NAME** Craig Muzzy  
**AGE** 56  
**TITLE** Owner/operator, Crosscut Logging  
**ON THE JOB** 34 years  
**LOCATION** Cortez  
**TYPICAL LOGGING WAGES** \$18 to \$20 per hour

**CRAIG MUZZY'S FACE WAS SHATTERED.** His left eye socket was broken, both sides of his jaw had snapped, and his sinus cavity had been crushed. His sacroiliac joint—between the hip and the base of the spine—was separated. It was a battering worthy of 10 days in the Denver Health trauma center in 2005, and it all started as a routine day of logging.

Muzzy was operating a "skidder"—a heavy tractorlike vehicle that pulls felled timber from the forest

to the hauling trucks—on a steep slope eight miles east of Mancos. As he turned the skidder to head downhill, a small tree got caught in the underside of the machine and cut off the brake line. With no way to slow down or stop, Muzzy bailed out and hit a tire, which propelled him into the skidder's blade. It was two-and-a-half months before he returned to a logging site—on crutches. "These things can happen quickly," Muzzy says. "It's steep ground and rough terrain, and there's ice and rain. And loggers can get hit by lightning."

According to the U.S. Bureau of Labor Statistics, logging is the second-most dangerous occupation in America (behind commercial fishing), with 102 fatal work injuries per 100,000 loggers in 2011. Muzzy's company, inherited from his dad, has just three employees who log 600 to 800 trees (mostly aspen) per day in southwestern Colorado. The trucking is the riskiest part, Muzzy says. The drivers secure their loads of stacked logs with cables. "Putting the cables on and taking them off is probably one of the most dangerous things in logging," Muzzy says. "A log will roll off that load, and it's hard to get out of the way."

Muzzy knew several loggers who were killed on the job. Nevertheless, he says that mechanical harvesting has drastically reduced the injury rate and workers' compensation claims over the past 20 years. Timber companies used to pay \$75 in workers' comp insurance for every \$100 they paid in wages. Today, that number is closer to \$10 on the hundred. "Still," Muzzy says, "you're working with large machinery and wood. If something rolls or falls on you, it's going to hurt."



# ON THE AIR

**NAME** Larry Gepfert  
**AGE** 54  
**TITLE** Wildlife pilot, Colorado Parks and Wildlife  
**ON THE JOB** 11 years  
**LOCATION** Grand Junction  
**TYPICAL WILDLIFE PILOT SALARY** \$36,000 and up

**EVER WONDER HOW COLORADO'S ALPINE LAKES** stay full of trout year after year despite harsh winter freezes and overfishing in the summer? It's because Larry Gepfert restocks them. As a pilot for Colorado Parks and Wildlife, Gepfert maneuvers a Cessna 185 in and out of Colorado's peaks, valleys, and canyons, swooping as close as 100 feet above a lake to drop loads of tiny cutthroat trout fingerlings into the water. It takes about a month for four pilots to stock 400 lakes.

The rest of the year, Gepfert logs 700 to 800 hours on missions that range from law enforcement during hunting season to tracking big-game migration pat-

TIM ROMANO, OPPOSITE; BOTTOM, COURTESY OF COLORADO PARKS AND WILDLIFE



## FLIGHT RISK

A modified Cessna 185 makes a run over the Blue Lakes in the San Juan Mountains to stock trout.



Larry Gepfert

terns. His plane is customized to allow Gepfert to slow the aircraft so he can descend quickly from high altitudes without gaining a lot of airspeed. “People get this opinion that you have to have this big bravado to do it,” he says. “It’s almost the opposite. You need to have respect for the terrain and nature and the wind. You can’t go against it; you have to work with it. You’re not going to overpower it with these airplanes.”

Gepfert recalls a fatal accident in the Sangre de Cristo Mountains in 2002. The pilot was stocking a lake when severe winds—“downdrafts”—forced a crash landing that killed the pilot. Although it hasn’t happened in this group since, that tragedy is a constant reminder to be vigilant. “There are a lot of days you’re looking at nothing but rocks; you’re going into blind canyons or coming over these ridges and dropping abruptly,” he says. “But we’re not out there hot-dogging. Our number one job is to bring everybody home for dinner safely.”



**LIFE IS A HIGHWAY**

Ty Ortiz takes a peek over west-bound I-70 near Georgetown.





# ROCK STEADY



**NAME** Ty Ortiz

**AGE** 45

**TITLE** Engineer, Colorado Department of Transportation (CDOT)

**ON THE JOB** 12 years

**LOCATION** Denver

**TYPICAL CDOT ENGINEER SALARY** \$70,000 to \$95,000

ON THANKSGIVING MORNING IN 2004, Ty Ortiz got a phone call: A massive rockslide above I-70 in Glenwood Canyon had crashed onto the highway and destroyed part of the concrete deck. CDOT needed a first responder to assess the potential for further rockfall before maintenance crews could reopen the highway. Translation: Someone had to climb 1,000 vertical feet up the canyon wall to the source of the slide and evaluate the stability of the remaining rock. Ortiz missed Thanksgiving dinner that year.

As one of two full-time specialists in CDOT's rockfall program, Ortiz manages rockfall areas—756 known hazard sites—along the state's roadways. In emergency situations, that means trekking up an incline in the wake of a slide, hard hat and climbing gear on, tools in hand, unsure if a second wave of rock is about to detach in his path. In nearly every such scenario, a CDOT manager's decision about how and when to begin repairs or reopen the road

is based on a specialist's recommendation; so, ultimately, it's Ortiz's call whether or not it's safe for road crews to put themselves in the fall zone for cleanup so cars can resume passing through. "I've dodged my share of rocks, and I've known people who've been hit," Ortiz says, recalling a colleague whose helmet was punctured by a falling rock. "When I've been in those situations, it's because of my own mistakes. On the ropes, if rocks fall on me while I'm rappelling, it's probably my own fault because the rope was rubbing the gravel above."

Out of the 25 to 40 calls the rockfall program receives each year, only about five result in true emergencies that require extensive road closures and post-slide mitigation work. Much of the job is about preemptively reducing the risk, like the year Ortiz and his team assessed the rockfall potential on Georgetown Hill and designed attenuators (steel netting) to control the descent of plummeting boulders and guide them into a ditch before they reach the highway. But it's after an unforeseen rockfall that Ortiz's decisions have the most immediate impact. "In emergencies, the trickiest part is getting to the source. You can't make a good evaluation from 1,000 feet below," Ortiz says. "If someone doesn't get to the area, it could put someone else in a potentially worse situation."



Ty Ortiz



# Underground Network



**NAME** Esmeralda Bodine

**AGE** 49

**TITLE** Underground mine foreman, Oxbow Mining LLC, Elk Creek Mine

**ON THE JOB** Three years

**LOCATION** Somerset

**TYPICAL MINING WAGES** \$29 per hour

**HALF A MILE BELOW THE SURFACE** of the earth, Esmeralda Bodine directs a crew of men in the bowels of one of Colorado's largest coal mines. That could mean adjusting the mine's ventilation system to mitigate fumes, making sure the water discharge system is pumping out water, or constructing access roads, bridges, and seals between mined areas and work zones. Sometimes, she disperses a layer of rock dust inside the mine, which prevents highly combustible coal dust from exploding.

The Elk Creek Mine produced nearly three million tons of coal in 2012—enough to provide almost 570,000 customers with electricity for a year. But that bevy of raw energy doesn't come without sacrifice. Sixty-eight injuries were reported in Colorado coal mines last year, nine of them at Elk Creek, and 19 coal miners across the country perished on the job in 2012. (There have only been three reported coal mining deaths in Colorado in the past decade; one of them happened to be at Elk Creek.) Earlier this year, the mine shut down for more than a month when dangerously elevated levels of carbon monoxide were detected. And last winter, heavy snow knocked out a transformer and a ventilation fan, resulting in a minewide evacuation.

Bodine rises at 4 a.m. to commute from Hotchkiss; by 6:30 a.m. she's maneuvering a Dodge pickup into the mine. She's never found her five-foot stature at odds with the job's physical demands. If she can't lift something, she simply asks for help. "We train in everything from the proper way to climb a ladder to the right way to shovel coal onto a belt," Bodine says. "The only thing more important than going to work is going home to your family."

Bodine says she doesn't mind the fine layer of coal dust that settles on her clothes. She knows that every shift is helping someone 300 miles away flip a light switch. And she doesn't let the media hype about the dangers of mining get in her head. "I just go to work," she says. "You can't live your life that way, wondering." ▲▲