

MONTANA BUSINESS QUARTERLY

MONTANA'S ECONOMICS MAGAZINE // SUMMER 2021



HIGH-TECH SOARS DESPITE PANDEMIC

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\$2.9 BILLION IN REVENUE



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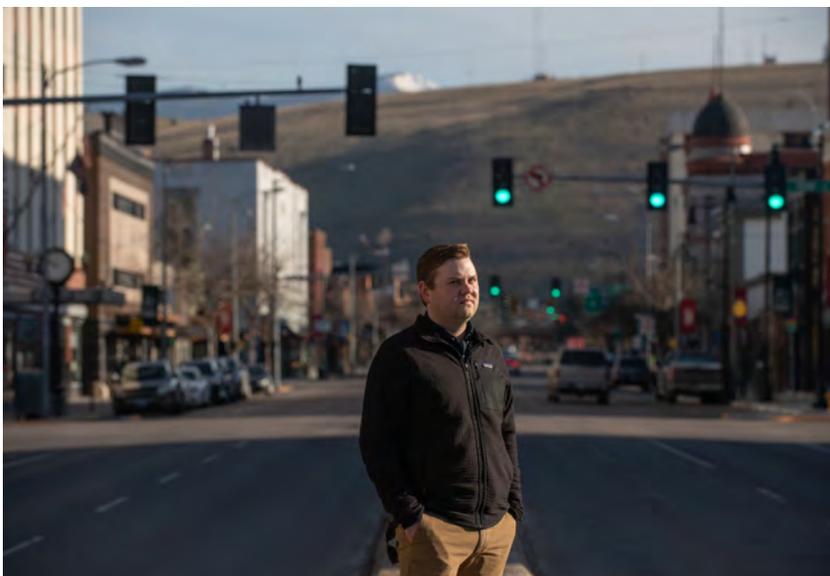
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OFFICES
Montana Business Quarterly
Bureau of Business and Economic Research
Gallagher Business Building, Suite 231
32 Campus Drive
University of Montana
Missoula, Montana 59812

WEBSITE
www.montanabusinessquarterly.com
EMAIL
info@montanabusinessquarterly.com

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Ryan Hansen, the founder of Lumenad in Missoula, where his software company is based. (Lido Vizzutti)

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The Bureau of Business and Economic Research has been providing information about Montana's state and local economies for more than 70 years. Housed on the Missoula campus of the University of Montana, the bureau is the research and public service branch of the College of Business. On an ongoing basis the bureau analyzes local, state and national economies; provides annual income, employment and population forecasts; conducts extensive research on forest products, manufacturing, health care and child well-being; designs and conducts comprehensive survey research at its on-site call center; presents annual economic outlook seminars in cities throughout Montana; and publishes the award-winning Montana Business Quarterly.

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COVER

Illustration of high-tech revenue growth during the pandemic. (Bakhtiar Zein)



MESSAGE FROM THE DIRECTOR OF THE BUREAU OF BUSINESS AND ECONOMIC RESEARCH

Those of us who talk about the economy have a new problem these days – there are simply too many stories. We can tell you about three or four extraordinary trends that are unfolding, but that leaves another half dozen or so that we don't address. Most of us know the basics – how far the economy fell last year, how it has roared back, and all of the spending by Congress to fill the hole. But within that broad narrative are some extraordinary subplots; everything from inflation's reemergence to the rise in remote work.

It poses a challenge for the Montana Business Quarterly as we try to address issues relevant to Montana. But challenges have never stopped us before. And besides, having more research questions to investigate than the hours needed to pursue them is a researcher's dream.

Those questions have a bearing on Montana as much as anyplace in the nation. The labor market shortages are acute. The spike in housing prices have pressured renters and new home buyers across the state. The prospect of more people moving to our state, as large cities spin off residents to work remotely, could profoundly affect our growth. And the massive amounts of money coming from the federal government, as part of stimulus legislation, could be a game changer for long sought improvements in child care and broadband internet access.

We tackle all of that and more at the Bureau of Business and Economic Research, and we'll report it to you in the Montana Business Quarterly.

Stay well and stay safe.

Patrick M. Barkey
Director
Bureau of Business and Economic Research

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FOOD INSECURITY ROSE STEEPLY DURING THE PANDEMIC

Food Banks Face Challenges in Serving a Record Number of Families

BY DAPHNE HERLING

The long lines of people waiting for food at the country's food banks is an enduring image of the pandemic's impact on American families. All over the United States, people were turning to food pantries to help feed themselves and their families, stretching a system that has been in place for decades. The system had to reinvent itself almost overnight to make sure they met the need and to keep their customers and volunteers safe from COVID-19.

You may recall seeing the staggering number of cars waiting at drive-thru food distribution centers in cities like San Antonio and Minneapolis. That need was also felt locally in cities like Missoula, where the Missoula Food Bank & Community Center went from helping 8,723 new customers in 2019 to 21,626 in 2020. That increase was just in new clients. The total number of individuals and families was even higher reaching 32,422 individuals and 11,317 households.

Over the past five years, the percentage of households experiencing food insecurity was trending slightly down from 12.6% in 2015 to 10.54% in 2019. However, it is estimated

that the pandemic will increase that to 23%. A significant number of people fell into poverty and food insecurity as a result of the nationwide lockdown. Workers who were furloughed or lost their jobs, and parents who had to stay home with their children and couldn't work full-time had to turn to their local food pantries.

According to the U.S. Bureau of Labor Statistics, April 2020 saw the national unemployment rate jump to 14.7%. In Montana, that same month the unemployment rate peaked at 11.9%. Hardest hit of any group nationally, according to the Federal Reserve Bank of Minneapolis, were Native



Volunteers build bags of dry goods outside AT&T Stadium during a food distribution event in Arlington, Texas. (AP Photo, Tony Gutierrez)

Americans with an unemployment rate of 26.3%. Across the state on Montana's Indian reservations, the unemployment rate ranged from 10.3% on the Flathead Reservation to 22.8% on the Rocky Boy Reservation.

COVID-19 and Food Distribution Challenges

This rapid rise in need created an extraordinary challenge for organizations distributing food. Almost overnight, food banks and pantries had to retool their distribution systems to avoid direct contact with their customers. The Missoula Food Bank & Community Center planned for this drastic change over a weekend in March 2020. Their model had formerly been replicating a grocery store experience where clients shopped along the aisles. To streamline the process the food bank simplified the intake system by creating a grab-and-go method of giving food in pre-filled grocery carts.

But the community center had to shut down, foregoing an integral part of what the food bank used to be – a public gathering place, the one-on-one conversations to provide information about accessing resources, and children playing and eating in the family rooms.

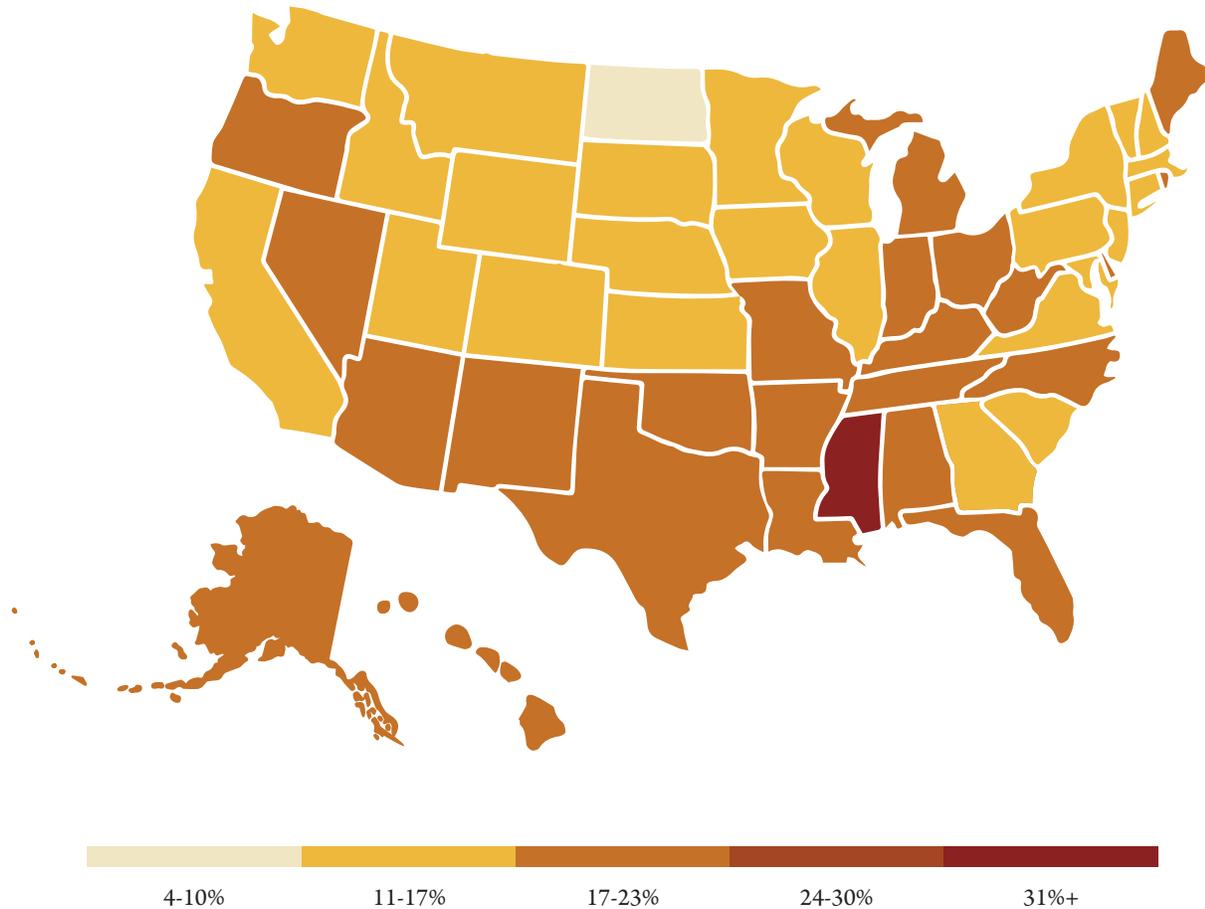
In Denver, the local food pantry, Joy's Kitchen, had to totally revamp their distribution system. Before the pandemic

their food distribution system was decentralized with volunteers loading up perishable and nonperishable goods to multiple sites around the city. But that was turned upside down as sites closed. They centralized their operations to one location, a church, which remained open for food storage and for volunteers to assemble food packages, which were handed out to families in their cars. Shifting from multiple distribution sites to one site created enormous challenges, but 4,000 families per month were served in 2020.

Food bank and pantry staff around the country were reduced to skeleton on-site crews, with administrative staff working from home. Food pick-up was moved to curbside or a walk-through area with volunteers and staff delivering food baskets directly to clients. Even with limited exposure, if one volunteer or staff member tested positive for COVID-19, the whole crew had to be quarantined and a standby crew called in. For instance, the Missoula Food Bank & Community Center severely reduced their number of volunteers from 9,005 providing 50,974 volunteer hours to 1,513 providing 23,817 hours of work.

Although food banks and pantries operate very much like any food distribution system, the pandemic presented challenges to nonprofits having to adapt to the growing

Figure 1. Projected rates of food insecurity among the overall population in 2020, by state. Source: Feeding America.



demand. Limited warehouse space and financial constraints pushed many beyond their processing and packaging limits. Each individual operation had to adapt quickly to the changes created by initial disruptions in the national supply chain, which further exacerbated problems.

Food rescue or food recovery is a source of goods used by many nonprofits. It involves the organization picking up or having delivered edible food that would otherwise go to waste from places such as restaurants, grocery stores, produce markets or dining facilities. For example, Food Rescue US, a national nonprofit established in 2011, has since provided 68 million meals and kept 89 million pounds of excess food out of landfills. Food recovery is one of the major ways these nonprofits acquire food to redistribute. The pandemic turned this important source of product on its head. Businesses and institutions that once donated food were no longer operating, and grocery stores were no longer dealing with too much

food on the shelves, but rather too little. Some food banks and shelters resorted to buying food that remained on store shelves.

But Americans responded generously to the crisis. Individual giving increased and there was an outpouring of donations to local food banks. Highly publicized donations came from Amazon founder Jeff Bezos, who gave \$100 million to Feeding America, the largest national network distributing food to people in need. The Missoula Food Bank & Community Center reported an outpouring of individual donations too, which helped them purchase food when donations slowed from grocery stores and local food drives.

The Government Response to Food Insecurity

The federal government has passed a number of COVID-19 relief packages. So far, lawmakers have enacted six major bills, costing about \$5.3 trillion, to help manage the pandemic and

mitigate the economic burden on families and businesses. Just over \$9 million came into Montana for a number of qualifying uses. Three of these stimulus packages included direct payments to individuals for a possible total of \$3,200 per individual and \$1,500 per child. Montanans received approximately \$1,400 per capita in these three rounds of stimulus payments.

The majority of recipients spent their stimulus checks on basic needs or used it to pay off debt. However, lower income households were more likely to spend their stimulus checks just to meet basic needs. According to the U.S. Census Bureau, 33% of adults said they used the second stimulus check to pay for food. The Missoula Food Bank & Community Center reported an immediate decline in people seeking food in the days directly after they received their stimulus checks.

An increase in unemployment benefits had a greater impact on struggling households. The increase in state unemployment payments provided in the federal COVID-relief packages ranged from \$600 per week to \$300 per week. The aid was also extended to workers who usually do not qualify for unemployment benefits, including gig economy workers and independent contractors. One-third of adults reported using both stimulus payments and enhanced unemployment benefits to cover normal household expenses.

Other federal responses included an increase in Supplement Nutrition Assistance Program benefits. The increases from the federal unemployment boost did not count toward a person's income when they applied for SNAP, which made it easier to qualify for the benefits.

The CARES Act also earmarked millions of dollars to support food banks and programs such as Meals on Wheels. More recently, money has been earmarked to expand the reach of the Community Supplemental Food Program to more low-income seniors and provide additional support to the states and tribes that administer the program.

What the Future May Hold

While the government response and an increase in charity helped feed many families and kept food distribution centers open, there are lessons to be learned that may help inform our future responses to crises.

The pandemic exposed flaws in the food distribution systems at all levels of the supply chain: food rotting in

fields, food laborers unable to work, panic buying, collapsed transportation systems and processing plants closing or being overwhelmed. Normally, feeding people who experience food insecurity comes from the surplus of food waste left by those with the means to access it. This would erroneously appear to be a win-win situation, but it is a system built on the existing inequities within America. As inequity increases and more people need food, more surplus food is needed, creating an unsustainable situation.

There have been some creative responses to address these issues, such as food sharing and community transport systems, which give local food rescue networks an opportunity to develop a more sustainable community food system. Also, direct farm-to-food-bank purchasing agreements that can be expanded to support local agriculture.

Despite the federal infusion of trillions of dollars, it has done little to stem the rise in poverty and inequality that existed before the pandemic. According to a Brookings Report, the pandemic disproportionately impacted the same disenfranchised groups. Workers with less education, who could not easily shift to working at home; young people, reflecting lower levels of education and high representation in service industries; females who bore the majority of child care responsibilities when schools closed; and African American, Hispanic, Native American and Asian American workers.

Food insecurity is directly related to poverty. Meeting immediate needs through distributing excess food through food banks and pantries has become increasingly sophisticated and well-established, what some call the "hunger industry." The pandemic has raised awareness of a U.S. food insecurity crisis and exposed some cracks in the existing system. Until policymakers address the underlying American inequality, getting food to people must be a priority, especially during the economic upheavals like the COVID-19 pandemic.

Daphne Herling is the former director of Montana KIDS COUNT and a former senior research analyst at the Bureau of Business and Economic Research.

THE MYTH OF MONTANA'S HOUSING MARKET FRENZY

Has COVID-19 Related Migration Spurred the Recent Rise in Home Prices?

BY PAUL E. POLZIN

2020 was a wild ride! We had the COVID-19 pandemic, which upended most of our lives, and now housing prices have gone through the roof. According to the Wall Street Journal, Billings, Coeur d'Alene and Spokane are in the top five hottest home markets in the United States. In Montana, there have been concerns about a housing shortage and the inability of working families to find reasonably priced homes, as well as concerns about homelessness. Are these concerns related to COVID-19 migration?

Recent media stories suggest a connection. For example, a Wall Street Journal series paints a scenario where the pandemic has changed the migration patterns of young affluent workers away from crowded urban centers and toward less populated areas. Could this contribute to rising demand for housing here in Montana?

If the year was 2023 or 2024 we could definitely answer this question. Detailed IRS and U.S. Census Bureau data would be available and we could concretely quantify the effects the

COVID-19 pandemic had on recent migration. We could also identify certain important demographic characteristics, such as age and income of the migrants. Unfortunately, it will be a while until these figures become available.

In the meantime, there is one data source that provides an up-to-date partial picture of migration. The U.S. Postal Service (USPS) records the requests for changes of address and United States Commercial Real Estate Services (CBRE), a national real estate research firm, publishes data on people



Melisia Muscat stands on the front porch of her new home in Billings that she and her husband bought sight unseen before moving from the Seattle area. (Casey Page, Billings Gazette)

moving from one location to another for each Metropolitan Statistical Area (MSA). Montana has three MSAs - Billings, Missoula and Great Falls. Unfortunately, fast growing Bozeman and Kalispell have not yet been designated as an MSA.

The good news is that this data is very timely. The figures include all of 2020, so the impact of COVID-19 will be captured. The bad news is that the data is not very detailed or complete. For instance, we do not know if a request for an address change involves a family or a single individual. Also, USPS redacts data for individual source-destination combinations if there is the possibility that individuals could be identified. This means there are states and/or cities for which there are no data. It appears that redacted data also includes those with 10 or less entries.

In any case, the figures for 2019 and 2020 are comparable and analyzing them allows one to see the changes in migration between those years. Tables 1 and 2 present change of address data for Montana's three MSAs, compiled by the state and MSA of origin or destination.

These data were compiled by CBRE and their report on migration patterns emphasizes national trends. The authors also supplied data for Montana's relatively small and rural cities. As was mentioned, state or MSA totals cannot be calculated,

because the USPS redacted many of the source-destination pairs in the interest of confidentiality.

Table 1 presents the changes of address between Montana cities and other states. The first thing to notice is that the number of address changes in-state dwarfs those for out-of-state locations. For example, the 11,455 address changes to Missoula or from elsewhere in Montana was roughly 45 times larger than the next largest number of 486 for Washington. This illustrates the concept long held by demographers that people, when they move, do not move very far.

Secondly, migration paths are a two-way street. States that are major sources of in-migrants are also major destinations for out-migrants.

Thirdly, the geographical orientation of Montana's three Metropolitan Statistical Areas can be clearly seen in the data. Missoula is in the western part of the state, with Washington as the largest source-destination. Billings has a more Midwest view, with Wyoming as the largest source-destination. Finally, Great Falls looks more Southwest, with migration from California and Arizona.

Finally, there appears to be no major shift in address changes between the pre-COVID year 2019 and the pandemic year of 2020 – this may be a slightly positive trend favoring

Table 1. Requests for address changes, Montana and selected cities. Source: United States Postal Service as tabulated by United States Commercial Real Estate Services.

Source-Destination	Missoula MSA				Source-Destination	Billings MSA				Source-Destination	Great Falls MSA			
	To		From			To		From			To		From	
	2019	2020	2019	2020		2019	2020	2019	2020		2019	2020	2019	2020
MT	11,324	11,455	11,709	12,194	MT	16,441	16,709	16,166	16,660	MT	6,962	7,117	6,917	7,189
WA	377	486	440	340	WY	279	319	192	239	CA	172	210	119	54
CA	316	445	173	115	WA	281	317	254	187	AZ	125	155	139	135
AZ	210	278	224	199	CA	250	302	109	107	WA	110	119	140	84
OR	238	215	189	160	AZ	252	291	261	233	TX	68	92	49	33
CO	199	193	133	141	CO	267	260	189	180	CO	83	66	59	28
ID	124	130	120	174	ND	124	156	117	70	NV	51	41	71	58
UT	66	69	56	53	TX	59	97	129	133	ID	27	29	28	66
NV	57	58	51	33	OR	138	93	79	61	ND	38	22	37	31
TX	27	49	28	46	NV	98	91	98	78	FL	32	20	75	46

in-migration. Glancing at the figures, there appear to be minor increases of those moving to Missoula and small decreases of those moving out. But it is not appropriate to extrapolate, because there are about 40 states that are not reported in the data.

Large numbers of people moving in and moving out do not mean significant changes in population. Again looking at Missoula and Washington, hundreds of people moved in and moved out, but the net changes were relatively small; -62 in 2019 (377-440=-62) and +146 in 2020 (486-340=146).

Table 2 presents the address changes tabulated by MSAs in the West. As with states, much of the data for cities has been redacted to preserve confidentiality. We cannot compute overall totals.

For the most part, these data reflect the features of the state figures. Migration is two-way – large number in incomers is matched by a significant out migration with little net change. The number of movers, even for the largest cities, is relatively small. Most of the figures being in the tens or hundreds, even for the largest cities.

These city tabulations directly address the issue of whether there has been a flight from cities associated with

COVID-19. The short answer is probably not, or at least not very much. There was no shift in mobility patterns and source-destination cities remained in the same rank in both 2019 and 2020. The data presented in Table 2 may show a slight tendency toward increased net in-migration, but we really don't know because of the large number of redactions.

In summary, it will be years until accurate migration data becomes available. The changes of address collected by the USPS are up-to-date but incomplete. These data suggest there has been no major COVID-19 related changes in mobility between 2019 and 2020. There may have been a very slight rise in net in-migration, but nowhere near large enough to cause Montana's significant house price inflation. We will have to look elsewhere for the explanation.

To view the full United States Commercial Real Estate Services report on resident migration patterns, visit our website.

Paul E. Polzin is director emeritus at the Bureau of Business and Economic Research at the University of Montana.

Table 2. Requests for address changes, Montana MSAs and selected cities. Source: United States Postal Service as tabulated by United States Commercial Real Estate Services.

	Missoula MSA					Billings MSA					Great Falls MSA			
	To Missoula		From Missoula			To Billings		From Billings			To Great Falls		From Great Falls	
	2019	2020	2019	2020		2019	2020	2019	2020		2019	2020	2019	2020
Seattle-Tacoma-Bellevue, WA MSA	203	249	206	139	Phoenix-Mesa-Chandler, AZ MSA	170	170	199	177	Phoenix-Mesa-Chandler, AZ MSA	84	109	85	74
Phoenix-Mesa-Chandler, AZ MSA	123	174	130	147	Los Angeles-Long Beach-Anaheim, CA MSA	82	199	33	38	Los Angeles-Long Beach-Anaheim, CA MSA	37	53	26	15
Los Angeles-Long Beach-Anaheim, CA MSA	94	146	59	31	Portland-Vancouver-Hillsboro, OR-WA MSA	111	90	87	51	Spokane-Spokane Valley, WA MSA	20	39	54	37
Portland-Vancouver-Hillsboro, OR-WA MSA	155	143	122	87	Spokane-Spokane Valley, WA MSA	48	NA	38	55	San Diego-Chula Vista-Carlsbad, CA MSA	13	22	14	14
Great Falls, MT MSA	148	135	117	141	Denver-Aurora-Lakewood, CO MSA	153	35	118	91	Boise City, ID MSA	19	16	17	37
Spokane-Spokane Valley, WA MSA	82	105	134	129	San Diego-Chula Vista-Carlsbad, CA MSA	50	NA	25	23	Salt Lake City, UT MSA	16	17	16	14
Denver-Aurora-Lakewood, CO MSA	106	104	77	70	Boise City, ID MSA	36	35	55	60	Tucson, AZ MSA	36	32	26	34
San Diego-Chula Vista-Carlsbad, CA MSA	59	62	42	45	Salt Lake City, UT MSA	33	67	47	46	Riverside-San Bernardino-Ontario, CA MSA	19	44	26	N/A
Boise City, ID MSA	50	61	44	54										
Las Vegas-Henderson-Paradise, NV MSA	40	58	36	33										

HIGH-TECH SOARS DESPITE PANDEMIC

Montana's Tech Industry Hits Record \$2.9 Billion in Revenue

BY CHRISTINA QUICK HENDERSON

When COVID-19 first hit the United States in the spring of 2020, Bozeman software company Zoot Enterprises acted quickly to address the health crisis. According to president and CTO Tony Rosanova, Zoot upgraded cleaning, safety and air handling practices, and shifted some teams to fully remote work.

As the pandemic accelerated into an economic crisis, Zoot, which provides advanced decisioning engines and data connection solutions, saw its revenue pipeline abruptly shut off.

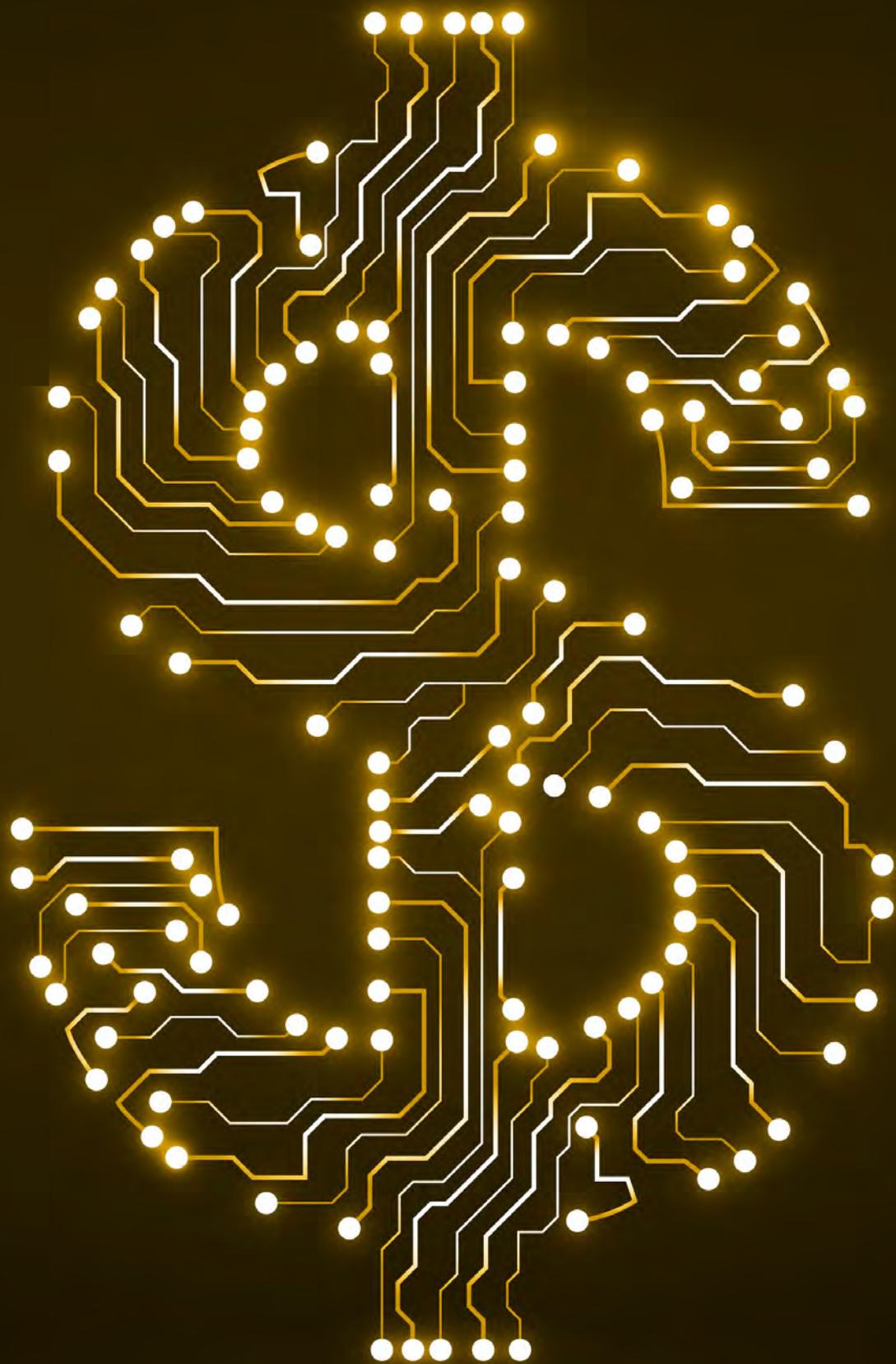
"We had retail clients that closed their doors or had their doors closed for them because of lockdowns," Rosanova said. "They saw 30% to 40% revenue reductions, and those were direct translations to us ... As we were moving through March, April and May of last year, it was a very uncertain time."

Early on, Zoot's leaders focused on maintaining stability for their workforce of around 300 employees. As the year progressed, Zoot found new business, pivoting to support

clients in e-commerce and laying the groundwork to advance into the medical industry. Approaching the midpoint of 2021, around three-quarters of Zoot employees have returned to the office and things are looking up.

"There's just a great deal of activity out there," Rosanova said. "And it's not just Zoot – it's the community, it's our business world and it's our staff. There's just a new energy and excitement. It was a really tough year last year for everyone ... So it's nice for things to be moving again."

Zoot's story reflects the experience of many Montana tech companies during COVID-19, and the larger trend of an industry that has adapted to meet the challenges of 2020 and come back strong in 2021.



Multi-Year Trend of Fast Growth Continues

In May 2021, the Bureau of Business and Economic Research at the University of Montana completed its seventh annual survey of Montana's high-tech and manufacturing companies commissioned by the Montana High Tech Business Alliance. The report found Montana's tech sector generated more than \$2.9 billion in revenues in 2020, up from \$2.5 billion in 2019. It is growing up to seven times faster than other sectors.

Tech firms employ about 15,772 workers and pay an average salary of \$73,100, 59% higher than the average earnings per Montana worker. Companies surveyed expect to add 1,500 new jobs in 2021, making a significant contribution to Montana's recovery from the pandemic recession.

Montana high-tech companies plan to increase wages by 5% in 2021, somewhat faster than the 4.2% growth rate of all Montana employers. Survey respondents anticipated making at least \$164 million in capital expenditures in Montana in 2021, a significant increase from anticipated 2020 capital expenditures (\$133 million).

Firms reported that access to capital was their largest impediment to faster growth. For the first year in four years, slightly more high-tech leaders (12%) said that it was harder to obtain capital in 2020 compared to the previous year (9%). Other frequently mentioned impediments to growth were the need for new customers, visibility or marketing, and hiring skilled technology workers.

Despite pandemic-induced headwinds, deals kept flowing in 2020. Missoula-based biotech company Inimmune secured a \$22 million series A investment from Two Bear Capital in Whitefish. Major acquisitions of Ascent Vision Technologies in Bozeman and Helix Business Solutions in Dillon also fueled economic growth across the state.

COVID-19 Accelerated Remote Work, Technology Adoption

The 2021 survey asked tech businesses what challenges and opportunities they faced due to the pandemic. The most frequently cited COVID-related challenge was conducting internal communications and other management activities while working remotely, followed by a loss of sales and economic uncertainty. The main opportunities created by COVID-19 were increased acceptance of or need for technology and increased sales.

Ryan Hansen, founder and CEO of marketing technology company Lumenad, found that like Zoot Enterprises, revenues slowed abruptly early in the pandemic, but later picked up as businesses rushed to get online.

Lumenad has roughly 80 employees, with about 10 in the Bozeman office, 20 outside Montana, and the rest at the Missoula headquarters. Like many leaders, Hansen is wrestling with how to safely bring employees back to the office, and how to organize hybrid work going forward.

"We're going to try to find that balance between asynchronous distributed work and work centered around an office," Hansen said. "People aren't necessarily looking to rid themselves of that office culture entirely ... There's something fun about just being around colleagues, collaborating and teamwork and making friends ... I think right now we're taking for granted how important of a role the office environment plays, just so long as you're not forced to be there Monday through Friday, 9 to 5."

For the seventh year, the survey found Montana's quality of life – its lifestyle, work/life balance, recreational opportunities and the beauty of the landscape – provided significant advantages to doing business. During the pandemic, the ability to spend time outdoors was a particular advantage.

Hansen believes offering flexibility for employees to enjoy the Montana lifestyle alongside the benefits of an office could help tech companies like his attract talent.

"People want to be in Montana," Hansen said. "Now, because of the transition to fully remote that's been embraced by the Twitters and the Facebooks ... There's going to be greater competition for the people who want to work fully remotely. But I think we can be very successful competing for the people who want to still have an office component to their job. Montana is an awesome place to do that hybrid work, where you can have a little bit more of a flexible day to get to go do whatever it is you want to do."

Challenges Finding Skilled Talent, Lack of Affordable Housing, Access to Childcare

Hiring a skilled workforce has been one of the biggest barriers to growth facing Montana tech companies for the past seven years. Leaders say dynamics in the wider community compound the problem.

"The cost of living in Bozeman is becoming a really difficult variable for hiring qualified people," Rosanova said. "And



Ryan Hansen, founder of Lumenad, stands outside the Marriott Hotel in Missoula, as his Florence Building offices cast a reflection in the windows. (Lido Vizzutti)

then also childcare is becoming a really significant impact on our workforce."

Zoot Enterprises invested in on-site childcare at its Bozeman headquarters in 2018, as a benefit to attract and retain workers. According to Rosanova, the childcare facility doubled in size this year due to increased demand. Finding qualified teachers has been a challenge, though Zoot childcare workers receive the same benefits package as other employees, including full healthcare and 401k.

Rosanova said Zoot has worked hard to bring staff back together in the office, recovering a culture of "collaboration, spontaneity, nimbleness and entrepreneurship" that was hampered by remote work. Zoot's workforce strategy also includes growing its smaller office in Billings to take advantage of a new pool of talent and lower cost of living there, particularly in housing.

Missoula tech companies also face workforce challenges due to the steep increase in housing costs during the pandemic. By the end of the first quarter of 2021, the median home price was up 20% to \$420,000 according to a report by the Missoula Organization of Realtors.

"The flock of people moving to Montana is making it very, very expensive for our employees to live here," said

Hansen. "This is going to be a new thing that we're going to have to figure out how to navigate because most of our entry-level employees aren't going to be able to afford to buy a house in Missoula ... The demand for Montana housing has skyrocketed."

Companies in rural Montana have not been spared by the housing crunch.

Katie Spika, CEO of Spika Design and Manufacturing in Lewistown, said her biggest concern for growth is homes for their workforce of about 50. Spika is hiring positions in assembling, welding, machining and engineering.

"We're trying to hire but really struggling," Spika said. "Like a lot of places, Lewistown is having a horrible housing challenge. There are 11 homes on the market right now in [practically] all of central Montana, and they're not homes worth having. There's nowhere to rent. Prices are going up. So bringing in people is really hard."

For the third year, the survey asked what job titles tech firms hire most often. The most frequent response was software developer/computer programmer, followed by sales representative and engineer. When asked what skills they are looking for in new hires, employers most often said coding and software development, followed by sales or marketing,

communication skills, general experience and problem solving.

Like many employers, Spika prioritizes cultural fit and personal strengths in candidates.

"We really need people who kind of thrive on challenge, are very adaptable and good at problem solving," Spika said. "[We also] just need people who want to live this small town, Montana way of life."

Spika is also looking for workers who are generous with their time, help other teammates and help the community. To underscore these values, Spika Design and Manufacturing commits to a companywide day of service every year and provides 12 hours of paid volunteer time for employees.

Across the state, the pandemic has made it harder for companies to find talent. Lumenad has been hiring varied roles in engineering, accounting, administration, marketing and content management.

"We're finding ourselves really having to up level our recruiting capabilities," said Hansen. "We have never had as hard of a time finding experienced candidates as we have today. The amount of time our positions are open, and how aggressively we are having to recruit people, feels very different than pre-pandemic. It is a job seeker's market right now."

Lumenad has worked to strengthen its workforce pipeline by partnering with the University of Montana's College of Business to develop a new course in marketing analytics.

"Our customers are all over the country and not in Montana," Hansen said. "We help marketers navigate this world of advertising technology. And it's cool to be able to bring those capabilities into the business school to teach the next generation of marketers."

Zoot Enterprises also partners with higher education and economic development organizations to develop workforce locally. Zoot hosts college and high school internships that provide meaningful experiences for students and ROI for the company.

"We hire [interns] to come and work on specific projects that are of value to the organization ... So they get to walk out with a sense of pride and ownership in what they do," Rosanova said. "Last year, [Zoot] had significant cost savings and efficiency gains on specific projects we did to the tune of six figures."

Though the pandemic has changed some dynamics in the economy, tech leaders still see the same benefits to doing business in Montana.

"We cannot overlook the quality of life in Montana," Rosanova said. "We can't overlook the quality of the individuals that live here, that work ethic, the true commitment to doing what they do well. You take that and couple it with a beautiful place and a healthy supportive business environment ... It's a pretty easy sell."

Christina Quick Henderson is executive director of the Montana High Tech Business Alliance.

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OVERCOMING THE CHALLENGES OF GOING GLOBAL

A Survey of Small to Midsized Montana Firms in International Markets

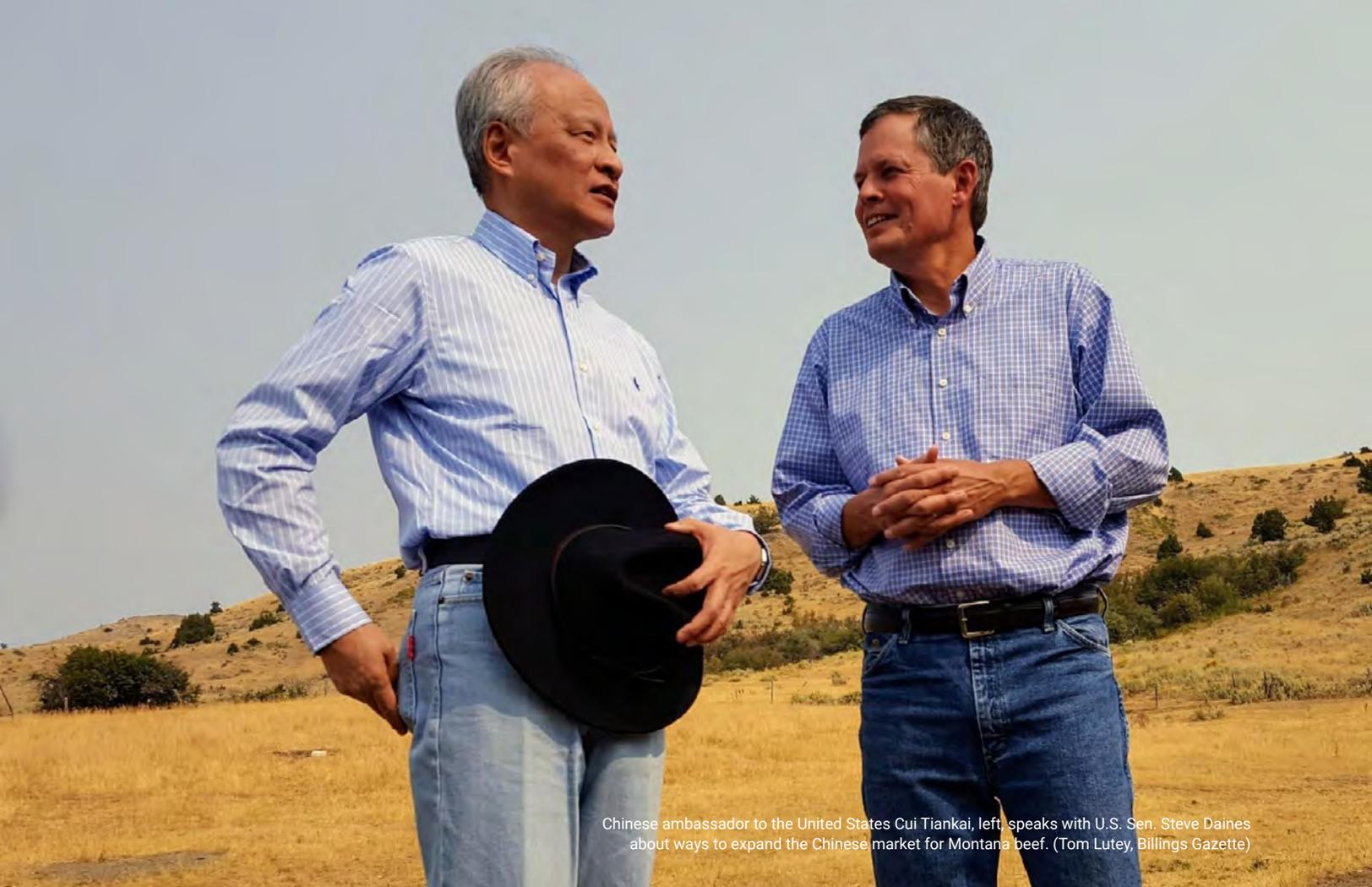
BY NADER H. SHOOSHTARI AND TIM MANUEL

An increasing number of small to midsized enterprises (SMEs) are involved in international activities. However, despite technological advances and the ubiquitous presence of the internet, many SMEs continue to face challenges that limit their ability to engage in international business. In a recent study, we interviewed a number of Montanans who are involved in international business or promote international business to SMEs and the results were insightful.

Small and midsized enterprises have an important role to play in the global economy even though international business has long been considered the domain of large multinational corporations. In every state, small businesses comprise the vast majority of business entities and in 18 states the majority of employees work at small businesses. In fact, Montana has the highest percentage of workers employed at SMEs at 64.8%. Nationally, over 285,000 small businesses

are involved in international trade. Although this is a large number, it represents less than 1% of total small businesses. Thus, many SMEs are not participating in international markets despite their huge market potential, and the reductions in transportation and information costs.

SMEs face both structural and psychological obstacles when entering into international markets. Some barriers could be considered environmental or external to the firm.



Chinese ambassador to the United States Cui Tiankai, left, speaks with U.S. Sen. Steve Daines about ways to expand the Chinese market for Montana beef. (Tom Lutey, Billings Gazette)

Others are internal having to do with management structure, knowledge and experience, and managerial psychology. Internal barriers include constraints on a managers' time and a lack of managerial expertise needed to develop foreign markets.

Many SMEs also cannot afford to conduct their own market research and instead rely on personal contacts or experience. This results in internationalization efforts being opportunistic rather than strategic and comprehensive. Typical external barriers include the inability to obtain private or government assistance to overcome knowledge or financial barriers. These include having to deal with complex rules about export destinations, tariffs, customs classifications and shipping requirements. Other barriers include payment collection difficulties, inability to locate a foreign distributor, inability to compete in foreign markets and unfamiliarity with cultural differences.

The Challenges SMEs Face

The major obstacles SMEs face have to do with not understanding regulations involving international sales, shipping methods and a lack of resources to develop international markets. But state assistance can often help reduce these

technical barriers and help with the additional documentation required.

International business is not necessarily much riskier than domestic; rather it requires more effort and some additional due diligence on the part of the SME. Business opportunities in Canada and Europe, in particular, are easier to exploit because of similarities with U.S. culture, laws, etc. Business complacency was stated to be a major barrier to pursuing international opportunities. In other words, quite a few businesses are happy with their current situation and do not want to put more time and effort into their business to make it grow.

A lack of international experience continues to be a major obstacle and assistance in this area remains crucial. Many SMEs don't realize that international customers are often more alike than they are different and want similar products. If your products sell in the U.S. they will probably sell abroad.

The advent of e-commerce has been a boon for SMEs because it reduces direct search costs in locating buyers. When SMEs engage in e-commerce they may be surprised to receive inquiries from abroad and may not be prepared to deal with international customers. There are additional issues that must be considered when shipping abroad,

including tariff classifications, taxes, shipping costs and country regulations. World Trade Centers, state trade development agencies, and private-sector freight forwarders all have expertise in helping a SME sort through these complexities.

But the challenges also vary by industry. Knowledge-intensive SMEs may be more familiar with technology that can lower the barriers to internationalization and may psychologically be predisposed to follow a more strategic process in internationalization than other types of SMEs. As a result, SMEs in knowledge-intensive industries tend to be further along in internationalization than others, such as goods manufacturers.

Entrepreneurial managers are more likely to engage in riskier activities and may be more predisposed to pursue international opportunities. Engaging in international operations is often considered a riskier activity than purely domestic operations for a SME without international experience. Thus firms, such as high-tech software providers, tend to be more proactive and respond to new opportunities faster than many goods manufacturers.

States can help SMEs build international business contacts. Programs that provide financial assistance to help pay for attendance to international trade shows are designed to put SME managers in touch with potential overseas clients, distributors and suppliers. It is not clear though how many SMEs are aware of this resource or others available to them.

In discussions with SME managers, the study found that competing domestically was challenging enough and some firms may not have the additional resources, capacity and wherewithal to take on international markets. They consider international trade more complicated because of higher documentation requirements, such as shipper's letter of intent, commercial invoices, etc. Receiving payment was also a concern for some SMEs, noting instances where receiving payment from their customers was problematic in countries such as India and Russia.

SME respondents did not believe that international operations were much riskier than domestic. They all agreed international efforts require more work and more due diligence by the firm. On the psychological side, they noted that many smaller firms are afraid of the risks involved in international markets. Our interviewees felt that these risks were exaggerated. In their perspective, SMEs generally

viewed export compliance to be complicated and initially daunting when beginning international operations, so many do not want to put in the effort needed to get started. Most felt that negotiating shipping and freight deals were the biggest challenges of international operations. Many of the SMEs relied on companies such as DHL, FedEx or UPS to handle shipping details to foreign markets, including several that did business through the United States Postal Service. Some of the respondents indicated that they relied on their foreign distributors to handle the shipping for them. Some of the firms were able to charge higher prices to their international customers to help defray higher shipping costs, while others stated that prices charged to their customers abroad had to be lower because of affordability issues and the presence of other competitors.

There were also concerns with issues that may arise with overseas sales or production, including dealing with late payments or nonpayment from customers or distributors abroad, and demands for advanced payments for purchases before shipping the merchandise. The SMEs in this survey universally avoided foreign exchange risk by insisting on dollar-based transactions, so the exchange risk was born primarily by foreign customers. In some of the cases where SMEs were selling health and beauty products, individual country health and safety rules and specific product ingredient requirements were mentioned as a challenge.

Many of the SMEs surveyed had reached out to international trade specialists at the state level and were very positive about the assistance they had received. A few of the firms reported that they initiated their international entry after receiving assistance and encouragement from the trade specialists at the state level. Many had taken advantage of trade missions, making contacts and received low-cost market reports to assess market potential in specific countries for as little as \$300. The trade specialists helped them to identify and elect appropriate trade missions to develop new markets. State-level financial assistance to attend these trade missions and trade shows was also available. This allowed them to find potential customers and distributors in foreign markets.

Trade assistance helped both materially and psychologically. The trade specialists provided technical expertise and offered tools, such as identifying tariff classifications or connecting firms to potential customers and distributors. Importantly, they offered support and encouragement that

gave the SMEs enough confidence to take the next step and become involved internationally.

Among the SMEs surveyed there was a strong consensus that to succeed internationally, firms first had to build a solid foundation and successful business operation in the domestic market. None of the firms felt a strategy of entering international markets as a way to save a firm that was failing domestically would succeed. Furthermore, they all emphasized the importance of networking with other firms that were involved in doing business internationally from their region, especially if the firms were in the same industry or similar line of business.

Conclusions

A lack of interest and knowledge about international opportunities remain primary barriers to increased participation by SMEs in international business. Poor return on investment is also often cited as a reason for not participating in trade missions or in seeking out trade-related government assistance. It appears that fears about international operations, lack of knowledge of state and other programs, and a lack of understanding of how private firms, such as freight forwarders who can help SMEs transact international business, lead to excessive concerns about international activities. One conclusion is that state and federal programs should broaden their marketing efforts to SMEs to better show them the assistance they can provide. They should also facilitate more venues to share success stories and challenges in their region among firms in similar lines of business.

The growth of the internet and social media may provide new means to virtually deliver low-cost programs aimed at providing market and legal knowledge, assisting in trade leads, etc. via these media rather than by holding trade promotion events aimed at SMEs that may require travel time and costs.

Trade development agencies should consider targeting resources to firms based on their psychological profile as well as their operations. Some SMEs that can succeed in global markets won't try unless they are encouraged and trained to break through psychological barriers that cause them to exaggerate the risks and undervalue the opportunities.

Finally, programs that encourage mentoring of SMEs interested in international business by those already successfully engaged in international activities may provide benefits that generic programs offered by federal, state or local agencies

do not. States in particular may wish to make available local mentors to SMEs to help overcome perceived barriers due to lack of knowledge, exaggerated belief in the risk of doing business internationally, or perceived poor return on investment from such activities. Appropriate and targeted assistance measures, both public and private, combined with SME agility and entrepreneurial ability, could pave the way for greater international success.

We'd like to thank Brigitta Miranda-Freer, executive director of Montana World Trade Center, and Katie Willcockson, international trade officer at the Montana Office of Tourism and Business Development, for their expertise and for providing contacts with other participants in our study.

You can read the full study in the *Journal of International Business Disciplines*.

Nader H. Shooshtari is professor of marketing and international business and director of the College of Business international programs at the University of Montana. Tim Manuel is the Ruyard B. Goode professor of finance in the College of Business at the University of Montana.

IMPLEMENTING THE NATIONAL ENVIRONMENTAL POLICY ACT ON NATIONAL FORESTS

A Review of U.S. Forest Service Land Management Accomplishments, Budget and Litigation

BY TODD A. MORGAN, MICHAEL J. NICCOLUCCI AND ERIK C. BERG

National forests are a major part of the Montana and western U.S. landscape. The 192 million acres of National Forest System (NFS) lands are organized into 175 national forests and grasslands and nine regions (Figure 1). Under the National Environmental Policy Act (NEPA) of 1969, environmental analyses are required before undertaking major actions in the management of federal lands, and the U.S. Forest Service (USFS) devotes substantial effort to conducting NEPA analyses and defending them when they are administratively objected to or challenged in court.



Smoke billows from a prescribed burn as part of a 125-square-mile restoration project on the Payette National Forest near McCall, Idaho. (USFS, AP Photo)

This article presents information about the number and types of NEPA analyses conducted by the agency, how long they take to prepare, and the frequency of litigation by NFS region and project purpose, as well as information on the NFS annual budget and land management accomplishments.

The USFS uses the Planning, Appeals and Litigation System (PALS), a web-based application created in 2004, to manage key information for projects that require NEPA analysis (USDA 2020a). PALS includes information on the number of NEPA analyses by USFS region and analysis type: Categorical Exclusion (CE), Environmental Assessment (EA), and Environmental Impact Statement (EIS); elapsed days to complete each analysis and have it signed; project purposes; and whether the analysis was litigated (Fleischman et al. 2020a, b). Prior analysis indicated that the number of NEPA analyses declined from 2005 through 2019 (Fleischman et al. 2020a).

Researchers in the Forest Industry Research Program at the University of Montana recently completed a study, published in the *Journal of Forestry* (Morgan et al. 2021), using PALS and other USFS data. Annual USFS budget data (USDA 2020b) for fiscal year 2006 through 2020 were assembled and adjusted for inflation to a 2020 basis (Federal

Reserve Bank 2020). Likewise, annual accomplishment data for several NFS programs were collected, including the timber management program (Headwaters Economics 2020; USDA 2020d), as well as the reforestation, wildlife, fisheries, engineering, hazardous fuels, and weeds and invasive species programs (USDA 2020c). Regression models were developed to quantify budget and accomplishment trends and explore the time required to complete NEPA analyses (Morgan et al. 2021).

Budget and Accomplishment Trends

The Washington office of the USFS allocates funding to the nine NFS regions in defined budget line items that have specific intended uses, and detailed guidance on the appropriate use of those funds is in the Forest Service Handbook (USDA 2020b, e).

In nominal dollars (not adjusted for inflation), total enacted NFS funding for fiscal years (FY) 2006 to 2020 increased to nearly \$2 billion (Figure 2). The average annual compound growth rate in nominal funding for the period was almost 2%. In real (inflation-adjusted) 2020 dollars, the average annual compound growth rate was 0.24%, which suggests a flat budget over the 15-year period.

Figure 1. Map of National Forest System regions. Source: USDA Forest Service.

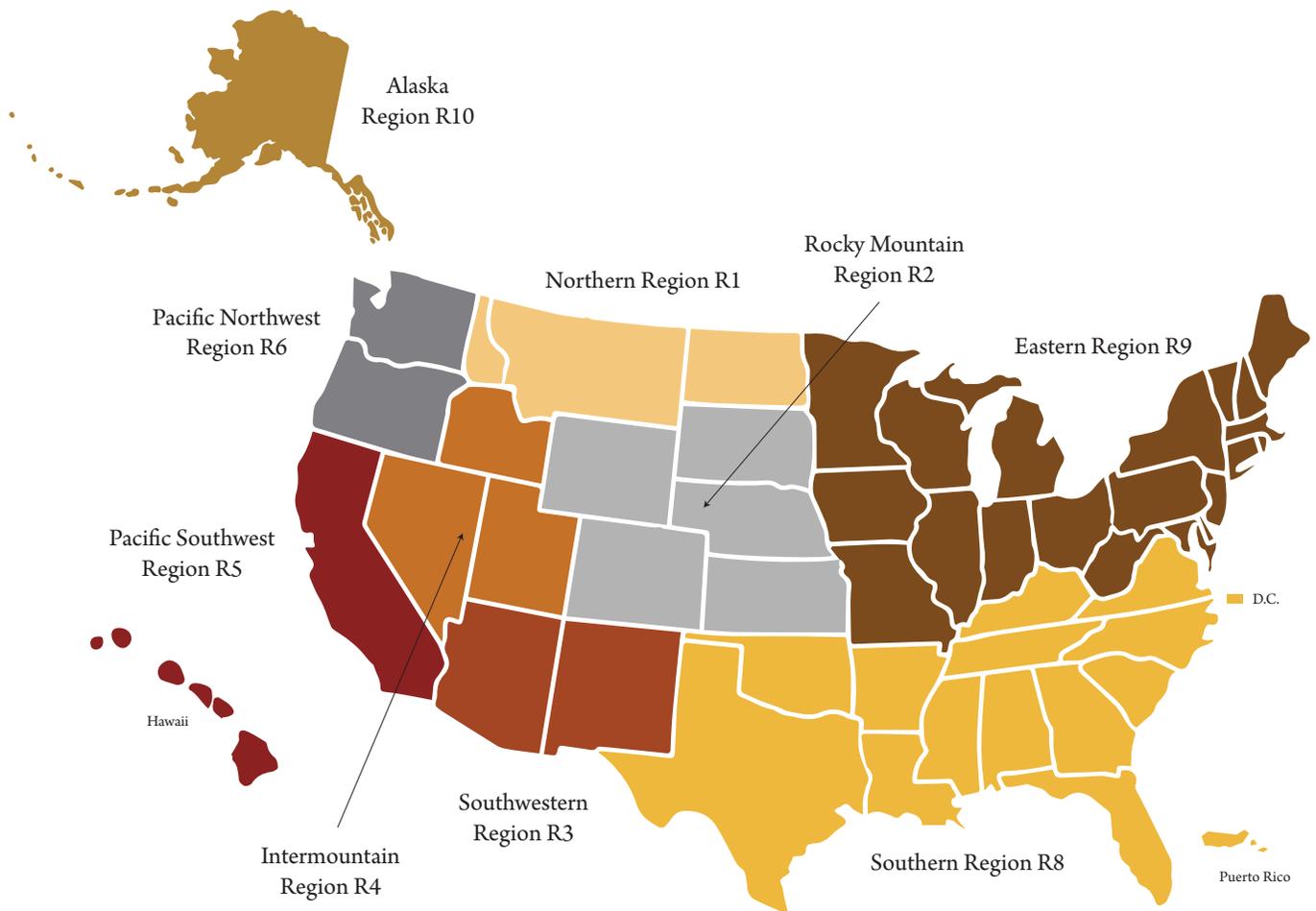
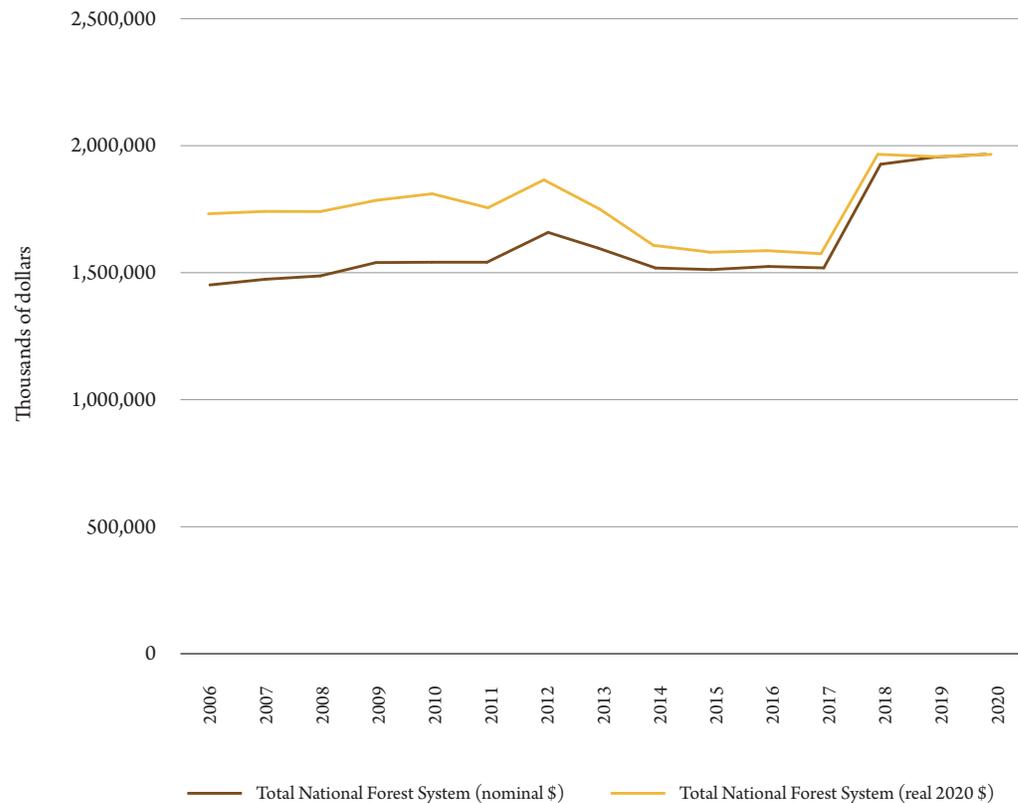


Figure 2. Total National Forest System budget in nominal and real (2020) dollars, 2006-2020. Sources: USDA 2020b; Morgan et al. 2021.



The accomplishment measures revealed mixed results. There were statistically significant upward trends in timber volume sold, timber volume cut and terrestrial habitat restored; and statistically significant downward trends in acres of reforestation and timber stand improvement. Other measures exhibited essentially flat trends. Regardless, the observed downward trend in the number of NEPA analyses does not appear to have hampered the agency’s ability to complete on-the-ground work, and the declining number of NEPA analyses identified by Fleischman et al. (2020a) does not reflect the NFS budget trend.

Time To Complete NEPA

Given that environmental analysis is important does not exempt it from time management considerations. The time spent on one activity reduces the time available for other

activities. USFS personnel time and funds used on NEPA analyses represent opportunity costs to on-the-ground management activities.

PALS data ranged from 2005 through approximately April 2019, with 1,269 NEPA analyses identified as ongoing and 32,707 analyses that were completed. Statistical analysis revealed that the number of elapsed days needed to complete a NEPA analysis (not including time in litigation after it was signed) declined by approximately four days per year from 2005 to 2019, and also indicated that the numbers of days to complete the three analysis types were significantly different. The estimated time to complete a CE was 193 days, the EA required 519 days and an EIS required 1,082 days (Morgan et al. 2021).

From a practical standpoint, the decline of four days per year seems relatively small – it is less than one work week

for analyses that take an average of six months to three years to complete.

Choosing the correct NEPA analysis type is critical, especially considering time and effort invested. If a CE can be used rather than an EA, the time saved is almost a year; and if an EA can be used in place of an EIS, the time saved would be more than 1.5 years. Given the cost of a NEPA team can range from \$500,000 to \$1 million per year, the time saved by using a CE in place of an EA, or an EA in place of an EIS could also represent a substantial cost savings. For example, if a CE is the appropriate tool, then the USFS could save approximately a year's worth of NEPA analysis time versus using an EA. If it costs approximately \$500 per acre to plant trees in Montana and northern Idaho, the opportunity cost of not using the correct NEPA analysis type is equivalent to not planting trees on 1,000 to 2,000 acres. This would represent an important on-the-ground accomplishment, funded by the analysis cost savings.

Litigation

The use of NEPA analyses in litigation against NFS management activities is well documented (Keele et al. 2006; Miner et al. 2010, 2014; Morgan and Baldrige 2015; Mortimer et al. 2011), and thus differences in litigation rates are worthy of some attention.

By analysis type, about 15% of the EISs, 2% of EAs, and 0.4% of the CEs completed between 2005 and 2019 were litigated (Table 1; Morgan et al. 2021). Projects with certain land management purposes appear to be litigated more often, regardless of analysis type. The most frequently litigated project purposes are forest products in 95 of 292 litigated analyses (32.5%), fuels management in 92 (31.5%) of litigated analyses, and vegetation management – nonforest products in 83 (28.4%) of litigated analyses. By analysis type, litigation frequency and rates vary, but forest products, fuels and vegetation management are consistently among the most frequently litigated project purposes or among those

with the highest litigation rates. Grazing management and road management also have relatively greater litigation rates (Morgan et al. 2021).

There are striking differences in litigation by USFS region (Table 1; Morgan et al. 2021). The Northern Region (R-1) has the highest number of total litigated analyses, accounting for 25.7% of all litigated analyses nationally. Likewise R-1 has the highest overall litigation rate, with 2.3% of all R-1 NEPA analyses litigated, which is more than 2.5 times the national rate of 0.9%.

The Southwestern Region (R-3) has the most litigated CEs at 37.2% of all litigated CEs nationally. The R-3 CE litigation rate is more than four times the national CE litigation rate. R-1 has the most litigated EAs (29 of 101 litigated nationally) and the highest EA litigation rate (7.6%). That is 3.8 times the national EA litigation rate of 2%. R-1 also has the most litigated EISs at 23 of 78 litigated nationally (29.5%). Further, R-1 has the highest EIS litigation rate with 29.1% of all R-1 EISs litigated.

The seemingly low rates of litigation underestimate the on-the-ground impacts to USFS programs and R-1 projects are the most frequently litigated among the USFS regions (Morgan and Baldrige 2015; Morgan et al. 2021). According to USFS officials, the R-1 timber program has had 210 to 466 million board feet of timber – or an estimated 18,000 to 41,000 acres of treatment area – associated with some phase of litigation. That is roughly equivalent to 50% to over 100% of the region's annual timber program impacted by litigation between 2016 and 2021. Even when a project is not directly enjoined by a lawsuit, the work associated with responding to litigation is significant and takes personnel away from their planned program of work, representing additional opportunity costs to the agency.

Conclusions

This study suggests that more NFS land management is being accomplished per NEPA analysis (Morgan et al.

Table 1. Number of NEPA analyses and percent litigated by analysis type and National Forest System region.

NFS region & analysis type	Total analyses	Percent litigated
Multi-region	9	11.1%
CE	0	0%
EA	3	0%
EIS	6	16.7%
R-1	3,196	2.3%
CE	2,737	0.8%
EA	380	7.6%
EIS	79	29.1%
R-2	4,017	0.5%
CE	3,324	0%
EA	613	1.6%
EIS	80	10%
R-3	2,724	2%
CE	2,236	1.9%
EA	458	2%
EIS	30	10%
R-4	3,205	1.1%
CE	2,525	0.6%
EA	614	1.3%
EIS	66	16.7%
R-5	4,345	1.4%
CE	3,545	0.6%
EA	694	3.7%
EIS	106	15.1%
R-6	4,215	0.5%
CE	3,505	0.2%
EA	625	1.6%
EIS	85	7.1%
R-8	5,209	0.1%
CE	4,264	0%
EA	934	0.5%
EIS	11	0%
R-9	4,571	0.2%
CE	4,000	0.1%
EA	534	0.4%
EIS	37	13.5%
R-10	1,216	0.6%
CE	1,001	0%
EA	191	1%
EIS	24	20.8%
Grand Total	32,707	0.9%
CE	27,137	0.4%
EA	5,046	2%
EIS	524	14.9%



Joan Lutz waves a placard at a rally in Denver to voice support for the National Environmental Policy Act. (David Zalubowski, AP Photo)

2021). Likewise, flat NFS budgets along with increasing accomplishments and declining numbers of NEPA analyses suggest the USFS is improving its acres treated per dollar appropriated to some mission areas, and may be reducing dollars spent per NEPA analysis. However, there is not strong evidence of increased speed in conducting NEPA, with just a four-day-per-year decrease in time-to-completion.

The USFS may be spending fewer congressionally appropriated dollars on NEPA, or it may be spending more on NEPA while accomplishing more on the ground with funding from partners, timber sale revenues and stewardship contracting. However, without a cost accounting system that identifies and tracks personnel and operating expenses associated with NEPA analysis versus other administrative or on-the-ground activities, measuring NEPA costs will remain imprecise at best. The necessity of conducting environmental analysis does not make the costs of NEPA irrelevant. Time and funding used to conduct or defend NEPA analyses represent opportunity costs to the USFS and every dollar spent on NEPA is a dollar not spent accomplishing on-the-ground activities.

We appreciate the help provided by U.S. Forest Service personnel providing and interpreting data, and understanding agency processes.

Michael J. Niccolucci is a forest economist, Erik C. Berg is a research forester and Todd A. Morgan is director of the Forest Industry Research Program at the Bureau of Business and Economic Research.



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