



A PROFILE OF MONTANA'S HIGH-TECH INDUSTRIES

APRIL 2021



**BUREAU OF BUSINESS AND
ECONOMIC RESEARCH**
UNIVERSITY OF MONTANA

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John Baldrige and Janet Stevens
Bureau of Business and Economic Research, University of Montana
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 Senior Economist 47

 Director of Survey Research 47

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Key Findings

This is the seventh annual report on the high tech industry in the state of Montana. The Montana High Tech Business Alliance (HTBA or the Alliance), formed in 2014, is a member-driven group of high tech businesses and other organizations statewide. The Alliance asked the University of Montana Bureau of Business and Economic Research (BBER) to collect information and insights from its members so that a better assessment of its economic footprint and its prospects for continued growth could be made. This report presents the findings of that research.

The BBER finds that on the basis of 100 HTBA member firm and 95 nonmember firm survey completions:

- Alliance member firms and responding nonmember high tech firms report quite similar characteristics and concerns, which adds credibility and depth to the findings presented in this study;
- Alliance members expect to add 1,500 new jobs in 2021, making a significant contribution to Montana's recovery from the pandemic recession;
- Jobs with Alliance members pay considerably more than jobs elsewhere in the economy. The average annual salary at HTBA businesses (\$73,100) and nonmember businesses (\$59,500) was 59% larger than the average earnings per Montana worker;
- By essentially any measure, growth projected in member and nonmember high tech businesses significantly exceeds average statewide economic growth. Employment and revenues are expected to grow roughly seven times BBER's projected statewide growth rate;
- The HTBA members expect to make at least \$164 million in capital expenditures at their Montana facilities in 2021. This represents a significant increase from anticipated 2020 major capital expenditures (\$133 million);
- HTBA members will raise wage rates by 5% in 2021, somewhat faster than the 4.2% rate of growth realized in wage rates of all Montana employers in the most recent data;
- The Montana-based activities of high tech firms were responsible for \$2.9 billion in gross sales in 2020, a robust increase over 2019 revenue (\$2.5 billion);
- For the seventh year in a row, HTBA member respondents reported that Montana's quality of life - its lifestyle, the work/life balance available here, the recreation opportunities, and the beauty of the landscape - provides them a significant advantage in business. Nonmember respondents reported the same for the fifth year in a row;

- HTBA members and nonmembers report that finding capital, finding new customers or raising firm visibility and hiring skilled technology workers are their firms' largest impediments to faster growth;
- For the first year in four years slightly more Alliance companies (12%) reported that it was harder to obtain capital in 2020 compared to the previous year (9%);
- 20% of responding firms reported that the main COVID-related challenge they faced was conducting internal communications and other management activities while working remotely, while 16% of responding firms reported a loss of sales due to the pandemic.

In addition to survey research, BBER also conducted research using data from federal statistical agencies. While these data can only be used as a broad benchmark of high tech economic activity, they are suggestive of the size of the high tech activity of businesses who are not members of the Alliance. These data indicate that activity in the Montana economy that fits a published high tech definition used in national-level research comprises about 5.8% of total wages, paying wages that approach double the overall average and are higher than all but three other Montana industries. Based on this analysis, BBER concludes that the aggregated responses of HTBA members reported here understate the actual size of industry activity in Montana. While no precise estimate is possible, it is likely that the true size of the industry is twice as large as what is reported in the survey results in this study.

Background of the Project

The Montana High Tech Business Alliance

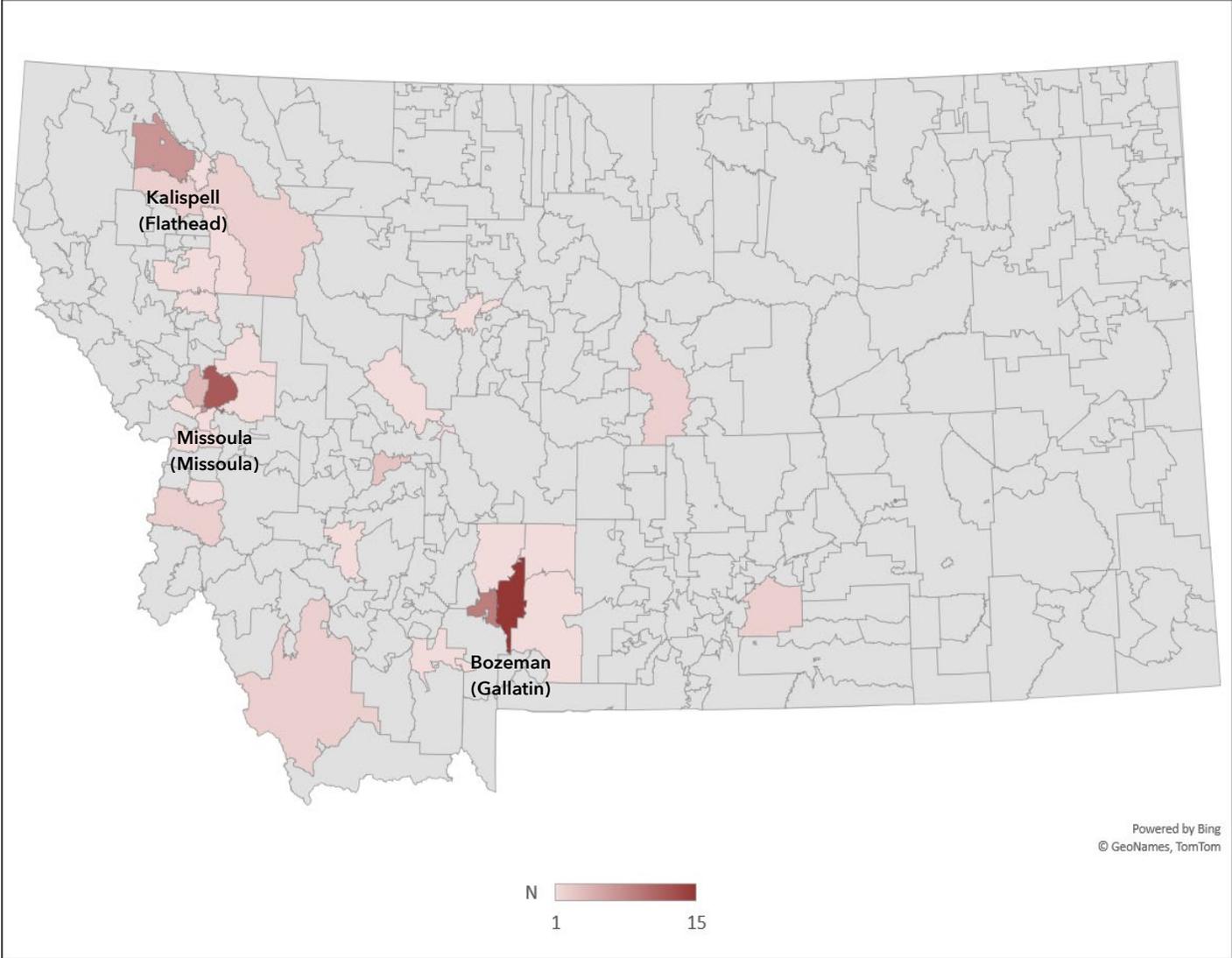
Launched in April 2014, the Montana High Tech Business Alliance is a statewide membership organization focused on creating more high tech jobs in Montana. The Alliance currently has 249 member firms.

Full membership in the Alliance is available to firms engaged in high tech and manufacturing that have operations in Montana. "High tech" is defined as firms that make or sell high tech products, provide professional services or consulting related to high tech, conduct e-commerce, or engage in manufacturing using skilled labor. Organizations that are not in the high tech industry such as law firms, banks, government entities or economic development agencies may join as affiliate members. The Alliance is recognized as a 501(c)(6) nonprofit trade association. Benefits of membership include:

- connecting with tech leaders across the state at quarterly networking events;
- promoting member companies and Montana's strong high tech and manufacturing sector through a biweekly e-newsletter, website and other communications channels;
- and accelerating growth by recruiting employees through a high tech jobs portal.

The Alliance’s members are located throughout the state of Montana with more prominent concentrations found in Gallatin, Missoula and Flathead counties, as indicated in Figure 1.

Figure 1: Locations of 2020 HTBA Members



The Bureau of Business and Economic Research

The Bureau of Business and Economic Research is the primary research unit of the University of Montana's College of Business. Founded in 1948, the Bureau regularly participates in forecasting and economic analysis, survey research, industry studies, and information dissemination. Since its founding, BBER has conducted hundreds of survey research projects of both businesses and households, utilizing its state-of-the-art survey center.

About This Study

This is the seventh annual study conducted in order to objectively and accurately assess the characteristics and the concerns of members of the Montana High Tech Business Alliance. Its findings illustrate the rapidly evolving activities and concerns of the membership. It also serves as an important assessment of one of Montana's fastest-growing and highest-paying industry clusters, addressing a gap in information that is available from public sources. Because this is the seventh replication of this study, it is possible to observe some changes that have occurred among Alliance membership and in the high tech industry as a whole.

This study also examines the characteristics and concerns of nonmember high tech firms located in Montana. Including nonmember firms in the study provides data users a useful glimpse into the broader population of high tech firms. Nonmember data also provide helpful context that broadens data users' understanding of Alliance member firms.

We begin this report with some insights on high tech activity in Montana that draw from public data on industry aggregates. We then turn to the findings of the survey of HTBA members, including data gathered on business activity as well as responses to open-ended questions on their needs and concerns. Information on the methods used to derive the results is found in an appendix.

The data presented here represent aggregated information on all HTBA members. BBER fully respects the privacy of individual companies, and no data that might reveal individual company information or viewpoints is contained in this report. For this study 176 of the 249 member firms, only those that work in the areas of high tech or manufacturing, were invited to participate. In addition, 456 nonmember high tech firms were invited to participate.

This year's survey contains two new additions. First, the study examines the main challenges businesses faced due to the COVID-19 pandemic. Second, a brief description of the opportunities provided to some businesses by the COVID-19 pandemic is presented. As always, trends in wages, employment, revenue, and capital expenditures over the seven years the survey has been conducted are examined at the end of this report.

Measuring High Tech Business Activity

In this study, we present the results of a survey of high tech businesses in Montana. It is instructive, however, to get a sense of the industry from the federal government statistical data before turning to the survey-based results. Adopting a nationally-derived definition of “high tech” (defined in the paragraphs that follow), the data suggest that the presence of high-tech economic activity in Montana is considerable, as shown below in Table 1. To put these broad estimates into context, Montana high-tech companies accounted for 5.8% of total Montana wages, 3.4% of total Montana payroll jobs, and 5.9% of Montana business establishments in 2020. The data suggest that high tech companies here are relatively small-sized, but pay wages well above the state’s overall average.

Table 1: Characteristics of Montana’s High Tech Industries, 2020

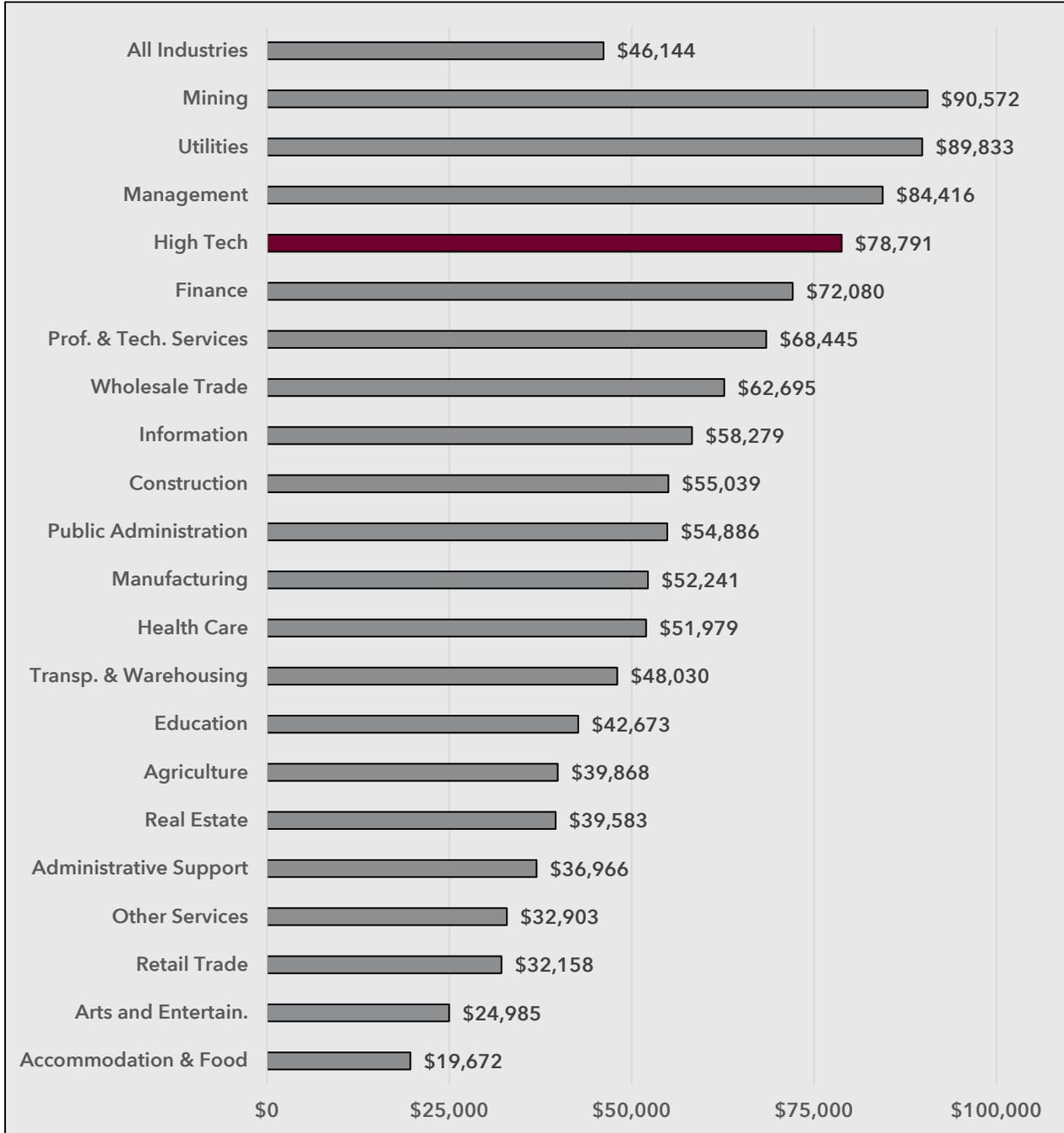
Category	2020	2019	2020 Change
Wages (\$ mill.)	\$1,242.68	\$1,152.25	7.8%
Employment	15,772	15,580	1.2%
Establishments	3,004	2,776	8.2%
Wages per Job	\$78,791	\$73,958	6.5%
Jobs per establishment	5.25	5.61	-6.4%

Note: Figures derived using Hecker (2005) definition of industry described below. Source: U.S. Bureau of Labor Statistics.

While broad, the estimates in Table 1 suggest that the high tech industry is a significant economic contributor. Furthermore, the publicly available data suggest that the industry’s presence continues to grow. When compared to 2019, the total number of establishments in the state grew by 8.2% in 2020, while wages grew by 7.8% and employment grew by 1.2%. Montana’s high tech firms are becoming more numerous. They also are paying higher wages. Wages per job grew by 6.5% in 2020.

The data also suggest that Montana’s high-tech employers pay considerably more in FY2020 than the state average and rank among the highest paying Montana industries, as shown in Figure 2. The average wages per job in Montana high tech companies was \$78,791 per year, or roughly 71% higher than the state average of \$46,144 per year for all Montana industries. The wages do not include the value of benefits. As is clear from Figure 2 below, only three industries in the state paid higher average wages.

Figure 2: Montana Earnings per Job, 2020



These data can only be considered as suggestive of the size of Montana’s high tech industry. Much more refined analysis and better-defined data are needed to isolate and identify the characteristics of our state’s high-tech producers. But the data clearly indicate that Montana’s high tech sector is a sizable source of economic activity in the state. The direct measurement of high tech business activity in the economy has always been hampered by two issues: 1) the lack of a consistent definition, and 2) the shortcomings of

publicly available data in adequately capturing whatever definitions are used. Simply put, estimates of high tech business activity derived from the standard sources for economic data shown above - the federal government statistical agencies - miss some activities that are clearly high tech and count other activities that are not.

A study by the U.S. Bureau of Labor Statistics in 2005 used a very conservative definition of the high tech industry, detailed in Table 2, to track national high tech growth. It was based on a national-level analysis that considered industries to be high tech if they:

- Employed a high proportion of scientists, engineers, and technicians,
- Had a high proportion of R&D employment,
- Produced a high tech product, or
- Used high tech production methods.

Table 2: 2005 BLS-Defined High Tech Industries

NAICS Code	Definition
3254	Pharmaceutical and medicine manufacturing
3341	Computer and peripheral equipment manufacturing
3342	Communications equipment manufacturing
3344	Semiconductor and electronic component manufacturing
3345	Electronic instrument manufacturing
3364	Aerospace product and parts manufacturing
5112	Software publishers
516	Internet publishing and broadcasting
517	Telecommunications
518	Data processing, hosting and related services
5413	Architectural and engineering services
5415	Computer systems design and related services
5417	Scientific research and development services

Source: Hecker (2005).

We use this definition to identify high tech in the public data. Clearly such discrete classifications miss some high tech firms and include others that are not high tech. It is certain that the classification does not match the composition of HTBA membership. Thus, we must examine the survey results to more fully reflect the composition of the high tech industry in Montana.

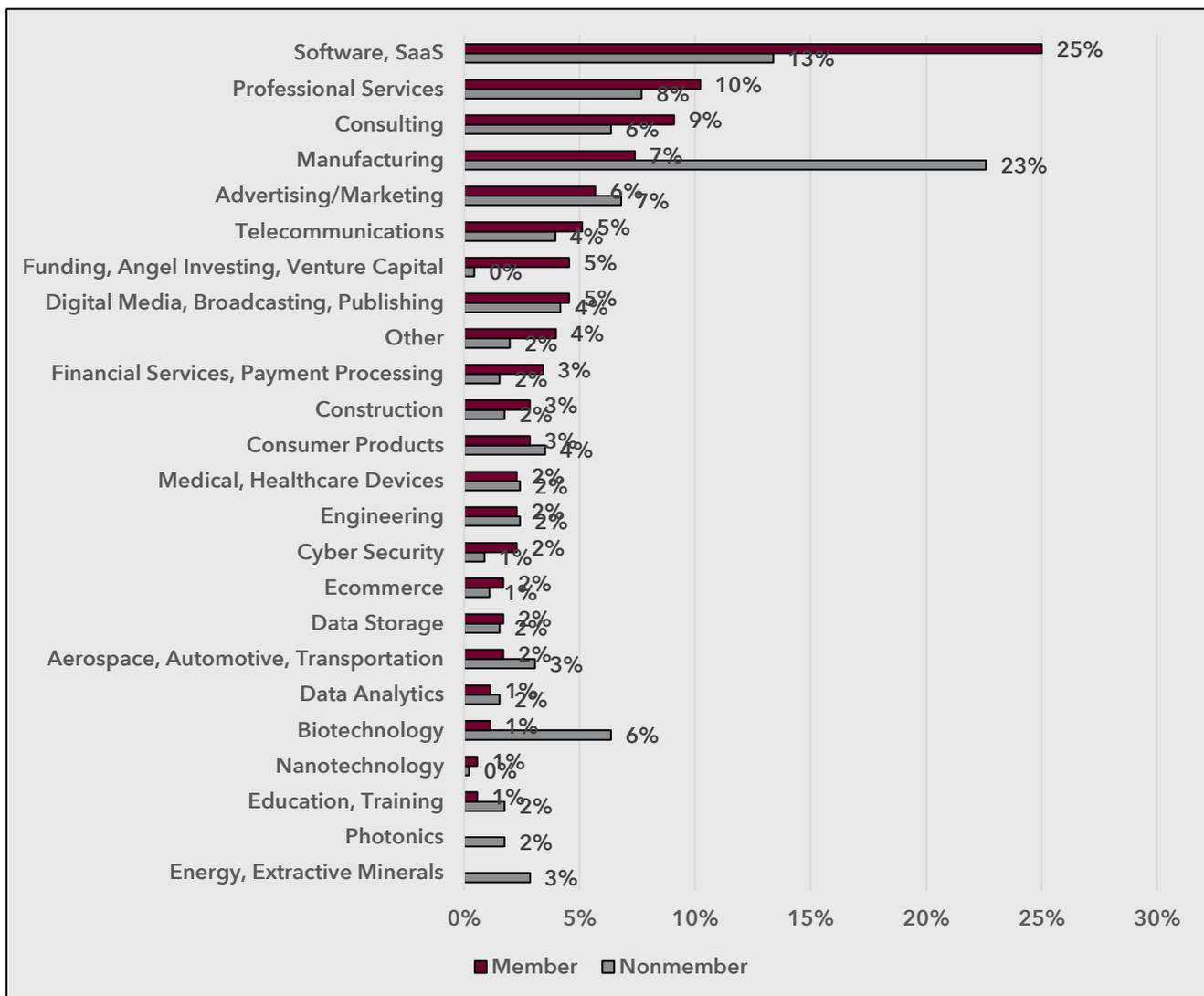
Results

The paragraphs that follow present the findings of the Montana High Tech Business Alliance survey that was conducted from January 2021 to March 2021. This section of the report is organized in the order that the questions appeared in the questionnaire, and the text of each question is provided to assist the reader.

Q1. Which high tech sub-industry best represents your company?

Figure 3 describes the members of the High Tech Business Alliance as of December 2020 by their type of business. HTBA consists of businesses from a wide range of industry sectors. Software, professional services, consulting and manufacturing firms are the four most common firm types in the Alliance. Among nonmember firms, manufacturing and software were the most common firm types.

Figure 3: High Tech Business Types

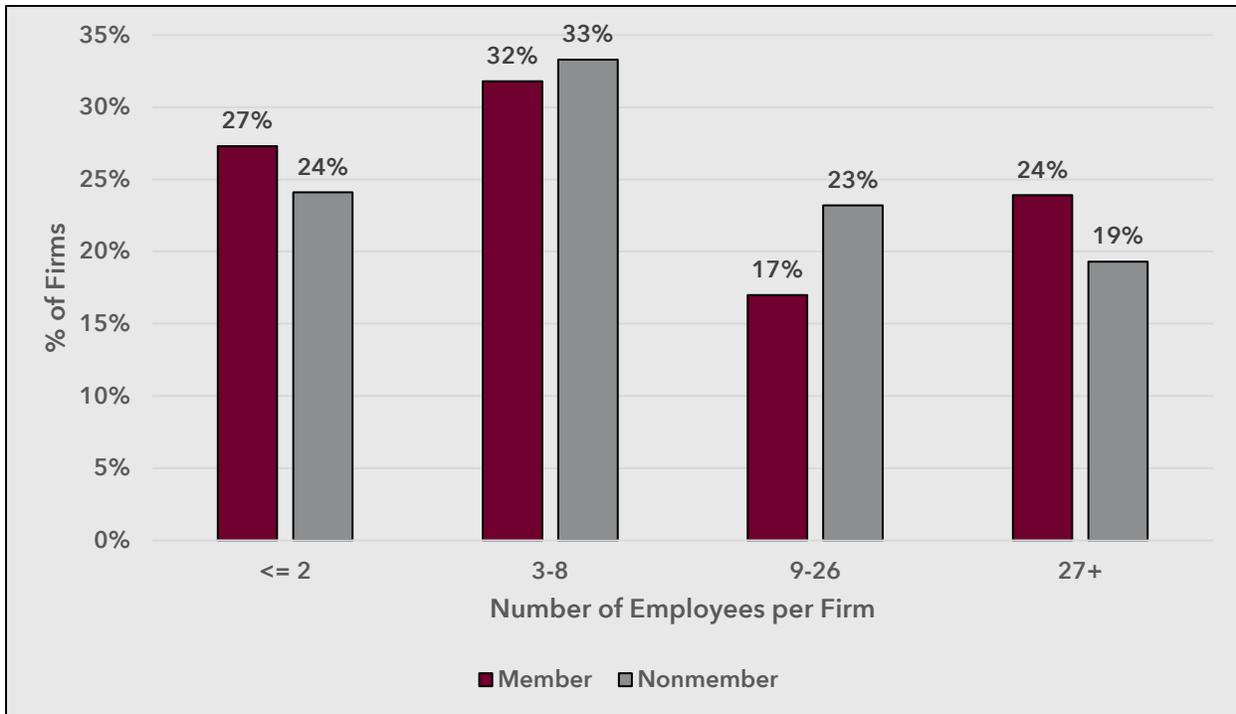


Q2. How many employees does your company have in total?

Q3. How many employees does your company have in Montana?

Almost three quarters (71%) of Alliance high tech firms employed 26 or fewer people in Montana. Figure 4 describes the distribution of employment sizes among the Montana High Tech Business Alliance. HTBA members employed 5,410 Montana workers as of December 2020. Nonmember firms employed an additional 12,050 Montana workers.

Figure 4: Employment Distribution among High Tech Firms in Montana

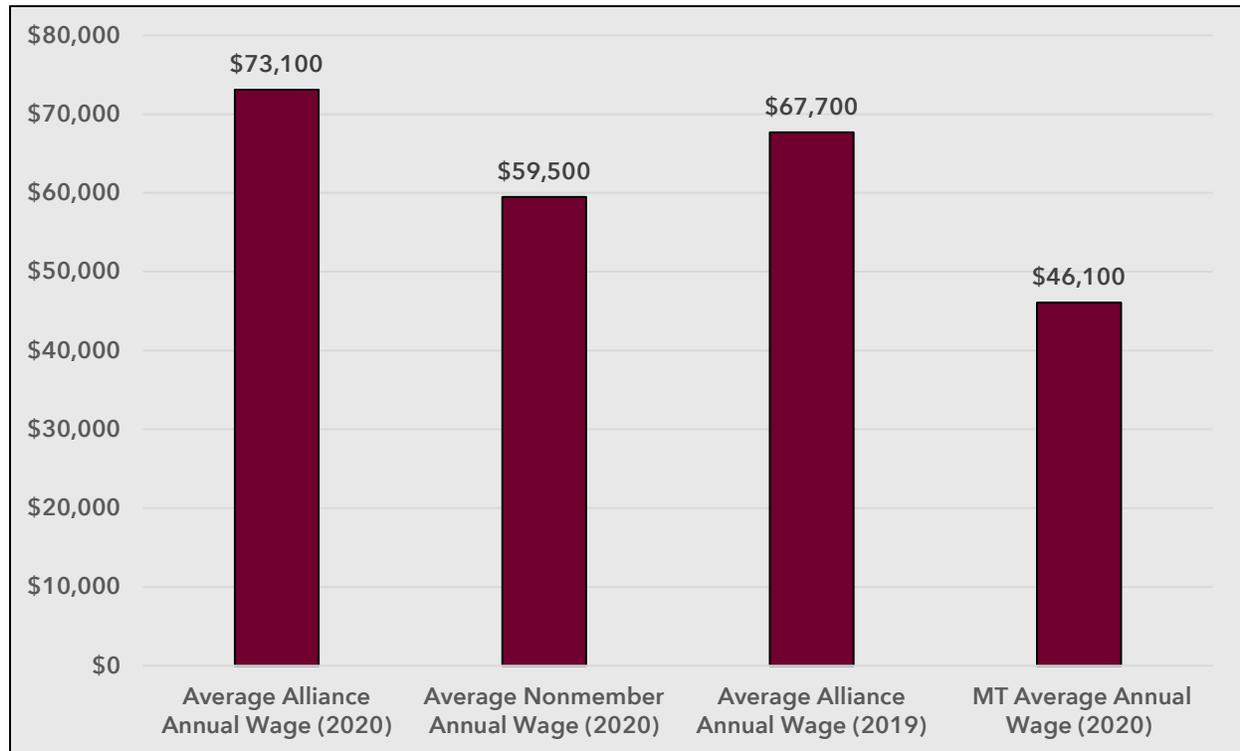


2020 Changes. Surveyed high tech firms added 460 employees to their workforce (3%) in 2020.

Q4. What is your company's average annual Montana wage?

The members of the HTBA and responding nonmember firms provide high-paying jobs for Montanans. Figure 5 below illustrates that HTBA jobs pay 59% more than Montana's average annual wage per worker.¹

Figure 5: HTBA Annual Wages



2020 Changes. Average annual wages paid by Alliance member firms increased by 8% from 2019 to 2020. The increase in average Alliance wages is essentially identical to the wage increase of 7.8% found in publicly available data for all 3,004 Montana high tech firms. In addition, Alliance annual wages increased at a rate that significantly exceeded the 2020 national inflation rate of 1.2%.²

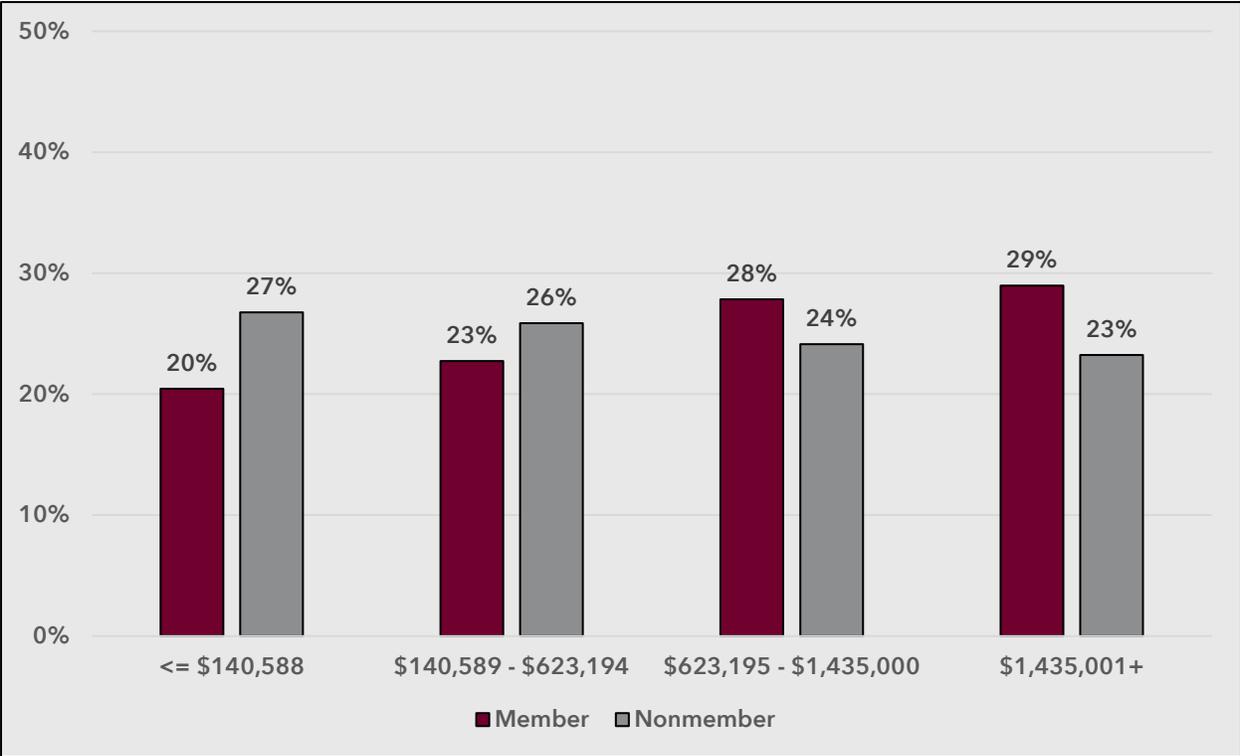
¹ Sources: UM Bureau of Business and Economic Research and U.S. Bureau of Labor Statistics State and Area Employment, Hours, and Earnings, Total 2020 Private Earnings in Montana.

² Source: Bureau of Labor Statistics, U.S. Department of Labor. The Consumer Price Index - All was 1.2 percent for 2020.

Q5. What were your company's annual revenues in 2020?

Montana high tech companies (Alliance members and nonmembers) are a very important component of Montana's economy in terms of revenue. The Montana-based portions of high tech firms generated an estimated \$2.9 billion in 2020 revenue. Examining company revenue, Figure 6 shows that Alliance members and nonmembers range from start-ups with very little, if any, revenue to Fortune 500 companies.

Figure 6: 2020 HTBA Revenue by Firm

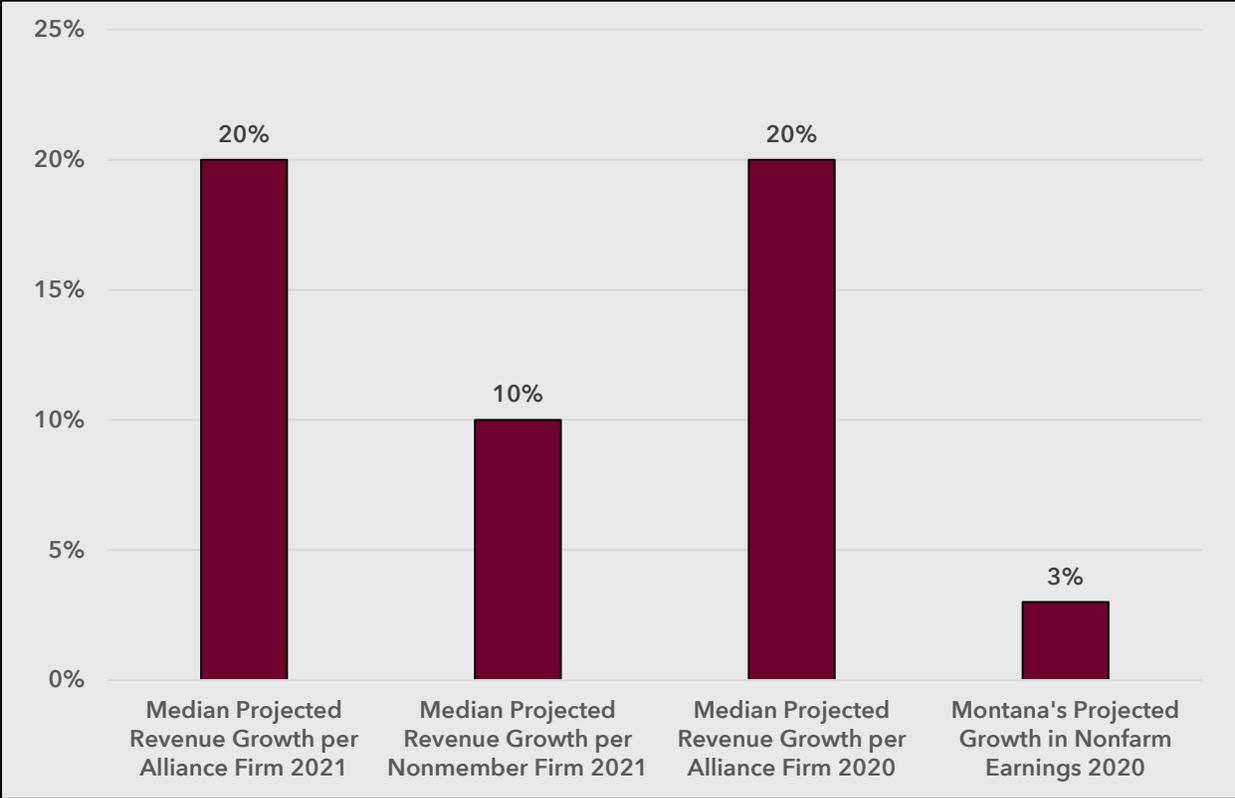


2020 Changes. Total high tech firm revenue increased from \$2.5 billion in 2019 to \$2.9 billion in 2020. This increase suggests that high tech firms continue to grow substantially. However, a significant number of member and nonmember firms chose not to answer this question. This respondent choice required UM BBER to impute the missing responses. For this reason, readers should use the data presented for question 5 with caution.

Q6. By what percentage do you estimate your company's annual revenues will increase or decrease next year (2021)?

Montana's high tech companies still anticipate growing very quickly. Figure 7 demonstrates that Montana HTBA firms anticipate growing more than 7 times faster than the Montana economy as a whole.³ Responding nonmember firms anticipate growing at four times the rate of the entire Montana economy.

Figure 7: Annual Revenue Growth Rate



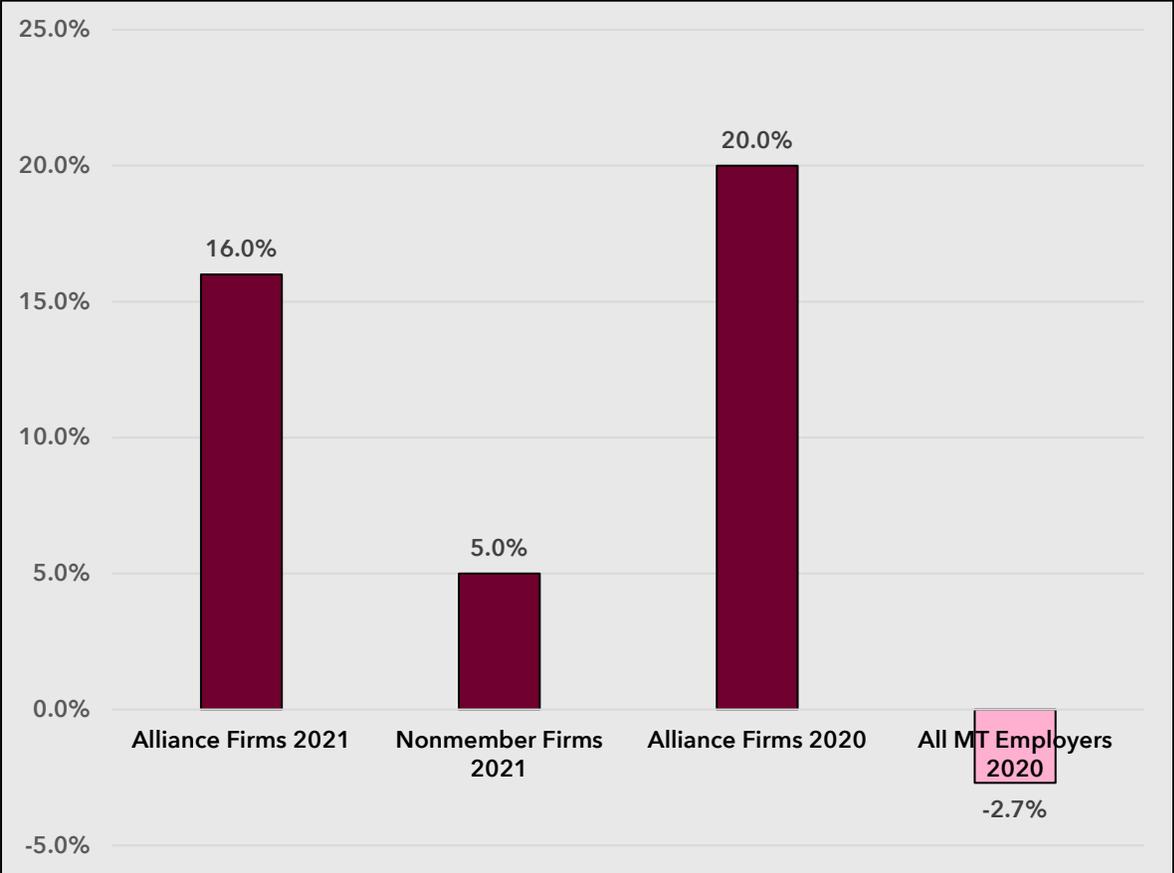
2020 Changes. 2021 projected median Alliance revenue growth per firm (20%) stayed steady when compared to 2020 projected growth (20%). 2021 projected revenue growth aligns well with projected 2021 employment growth presented on the next page. The continuing anticipation of fast growth is an indication of the entrepreneurial nature of the firms in the Alliance.

³ Bureau of Business and Economic Research. *Economic Outlook Seminar 2021: The Economic Outlook for Montana.*

Q7. About how many new jobs do you expect your company will create in Montana next year (2020)?

Montana’s high tech firms anticipate adding an estimated 1,500 new jobs in Montana in 2021. This annual industry employment growth rate (9%) is significantly faster than Montana’s COVID-influenced 2020 total employment growth rate of -2.7% (see Figure 8 below)⁴.

Figure 8: Annual Employment Growth Rate



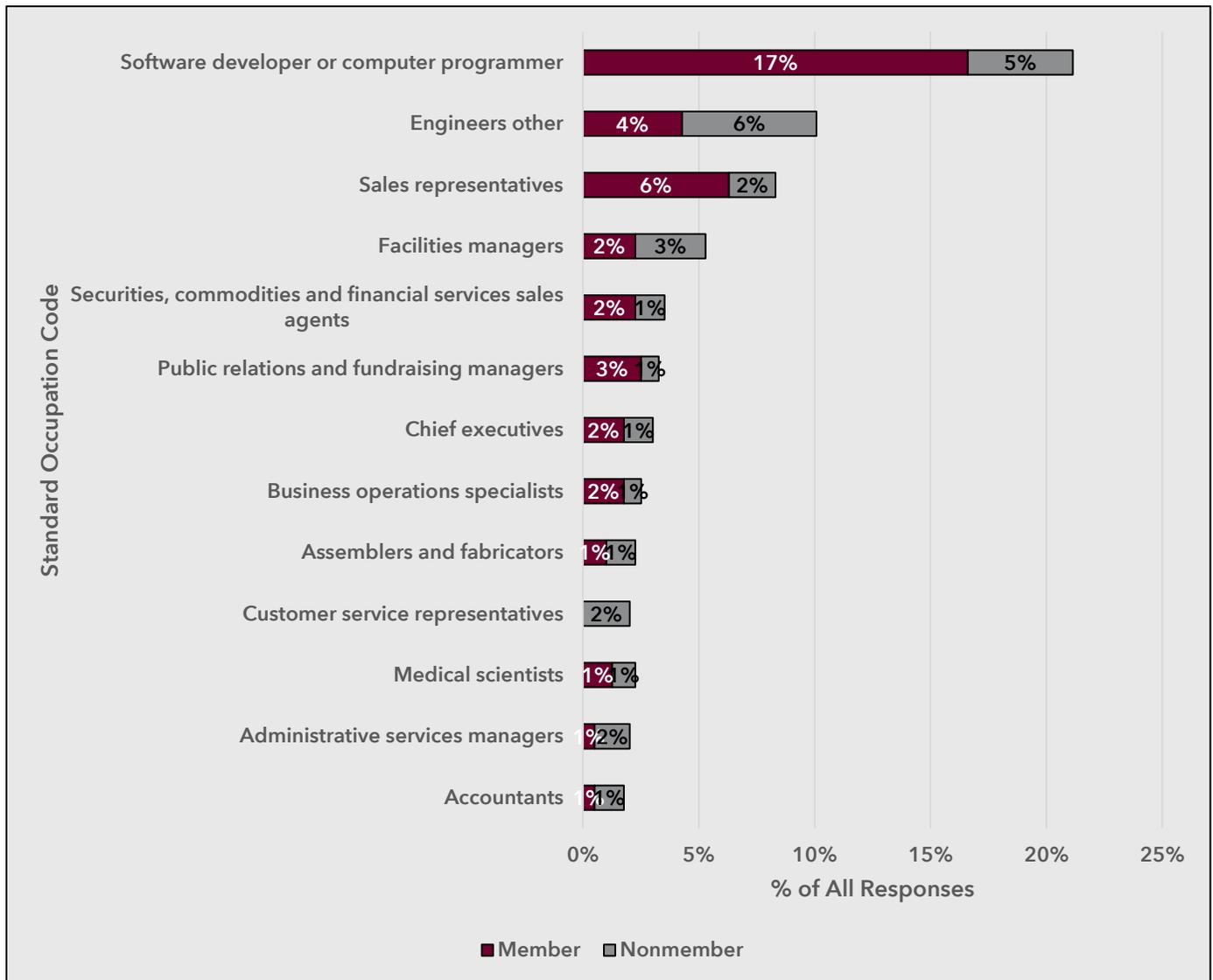
2020 Changes. 2021 projected employment growth is slightly lower than 2020 projected employment growth. 2021 employment growth aligns well with projected 2021 revenue growth presented on the previous page.

⁴ Montana Department of Labor and Industry. Employment and Unemployment Statistics - LAUS, 3rd quarter 2020 to 3rd quarter 2019, accessed April 20, 2021.

Q8. What are the job titles of the three job types that your firm most often hires?

Of the 397 responses given to this question, the most frequently cited job title was software developer or computer programmer, which was cited in 23% of all responses (see Figure 9). Engineers (10% of responses) were next most often cited. Sales representatives were cited in 8% of responses. Respondents mentioned a total of 75 distinct job titles.

Figure 9: Most Often Hired Occupations



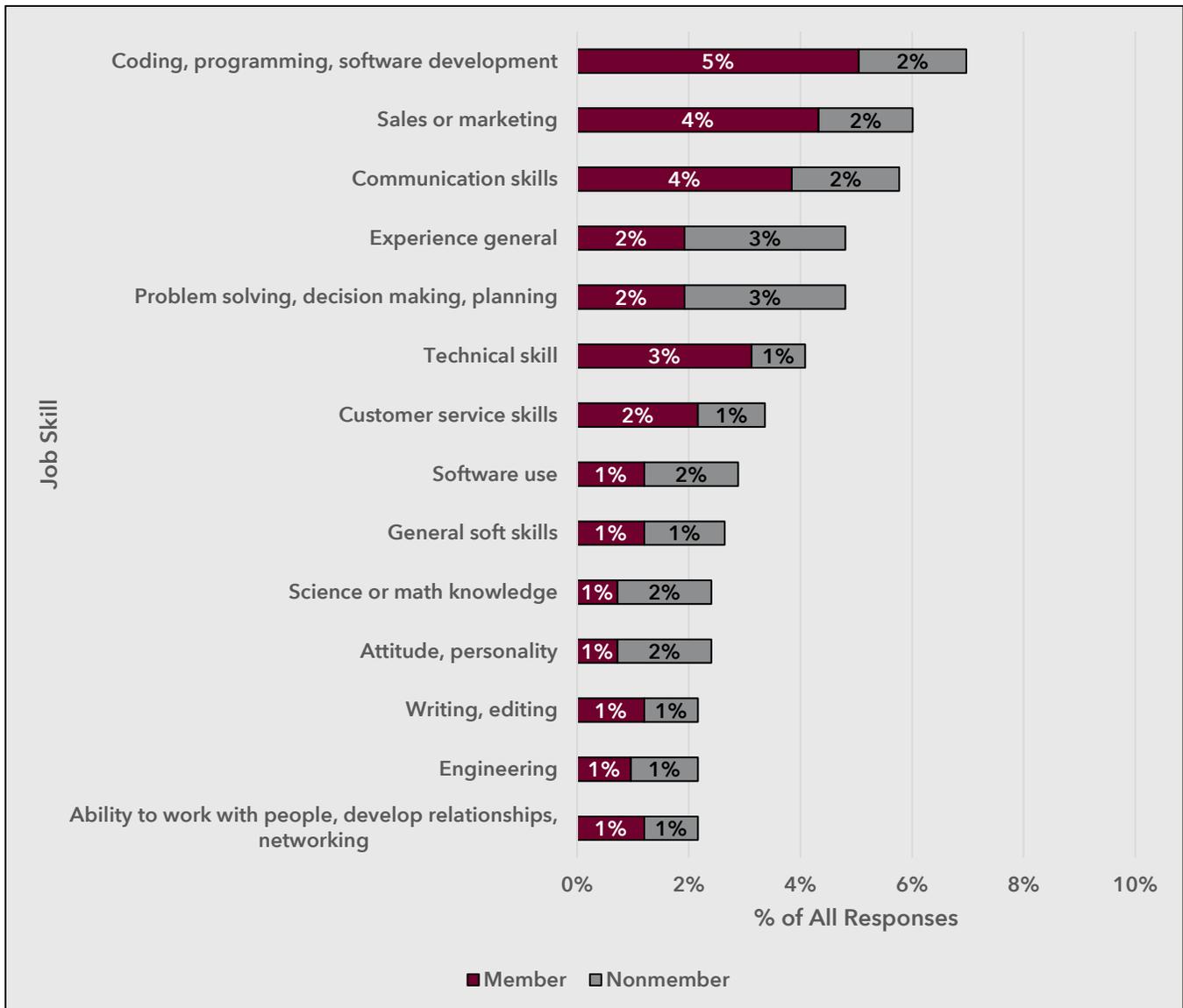
All answers to this question were coded by U.S. Bureau of Labor Statistics 2018 Standard Occupational Classification (SOC).⁵ The complete table presenting the frequency of responses by 2018 SOC may be found in Appendix 5.

⁵ The 2018 direct match file may be found here: https://www.bls.gov/soc/2018/soc_2018_direct_match_title_file.pdf

Q9. What are the three job-related skills your firm looks for most in new hires?

Of the 416 responses received for this question, coding or programming skills in new hires was cited most often (7% of responses) as Figure 10 illustrates. Sales or marketing skills (6% of responses) and communication skills (6% of responses) were next most frequently mentioned. Experience in general (5% of responses) and problem solving skills (5% of responses) were the 3rd most often cited skills.

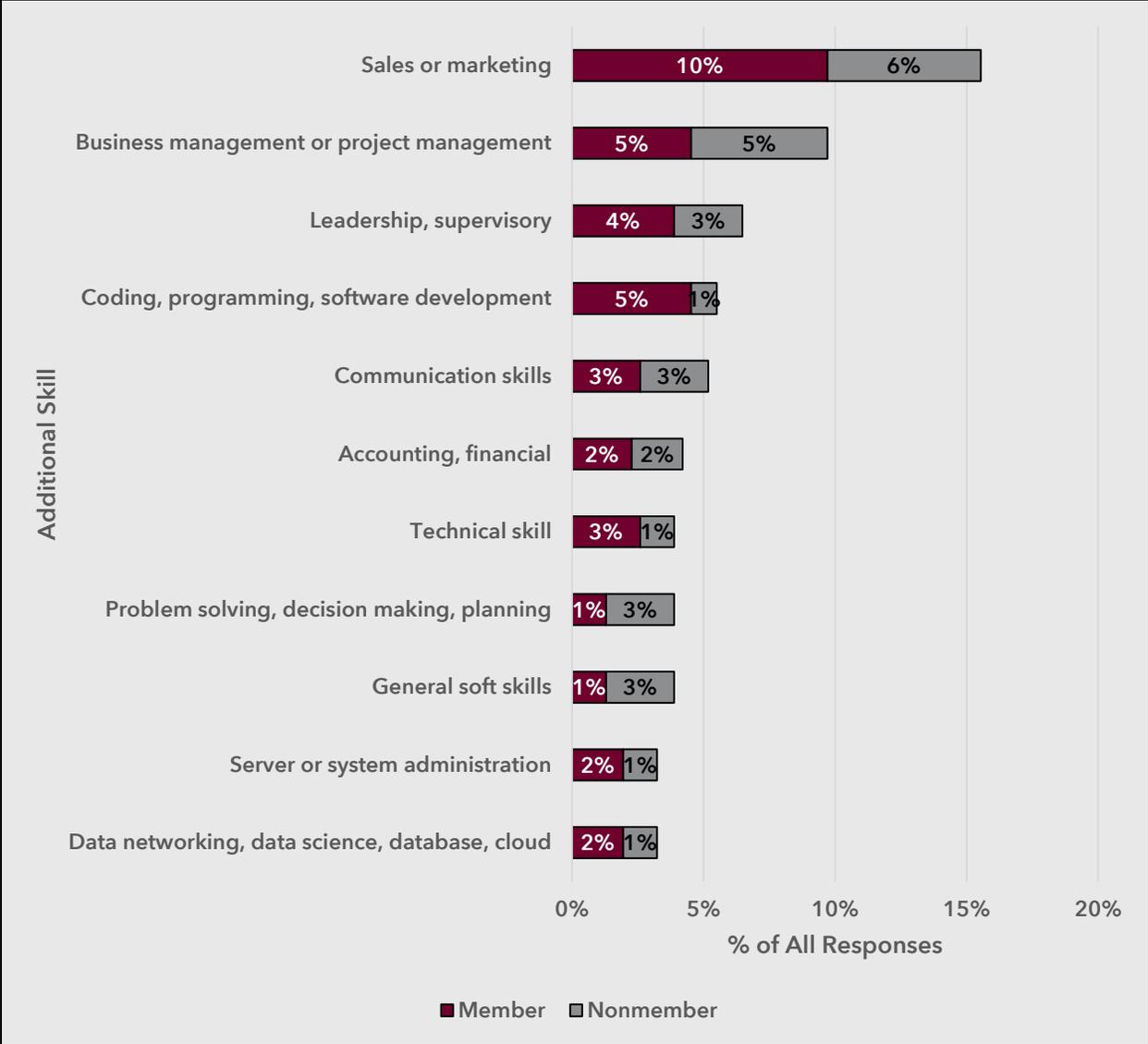
Figure 10: Most Often Sought Skills in New Hires



Q10. Thinking now about your existing workforce, what are the three job-related skills that you would like to add to, or improve, in your current workforce?

Respondents provided a total of 309 answers to question 10. Respondents (16% of all responses) most often said they would like to add or improve sales or marketing skills among their existing workforce. Next most frequently cited (10% of responses) was adding or improving business management or project management skills in their existing workforce. The third most often cited skill needed by the existing workforce was leadership or supervisory skill (7% of responses). Figure 11 below presents the answers to question 10.

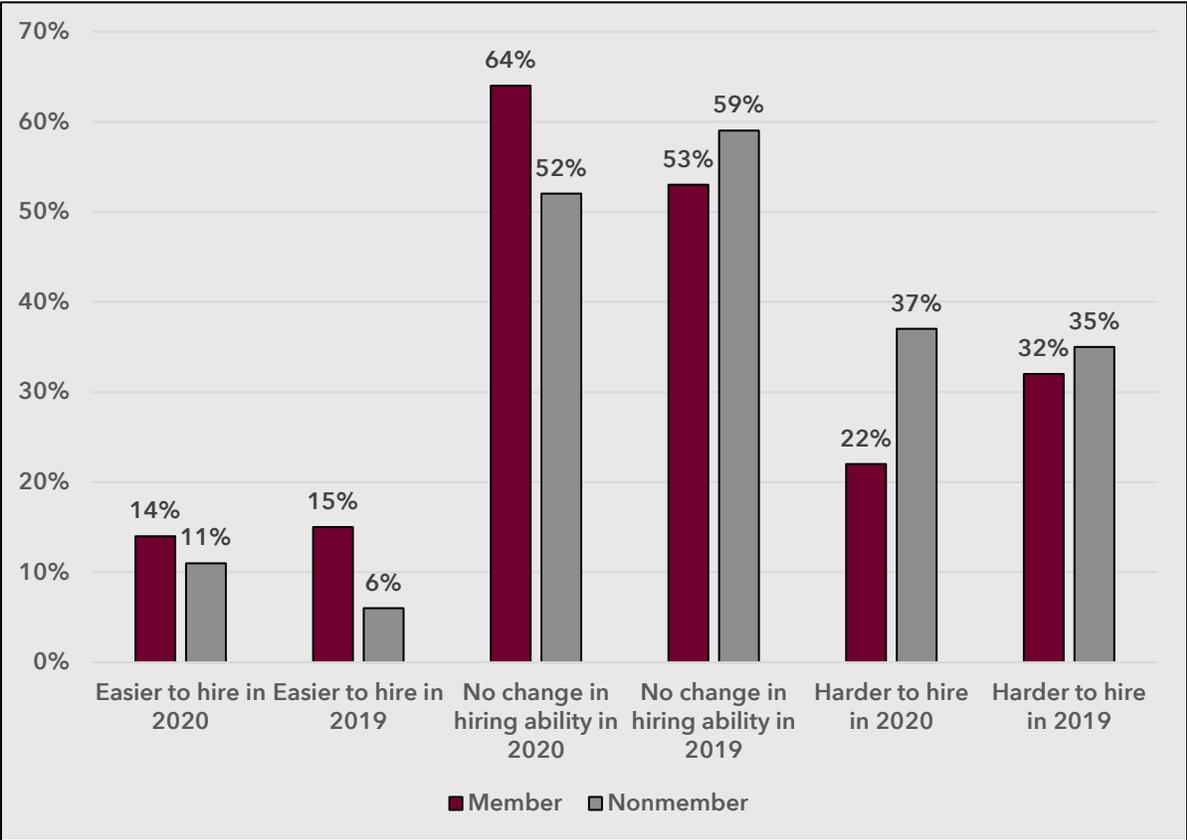
Figure 11: Additional Skills Needed by Existing Workforce



Q11. Some Montana employers say that it is hard for their firm to find qualified new employees. Other Montana employers say that it isn't hard for their firm. Over the course of calendar year 2020 would you say that for your firm it has become easier, there has been no change, or it is harder to hire qualified new employees?

Two of every 10 Alliance employers (22%) reported that it became harder for their firm to hire qualified workers over the course of 2020 (see Figure 12). A larger fraction (37%) of nonmembers said that hiring got harder during 2020. A majority of Alliance members (64%) and nonmembers (52%) observed no change in hiring ease or difficulty. About 14% of Alliance employers and 11% of nonmember employers said hiring qualified workers became easier during 2020.

Figure 12: 2020 Ease or Difficulty of Hiring Qualified Employees

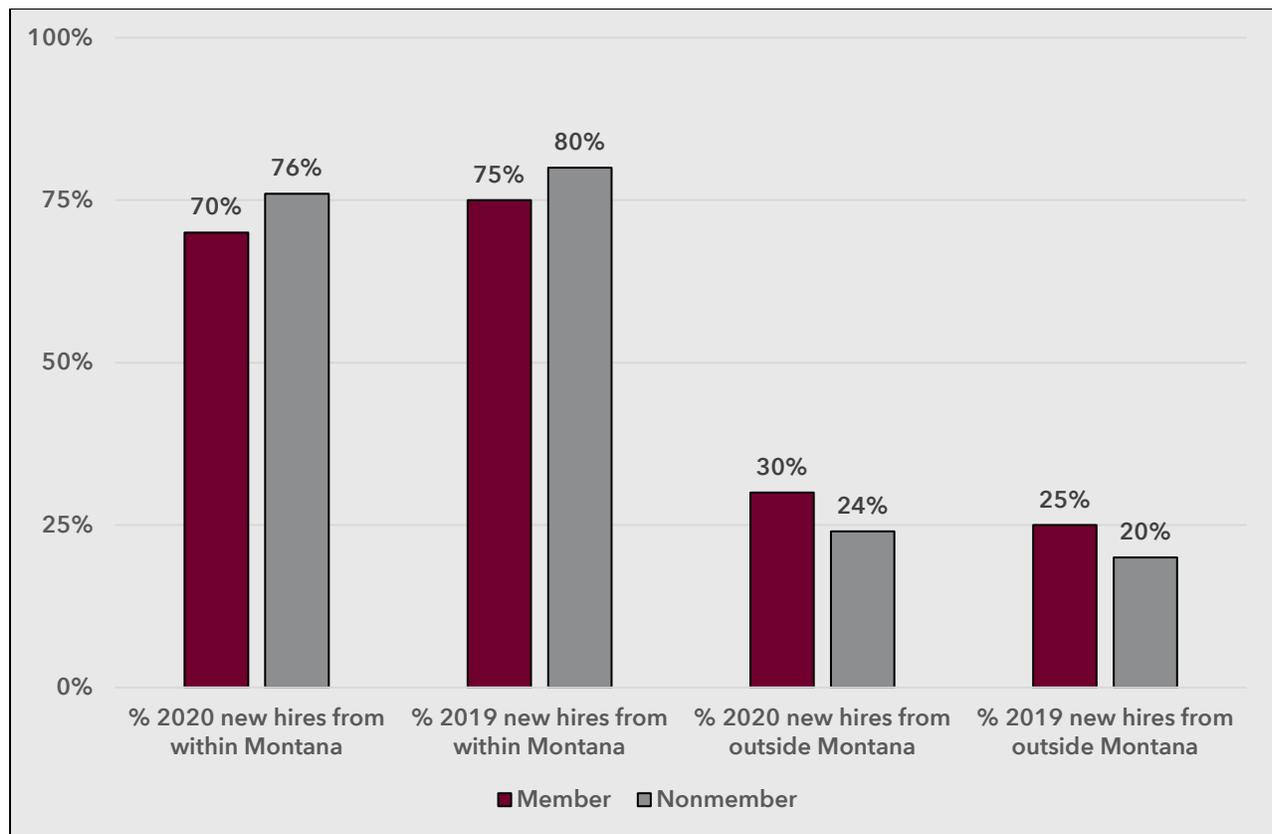


2020 Changes. Fewer Alliance members (22%) reported that it was harder to hire in 2020 when compared to 2019 (32%).

Q12. Over the course of calendar year 2020 what percentage of your firm's new hires came from within Montana and what percentage came from out of state?

Alliance firms reported hiring 70% of their new employees from within Montana during 2020 (see Figure 13). About 30% of new Alliance company employees came from outside Montana. Nonmember firms reported a slightly higher within Montana hiring rate, 76%. This survey result represents the fourth year of the Alliance's attempt to measure state of origin for new hires among Montana businesses. This effort is providing consistent estimates that indicate that Montana's high tech industries hire Montana workers.

Figure 13: 2020 Hiring from within Montana

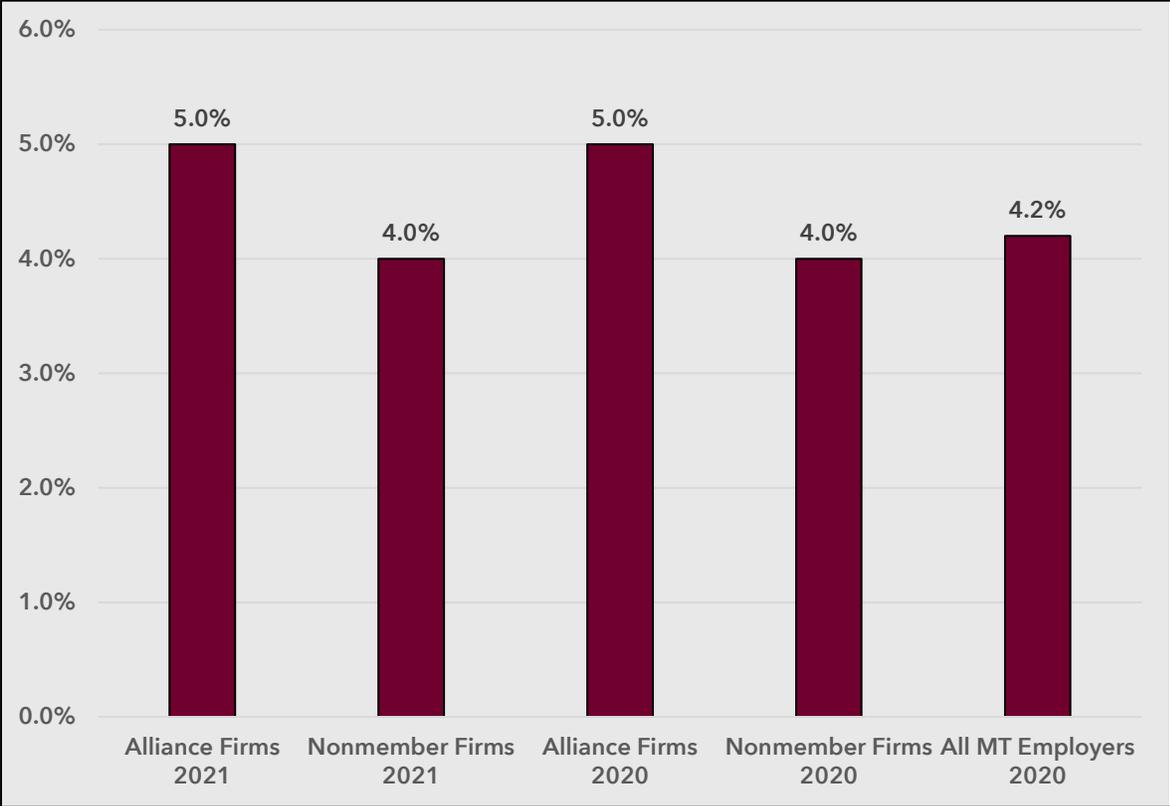


2020 Changes. Alliance members' in-state hiring rate in 2020 declined slightly when compared to 2019 (75%) and 2018 (75%).

Q13. By what percentage do you estimate your company's annual Montana wages may increase or decrease next year (2021)?

The annual pay of Montana's HTBA employees and nonmember firm employees in 2021 is projected to grow somewhat faster than that of all Montanans. Figure 14 shows that HTBA and nonmember tech firm wages are projected to grow by 5% in 2021 while in 2020 Montana annual wages grew 4.2%⁶.

Figure 14: Annual Pay Growth Rate



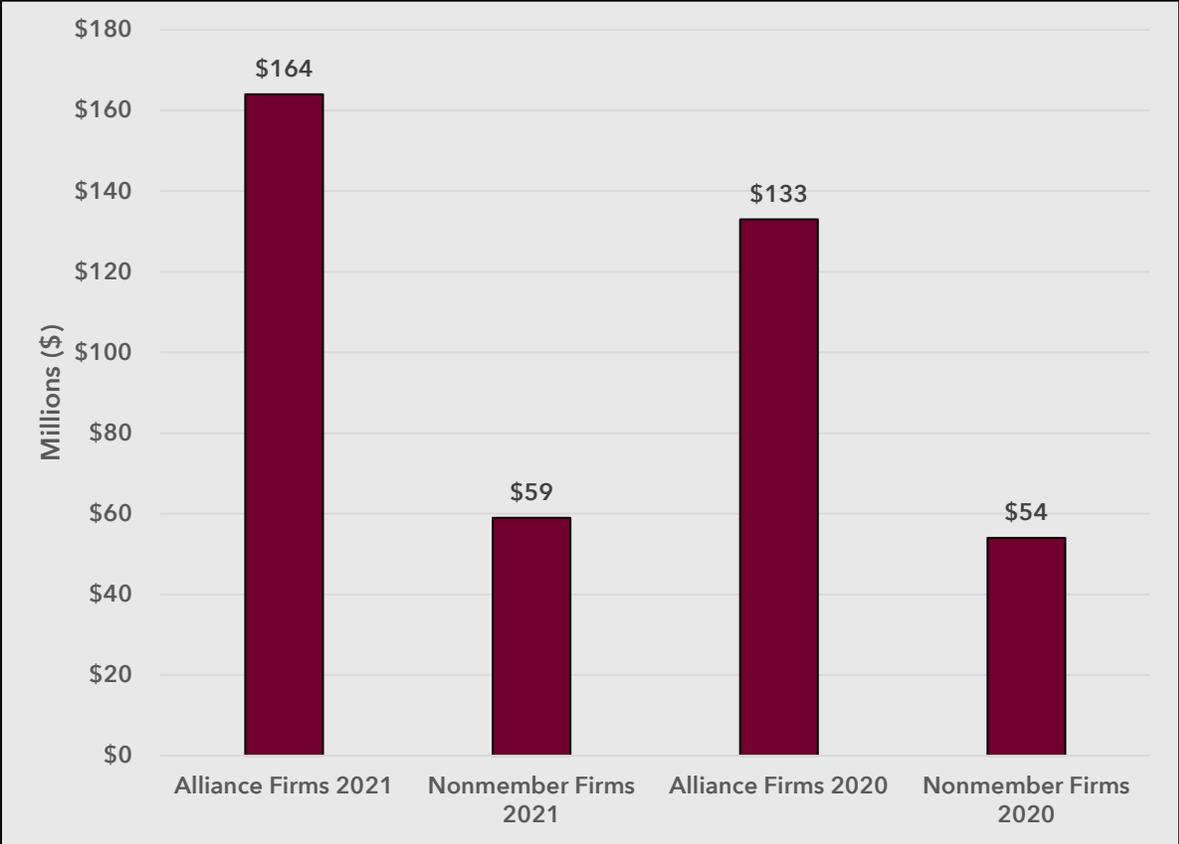
2020 Changes. 2021 projected Alliance annual wage growth per firm is the same as 2020 projected wage growth.

⁶ U.S. Bureau of Labor Statistics. Occupational Employment and Wage Statistics. Annual mean wage for all occupations in Montana, downloaded April 21, 2021.

Q14. About how much money do you anticipate your company will invest in major capital expenditures in Montana next year (2021)?

HTBA companies plan to make \$164 million in major capital investments in Montana in 2021, which will add a significant number of additional construction and support jobs in the state (see Figure 15). The responding nonmember firms reported plans to spend an additional \$59 million in major capital investments in Montana in 2021.

Figure 15: 2021 Planned Capital Investments in Montana

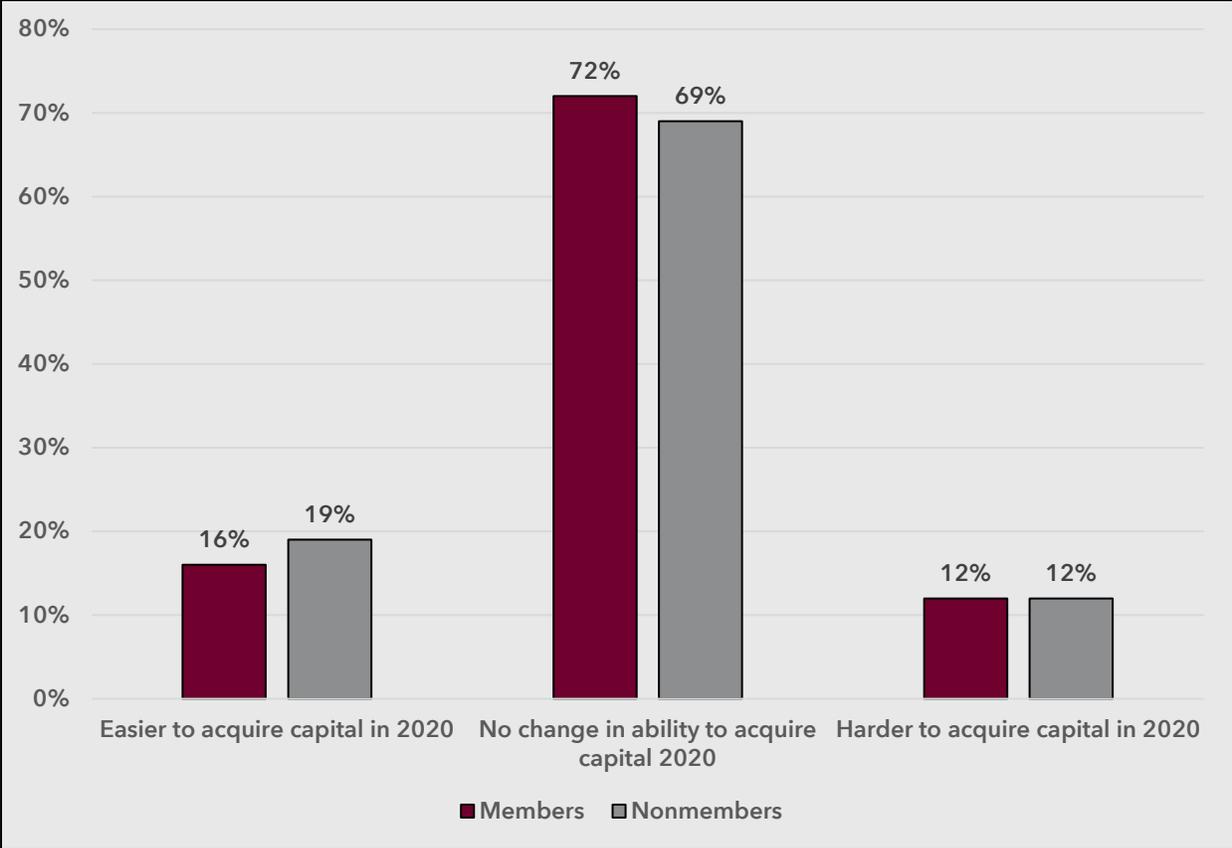


2020 Changes. 2021 anticipated Alliance major capital expenditures (\$164 million) increased over 2020 anticipated major capital expenditures (\$133 million).

Q15. Some Montana employers say that it is hard for their firm to acquire new capital. Other Montana employers say that it isn't hard for their firm. Over the course of calendar year 2020 would you say that for your firm it has become easier, there has been no change, or it is harder to acquire new capital?

In 2020, 12% of Alliance firms reported that it was more difficult for their firm to obtain new capital (see Figure 16). A large majority (72%) observed no change in the ease or difficulty of obtaining capital. About 16% said that obtaining new capital was easier in 2019. More nonmember firms reported that it was easier to obtain capital in 2020 (19%) than did Alliance member firms.

Figure 16: 2020 Ease or Difficulty in Obtaining New Capital

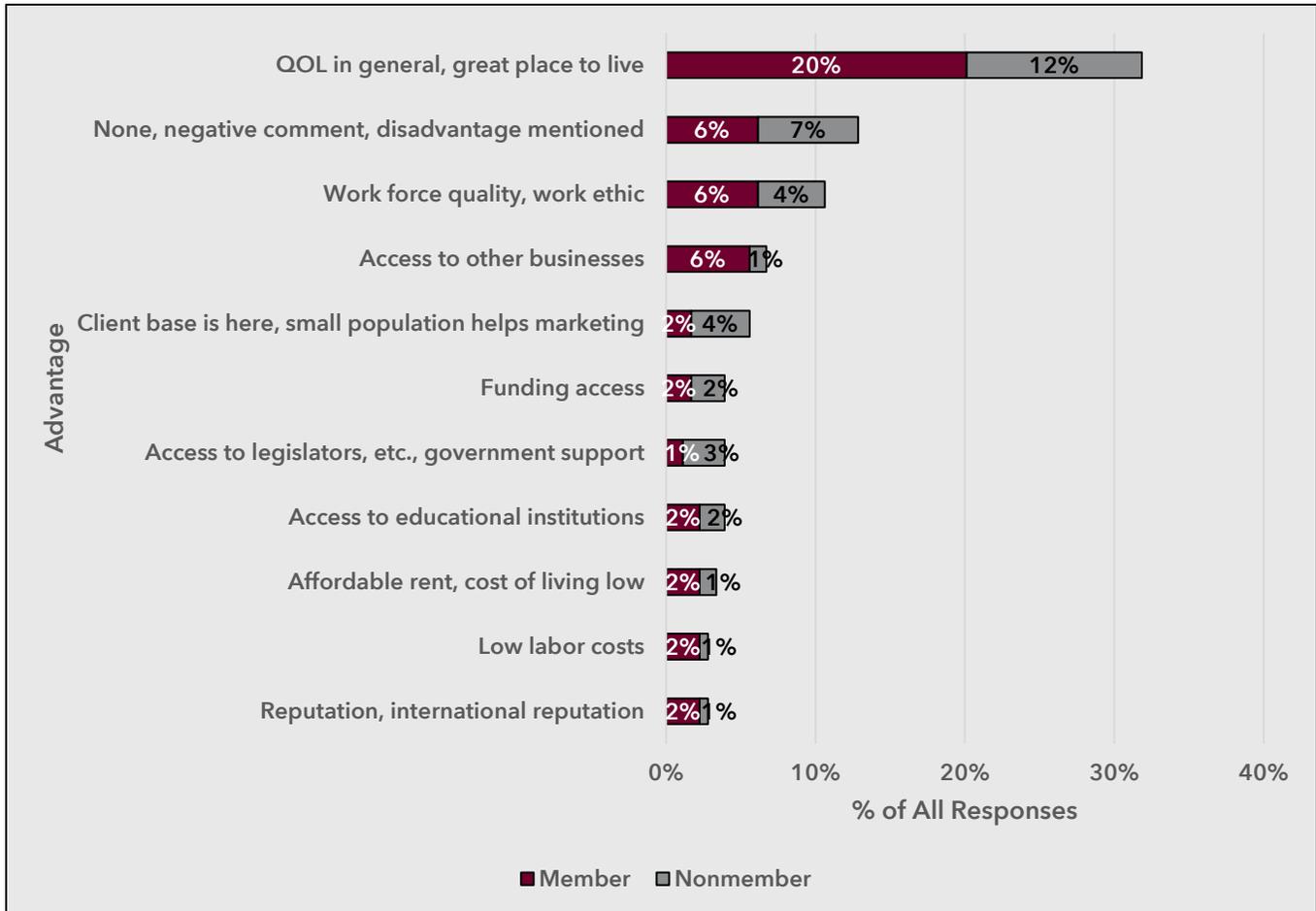


2020 Changes. For the first year in the last four years, the proportion of 2020 Alliance companies (12%) that reported it was harder to obtain capital increased slightly when compared to the previous year (9%).

Q16. What advantage does Montana give you in business?

HTBA members and nonmember high tech firms provided 179 responses to this question. The most often reported advantage (32% of all responses) was quality of life in Montana (see Figure 17). Montana’s high quality workforce was next the most frequently cited advantage. There was no change in the percentage of 2020 Alliance members responses (11% of Alliance member responses) stating that Montana gives them no advantage compared with 2019.

Figure 17: Advantages Montana Gives Firms



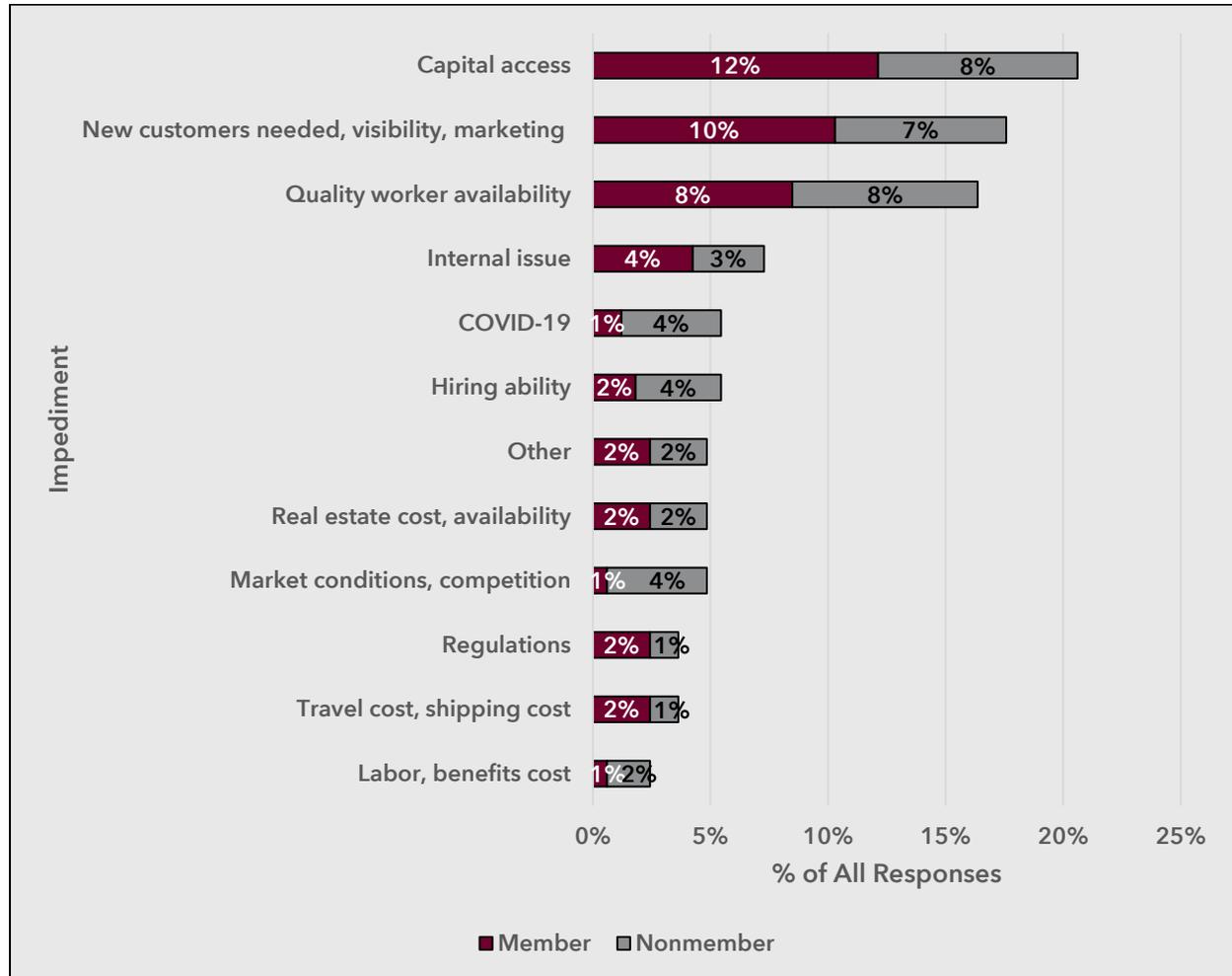
The following are selected comments that provide the reader additional insight into HTBA members’ opinions.

- “Montana provides a great environment to live and raise a family.”
- “Good work ethic among employees, and when dealing internationally, Montana has a reputation for being an honest place so there’s an immediate degree of trust.”
- “We prefer people who are already in Montana as they stay longer, stronger work ethic, better cultural fit to our lifestyle.”

Q17. What is your largest impediment to faster growth?

Question 17 received 165 answers. HTBA members most often reported a need for access to capital (12% of responses) as their firm's largest impediment to growth (see Figure 18). A need for new customers, visibility or marketing was next most frequently mentioned (10% of responses) followed by quality worker availability (8%). Nonmembers most often reported lack of access to capital (8%) and lack of quality available workers (8%).

Figure 18: Largest Impediment to Firm Growth



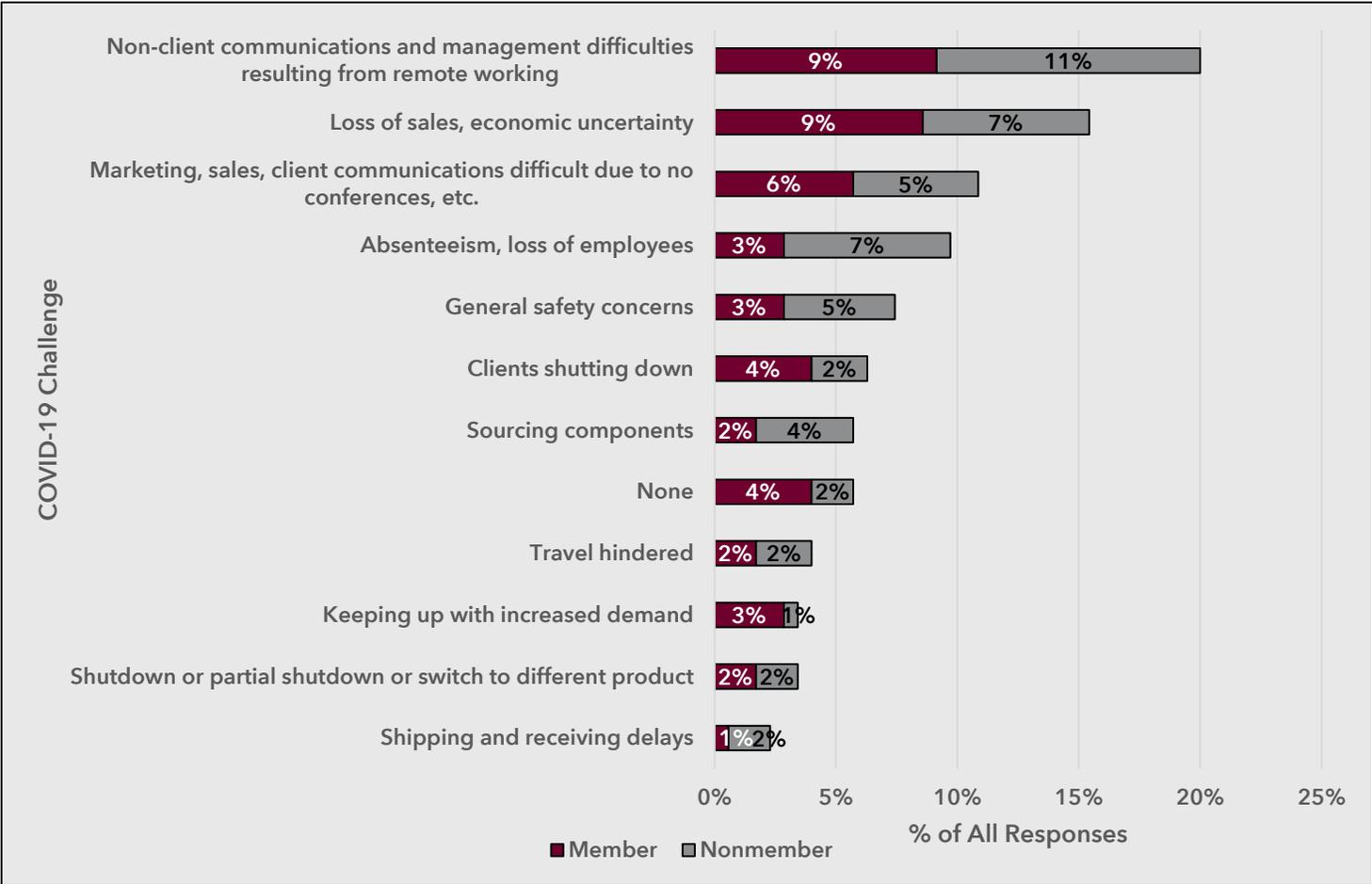
The comments displayed below give more perspective on HTBA members' opinions.

- "Capital, traditional or otherwise. There is not enough support with substantial capital for new and fast growing companies that don't fit the traditional 'tech' mold."
- "The challenge to acquire early seed funding has been our greatest impediment thus far."
- "For our product line of business, effective marketing was the largest impediment."

Q18. What is the main challenge your business has faced as a result of the COVID-19 pandemic?

Respondents gave 175 responses to this question. Alliance members and nonmember firms combined (20% of all responses) most often said that the main COVID-related challenge their business faced was conducting non-client (internal) communications and other management difficulties resulting from remote working. Figure 19 presents the main challenges high tech businesses faced as a result of the pandemic. Loss of sales or economic uncertainty was the next most frequently cited challenge (16% of all responses).

Figure 19: Main Challenge Resulting from the COVID-19 Pandemic



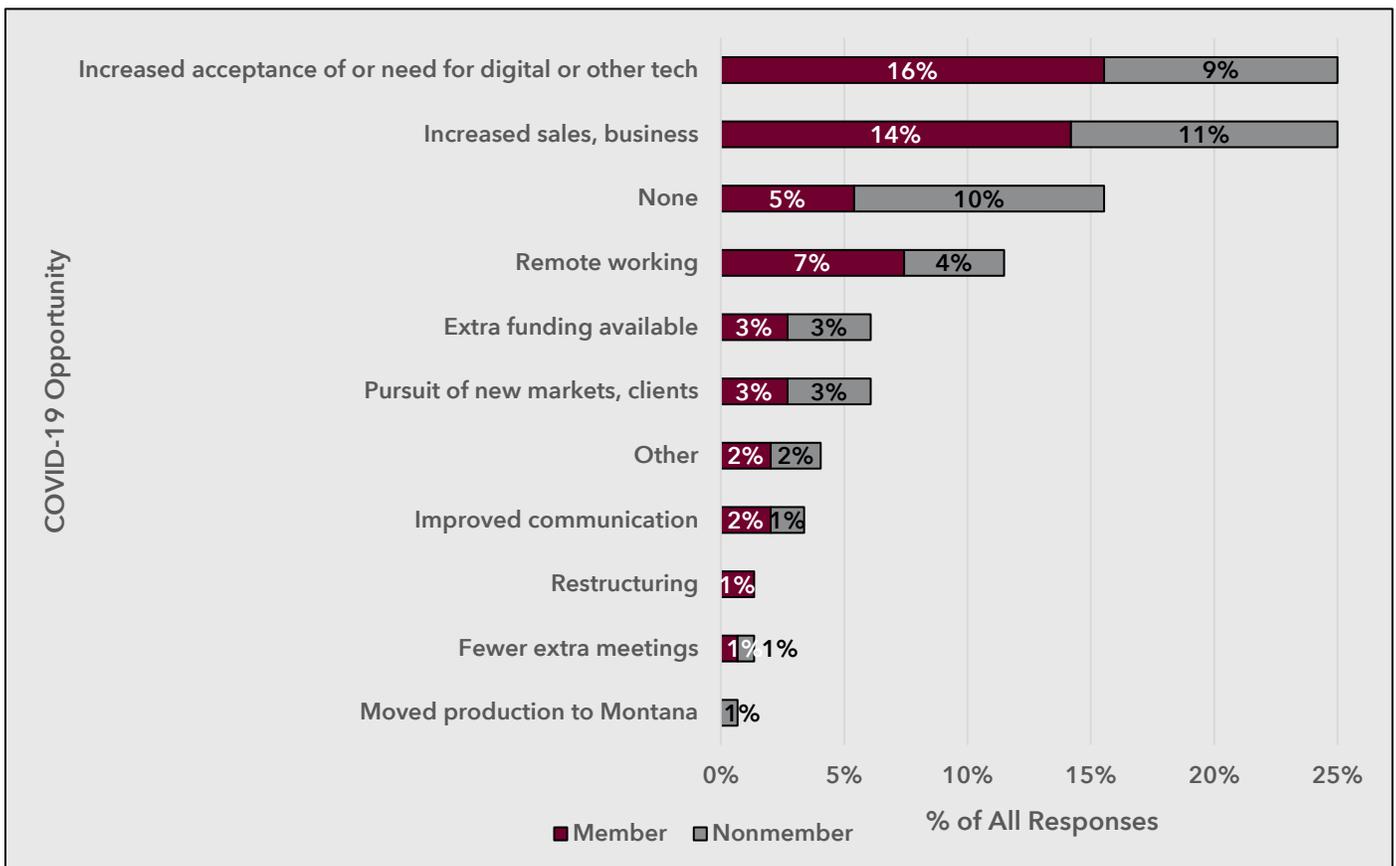
The comments below illustrate HTBA members’ experiences.

- “Zoom calls, the majority of our previous creative development meetings were always in person which gave us maximum communication.”
- “Collaboration with a partitioned workforce - between working in plant vs remote.”
- “Lack of sales to places that are closed, universities, businesses, etc.”
- “Clients are slow to pay. Many clients went out of business. ”

Q19. What is the main opportunity for your business created by the COVID-19 pandemic (if any)?

Fewer respondents (148) cited opportunities created by COVID-19 compared to challenges (175). Both Alliance members and nonmembers reported two main opportunities created by the COVID-19 pandemic. First, 25% of all responses cited an increased acceptance of or need for digital or other technology. Second, 25% of all responses said the firm experienced increased sales. Figure 20 displays respondents' reports on the opportunities created by the pandemic.

Figure 20: Main Opportunity Created by the COVID-19 Pandemic



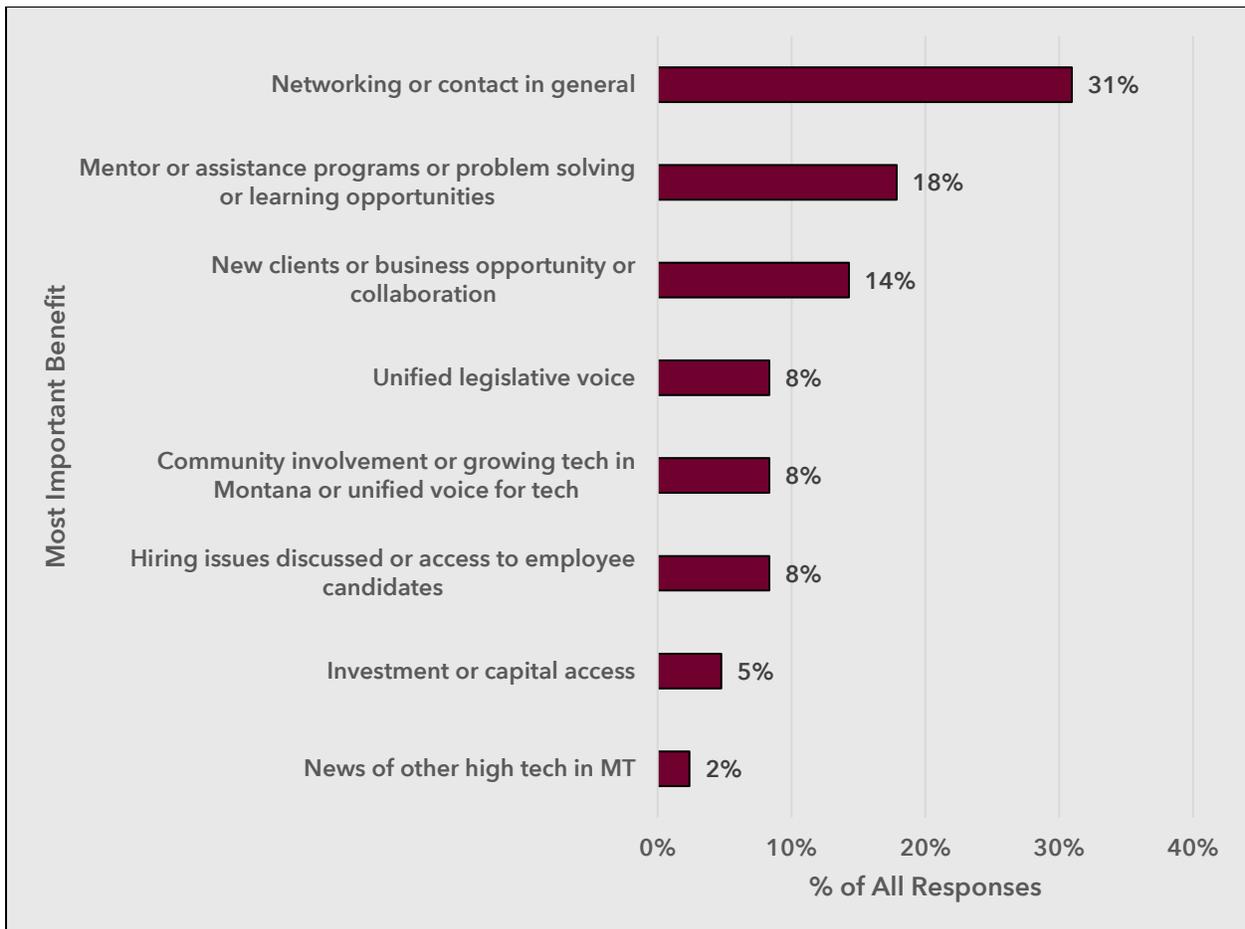
The following are examples of respondents' descriptions of the opportunities they encountered.

- "People working from home creating demand for networking and remote offices."
- "Increase in service revenue and system upgrades. More people are spending more time at home and need high performance networks. They also want more entertainment systems."
- "Covid provided a tailwind for our business due to social distancing and focus on recreation."

Q20. What is the one most important thing you would like to get out of your Montana High Tech Business Alliance membership?

This question was asked of Alliance members only, who provided 84 responses. Alliance members most often said that they want networking opportunities (31% of responses). Figure 21 examines the membership benefits that respondents said are most important. Another 18% of responding Alliance members want mentoring or assistance programs or learning opportunities. The next ranked benefit (14% of responses) was obtaining new clients or business opportunities or collaboration.

Figure 21: Most Important Membership Benefit



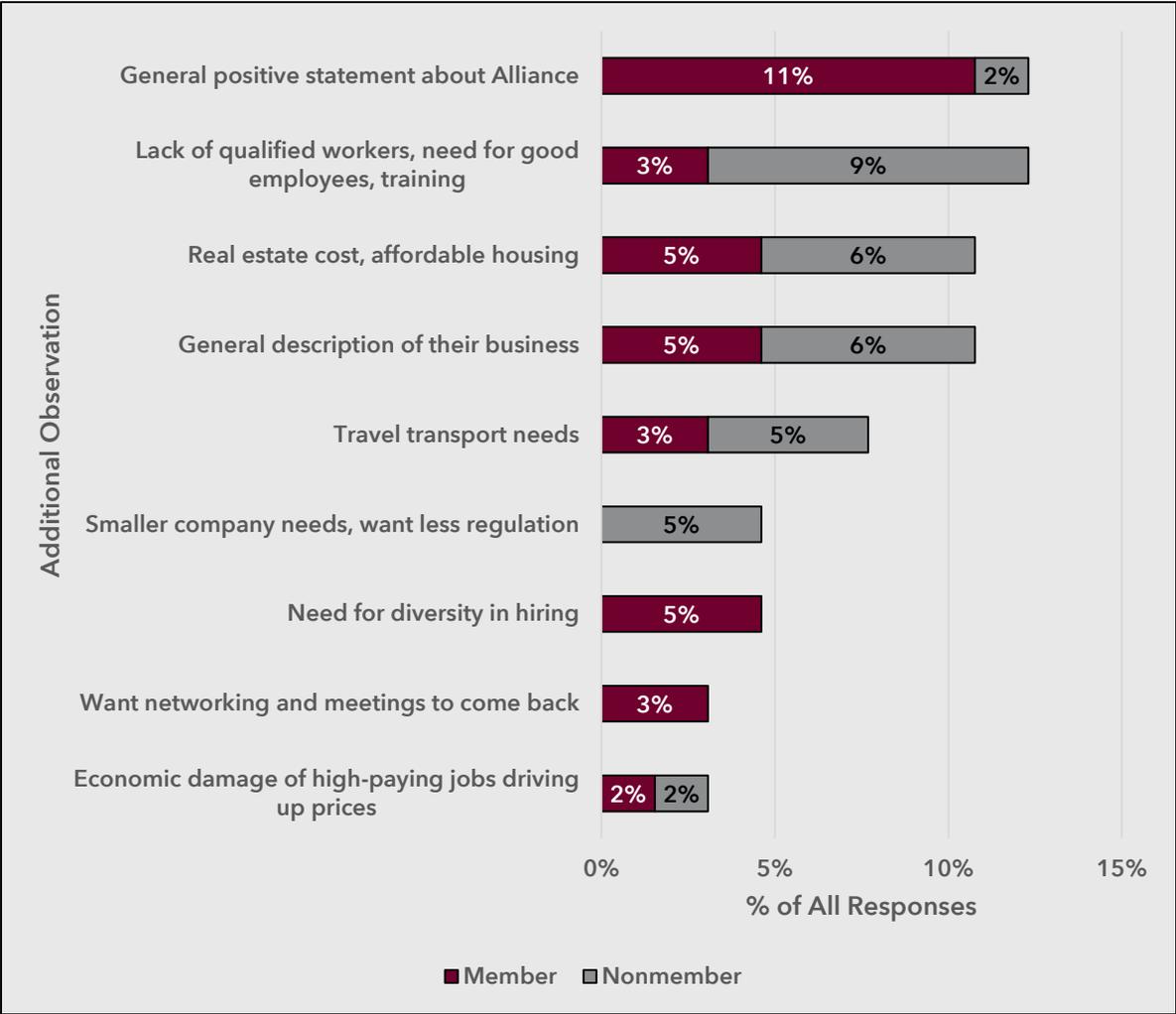
The comments below illustrate members' opinions.

- "Networking with other MT based CEOs, diversity plans and workshops, materials for relocating employees to MT, sell packages."
- "Mentorship from seasoned business leaders and entrepreneurs."
- "Getting to meet people who may have potential interest in our work."

Q21. What additional comments do you have? The Montana High Tech Business Alliance is particularly interested in your observations about improving Montana's business climate and creating new Montana jobs.

Please see Figure 22 for a summary of the most common observations by members and nonmembers, out of a total of 65 responses.

Figure 22: Additional Respondent Observations



The following comments illustrate respondents' opinions.

- "MHTBA has been a great partner for us. Keep up the good work."
- "Even though we are a high paying employer, there is still a lack of qualified machinists in Montana that have a desire to be employed."
- "It has been difficult to find housing for employees when they want to move here from other parts of the state or from out of state."
- "I have the work to expand but real estate for anything commercial is ridiculously priced right now!"

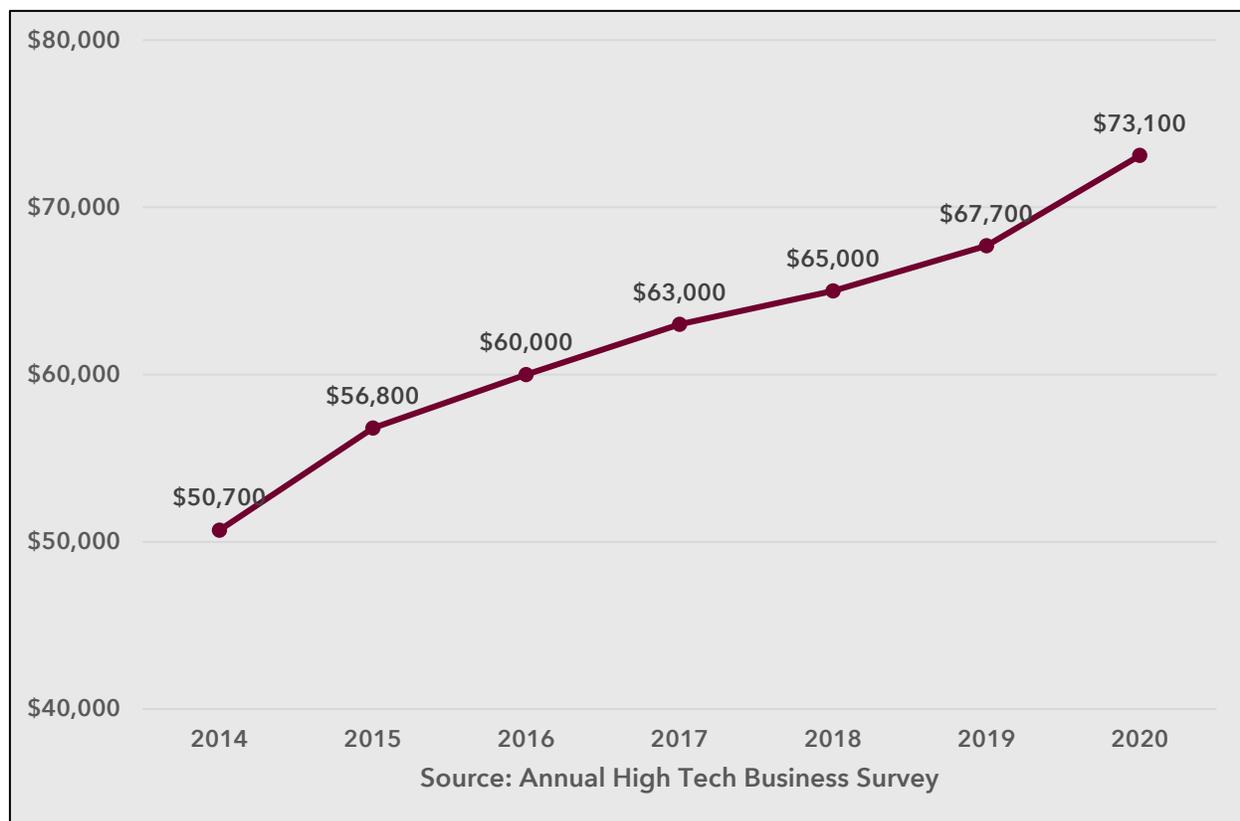
High Tech Firm Trends

This section presents four charts that illustrate trends in key indicators among Montana high tech firms. Three of the four indicators (total Montana employment, total Montana-generated revenue, and total Montana capital expenditures) are influenced not only by overall growth in Montana's high tech industry sector but by changes in the number of Alliance member firms over the seven years of data collection.

Annual Wage

Average annual wages paid by Alliance members have increased each year since the annual survey first started.

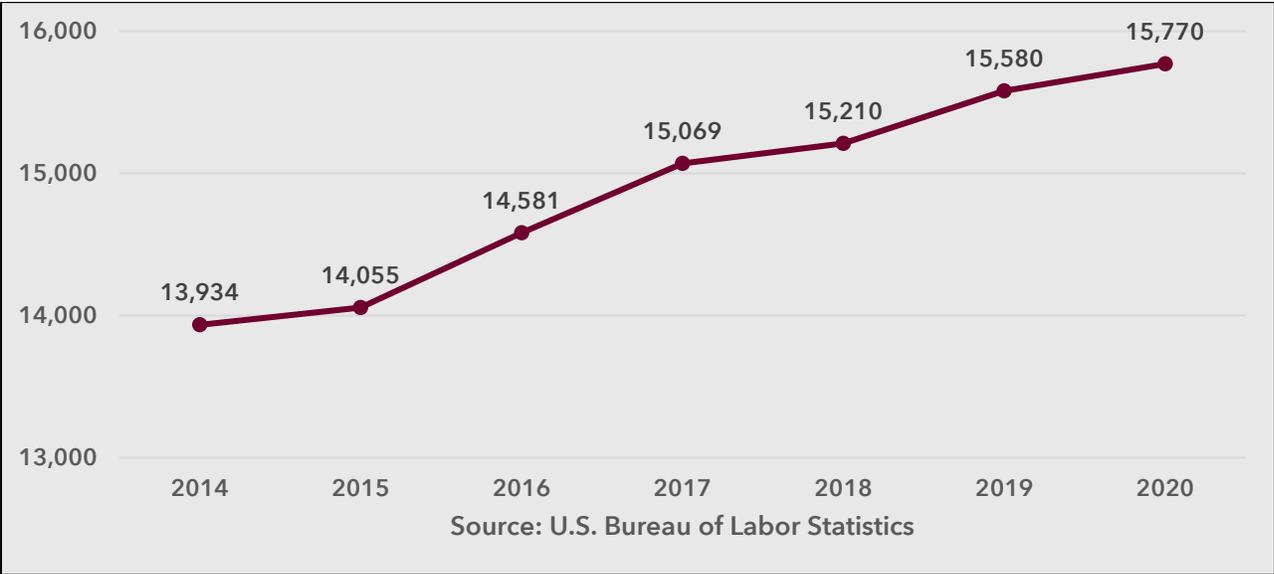
Figure 23: Average Annual Wage



Montana Employment

Total Montana employment of all firms has also increased each year.

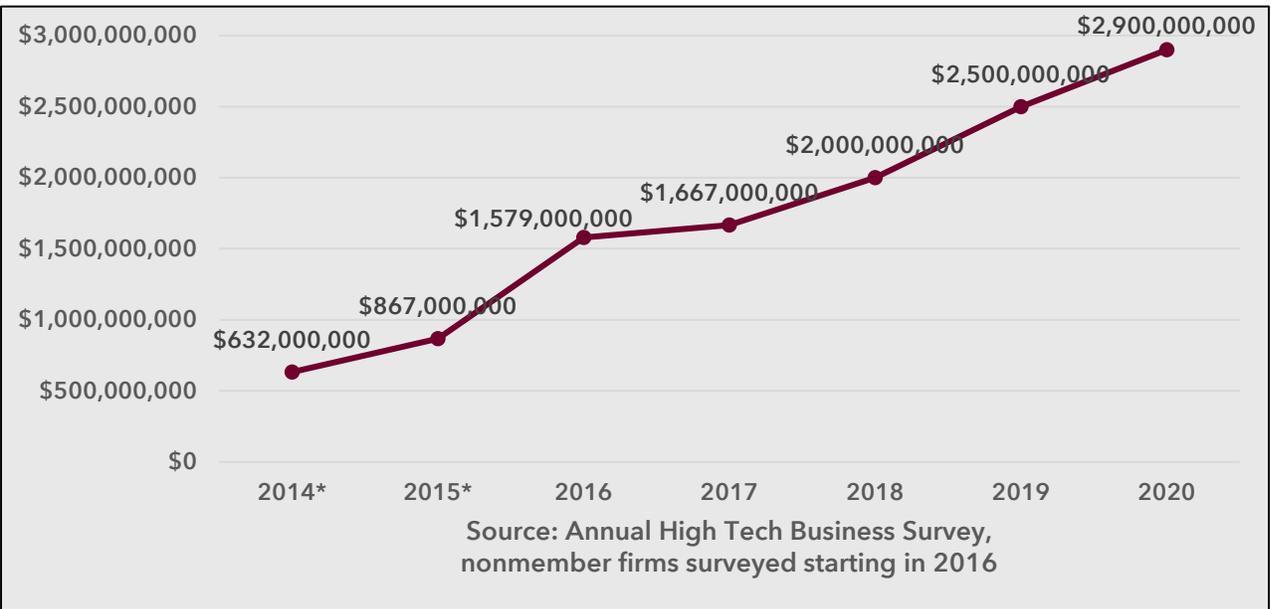
Figure 24: Total Montana Employment



Total Annual Montana-Generated Revenue

Revenue generated in Montana by high tech firms grew steadily each year the survey was administered.

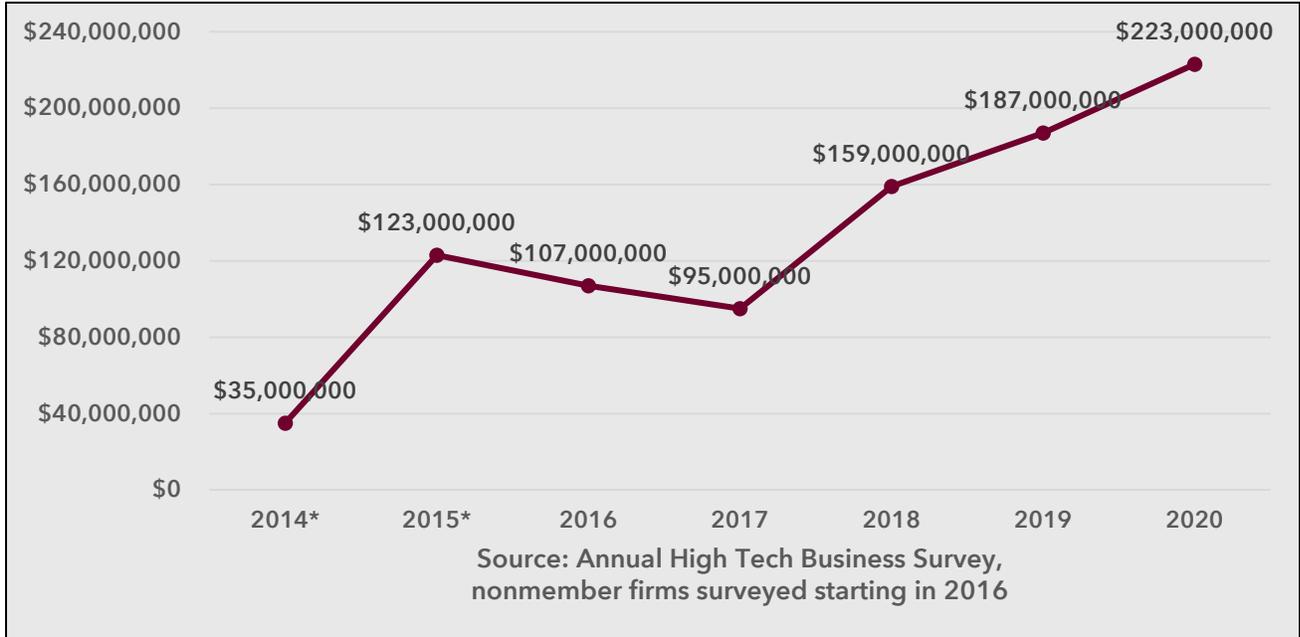
Figure 25: Total Annual Revenue



Total Capital Expenditures in Montana

Major capital expenditures in Montana by high tech firms have been more volatile than annual wages or employment.

Figure 26: Total Major Capital Expenditures in Montana



Montana’s Top Tech Regions

This section of the report presents information about the three areas of Montana that contain the highest concentrations of tech firms: Bozeman, Missoula, and Kalispell. For each of these areas the report lists the top high tech firms in the area (in alphabetical order), the top industry subsectors in the area ranked by number of firms. Readers should keep in mind that the information reported below represents only sampled firms.

Bozeman Area

Table 3: Top Bozeman Area Industry Subsectors

Top Industry Subsectors	Rank	% of Sampled Firms
Manufacturing	1	18%
Software/SaaS	2	15%
Biotechnology	4	9%
Professional Services	4	9%
Advertising/Marketing	5	6%
Consulting	6	6%
Digital Media/Broadcasting/Publishing	8	4%
Photonics	8	4%
Consumer Products	13	3%
Engineering	13	3%
Funding/Angel Investing/Venture Capital	13	3%
Aerospace/Automotive/Transportation	13	3%
Telecommunications	13	3%
Cyber Security	17	2%
Data Storage	17	2%
Education/Training	17	2%
Financial Services/Payment Processing	17	2%
Ecommerce	19	2%
Medical/Healthcare Devices	19	2%
Data Analytics	20	1%

Table 4: Bozeman Area Employment and Revenue Estimates

Total number of 2020 MT employees	5,300
Total 2020 MT Revenue	\$1 billion

Missoula Area

Table 5: Top Missoula Area Industry Subsectors

Top Industry Subsectors	Rank	% of Sampled Firms
Software/SaaS	1	18%
Manufacturing	2	15%
Professional Services	3	10%
Consulting	4	8%
Advertising/Marketing	5	7%
Biotechnology	6	6%
Digital Media/Broadcasting/Publishing	8	5%
Medical/Healthcare Devices	8	5%
Consumer Products	11	3%
Energy/Extractive Minerals	11	3%
Telecommunications	11	3%
Data Storage	14	2%
Data Analytics	14	2%
Construction	14	2%
Cyber Security	15	1%

Table 6: Missoula Area Employment and Revenue Estimates

Total number of 2020 MT employees	5,100
Total 2020 MT Revenue	\$940,000,000

Kalispell Area

Table 7: Top Kalispell Area Industry Subsectors

Top Industry Subsectors	Rank	% of Sampled Firms
Manufacturing	1	29%
Software/SaaS	2	18%
Consulting	3	9%
Advertising/Marketing	5	6%
Aerospace/Automotive/Transportation	5	6%
Digital Media/Broadcasting/Publishing	6	4%
Biotechnology	12	3%
Energy/Extractive Minerals	12	3%
Engineering	12	3%
Financial Services/Payment Processing	12	3%
Medical/Healthcare Devices	12	3%
Telecommunications	12	3%

Table 8: Kalispell Area Employment and Revenue Estimates

Total number of 2020 MT employees	2,100
Total 2020 MT Revenue	\$309,000,000

Appendix 1: Questionnaire

Q1 Which high tech sub industry best represents your company? *Please click only one response.*

- Advertising/Marketing (1)
 - Aerospace/Automotive/Transportation (2)
 - Biotechnology (3)
 - Consulting (4)
 - Consumer Products (5)
 - Cyber Security (6)
 - Data Analytics (7)
 - Data Storage (8)
 - Digital Media/Broadcasting/Publishing (9)
 - Ecommerce (10)
 - Education/Training (11)
 - Energy/Extractive Minerals (12)
 - Engineering (13)
 - Financial Services/Payment Processing (14)
 - Funding/Angel Investing/Venture Capital (15)
 - Manufacturing (16)
 - Medical/Healthcare Devices (17)
 - Nanotechnology (18)
 - Professional Services (19)
 - Software/SaaS (20)
 - Telecommunications (21)
 - Other (please specify below:) (22)
-
- Construction (23)

Page Break

Q2 How many employees does your company have total? *Please include all states and countries. If self-employed, indicate one employee. Your best guess is ok.*

- Total number of employees (1) _____

Page Break _____

Q3 How many employees does your company have in Montana?

- Number of Montana employees (1)

Page Break _____

Q4 What is your company's average annual Montana wage?

- Average annual wage (\$) (1) _____

Page Break _____

Q5 What were your company's annual revenues in 2020? *Your best guess is ok.*

- Annual 2020 revenues (\$) (1) _____

Page Break _____

Q6 By what percentage do you estimate your company's annual revenues will increase or decrease next year (2021)? *Your best guess is ok.*

- Expected 2021 revenue increase (%) (1)

- Expected 2021 revenue decrease (%) (2)

Q7 About how many new jobs do you expect your company will create in Montana next year (2021)? *Your best guess is ok.*

- Number of new jobs (1) _____
-

Page Break

Q8 What are the job titles of the three job types that your firm most often hires?

- Job title 1 (1) _____
 - Job title 2 (2) _____
 - Job title 3 (3) _____
-

Page Break

Q9 What are the three job-related skills your firm looks for most in new hires?

- Job skill 1 (1) _____
 - Job skill 2 (2) _____
 - Job skill 3 (3) _____
-

Page Break

Q10 Thinking now about your existing workforce, what are the three job-related skills that you would like to add to, or improve, in your current workforce?

- Job skill 1 (1) _____
 - Job skill 2 (2) _____
 - Job skill 3 (3) _____
-

Page Break

Q11 Some Montana employers say that it is hard for their firm to find qualified new employees. Other Montana employers say that it isn't hard for their firm. Over the course of calendar year 2020 would you say that for your firm it has become?

- Easier to hire qualified new employees (1)
- There has been no change in my firm's ability to hire qualified new employees (2)
- Harder to hire qualified new employees (3)

Page Break

Q12 Over the course of calendar year 2020 what percentage of your firm's new hires came from within Montana and what percentage came from out of state? Your best guess is ok. The total should add to 100.

% of new hires who came from within Montana : _____ (1)

% of new hires who came from out of state : _____ (2)

Total : _____

Page Break

Q13 By what percentage do you estimate your company's annual Montana wages may increase or decrease next year (2021)? *Your best guess is ok.*

- Expected 2021 wage increase (%) (1)

- Expected 2021 wage decrease (%) (2)

Page Break

Q14 About how much money do you anticipate your company will invest in major capital expenditures in Montana next year (2021)? *Your best guess is ok.*

- Major capital expenditures (\$) (1)

Q15 Some Montana employers say that it is hard for their firm to acquire new capital. Other Montana employers say that it isn't hard for their firm. Over the course of calendar year 2020 would you say that for your firm it has become?

- Easier to acquire new capital (1)
- There has been no change in my firm's ability to acquire new capital (2)
- Harder to acquire new capital (3)

Page Break

Q16 What advantage does Montana give you in business?

Page Break

Q17 What is your largest impediment to faster growth?

Page Break

Q18 What is the main challenge your business has faced as a result of the COVID-19 pandemic?

Page Break

Q19 What is the main opportunity for your business created by the COVID-19 pandemic (if any)?

Page Break

Q20 If you are a member, What is the one most important thing you would like to get out of your Montana High Tech Business Alliance membership?

Page Break

Q21 What additional comments do you have? *The Montana High Tech Business Alliance is particularly interested in your observations about creating new, high-paying Montana jobs.*

Appendix 2: Survey Methods

Data Collection Methods

The data for this survey were collected by administering a questionnaire via the Internet to a list of HTBA members provided by the Alliance. The Alliance invited 176 of its members to participate. This represents only those Alliance members that work in high tech or manufacturing industries, out of a total membership of some 249 companies. The Alliance also chose to invite 456 nonmember tech firms to participate. BBER used Qualtrics survey research software to manage this survey. The questionnaire invitation was transmitted by email and respondents are asked to click on a hyperlink to access the online questionnaire. The questionnaire was developed by the HTBA. Data was collected during the period from January 2020 through March 2021. Ms. Christina Henderson, executive director of HTBA assisted significantly by conducting additional non-respondent prompts and helping to manage the respondent list.

Data Collection Outcomes

BBER received 100 responses from HTBA members out of 176 asked to participate. The response rate for the Alliance survey was 57%.⁷ BBER received 95 nonmember responses out of 456 asked to participate. The response rate for the nonmember survey was 21%.

Data Processing and Analysis

Following receipt of the survey responses, the data entered were inspected to ensure no duplicate cases were included and to correct any obvious typos made by respondents. Appropriate variable and value labels were added to the data set. Appropriate composite variables and flags were added to the data set to facilitate the analysis process.

BBER conducted a statistical analysis of the survey data using statistical analysis computer software (SPSS version 26, Copyright 2019, IBM Corporation). BBER analyzed the data collected using frequencies, cross-tabulations, standard measures of central tendency (mean, median, and mode), sums and ratios.

⁷ Using American Association for Public Opinion Research response rate formula 1.

Appendix 3: UM Bureau of Business and Economic Research and the Researchers

The Bureau of Business and Economic Research is a research department within the College of Business Administration at the University of Montana, Missoula. We produce a variety of economic and industry data including annual economic forecasts for the United States as well as Montana, its industries, and counties. Six functional areas make up the Bureau of Business and Economic Research:

- Economic Analysis tracks the economic performance of all geographic areas in Montana.
- Manufacturing Research and Forest Industry Research focus special attention on these important industries in Montana and surrounding states.
- Health Care Industry Research examines markets, trends, industry structure, costs, and other high visibility topics to monitor the health status of Montanans.
- Publications, such as the Montana Business Quarterly, the Outlook Book, and other reports, include research and data that help Montanans better understand the state's economic climate.
- The Survey Research Division regularly conducts research to gather local, state, tribal, and national economic data for both public and private sector studies.
- The Natural Resources and Energy Research program is devoted to understanding and tracking the growth and importance of Montana's energy and natural resources sector.

In addition to these six areas, the Bureau also houses the Montana Kids Count Program, a collaborative effort to collect data concerning Montana's children and families. The Bureau was founded in 1948 to monitor the state's economic and business conditions. Over the years we have expanded from a staff of four to a research department of 18 full-time employees and more than a dozen part-time workers. Bureau data assists businesses, government agencies, and individuals across Montana.

The Bureau has over 35 years of experience providing a full range of survey services. With a staff of highly skilled researchers using advanced data collection systems and techniques, the Bureau offers broad-based survey services for public and private sector studies, including: survey development, data collection, and analysis and report writing.

Quality survey data are the foundation of thorough and reliable research and are critical to the success of our clients, which have included: City of Missoula, Missoula County, Confederated Salish and Kootenai Tribes, U.S. Congress, U.S. Department of Commerce, U.S. Department of Agriculture, USDA Forest Service, Montana Department of Labor and Industry, Montana Department of Public Health and Human Services, Montana Department of Transportation, NorthWestern Energy, and Blue Cross Blue Shield of Montana.

Researchers

Director

Patrick Barkey is director of the Bureau of Business and Economic Research at the University of Montana, a 60-year-old organization with a distinguished record of timely, relevant research and information on the state and regional economies. He has been involved with economic forecasting and policy research for 27 years, both in the private and public sector. Before coming to Montana he served as director of the Bureau of Business Research at Ball State University in Indiana for 14 years. His recent research has been on the economic impact of higher educational attainment, the effect of alcohol abuse on the state's economy, and the economic impact of trade with Canada.

He attended the University of Michigan, receiving a B.A. ('79) and Ph.D. ('86) in economics. Dr. Barkey is a professor in the College of Business Administration at the University of Montana.

Senior Economist

Brandon Bridge is a senior economist and the director of forecasting at the Bureau. His responsibilities include regional demographic analysis and forecasting. Other research interests of his include energy poverty, economic development, cryptocurrencies, and sports economics. He grew up in Montana, and before returning home to join the BBER team, Mr. Bridge studied economics at Brigham Young University (BA, 2010) and the University of New Mexico (MA, 2015; PhD, 2017).

Director of Survey Research

John Baldrige is BBER's director of Survey Research. Mr. Baldrige has an extensive background in survey research. His experiences were gained as an independent contractor in Montana and while in the employ of the University of Chicago's National Opinion Research Center, the nation's foremost non-profit, academically-based, survey research center. Mr. Baldrige is a graduate of the Irving B. Harris Graduate School of Public Policy Studies at the University of Chicago ('92), Simpson College ('90), and retired from the United States Army Reserve as a Sergeant Major in 2013.

Appendix 4: Detailed Responses to Open-Ended Questions

Q16. What advantage does Montana give you in business?
A direct fiber connection, close to the airport, affordability until lately, and not having to be surrounded by a large city.
Ability to work directly with client's leadership in a more relaxed and trusting environment.
Access and support. We're in a pre-revenue stage and are currently self-funded. The introductions made by the Alliance and the wealth of knowledge and expertise in the state to which we have access had been a dramatic increase to that of NYC.
Access to lots of resources, work ethic in personnel.
Access to talent at UM.
Access to talent in competitive market; quality of life advantages for our employees.
Affordable labor cost. Desirable landscape, living conditions, and low population density.
As far as the business is concerned, there are little advantages. The Montana lifestyle is attractive to all our employees, which is why we are all here. However, this isn't necessarily a positive advantage from the perspective of just the business.
At this point, accessing mentors and guidance from experienced professionals has been an advantage. But otherwise, being in Montana has been an overall disadvantage due to the space my business is focused in - diabetes management. The diabetes industry has hotspots elsewhere in the country and world. In addition, Montana investors are typically very conservative in their investments and unfamiliar with the insulin dosing diabetic community.
Attractive as a location to live and for employees with families.
Beauty, outdoor recreation and cost of living.
Better workers, and the ability to attract top talent with a desirable place to live.
Bozeman as where people want to live, work and play. Very attractive to out of state people
Cheaper labor.
Close physical and intellectual contact to University systems related to our business products.
Connotation of premium quality.
Department of Commerce has some great commercialization help, grant programs, trade-show assistance. Local business networking and help like Prospera and MPIA. Quality and manufacturing help through MMEC. All the friendly assistance and encouragement is great!
Desirable place to live.
Desirable place to live.
Disadvantage due to high cost of living, decline in the quality of higher education in STEM, very limited investment in biotechnology.

Easier to attract workforce due to our outdoor activities.
Easy to get things done when working with other businesses and local and state legislators.
Easy to recruit in Montana.
Employees are generally more tied to the area and often less willing to leave the area for slight promotion.
Employees like living here, if they can make a living wage or better, they tend to stay and work without the distractions of chasing the outside "CITY" life. Of course hunting season is always fun to focus, but it's an acceptable distraction.
Employees who come here do not want to leave, low turnover.
Employees with a sense of community. Well-rounded employees with good core values.
Encourages healthy work-life balance.
Everyone is here to lend a helping hand, people help them out a lot.
Fewer competitors.
Good business environment.
Good humans.
Good professional network of skilled people in Bozeman area. High speed internet.
Good quality of life and relatively low cost of living. Business networking is easier.
Good tourist industry.
Good work ethic among employees, and when dealing internationally, Montana has a reputation for being an honest place so there's an immediate degree of trust. Also, being from Montana makes the business stand out slightly from the competition.
Great employee culture, high quality of life, good source of entry level talent.
Great lifestyle and environment for employees. Rising housing prices and lack of childcare in Bozeman are a problem.
Great place to live and raise a family if you're "active lifestyle" oriented.
Great place to live, and a refuge from the crazy Covid and civil unrest.
Great talent base that wants to stay in Montana. More loyal employees than national norms. Recruitment is fairly easy. We prefer people who are already in Montana....stay longer, stronger work ethic, better cultural fit to our lifestyle. Also, Montana bring us excellent relationships with banks/lender - small town, relationship based, but along a national scale to access capital. Montana isn't like everywhere else - and that is an advantage in itself in doing business.
Great work and workforce environment.
Great work/play balance.
Growing and maturing technology ecosystem. Plus, Montana is flying under the radar compared to major global competition in my industry as compared to other major metropolitan geographies.

Growth in Montana is creating opportunities on all fronts and have two great universities provides an opportunity to hire qualified people.
Happy employees because of outdoor options.
Hard workers and honest business associates.
High tech support locally and regionally. University system that can provide qualified employees.
I greatly appreciate the state programs to advance International business through the MT Dept. of Commerce.
I have not found Montana to provide any advantage in business.
I wouldn't say doing business in Montana gives me an advantage, in fact it is more of a disadvantage for my industry. However, Montana is home and my heart. So my goal is and always has been to find solutions for the logistics issues that steer others away from doing business in Montana. So the advantage I have is that I have a clear purpose for what I do and a desire to change things for the better.
I'm not sure there is an advantage I just like it here.
Incredible Government support, job creation grants.
Inexpensive cost of living.
Intimate connections, and real relationships with others in the field. Everyone's genuine willingness to help each other succeed.
It is a desired place to live, especially outlined by the pandemic.
It keeps our employee happy, living in his home state.
Large farming state.
Less expensive labor pool; those who are here are more loyal because they are highly motivated to remain here.
Location in Bozeman provides industry cluster for SaaS Companies. Desired destination for workforce. Access to University.
Location.
Logistics.
Low cost. Good employees. Good bandwidth.
low employee turnover product/environment fit.
Lower cap-ex expenses, stronger sense of community and support from local and state government.
Loyal employee and customer base.
Memorable brand alignment, skilled workforce, incredible work ethic, geographically identifiable.
Montana can be somewhat insulated from economic recession compared to the rest of the country. In 2020, Montana became a highly desired place to live, which has kept our business opportunities strong and growing.
Montana does not require a money transmitter license and this provides a phenomenal opportunity for financial technology companies who may not have the initial capital outlay to invest in acquiring money transmitter licenses.

Montana gives us a tax free state, and the ability to operate from anywhere. Plenty of wide spaces to fly and test drone setups.
Montana has become a hot spot for people moving in, and a lot of the land being purchased is off grid. This creates a niche market for off-grid renewable energy systems that we can provide.
Montana is becoming an easier place for people to relocate to.
Montana poses fewer restrictions on our freedom to transact business than other states, especially in light of the Covid era.
Montana provides a great environment to live and raise a family. The business climate is not currently friendly from a tax perspective for existing long term Montana based companies.
Montana's reputation of committed hard work and ethics.
Montana's work ethic and ability to adapt.
More pragmatic environment, better pace, more cooperative people.
MSU and Gallatin College provide a good source of technical personnel.
New emerging tech hub.
No advantage.
No advantage.
No advantages to living in Montana. I wish there was some way that I could find work in Montana but I've given up even though I'm on The Cutting Edge of technology in the cloud. I have a degree in electrical engineering from Montana State University and a Bachelor of Arts degree from Carroll College I'm over educated and underemployed and gave up on finding work to the job service.
No big advantage that I see here versus if I was in another state.
No particular advantage. I'm currently semi-retired and continue to scale back with the occasional part time consulting I do. When my business was active we worked predominantly with federal customers in LA and Washington DC areas.
None at all. It was much easier to find clients/work in Minnesota.
None at this time other than quality of life advantages.
None.
None. It is harder to do business here than in other states.
Not much. Cost savings eaten up by risks associated with having labor in Montana.
Not sure it gives any advantages at the moment. We are a construction SaaS company and are just working on our first customer in the month of Feb 2021. I would say one thing we get flack about when attracting talent from outside the state is the MT income tax. What in the world is Montana doing with income tax when we have a very robust tourism economy. Turn on sales tax, income tax is silly.

Now that people can live and work where they want, Montana offers a terrific work/life equation.
People and their way of life.
People like to live here.
People like to live in MT. Covid has even enhanced that.
People, the lifestyle, the Montana way.
PPP funds were more available than in some other states.
Quality of life access to MSU.
Quality of life and available natural resources.
Quality of life encourages creativity and retention of staff. Low cost of living. Forces preferring telecommute, which is more time-efficient.
Quality of Life for Employees.
Quality of life for our employees.
Quality of life, academic labs.
Quality of life, insulation from distraction of Covid 19, focus and generally happy environmental factors.
Quality of life, marketing panache.
Quality of Life, relatively low cost of living, relatively low wage scale,
Quality of life.
Quicker response times from key partners, i.e. accountant, banker, 1-degree of separation with high level government and economic development officials, strong mentorship ethic.
Rural real estate was inexpensive 30 years ago - we own our location. Montana workers tend to take responsibility and care for customers as their own. Natural beauty, quiet, ability to make noise without complaints lodged.
Sales tax exemptions.
Since we are a local Montana Centric Company people generally like to support local. started in 1962.
Size of population makes it easier to contact and spread word of business.
Tax advantages.
The great outdoors! Quality of life.
The rapid growth in Gallatin County just doesn't seem to slow down regardless of what is happening nationally. It defies all odds.
Transportation, until Covid, was excellent. I could get anywhere in the US or Canada quickly. People like to live here. Quality of life.
Uniqueness.
Used to be competitive wages with excellent productivity. But the cost of living is eroding this quickly.

Very little; most of our sales are outside the state.
Wages are somewhat lower for now.
We are a MT Utility - We must be in MT, by definition.
We are in the business of getting people outdoors. Montana creates many opportunities for that.
We have a relatively easy tax and regulatory environment. We have to deal with California and Oregon and it is horrible.
We like to live here.
We love living here. happy employees= better business.
What advantage does Montana give you in business?
Where I want to live.
Willing work force. Logistics aren't helpful.
Willingness to get clients to do on-site visits.
Within our market, there isn't any advantage.
Work ethic.
Work life balance, cost of living, quality of life.

Q17. What is your largest impediment to faster growth?
Ability to market outside of the State.
Ability to source and purchase components.
Access to capital, shipping and travel in and out of Montana. We need larger office space and a new building.
Access to experienced talent.
Age discrimination.
Air travel, average size of MT business, bias of MT Business owners to hire out-of-state rather than in-state resources, competitive landscape.
Availability of capital.
Availability of skilled workers.
Available funds.
Available workforce.
Business related. Carving out new market.
Capable Employees and the cash flow to hire them.
Capital and access to key decision makers.
Capital fundraising.
Capital to invest, business method ignorance, distracting projects from other business.
Capital, traditional or otherwise. There is not enough support with substantial capital for new and fast growing companies that don't fit the traditional 'tech' mold.
Capital.
Capital.
Capital.
Capitalization, staff depth.
Capitol.
Cash.
Cautious business partner.
Communication Internet, Communication Internet and logistics. Access to graduates.
Competition.

Connections to Silicon Valley.
Cost of living in Bozeman.
Covid downturn in air travel.
Covid.
Covid.
Crowded industry.
Customer acquisition.
Disposable income of customers, especially parents.
Employee retention, finances and capital.
Executing sales and new business.
Experienced CPAs.
Finances.
Financing.
Finding and securing new projects.
Finding clients.
Finding new hires and adding headcount.
Finding qualified people for open positions. Laboratory space in Missoula.
Finding quality sales people that want to prospect each day.
Finding skilled, qualified workers.
For our product line of business, effective marketing was the largest impediment. For our service line of business, the need to scale staffing up or down in response to business climate was an impediment.
Funding.
Government regulations, Montana is not on the radar for companies.
Growth capital. We are still early stage and boot strapping is taking its toll.
Hard to say.
Highly qualified personnel.
Hiring and retaining top talent remains our top priority.
Hiring of engineers, customer acquisition.
Hiring qualified personnel - both in finding the people and being able to pay them what they are worth.

I could probably have a company of 200 employees if I could just get my foot on the ground get started and have some help from the government getting work or jobs. I need some help getting started and there is no avenue for that from what I can tell in Montana.
I need a GREAT Marketing Manager! Training skilled craftspeople takes time.
Identifying new clients.
Increased sales revenue.
It is market driven not internal.
Labor force.
Labor laws and climate.
Lack of an effective sales process.
Lack of customers located in frontier Montana.
Lack of finances for large equipment expenditures, lack of available training. We have been looking for property for 2 years and can't find a commercial space or affordable land/construction to build what we need. We are out of room to expand in our current location.
Lack of investment capital opportunities for company at series seed level.
Lack of qualified new hires.
Lack of specialized knowledge in core industries to help identify opportunities for growth.
Lack of state incentives for renewable energy, efficiency upgrades, etc.
Location, as outside of the state of Montana we are not taken that seriously as the perception is we only know and produce work that is regional/local.
Loss of business due to impact of Covid-19 on clients.
Low customer population in MT.
Managing more humans. As more team members are added the culture is diluted, and communications cause gaps in customer experience. We prefer to grow slowly to focus on customer experience/quality.
Manufacturing hourly workers.
Market acceptance of products and services, market penetration.
Market growth.
Market.
Markets.
Money/ ability to scale quicker.

Montana businesses need to buy products and services from Montana businesses whenever possible and optimal.
Montana is far away from the centers of people with the skills we look for. Cost of housing has, overnight, become a negative factor.
More transactions.
Mostly ourselves at the moment, as we are in transition towards breaking our current ceiling.
Niche market we're in.
No affordable commercial land or buildings. Very few loyal/trustworthy/qualified workers.
None.
Not enough capital.
Not enough software developers.
Not enough staff time.
Nothing related to our MT location.
Opportunities to scale profitability.
Our customer base is 100% out of state.
Our own creativity and sales ability.
Permitting and rights of way for utility, fiber optic cable, construction. The process is very expensive and cumbersome. MDOT has made improvements in their process, every municipality utility easement process is different, not well defined and can be very expensive.
Personal time.
Poor farm economy.
Qualified employees.
Qualified Personnel. Support from State/Community.
Recovery from the pandemic.
Regulatory affairs. In the past six or eight years, the European Union has revised its medical device requirements which have resulted in incredible increases in expenses, and the FDA now works with Canada on a separate and expensive program. The regulatory work needed to sell to Europe, Canada, and Australia has gone from approximately \$10,000 per year to around \$75,000 and it will increase again in the next year or two.
Revenue, Covid.
Revenue.
Right now it's Covid. In general, it's the type of products we make. They either take a long time to bring to market or they're highly specialized and expensive.

Sales and/or finding qualified personnel.
Sales team, capital investment, marketing spend.
Sales.
Scalability.
Scaling fast enough with people and facilities.
Skilled labor employees.
Skilled workforce.
Software engineers.
Supply chain,
Supply chain, Covid restrictions.
Systems and business mentorship.
Talent recruitment.
Technical leadership.
Temperate parent company interest in further capital investments and expansion.
That I haven't created more scalable processes for my own business because I'm too busy getting immediate needs done.
The challenge to acquire early seed funding has been our greatest impediment thus far.
The cost of living in Gallatin County and finding qualified workers who can afford to live here.
The cost of Missoula housing makes it harder to attract lower to middle income employees from in and out of state.
The incoming President and the Biden Administration.
Time.
To stand out from all of the other competition. Keep up with social media, etc.
Trade war with China & COVID-19.
Training time for new people.
Transportation costs ability to hire hourly factory workers.
Transportation costs into and out of Montana, because most of our customers are in urban environments on the east coast and west coast.
Unable to visit face-to-face with customers and team members.
Uncertainty in raw material supply, available workforce.
Unknown.

We all have too much on our plates. Hard to focus on growing the business because there is too much work to do. We could use assistance in creating more efficient processes.
We are growing as fast as we can handle.
We focus on smart growth. Faster isn't always smart. With that said, we are growing fast. \$33.7M in capital expenditure in 2021. There is no significant impediment to our growth - other than the fact that there isn't enough hours in the day. At times getting materials to keep up with our growth has showed us down, but then again, it's during a pandemic.
We have grown faster than expected or desired this year in order to keep up with demand. There is no impediment. Growing faster would not be valuable for our firm.
We manufacture products for law enforcement. The de-fund the police movement has caused us to lose sales. It is difficult for us to predict which agencies will continue to have funding and which ones will not. People expect law enforcement to show up when they are called, however some cities and groups do not want them to receive the funding that they need. This in turn directly affects our business.
We need to augment our executive team with more senior commercial and relationship management talent. This talent, at this level of capability, contribution, and ambition, is not available in MT.
We're currently completing our minimum viable product and are looking to scale it appropriately for beta-testing. Without the testing completed to iterate the product, and grow a customer base resulting in revenue, we're anticipating that funding discussions will be somewhat of a challenge. Access to the appropriate capital and team behind the funding would help us to build the system, beta test, etc.
What is your largest impediment to faster growth?
When we go into sales mode the largest impediment will be qualified sales professionals. We will need our Sales Teams to have a good understanding of the Commercial Construction cycle. We will need to turn Construction PMs or Superintendents into sales folks.
Work force.
Work force.
Zero respect for our tech industry in the rest of the nation.

Q18. What is the main challenge your business has faced as a result of the COVID-19 pandemic?
Ability to source and purchase components, as well as issues with shipping delays.
Absenteeism due to people going into quarantine.
Absolute business pauses from our hiring clientele.
Actually business was a little better in 2020 than 2019. For better or worse, fear can be an inspiration for sales.
Adjusting to a remote work environment and now adjusting to the continued desire to stay remote.
Aviation has been hit very hard, lower passenger volume and less aircraft operations.
Cattle prices have decreased.
Clients are slow to pay. Many clients went out of business.
Closed accounts.
Closed our office.
Collaboration with a partitioned workforce - between working in plant vs remote.
Communications with federal level government personnel.
Companies don't want to part with their cash. While they see web design and e-learning as a necessity, it is still a hard expense to stomach for them.
Connecting with potential partners and customers--no in-person conferences and events.
convincing clients that virtual training and work can be as effective as in person work
Covering for people out due to illness or exposure.
COVID 19 has prevented us from marketing our products, which in turn has also affected our sales.
COVID burnout.
Covid has helped our business.
Customer slowdowns in purchasing.
Customers moving slowly.
Declining sales due to people avoiding emergency rooms, our main market.
Decrease in customers for our customers.

Decreased ability to interact within my network and expanded group of peers.
Decreased occupancy in bars, restaurants, taprooms.
Decreased sales revenue.
Delay in non-Montana production of products, cancellation of meetings and conventions for networking opportunities.
Delayed decision making from our largest clients based outside of Montana.
Difficult communication within staff, and with customers.
Downturn in air travel reduced orders for parts.
Economic uncertainty.
Employee mental health.
Employees going remote.
Employees missing work days.
Employees needing time off to deal with family or own brushes with it.
Employees refusing to work due to worry/fear of possible exposure to COVID-19.
Face to face sales and team meetings.
For the very little business I do, remotely, the only periodic challenge has been keeping good communication up.
General Uncertainty and worker absences.
Getting supplies in a timely fashion. Factories shutting down or running at lower capacity.
Growing too fast, trying to keep up.
Had to adapt to providing services remotely.
Harder to coordinate.
Huge projections cut in half.
I hate wearing masks all day, out of state clients are not willing to see you in person and most local clients are not willing to meet with you in person. I like to present creative work in person, not over zoom or other electronic means.
Impacted onsite training.
In person meetings with clients
In person meetings.
Inability to travel directly impacts sales & business development with new prospects. Transition to primarily remote work environment has been doable/achievable by our team, but is not optimal for employee satisfaction, connection, and performance.

Inaccessible customers because their facilities are shut down.
Indecisive customers. "We" are all waiting to see what happens. Businesses don't want to commit to different expenses until they know what their revenue flow will be.
Insight into employee health and wellbeing.
Installing our equipment remotely.
Irrational fear generated from contradictory information sources.
Isolation of employees from each other and operations center.
It has actually thrust our business into a hyper scale mode.
It has become harder to close sales.
It has limited the number of site visits.
Jobsite coordination and equipment availability.
Keeping employees and customers safe so we could continue to operate. Ill employees can't work, ill customers don't want to do business. Been challenging in some parts of the state for sure.
Keeping Employees COVID free either by contact or quarantine.
Keeping employees safe, we are an essential work place.
Keeping my staff safe during a pandemic.
Keeping people safe in the workplace and high absenteeism.
Keeping staff safe and healthy.
Keeping the workforce healthy.
Keeping up with increased demand for Internet Services.
Lack of access to hospital accounts.
Lack of in-person meetings.
Lack of qualified new hires.
Lack of sales to places that are closed, universities, businesses, etc.
Lack of testing, slow testing results for employees.
Lack of trade-shows and opportunities to meet new clients.

Less collaboration between team members, less idea exchange, longer development cycles.
Less spending by clients.
Limited face-to-face meetings makes developing new business partnerships challenging.
Long term uncertainty.
Loss of employee hours.
Loss of revenue due to client changes. Also higher rates.
Lower revenues from loss of customers.
Maintaining and growing interpersonal connections due to remote work and onboarding.
Management of remote employees on top of all normal managerial responsibilities.
Managing a remote only work force.
Managing field employees and potential exposures. It tends to create havoc.
Minimal employees able to work remotely.
Miss team work.
Monetization of virtual events.
Muted business gatherings, dampening effect on sales opportunities.
Needing to pivot in response to the outbreak and a decrease in people spending money.
New, out of state buyers driving up the cost of housing.
No ability for face-to-face interviews and/or networking.

None at the moment.
None.
None.
None.
None. it has only helped us.
Not being able to do face to face communication.
Not being on-site with our customers. Lack of funding for future deals.
Nothing.
Oil price drop.
Our current clients are not using their equipment in their offices and are working remotely, therefore not hitting the print button.
Our product wasn't selling so we had to pivot temporarily to another product.
Procurement difficulties, erratic shipping schedules.
Pull back of development by clients.
Putting off the would-be investors in biotech.
Really none.
Receiving orders due to world-wide company/government shut downs.
Reduced personal connections.
Reduced sales.
Reductions in bar/restaurant hours and safety have resulted in lower sales for ourselves and our customers, translating to customer hesitancy around purchases.
Remote work.
Rethinking service delivery and balancing remote project support for clients.
Severe cut back on development plans on behalf of clients.
Shift of business to focus on offerings most relevant, critical to our customers in light of the global pandemic.

Shipping logistics and orders on backorder.
Shut down for 2.5 months then jumped back with 39% growth YOY for 5 months. Since then have been shorthanded from time to time due to Covid cases.
Shut down of international travel.
Social distancing in the lab, difficulties to get federal awards.
Social distancing, remote working.
Some overall slowdown in clients.
Staff communication with remote working.
Staffing on a daily basis due to illness, symptoms, and quarantines.
Staffing shortages due to school closures, longer turnaround time for equipment repairs.
Supply chain - materials.
Supply chain, product availability.
Supply chain. Some materials are taking months to get.
Surge in demand and business process continuity.
The challenge to travel, and the overall focus on the greater COVID pandemic, which has proven to be a distraction from the details of disease management we are focused on alleviating.
The difficulty in maintaining a sense of team.
The pandemic has been an advantage for our business.
This is probably applicable more to our outside of MT offices, but we are still dealing with school closures, etc. that are impacting our workers ability to work and focus on work.
Timeliness on answers to questions, jobsites shutting down due to outbreaks.
Travel and keeping programs on schedule with reduced access to customers and key events/facilities. Cross border has been an issue with as much international work as we do.
Travel constraints.
Uncertainty.

We cannot GROW fast enough because of the lack of capital.
We can't travel or attend shows/gatherings.
We no longer travel to film. Produce and deliver online.
We sell to hospitals and health systems. The pandemic created an immediate awareness of the clinical utility of our solution. That said, getting hospitals to adopt new technology during the latest surge is almost a non-starter.
Wearing masks in the office.
What is the main challenge your business has faced as a result of the COVID-19 pandemic?
Work at home and some shifts had to be covered by other shifts.
Work, life, balance. New communication channels.
Work-from-home productivity.
Working from home while preserving social dynamics can be challenging.
Working remotely took some time to get used to.
Zoom calls, the majority of our creative development meetings were always in person which gave us maximum communication.

Q19. What is the main opportunity for your business created by the COVID-19 pandemic (if any)?
Accelerated the need for remote care.
Awareness of the value of true broadband, not government sanctioned 25Mbps/3Mbps. The average home needs more bandwidth to accommodate kids studying at home and parents working from home.
Bringing battery pack production into Missoula, MT instead of outsourcing and plans to increase the EV charging station infrastructure in Missoula and possibly across MT.
Businesses are now focused on growth and revenue diversity.
Can't think of anything.
Cattle ranchers searching for additional buyers.
Community interest.
Covid has pushed a new audience to the outdoor space.
COVID increased the speed of digital transformation.
Covid provided a tailwind for our business due to social distancing and focus on recreation.
Diagnostic testing company, remote work better.
Digital Transformation and Digital Commerce catapulted 10 years forward in 90 days. This increase the speed and deployment of our behavioral analytics to help onboard new digital customers.
Distributed workforce made permanent.
Efficiencies in communication.
eLearning exposure.
Even more demand for remote services from Montana - which is our core model
Explosive growth of e-commerce and individuals ordering products from home.
Faster adoption of our technology.
Fits the core of our business remotely produced branded motion graphics video.
Forced us to rethink our advertisement program, website, payment systems, POS.
Geographic expansion through virtual means.

Getting remote workers set up from a technology standpoint.
Getting to know customers more closely.
Growth within specific markets...like pet supplies.
Handling and monetization of virtual events.
Helping clients convert to a flexible workforce using technology.
Helping customers establish working at home.
Helping employers set up for work from home situations.
Highlighting of the need for our product.
Homes that only used a cell phone needed something better, so we were swamped with new request.
Huge Demand.
I'm a one man shop and some companies have sent more work because I have less exposure to virus thus more predictable.
Increase in demand for our product.
Increase in service revenue and system upgrades. More people are spending more time at home and need high performance networks. They also tend to want more entertainment systems.
increase/move to online/delivery sales.
Increased interest in anti-infective drugs.
Increased need for software.
Increased NIH funding for COVID and non-COVID research has increased funding available across multiple programs and projects.
Increased requirements for high speed Internet.
Increased sales to medical device companies.
Interest in disinfecting drones and other unique applications.
Investment focus upon the biotech/MedTech industry. For my company in particular, its avoids the need for general anesthesia, making surgery safer for the patents and their physicians.
It created immediate awareness of the clinical and public health utility of our solution.
Keeping up with increased demand for Internet Services.

People needed our products and services and appreciated our reliability. I think we also received a lot of praise that will pay off later for keeping our customers as safe as much as possible.
People working from home creating demand for networking and remote offices.
Playing field has been leveled for her immensely due to virtual work.
Plenty of work with the stimulus plans.
Possible new markets for products and services.
Potential of cancelling our commercial lease agreement.
PPP and SBA Capital.
PPP funds and more high-quality candidates available for job positions.
Proof points that employees and companies can successfully work remotely.
Reduction in real estate and facilities costs.
Reduction of aerosols in the dental offices led them to buy more hand instruments.
Refinance debt at much lower rates.
Remote office.
Remote work.
Remote work.
Remote Workforce demands.
Remote working.
Restructure and improve operations.
Restructuring and focus on internal processes.
Rural Digital Opportunities Fund deployment of new telecom and internet infrastructure.
SaaS becomes an easier sell.
SBA funds more available.
Setting up remote work force.
Since we manage Grants and giving, our business is growing.
Surge in demand for our products.

The COVID-19 pandemic has allowed us to be 100% remote company.
The even heavier reliance on tech in the e-commerce space has created more of a need for our product in the marketplace, as well as the momentum gaining behind the urgency for more sustainable business practices.
The opportunity to be innovative and create new processes and solutions for the future of Montana's supply chain.
The rise of widely-accepted virtual meetings.
There seems to be increase in demand for software services.
Time to watch performers on YouTube.
Understanding of jobs and people that can effectively work remotely.
We are an essential manufacturer.
We are experienced with remote support.
We are in healthcare and our product help with communication. We were able to provide a free module to help support COVID efforts.
We are in the business of creating online stores for outdoor companies. Shopping online is up; outdoor venturing is up. We can't keep up with the new work.
We are more open to hiring remote employees, which opens our candidate pool.
We developed and commercialized new COVID-19 technologies for drug discovery however, the state only invested \$25K in our effort despite receiving many millions.
We have a life-saving technology that can reduce covid-19 related mortality.
We have some national clients that have actually increased demand for our services, think grocery store retail & healthcare.
We helped many clients improve their platforms.

We make software for food pantries. This has been a high growth period for this sector.

We may have a product that could reduce human pathogen transfer.

We produced hand sanitizer which kept people working and gave us a valuable product to donate to organizations across our state.

We waste less time traveling, and have more time to work, create value and have fun. This is the first year of my career I have been home 365 days. Montana is really nice by the way.. now I know why people live here.. including me.

We've participated in some pitches for technology based contact tracing and vaccine rollout solutions. To date, we've not successfully sold any of these, so no positives thus far.

Q20. If you are a member, What is the one most important thing you would like to get out of your Montana High Tech Business Alliance membership?
A strong voice for Montana tech companies with or state and federal political representatives. The new Governor's understanding of our unique needs will be very helpful in changing state regulations to better serve technology companies.
A stronger startup/tech ecosystem in Montana that brings more experienced workers to the state.
A voice with legislators. Health coverage and cost is a continuous problem that sucks up a lot of our time that should be focused on our business.
Access to qualified job candidates, placement bulletin boards,
Access to sales training, networking opportunities, and mentorship from seasoned business leaders and entrepreneurs.
Business an investment capital mentoring and consulting for funding MT companies, Series A, Series B, IPO, etc.
Business networking and relationships.
Case Studies for business growth. Companies that don't grow overnight, but maybe grow from 5 employees to 25.
Connecting with like-minded people or who have lots of tech experience.
Connections to other tech companies.
Connections with other software and technology leaders in Montana for collaboration and mentorship.
Connections, more marketing of Montana as a world class place for tech business.
Connectivity and exposure to others.
Create workforce synergy among high tech employers.
Education of others similarly situated.
Efforts to find new business opportunities outside of Montana for members.
Encouragement! Seeing other entrepreneurs in the state starting and operating businesses is inspiring.

Expand the network of other tech companies in Montana.
Exposure to access a larger market in the healthcare space
Exposure, collaboration with legislature, and access to Montana resources.
Get back to networking in person!
I don't know
I like when we work together on articles.
I loved the networking avenues pre-Covid, which has been more difficult during Covid.
I think the Alliance has already given us the most important thing we need at this stage which has been introductions and an awareness of what resources are here in Montana. Getting to meet people who may have potential interest in our work or could be an integral part of the building process through [HTBA Director's] introductions gave such credibility and speed to the process. She has led us in certain directions that have been incredibly helpful. As we continue in this stage I think we're just looking for more of that!
I'm looking forward to face to face meetings in 2021.
Information on initiatives the state is taking to improve the workforce
Information regarding business and legislative changes happening throughout the state.
Insight into key legislative actions impacting business in MT.
I've been a member for three or four years I've been on the website I haven't gotten one call from them not one from anybody within the Alliance, nada.

Keep touting Montana as a great place to do business.
Like to see what other companies are doing.
Lobbying help to bring fiber based broadband to the high tech business sector.
Marketing education and recognition.
Marketing.
More comradery and sharing ideas.
More gatherings and webinars.
More networking and resources for capital.
Networking and collaboration.
Networking and good online press. Stories and things that mention us for good google fodder are great. We have some great stories we'd love to publish with you.
Networking events.
Networking with other MT based CEOs, diversity plans and workshops, materials for relocating employees to MT - sell packages.
Networking with people.
Networking.
Networking; opportunity to connect with other executives in tech, interest in growing tech ecosystem in Montana.
Partnership for future growth needs, talent pipeline, knowledge.
Partnerships, access to capital.
Pooled resources for increased workforce training or move-ins from out of state.
Potential investor opportunities.

Qualified applicants.
Relationships to future customers is #1, mentoring from people that have built a SaaS company from the ground up. We want to surround ourselves with smart innovators from all the industries in MT and the world. The broader our own knowledge becomes the more we can grow.
Relationships with peers.
Relationships/network.
Respect from the ranchers for our tech industry. That is the starting place for respect from the rest of the nation. And, fewer fences.
Shared intellectual resources and fellowship from those in similar positions.
Someone trying to create good jobs in MT.
The ability to network with other business owners.
To continue to brand the name in copies, printers, water filterization systems.
We don't really benefit. We are providing money to support the group because it seems like a good group. But we haven't seen any direct benefits that I know of.
What is the one most important thing you would like to get out of your Montana High Tech Business Alliance membership?
Where have you been, and what have you been up to, I have not been active for several years.

<p>Q21. What additional comments do you have? The Montana High Tech Business Alliance is particularly interested in your observations about creating new, high-paying Montana jobs.</p>
<p>Affordable housing is an issue locally, new hires have a difficult time finding or even affording local housing.</p>
<p>Always looking for quality technology sales advisors to help build relationships and provide solutions to current and new businesses. We have programs to help new businesses get started with their printing, copying and scanning needs.</p>
<p>Appreciate High Tech Alliance</p>
<p>As a manufacturer, ability to transport finished product to customers is key. Good transportation infrastructure, truck and rail, as well as a better balance of shipping, need deliveries to Montana to make trucks available for haul out of Montana.</p>
<p>Bigger challenge in growth after the pandemic because we have proven we can work from anywhere. Housing costs becoming an issue. So it's important that Montana not look like everywhere else - that is our recruitment tool. We need to work on affordable housing. Not in a political sense, but in a stability sense. Our average pay is \$72,000 yet we have many employees who can't afford a house. We need to grow a complete economic ecosystem in our communities.</p>
<p>Compete, compete, compete.</p>
<p>COVID has created a unique opportunity that has enabled technology companies, located in areas like the silicon valley, to realize there is a realistic alternative for their employees. These jobs pay better than average wages and will help bring up the overall wage structure in MT.</p>
<p>Efforts to make it easier to hire in Montana via improving the employer's liability for dismissed employees would increase employment. Industries are generally well aware that it is much more difficult to dismiss an employee in Montana, therefore they generally avoid hiring here if there are options.</p>
<p>Even though we are a high paying employer, there is still a lack of qualified machinists in Montana that have a desire to be employed.</p>
<p>Financial assistance from the government has been instrumental in allowing us to maintain full employment during economic shutdowns, especially in the spring of the year. High absenteeism and supply chain disruptions have been a major challenge in the second half of the year.</p>
<p>Focus less on talent that people have and focus on making new talents for people, High Tech Business Alliance needs to increase wages for their employees.</p>

For the regional businesses I see as very successful in creating new, high-paying Montana jobs, there should be a concurrent awareness of the economic damage their success brings, as non tech working service workers find housing prices driven up out of reach. Essentially, it's great for those workers in those companies, but it also is widening the income inequality and opportunity gaps for people outside of the tech spaces, e.g. retail, gym workers, low end service workers. No easy solutions.

From a small acorn fig trees will grow why not help some of the small people in quick going for all the big businesses?

Great Falls is a low cost location that could be valuable to companies looking to reestablish themselves with lower upfront capex.

Hope we can get together again this year.

Housing and rental market are deterring new employees from coming to Montana.

I have a full time job, although I'm under employed. I supplement my income with freelance work, which is my company. My company/career is non-traditional. I'd love to use my skills in a different full time position.

I have the work to expand but real estate for anything commercial is ridiculously priced right now!!!

I hire vendors on a project basis not full time employees. There were no questions in the survey about the gig economy which in this field is a big and growing portion.

I'd be interested in a good venue to connect with potential hires. A connection on the MSU-Bozeman campus would be lovely.

It has been difficult to find housing for employees when they want to move here from other parts of the state or from out of state.

It is a challenge to increase diversity through hiring in a largely white, largely conservative state, especially in an industry which requires employees be able to be on project sites regularly. Our employees need to live in the county they work in. The paths to diverse in and out of state candidates is not well trodden. Would love to see more collaboration to bridge this gap.

It would be useful if our legislators stopped kissing the fossil fuel industries' derriere and started working towards a cleaner, renewable energy future.

Lack of diversity in Montana makes it difficult to attract diverse candidates. We have been successful in some diversity efforts but most of have been remote employees. Some of the diverse candidates who relocated to Montana have not had positive experiences.

Lure of a wild but accessible Montana continues to be our greatest asset when it comes to hiring. Practice conservation and keep our public places accessible, and the entrepreneurs and workers will come. Turn our towns into big box strip malls and sell off our public lands, and you lose our edge in finding talent. I fear the agenda our new republican leaders are going to set.

MHTBA has been a great partner for us. Keep up the good work. Better labor regulation at the state level to enable us to more easily scale our workforce is key. Also creating talent pipelines between our great in state colleges and local companies would be great.

Montana companies need to understand whether they are in the local Montana only employer market or if they compete globally and nationally or even regionally for talent.

Montana has never been known for high paying jobs, people live here for the outdoor beauty & adventure, not the paycheck.

More direct flights would be advantageous so employees can visit out of state families and get to east coast by an afternoon on the same day for meetings. Affordable health care is an ongoing problem. Unless in a University town, there is a lack of young professional community for highly skilled workers without families.

MSU graduates with degrees in things like Chem and Bio seem to have limited laboratory experience and especially in a regulated environment like ISO 13485 or ISO 17025.

Much more of the COVID relief money should be allocated to small businesses working on treatments and vaccines. The State allocated millions to fund MSU for testing, but even now, they are not offering tests to faculty members and many students. This lack of leadership is threatening our entire community and puts our workforce at higher risk. Small businesses suffer when R value increases.

Now I am inspired: AFFORDABLE HOUSING.. focus on AFFORDABLE HOUSING which now MONTANA IS TERRIBLE. No homes, no EMPLOYEES, no growth for people to leave RENTING and purchase. That is the #1 thing my employees are yammering about. The HOUSING PRICES directly impact our SALARY DEMANDS.. which causes HIGH PAYING JOBS to basically mean BASIC LIVING WAGE. A home that cost \$100 / sq. foot, is affordable, and causes everyone to make money, make a starter home \$250/sq. ft, and you have FINANCIAL DISASTER.. and the employers can't keep adjusting salaries just because HOUSING goes up. So instead we have to HIRE in INDIA and CHINA to cut our costs. My biggest concern is the stance you take about "HIGH PAYING JOBS". This is a generalization that SCARES ME way more than helps our business. I would prefer to have "jobs that provide a living wage". We have employees in 2 outside countries because AMERICAN'S are too expensive. The more you push for "HIGH PAYING JOBS" the more jobs I take overseas? VALUE CREATION is the purpose of an employee, not to demand high wages because a group told them to. Employees must create MORE VALUE THAN THEY COST or they won't have a job. I would be nice if your group would use less BUZZ WORDS, like "HIGH PAYING" to get attention and focus on the "COST OF LIVING" and getting a pay base that supports living in Montana. Saying "HIGH PAYING" verses "SUPER CHEAP" are just sloppy language about the most important topic for all of us. MONEY. We left CALIFORNIA 22 years ago, because in San Diego, EMPLOYEES needed \$5000/month just for their stupid Mortgage because they paid too much money for a terrible home in a terrible neighborhood. That's all I have.. :)

Ongoing issues with high transportation costs and high tax issues - particularly the ridiculous Flathead County Business Personal Property tax that penalizes businesses for investing in capital infrastructure.

Please try to get back to networking in person, times for the zoom meetings have been absolutely awful.

Pleased to see the High Tech Alliance came out against transgender bills in Helena.

Small firms like us are disappearing quickly due to the increase in regulations and the cost of doing business. There are few, if any, breaks for small companies with very limited product lines, but instead we are held to the same requirements as companies with hundreds of products. There also needs to be more logic in the regulatory requirements relating to risk--a company that produces a product with a long safety record shouldn't have to meet the same requirements, such as unannounced quality system audits, as a higher risk product. There is no common sense in the requirements. In addition, if the costs of doing business in Montana continue increasing, wages, shipping, housing costs, etc., it may soon be impossible to continue manufacturing in the state.

State and local governments need to try harder to hire Montana firms.

Thank you !

Thank you for the job board.

Thank you MHTBA and all you do!

Thank you so much for your time and hard work!

Thanks for inviting our input.

Thanks for the seminar.

The desire to live in a relatively beautiful rural setting with good universities and recreation drives much of it.

The ease of remote work hasn't encouraged us to look within Montana for employees.

The uptick in home schooling is creating new opportunities for alternative learning experiences, such as internships in the community. This could provide mutual benefit leading to more and better career opportunities and more useful workforce development.

Very poor attitude of most customers political uncertainty of higher taxes and anti-small business with COVID and our rush to socialistic agenda.

We are growing significantly and need more training - availability of hourly workers with basic factory skills and communications proficiency.

We are looking forward to sharing our new solution for supply chain management in Montana. We hope our vision is clearly expressed so that companies in Montana adopt this new way of moving their freight. If we can get a large majority of companies on board this will be a very effective platform for them to reduce costs and have a more resilient and efficient supply chain. We hope by removing these longstanding logistic issues in Montana we can attract more manufacturers to the area, create more jobs and have a positive effect on the environment by reducing carbon footprints and emissions.

We are suddenly struggling to imagine our business growing in Montana. We're more likely to grow outside of Montana, which in Missoula has not stayed the low-cost option it once was. We can no longer justify paying lower wages because the cost of living is higher than the national average. We're now focusing on closing the gap between our local market wages and the national average, plus figuring out how we can hire people who live in more strategic locations adjacent to our industry. This also helps diversify our workforce because our candidate pool is much larger.

We have Resources and skills to help ILEC's and CLEC's accelerate the deployment of broadband infrastructure. If we were contracted to help drive the rollout of new digital services, broadband, wireless, VOIP, etc., we would hire from Montana's workforce whenever possible.

We need 10+ Frontier Angel type groups. Angel investing tends to be very regional, and Frontier has a functional monopoly which greatly restricts investment capital. Institutions like Next Frontier Capital are great, but not for startups... There is a disproportionately high density of capable entrepreneurs in SW Montana, and most are not getting off the ground due to lack of early stage capital. A MHTBA campaign to attract or somehow entice the formation of additional angels or angel groups would be good for both the MT technology business environment and the angels.

We need to avoid MT becoming a playground for the elite and focus on highlighting the practical, on the ground, exceptional goods & services that MT based firms are producing.

We provide very specific products into a niche market. The market is growing but dependent on research investments by government and private industry. Our concern is budget constraints by government agencies will limit new research that facilitates use of our products.

We should create 12 new jobs in 21. Starting wage is \$15 per hour with raises of \$1 per hour every six months until \$20 per hour then reviewed for salary pay. We have several team members making between \$80-\$100k per year and we gave out \$40k in surprise bonuses in Dec. Our average wage is over \$40k per year, maxing at \$120k.

We would love to offer more and higher paying jobs, but funding for law enforcement must continue. Without this funding we could be out of business.

We've got great access to highly skilled welders. It'd be great to see higher skills around equipment operations in our industry segment.

What additional comments do you have? The Montana High Tech Business Alliance is particularly interested in your observations about creating new, high-paying Montana jobs.
With COVID, we are able to hire many new employees, but at a living wage, not so much high-paying jobs.
With the right software and manpower we are looking forward to continuing to drive our growth and add more jobs.
Would love to understand how pandemic has impacted tech in Montana - seems like there is more tech talent coming to the state, start-up activity in the state and big companies hiring or supporting remote workers in the state.
Would there be others interested in time-share RVs for trade show use, etc.?

Appendix 5: 2018 BLS Standard Occupation Codes of positions most frequently hired

Table 9: 2018 SOC's of Positions Most Frequently Hired

2018 BLS Standard Occupation Codes of positions most frequently hired		
SOC	Frequency	Percent
11-2022	7	1.8
11-2030	13	3.3
11-3011	3	0.8
11-3012	8	2.0
11-3013	21	5.3
11-3071	1	0.3
11-3120	2	0.5
11-3131	2	0.5
11-9111	1	0.3
11-1011	12	3.0
13-1110	1	0.3
13-1199	10	2.5
13-2011	7	1.8
13-2051	5	1.3
15-1121	10	2.5
15-1230	1	0.3
15-1240	2	0.5
15-1244	2	0.5
15-1252	72	18.1
15-1253	4	1.0
15-1254	1	0.3
17-1011	1	0.3
17-2070	4	1.0
17-2071	2	0.5
17-2131	1	0.3
17-2140	5	1.3
17-2199	40	10.1
17-3000	3	0.8
17-3023	1	0.3
17-3029	5	1.3
19-1029	1	0.3

19-1042	9	2.3
19-4021	3	0.8
19-4031	2	0.5
23-1011	1	0.3
23-2011	1	0.3
25-1000	1	0.3
27-0000	1	0.3
27-1024	6	1.5
27-3040	1	0.3
27-3099	1	0.3
27-4011	2	0.5
27-4030	1	0.3
27-4032	1	0.3
29-2034	1	0.3
31-1131	2	0.5
35-1011	1	0.3
35-2010	1	0.3
35-3000	2	0.5
35-3011	1	0.3
37-2021	1	0.3
41-1012	1	0.3
41-3000	33	8.3
41-3031	14	3.5
43-3030	3	0.8
43-3061	4	1.0
43-4051	9	2.3
43-5071	1	0.3
47-2031	1	0.3
47-2061	2	0.5
47-2070	2	0.5
47-2152	2	0.5
47-3000	4	1.0
49-3011	1	0.3
49-9063	1	0.3
49-9098	1	0.3
51-0000	2	0.5

51-2099	9	2.3
51-4040	6	1.5
51-4041	1	0.3
51-4120	5	1.3
51-4194	1	0.3
53-2012	1	0.3
53-3000	3	0.8
53-7065	3	0.8
Total	397	100.0