

MPIA Member Survey Results

2020

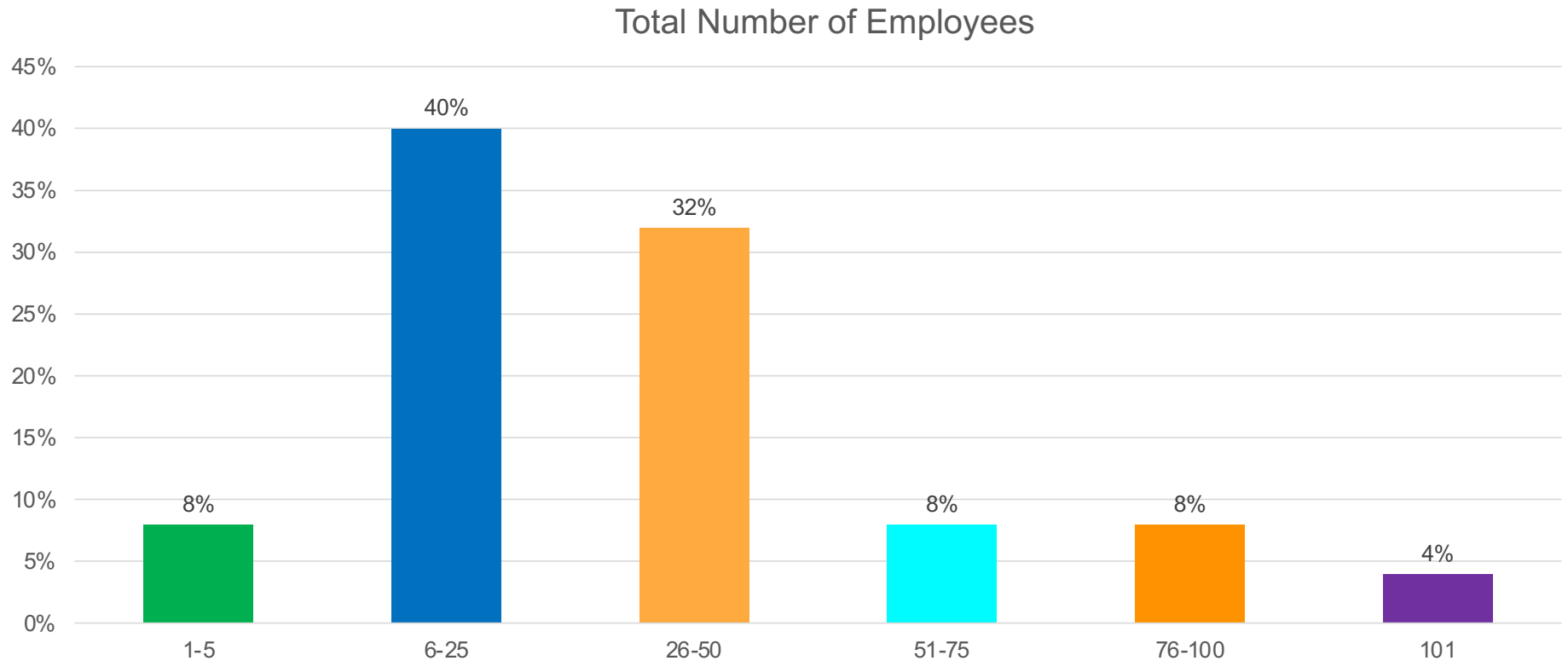


Summary of the Survey

In 2020 the MPIA conducted a survey of the member companies. Here is a summary of the survey:

- 20 of our 26 paying member companies completed the survey
- Survey was conducted via survey monkey
- Improvements to the survey will be made and another survey will be conducted in 2022
- The last survey was conducted in 2017
- The MPIA plans to conduct surveys every two years moving into the future
- Please email additional questions or improvements you would like to see on the next survey to admin@montanaphotonics.org

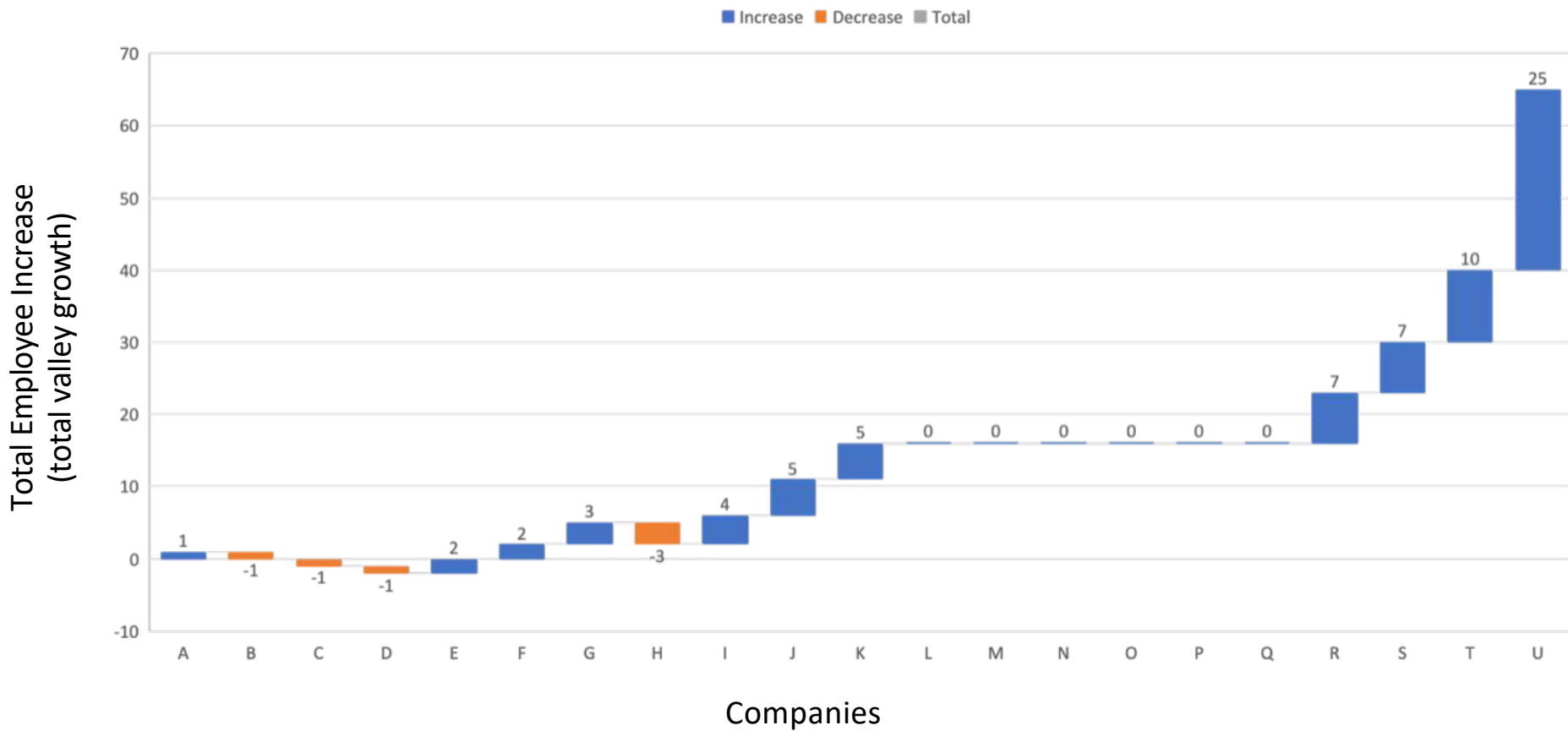
What is the total number of employees at your Bozeman facility?



Key Takeaways:

- Taking the average of all of these bands and the percentage of companies that fall in each band. Our mean estimate of total number of employees in the valley is ~810.
- This is a 22% increase from our previous survey.

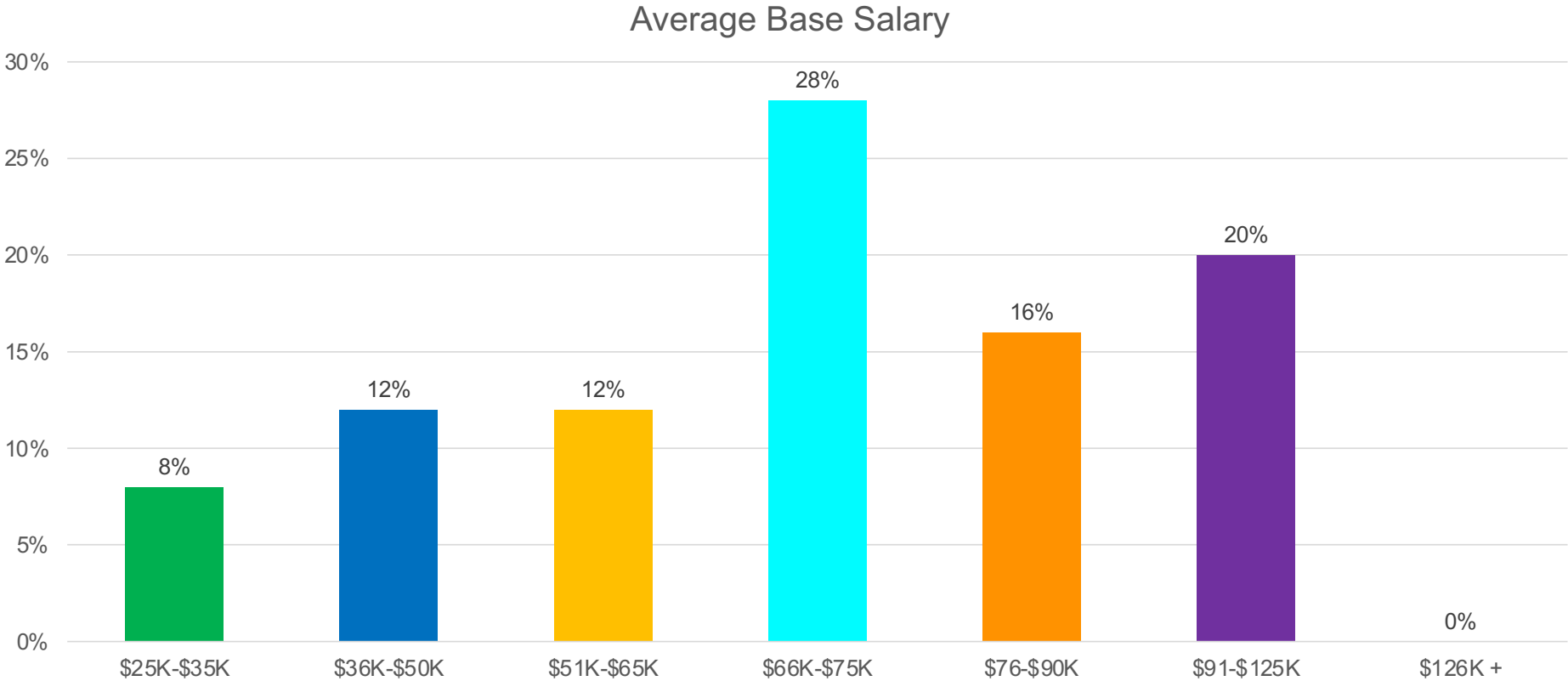
Is the employee number an increase, decrease, or the same over last year?



Key Takeaways:

- Of the surveyed companies, Montana gained a total of 65 employees net in photonics from 2018 to 2019. This represents a nearly 10% growth in total employees in a one year time span.

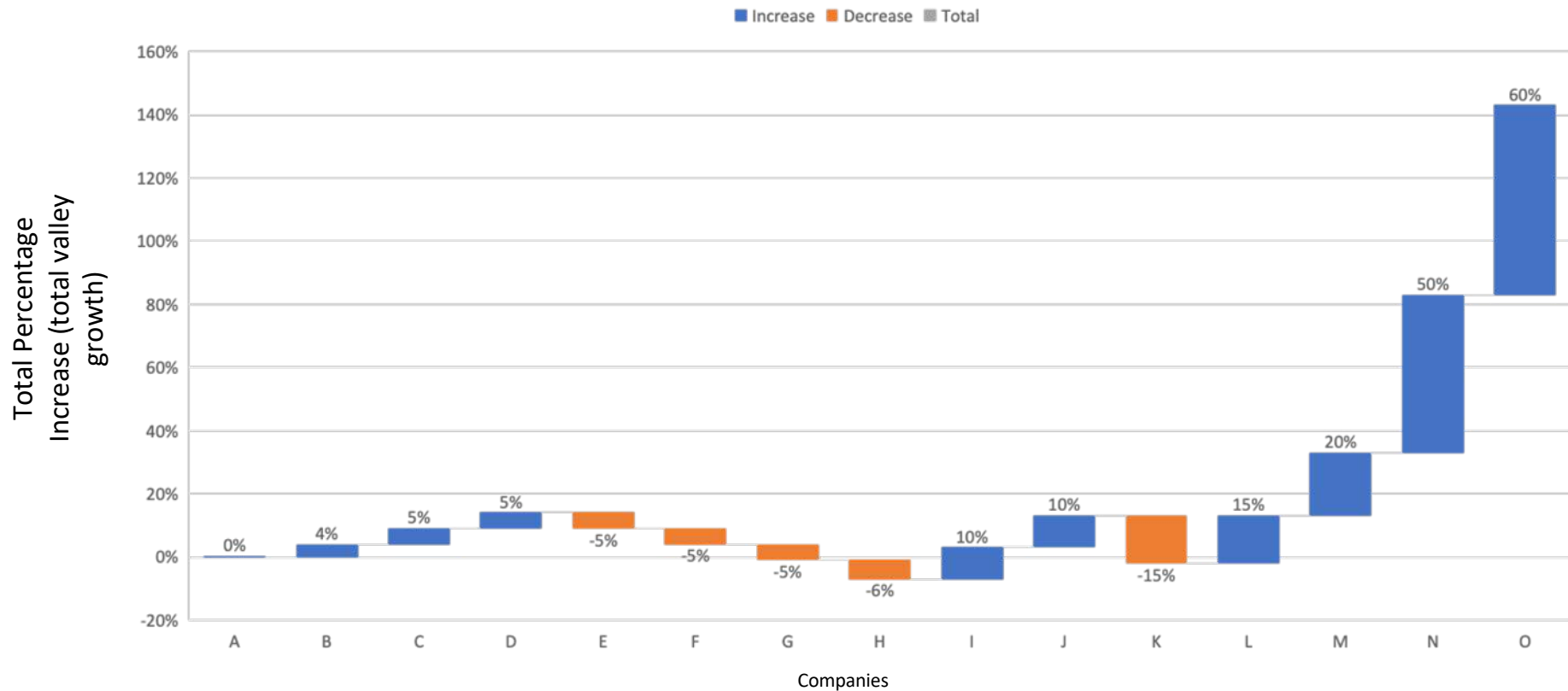
What is your average base salary? (not including benefits, bonuses, stock payouts)



Key Takeaways:

- Of the surveyed companies, the average salary across all companies (for all employees in the companies) is ~\$72,000
- This is a 10% increase from the last survey

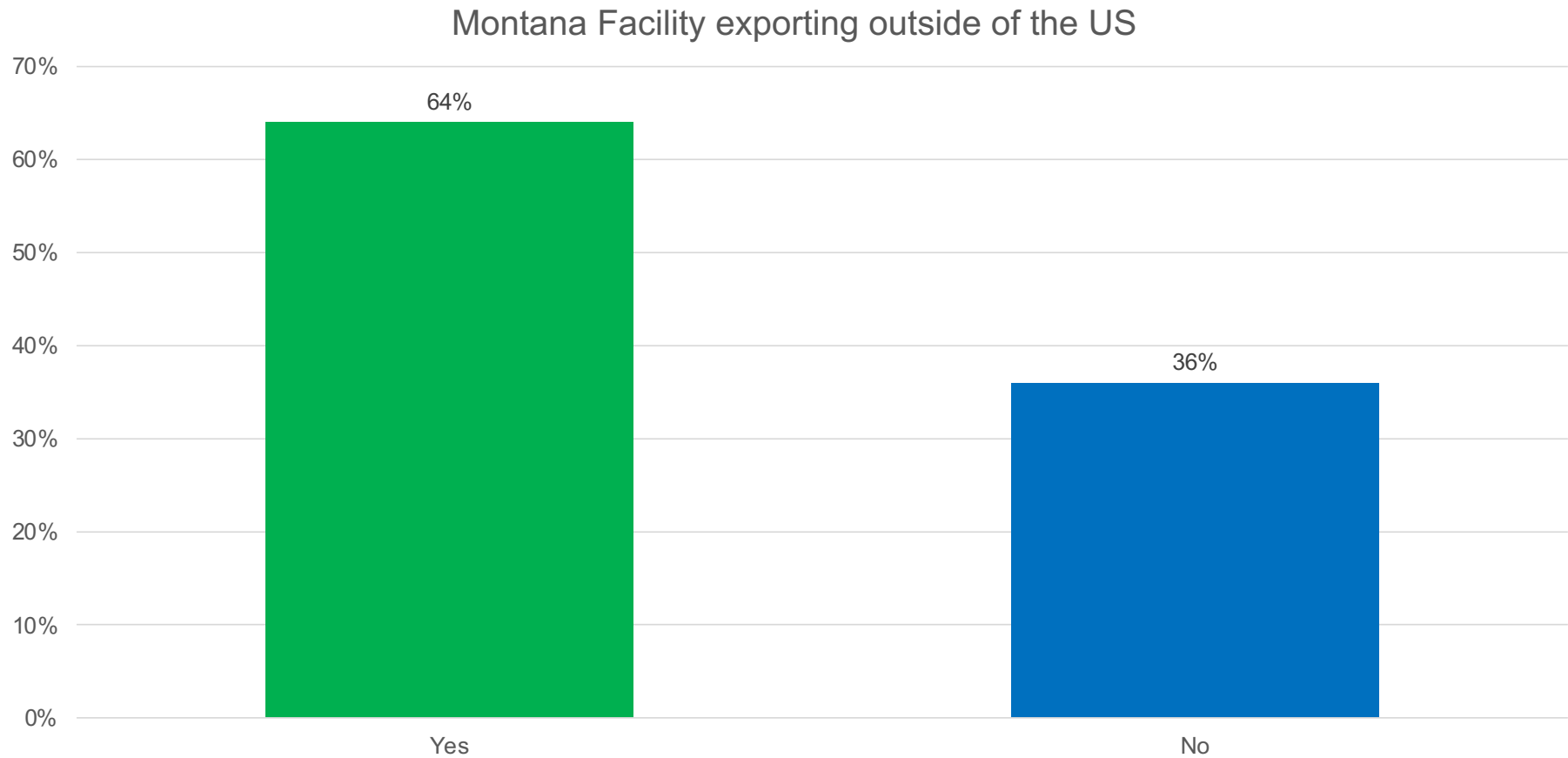
At your Montana facility, estimate the % increase or decrease in revenue for 2019 vs 2018?



Key Takeaways:

- Of the surveyed companies, the aggregate growth in revenue for the photonics industry in Montana is expected to be ~140%

At your Montana facility, do you export any of your products outside of the US?

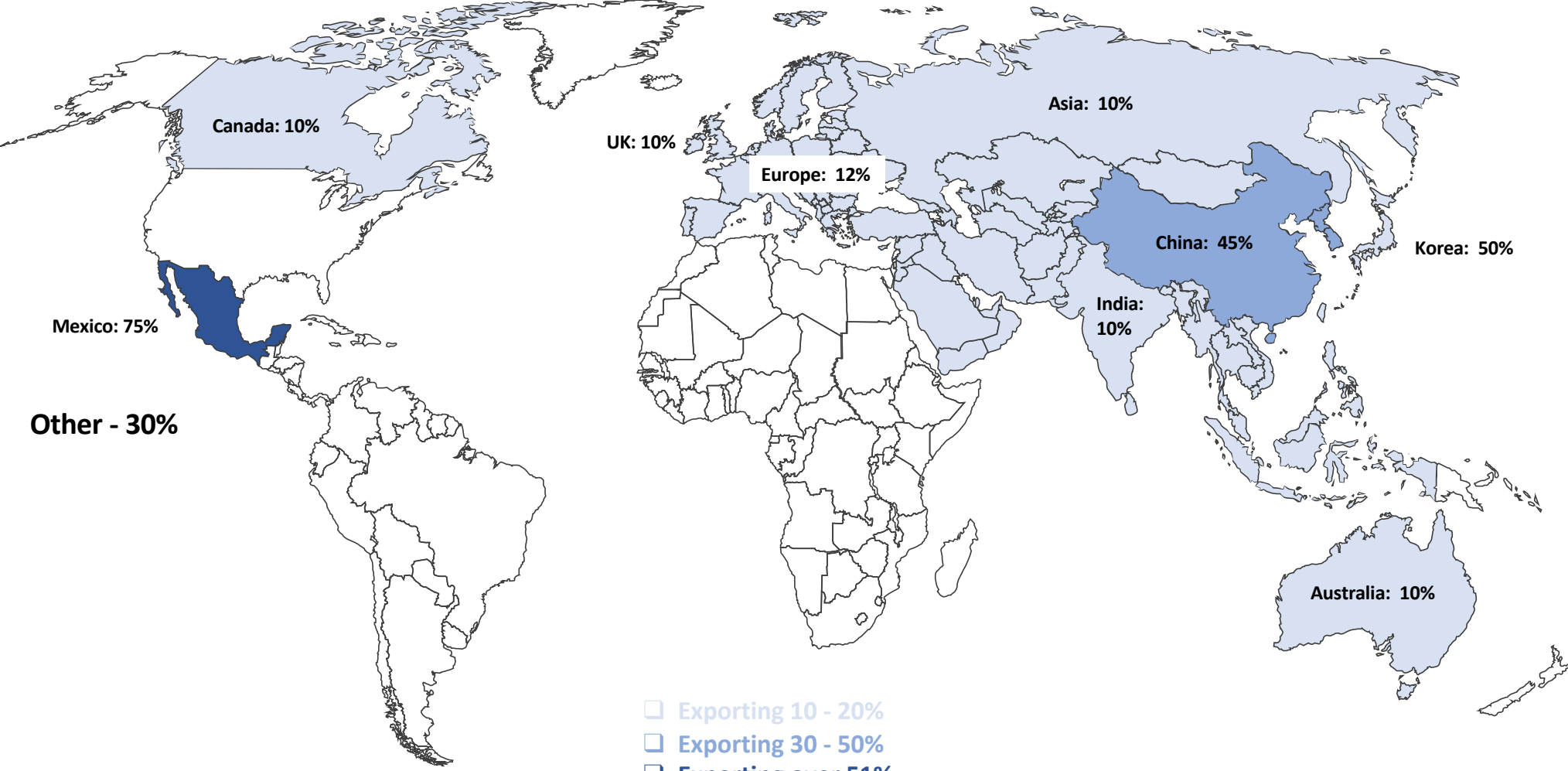


Key Takeaways:

- A majority of our companies export outside the US.

If yes, what % are exported? and into which primary country?

Exported out of the US



- Exporting 10 - 20%
- Exporting 30 - 50%
- Exporting over 51%

For your Montana facility what do you find to be most challenging operating your business here?

- **Travel:**
 - Cost of travel in/out of Bozeman/lack of direct flights
- **Recruiting, Hiring, Personnel:**
 - Finding high quality, right talent to hire (including graduates)
 - Filling lower mid-level management positions
 - Finding the best combination of education, skills and personal fit in employees
- **Government:**
 - Government Contracting / State and Federal Regulations
- **Shipping:**
 - Shipping costs/DHL shipping
 - Finding individuals knowledgeable about international shipping.
- **Facilities:**
 - Lack of facilities
- **Geography:**
 - Fewer bigger events that are local.
 - For instance, if we were located near San Francisco or Boston, then we could easily attend trade shows/business events and bump elbows with a greater variety of business leaders.
 - Brining more events/speakers here would help this
- **Investment Capital:**
 - Finding access to investment capital
- **Supply Chain:**
 - Buying supplies locally
- **Marketing:**
 - Most of our clients are in communities with many local design firms. We need to somehow become “visible” to companies that can use our services.
- **Cost of Living:**
 - Increased cost of living driving wages for production employees

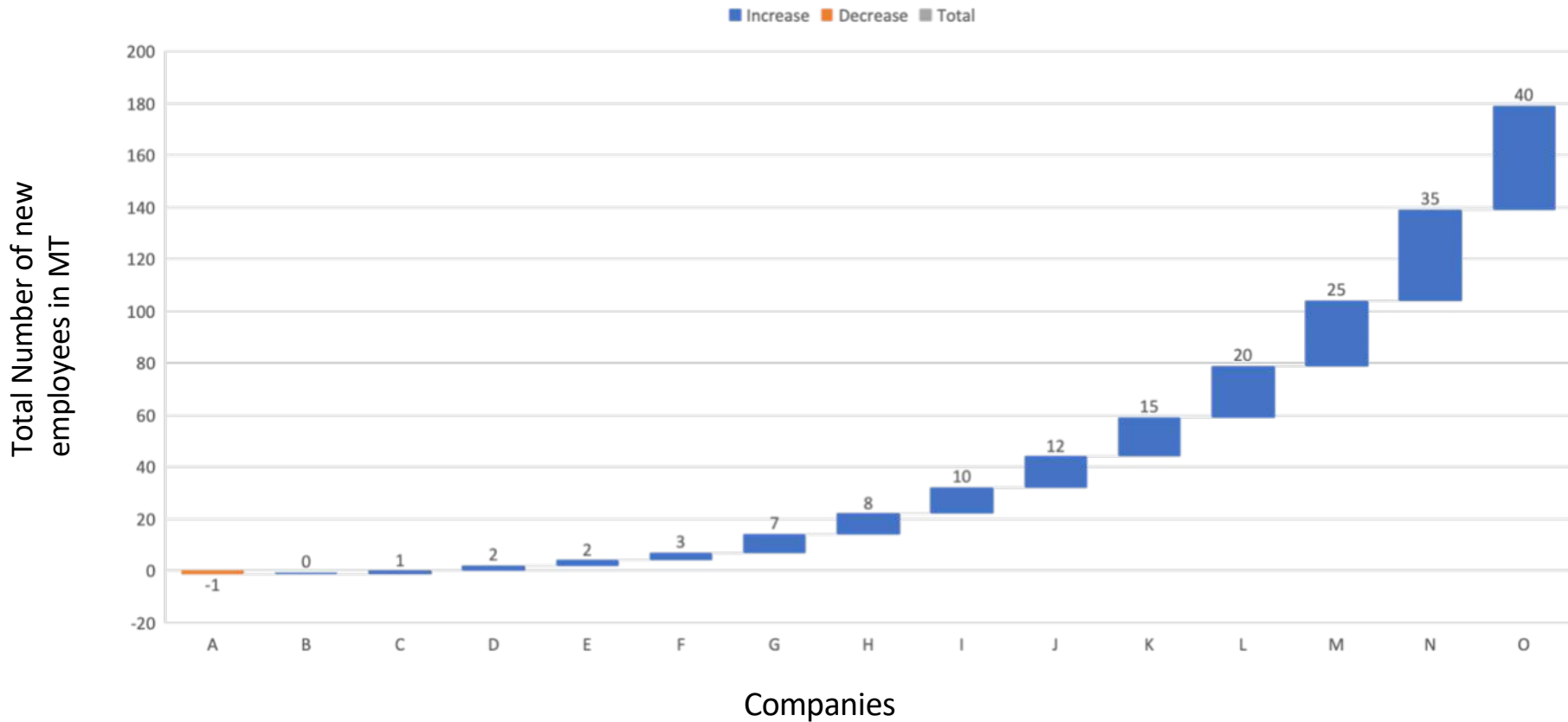
What do you feel the MPIA could do for your Montana facility? How can we help with current challenges? (ex: training, conferences, website content... etc.)?

- **Training:**
 - Training opportunities / Training workforce / Seminars
 - Training on: production, forklift, safety, operations excellence, breaking into international markets , ERP or CRM System Introductions, HR, management, sexual harassment, diversity, technical management, lower-level managers on financial principles
- **Marketing:**
 - Recommendations on marketing platforms and strategies
 - Increase exposure across nation for Bozeman opportunities
 - Providing market-level analysis on sales trends, etc.
 - Build the MONTANA brand identity for the industry – which will draw business and talent
- **Hiring:**
 - Looking for better ways to post opening and attract talent
 - Workforce Development
 - Draw more talent to the valley
 - Advertising local opportunities - job postings & internships
- **Conferences:**
 - Conference will support brand and draw talent
 - Work to establish at least one annual conference in Bozeman
 - Run its own OPTEC like event or have larger presence to better connect local business beyond social
- **Website:**
 - Website content
- **Local networking:**
 - Opportunities for networking
 - Build a strong network of businesses willing to help each other
 - Encourage growth of local vendors to support our Industry
- **MSU:**
 - Improved collaboration with MSU
- **Cost of Living:**
 - Salary information and the cost of living in the valley
- **Promote:**
 - Promote MT as a wise investment for coastal investors
- **Community outreach:**
 - We need high school students & their parents thinking about photonics
- **Sharing:**
 - Have local businesses provide webinars as to biggest lessons learned that helped them be sustainable and successful over the years
 - Manufacturing lessons

What training/professional development would benefit the employees at your Montana facility right now or in the future?

- Accounting
- Assembly technician
- CRM or ERP training
- Database creation to track products/manufacturing-go over platforms/options and best practices
- Electronic technician skills
- Engagement in the success of the company
- Engineering
- Fiber optics skills
- Geometrical optics for engineers who don't have optics knowledge
- Hiring Process
- How to create high quality, effective Power Point presentations
- IPC/IPC Solder training
- International shipping
- Inventory systems
- Laser safety training
- Leadership Training
- Looking forward to having Jean Luc Dumont back again to speak about good presentations
- Making Sales Presentations – How to for on-line (and in person)
- Manufacturing
- Marketing
- Mathematics
- Maybe some workshops on starting a business
- Mechanical designs for optical systems
- Product launch examples – benchmarks, materials, timelines
- Project management
- Public Speaking
- Quality
- Racism Training-Prejudice Awareness
- Sales training
- Service/support systems including tracking, integration with production flow, materials/literature
- Technical management training
- Website Development

How many employees will the company be adding in the next three years?



Key Takeaways:

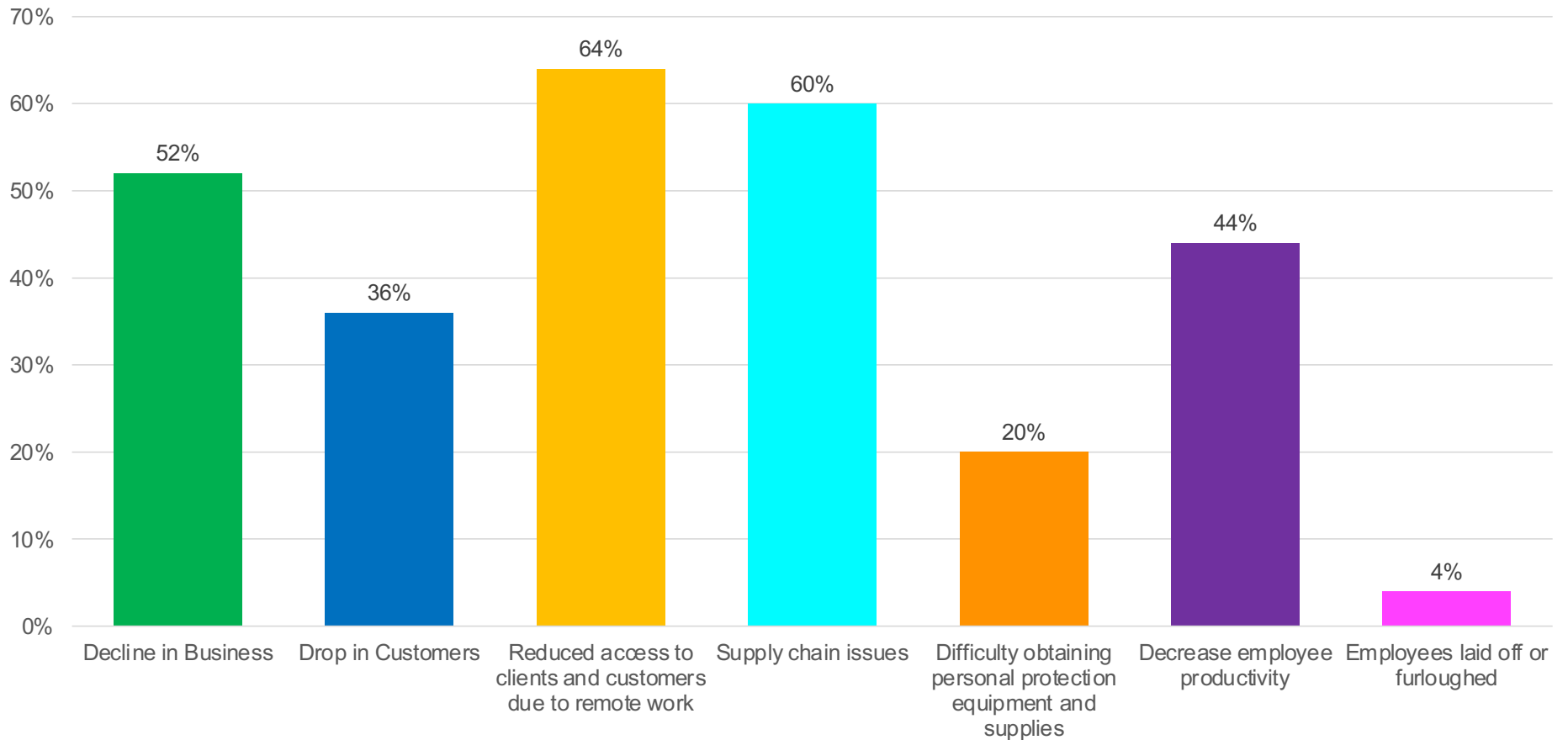
- Of the surveyed companies, the industry expects to gain an additional 180 employees over the next 3 years (before the end of 2023)
- This will put us well over 1000 employees by 2023.

What curriculum suggestions do you have for Montana State University (MSU)/Gallatin College to support your Montana based business?

- Accounting/Accountants
- Advanced manufacturing process
- Advanced Soldering
- As much hands-on experience in labs as possible
- Assistance / trained staff in technical marketing
- Business Financial as relates to R&D
- Cryogenics studies
- Cryogenics technician-Gallatin College/Cryogenics studies
- Electrical Engineering
- Electrical Tech
- Electronics Tech – more troubleshooting
- Electronics technician – Gallatin College
- Entrepreneurship in Photonics
- Familiarity with oscilloscopes and similar
- Fiber Laser Manufacturing
- Fiber optics
- Finite element analysis
- I like the basic tech training now in place
- Instrumentation design
- ISO 9001: 2015 Certification (+1)
- It'd be helpful if mechanical engineers had some basic optic knowledge (geometrical optics) when they graduate and/or machining design for optical systems
- Laser-material interaction, particularly ultrafast(fs)
- Manufacturing technicians
- Marketing and Sales
- Marketing high-tech / photonics – needs technical & marketing skills
- Optical engineering
- Optical technicians
- Optics/optical components manufacturing
- Optics/Photonics Tech
- PCB design and layout
- Programmers C/C++/C#
- Project Management (+4)
- Quantum Studies
- Schedules (+1)
- So I'm glad to see this question
- Strong Electrical and Mechanical Engineer candidates
- Strong Physics/Technician candidates
- Technical marketing-oriented writing (brochures, product blog posts, etc.)
- Technical user-oriented writing (product manuals, user notes, etc.)
- The tech program has been very valuable to us
- Understanding of nonlinear interactions (OPO's, OPA's, etc)
- We're going to be evaluating the optics offerings at MSU

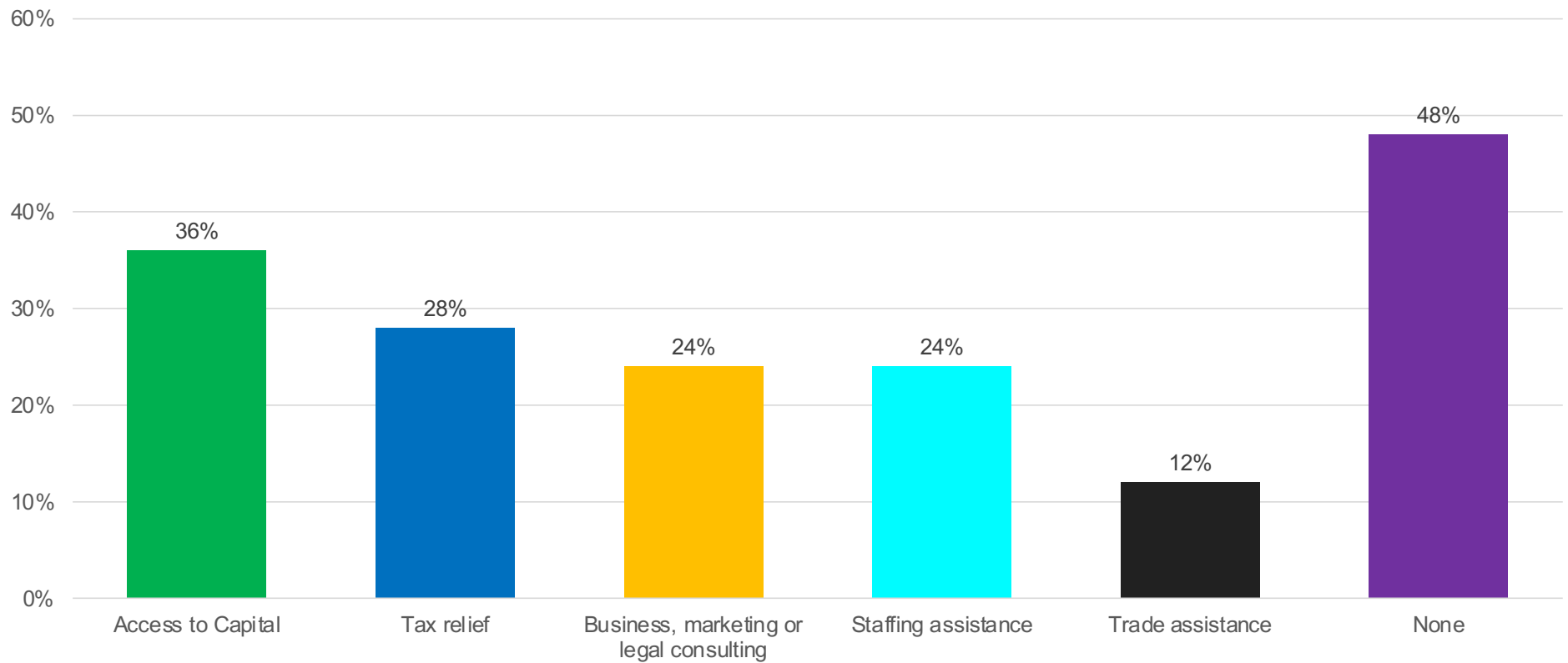
Which COVID-19 related developments have affected your business? Select all that apply

COVID-19 Related Business Impacts



Which types of assistance have you needed or expect to need in the short term (during the COVID-19 impacted period)? Select all that apply

COVID-19 Related Business Impacts



Are you interested in retraining and/or assistance from Montana Manufacturing Extension Center (MMEC) and/or Manufacturing Extension Partnership (MEP)?

- MMEC might be interesting for our company. We have a new leader in production and an intro there makes sense
- No (+8)
- Yes/Possibly
- Already got it