Webinar Overview

What are the top in-demand skills?

Why are skills important?

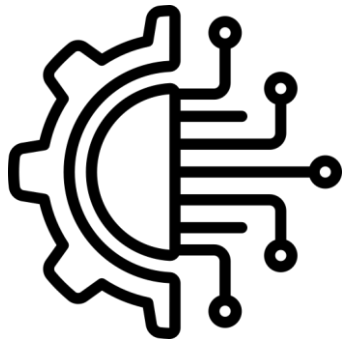**How** can we use these data?

What are the top in-demand skills?

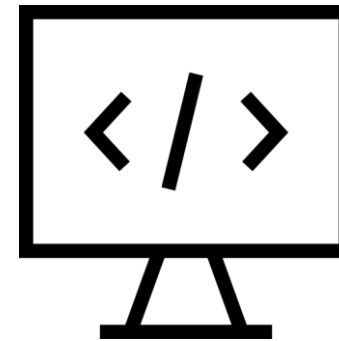# Top Skills

How do we categorize skills into various groups?

Hard Skills

Soft Skills

Software Skills

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Hard Skills

Skill	Unique Postings
Project Management	1,522,656
Marketing	1,133,255
Finance	959,778
Auditing	934,035
Accounting	908,161
Nursing	867,699
Computer Science	833,341
Data Analysis	687,996
Process Improvement	576,865
Continuous Improvement Process	563,211

Lightcast   Past 12 months skills data are from Lightcast Analyst

Hard Skills Growth

Skill	Projected Skill Growth
Business Systems	31.8%
Project Controls	31.2%
Automation	30.5%
Data Collection	29.9%
Microsoft Azure	28.9%
Customer Support	28.1%
Lean Manufacturing	28.1%
Workers' Compensation	27.9%
Financial Analysis	27.9%
Lawsuits	27.7%

Lightcast   Minimum 1000 postings; projected over next 24 months from Lightcast Analyst

Soft Skills

Skill	Unique Postings
Communication	4,754,235
Management	3,631,974
Leadership	2,822,356
Operations	2,443,967
Customer Service	2,150,219
Planning	2,018,724
Problem Solving	2,002,565
Writing	1,766,437
Sales	1,741,285
Detail Oriented	1,547,554

Lightcast   Past 12 months skills data are from Lightcast Analyst

Soft Skills Growth

Skill	Projected Skill Growth
Virtual Collaboration	63.9%
Program Management	30.5%
Mental Stamina	29.4%
Relationship Management	27.1%
Business Objectives	26.2%
Innovation	25.8%
Professional Communication	25.5%
Change Agility	24.7%
Consulting	24.6%
Deductive Reasoning	24.4%

Lightcast   Minimum 1000 postings; projected over next 24 months from Lightcast Analyst

Software Skills

Skill	Unique Postings
Microsoft Office	1,463,676
Microsoft Excel	1,444,312
Microsoft PowerPoint	897,857
Microsoft Outlook	642,160
Microsoft Word	410,759
SQL	392,664
Python	374,820
SAP Applications	247,463
Salesforce	245,978
Spreadsheets	235,232

Lightcast   Past 12 months skills data are from Lightcast Analyst

Software Skills Growth

Skill	Projected Skill Growth
Microsoft Azure	28.9%
Microsoft PowerPoint	26.1%
Microsoft Outlook	25.0%
Salesforce	24.7%
Python	24.5%
SolidWorks (CAD)	24.1%
JIRA	24.1%
Amazon Web Services	24.0%
ServiceNow	22.8%
Kubernetes	22.0%

Lightcast   Minimum 25,000 postings; projected over next 24 months from Lightcast Analyst

Skill Breakdowns

We start with larger in-demand skill areas to identify specific skillsets.

Communication

⟶ Writing | Interpersonal Communication | Presentations
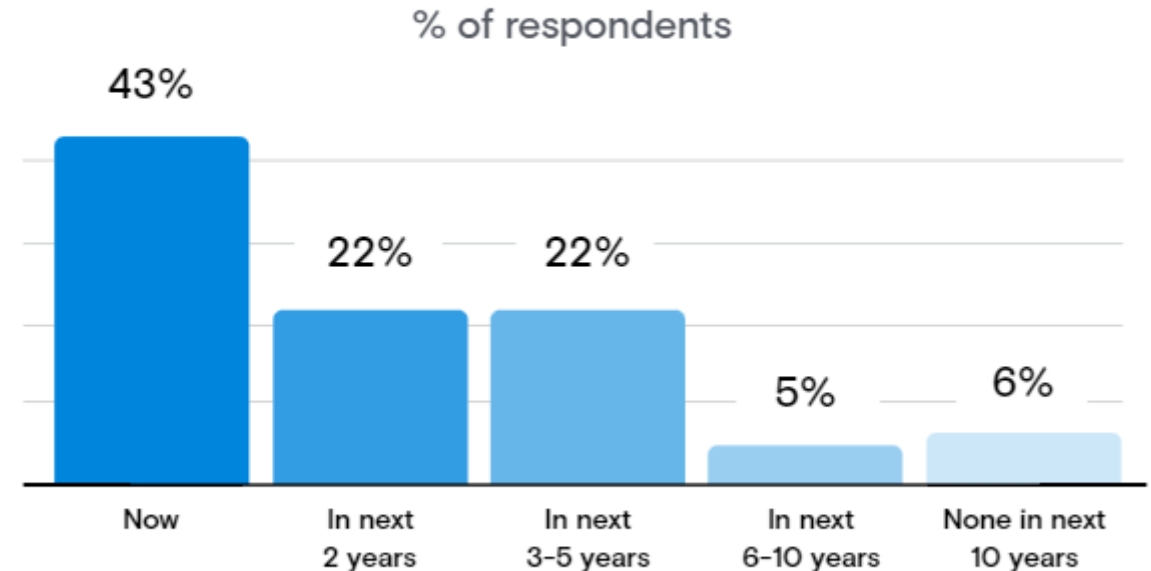
⟶ Microsoft PowerPoint | Microsoft Word

Data Analysis

⟶ SQL | Power BI | Dashboards

⟶ Problem Solving | Continuous Process Improvement

Why are skills important?

Address Skill Gaps

- "Skill gap" refers to the space between the skills that companies need, and the skills employees or candidates possess.

- According to [McKinsey & Company](#), skills gaps are already present and will continue to persist (likely widen) within organizations for the foreseeable future.

- By 2030, the talent shortage and skills gap in the U.S. is expected to total a loss of $8.5 trillion. ([PwC)](#)

- Causes of Skills Gaps
  - Retirements / Turnover
  - Shortage of Qualified Candidates (to fill new roles)
  - Shortage of Experienced Candidates (to fill skilled roles)

When skill gaps are expected to occur within organizations
% of respondents

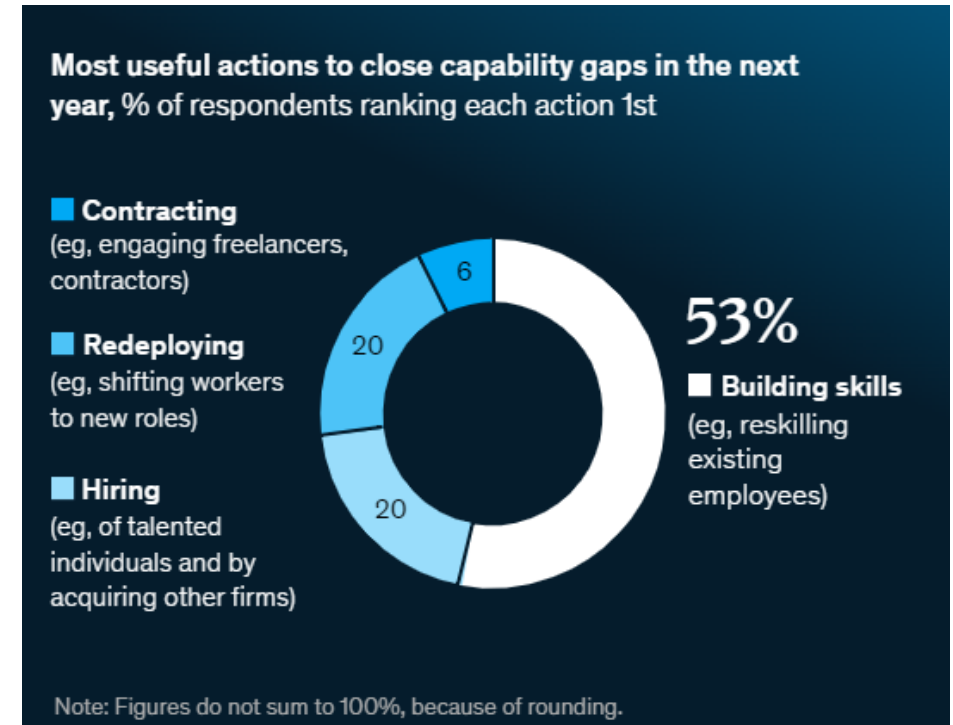| Now	In next 2 years	In next 3-5 years	In next 6-10 years	None in next 10 years
43%	22%	22%	5%	6%

Five fifty: The skillful corporation. McKinsey & Company. (n.d.)

Examples of Workplace Skill Gaps

- Technology
  - Technological literacy equals the ability to utilize new tools and software effectively
  - Notable in industries experiencing rapid changes

- Data Analysis
  - Inability to analyze data effectively affects decision-making and the strategic planning process
  - Reinforces the need to adapt to new technology

- Project Management
  - PM includes planning, execution, and monitoring projects
  - Affects on-time delivery, budget, and quality standards

- Emotional Intelligence and Interpersonal Skills
  - Lack or struggle with empathy, self-awareness, and managing relationships
  - Impacts teamwork, customer service, and the office environment

- Leadership and Management
  - Lack of the ability to inspire, guide, and manage teams
  - Could also include lack of communication, delegation, and conflict resolution

Meet Industry Demand

- Organizations and employees are more committed to reskilling/upskilling
  - Workers want to reskill. 77% are ready to learn new skills or completely retrain. (PwC Global)

- Roles are shifting quickly
  - Technological innovations and changes
    - AI and Workplace Automation – 56% of hiring managers anticipate AI and other forms of workplace automation will cause a major shift in the types of skills they will require from employees (Salesforce)
  - Education requirement changes
    - Strong emphasis on skills <u>and</u> competencies
  - Connect job description to career growth

Most useful actions to close capability gaps in the next year, % of respondents ranking each action 1st

- Contracting (eg, engaging freelancers, contractors)
- Redeploying (eg, shifting workers to new roles)
- Hiring (eg, of talented individuals and by acquiring other firms)
- Building skills (eg, reskilling existing employees) — 53%

6, 20, 20

Note: Figures do not sum to 100%, because of rounding.

Five fifty: The skillful corporation. McKinsey & Company (n.d.)

Skills-Based Hiring and Higher Education

Skills-Based Hiring

- TestGorilla's *State of Skills-Based Hiring 2024* report stated 81% of employers use skills-based hiring (1,019 total employers surveyed), which is up from 56% in 2022 and 73% in 2023.

- Emphasis of skills over degrees

Higher Education

- More employer collaboration in higher education

- Clearer translation or emphasis on skills gained in degree programs that align with job requirements

- Create a "shared success model" for companies and higher education institutions

A NEW HIRING APPROACH

73% of employers used **skills-based hiring** last year, up from 56 percent in 2022.

Source: *The State of Skills-Based Hiring 2023*, TestGorilla

Leaders of Skills Training

Who is leading the charge in reskilling or upskilling the workforce?

- Online course platforms
  - Coursera
  - edX
  - LinkedIn Learning
  - Skillshare
  - Udemy

- Companies or Organizations
  - Amazon
  - SHRM
  - IBM
  - Google

How can we use these data?

We can explore skills relevant to Next-Gen K-State

Community Health & Well-Being

Sustainability

Global Food Security & Biosecurity

Enabling Technologies

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NEXT-GEN K-STATE
STRATEGIC PLAN 2030

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Strategic skills include combination of common and specialized skills

Building Skills for a More Strategic Public Health Workforce: A Call to Action

National Consortium for Public Health Workforce Development

de Beaumont FOUNDATION

Systems Thinking

Change Management

Persuasive Communication

Data Analytics

Problem Solving

Diversity and Inclusion

Resource Management

Policy Engagement

Skills with most growth pertain to policy & patient care and outreach

Skill	Growth
Medical Licensing (Health Law)	29.5%
Assistive Technology	27.7%
Health Policy Development	27.3%
Multicultural Education	26.4%
Employee Assistance Programs	26.4%
Assisted Living	26.4%
Risk Management	26.2%
Clinical Research	25.4%
Public Administration	25.1%
Family Support	25.1%
Public Health Policy Analysis	25.0%
Community Outreach	24.6%
Leadership Development	22.7%
Medical Laboratory	22.6%
Patient Advocacy	22.2%

Lightcast   Two-year skill projections (2024 to 2026) are from Lightcast Analyst

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Green skills are in-demand... but few workers possess them

75%

Employers planning to recruit for green jobs & skills

Only 1 in 8 workers has more than one green skill

Global Insights White Paper

Building Competitive Advantage with

A People-First Green Business Transformation

ManpowerGroup®

Skills with most growth pertain to design, planning/policy, & greenhouse gases

Skill	Growth
Urban Sustainability	31.6%
Carbon Markets	27.4%
Environmental Engineering	27.0%
Sustainable Architecture	26.7%
Environmental Permitting	24.9%
Environmental Consulting	24.6%
Environmental Justice	24.2%
Carbon Footprint Reduction	23.6%
Environmental Impact Assessments	23.4%
Turbines	23.3%
Environmental Research	23.0%
National Environmental Policy Act	22.8%
Water Resources	22.7%
Environmental Education	22.6%
Sustainable Horticulture	22.2%

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Biosecurity skills emphasize risk assessment, prevention, and policy development

- **Understand different types of emerging biological risks**
- **Assess emerging biological risk scenarios**
- **Identify actions to prevent, detect, and respond to risks**
- **Formulate recommendations and put into action**
- **Develop and pitch options to senior leaders**

Skills with most growth pertain to supply chain, emergency management, & processes
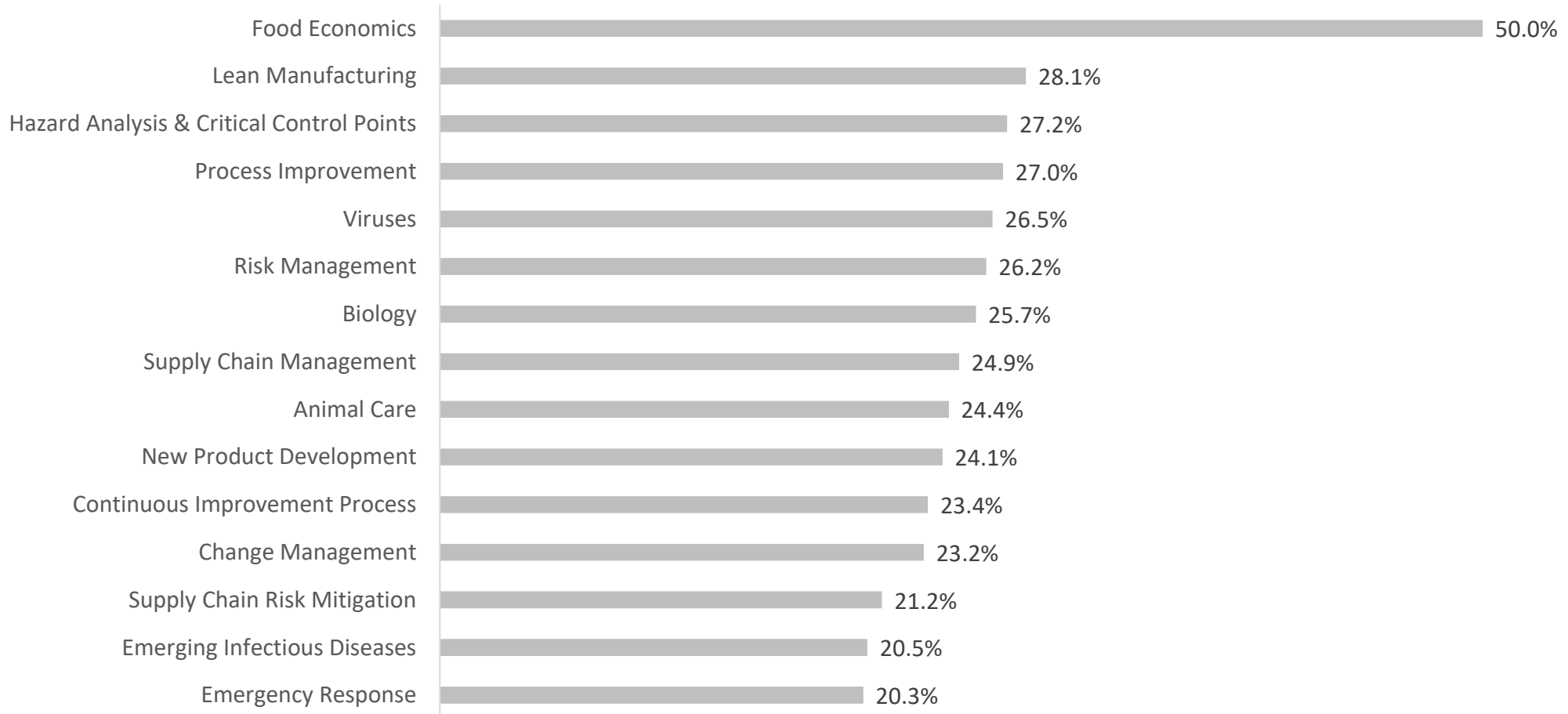
Skill	Growth
Food Economics	50.0%
Lean Manufacturing	28.1%
Hazard Analysis & Critical Control Points	27.2%
Process Improvement	27.0%
Viruses	26.5%
Risk Management	26.2%
Biology	25.7%
Supply Chain Management	24.9%
Animal Care	24.4%
New Product Development	24.1%
Continuous Improvement Process	23.4%
Change Management	23.2%
Supply Chain Risk Mitigation	21.2%
Emerging Infectious Diseases	20.5%
Emergency Response	20.3%

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AI skills are increasingly important in an ever-changing workplace

November 2023

Future of Work Report

AI at Work

Linked in

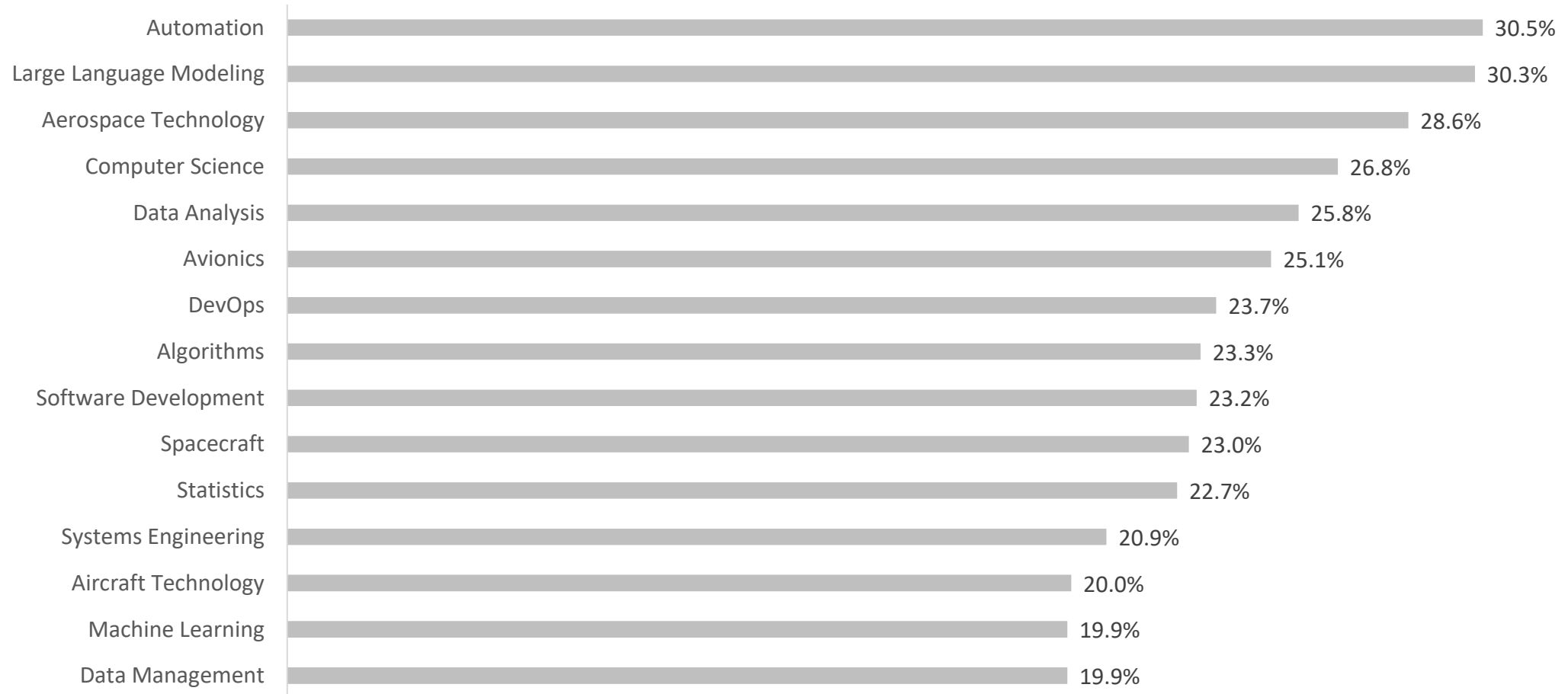**Data Structures**

Pattern Recognition

Natural Language Processing

Machine Learning

Deep Learning

AND...

Communication

Analytical Thinking

Leadership

Problem-Solving

Enabling Technologies

Skills with most growth pertain to AI/ML, aviation/aerospace, & statistics

Skill	Growth
Automation	30.5%
Large Language Modeling	30.3%
Aerospace Technology	28.6%
Computer Science	26.8%
Data Analysis	25.8%
Avionics	25.1%
DevOps	23.7%
Algorithms	23.3%
Software Development	23.2%
Spacecraft	23.0%
Statistics	22.7%
Systems Engineering	20.9%
Aircraft Technology	20.0%
Machine Learning	19.9%
Data Management	19.9%

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A few reminders...

These sets of skills are not exhaustive

We can dig deeper by occupation, industry, & program

K-State is well-positioned to address skills

So, what can we do?

Review your curriculum

Ensure it aligns with workforce needs

Identify what competitors are doing

Integrate in-demand skills into curriculum

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Promote skills where possible

Knowledge & Skills Gained as a Geography Major:

Knowledge:

- Understand how human activities, landscapes, and other physical, biological, and cultural phenomena vary across space, and the factors that influence these patterns.

- Geography graduates understand the relationships between society and the environment; both how people affect natural systems (and how natural systems affect people).

- Awareness of the causes and implications of an increasingly connected world and how geography and geopolitics are related to domestic and foreign policy decision

Skills:

- Creative problem-solving, able to communicate with a diverse audience and apply practical analytical and technical skills in a diversity of settings

- Ability to read, analyze, and construct maps for a variety of purposes and audiences. Use geographic information systems software and other applications to display and analyze spatial data

- Use geographic techniques and perspectives to address a variety of contemporary issues such as demographic changes, economic inequality, environmental justice, urbanization, and more

- Understand and appreciate the value of different cultures and perspectives.

Create skills-based credentials

Consider modality...

... and audience

80%

Of adults would consider online modality if enrolling in a program

36.8 Million

"Some College, No Credential" population under the age of 65

Next Steps?

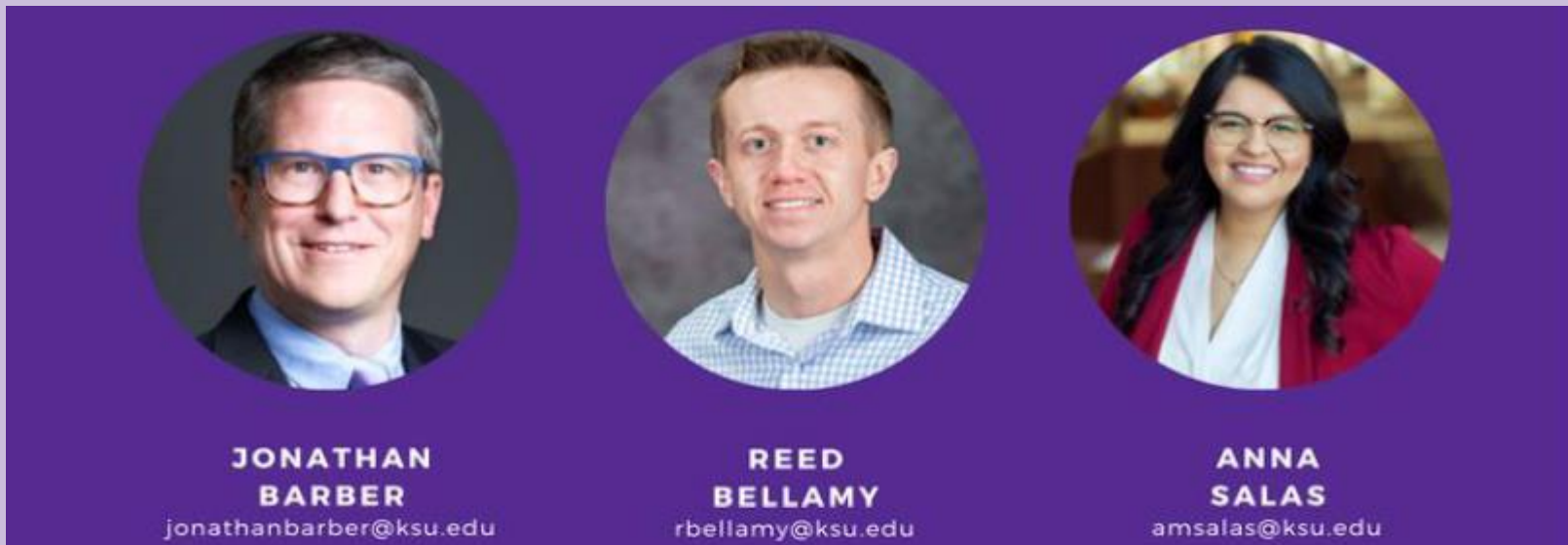## Questions and discussion

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Center for Academic Innovation Links

[Market Intelligence & Analysis](#)

[Strategic Program Development & Management](#)

Resources & Links

Lightcast Analyst

McKinsey Quarterly "The Skillful Corporation"

PWC "The Lost Workforce: Upskilling for the Future"

PWC "Global Workforce Hopes & Fears Survey 2024"

TestGorilla "The State of Skills-Based Hiring 2024"

National Consortium for Public Health Workforce Development "Building Skills for a More Strategic Public Health Workforce"

ManpowerGroup "Building Competitive Advantage with A People-First Green Business Transformation"

Brown University "Biosecurity Game Changers Fellowship Program"

LinkedIn "Future of Work: AI at Work 2023"

Champlain College Online 2023 Survey

National Student Clearinghouse Research Center "Some College, No Credential Report"