

DECISION SKILLS

IN THE WORKFORCE



NOVEMBER 2025

Author Credits

By Olivia Gunther, Erik Leiden, Julia Nania

The authors extend their gratitude to Eric Brooks, Adriana Massara, Mary Call Blanus, Ramin Mohajer, Ivy McDaniels, Jen Galligan, Ruth Lee, Angie Thompson, Julie Appolloni March, and Dan Donaldson at the Alliance for Decision Education for their partnership, insight, and leadership throughout this project. Special thanks go to Shrinidhi Rao, Scott Spitze, Frank Steemers, Gad Levanon, and Stuart Andreason at the Burning Glass Institute for their essential contributions to the research and development of this report. We are also grateful to Brian Gill for his thoughtful external review and feedback, which helped strengthen the final product.

© 2025 The Burning Glass Institute

Table of Contents

Executive Summary	4
□ Key Findings	5
Introduction and Context	6
□ Connecting Classroom Standards to Career Skills	6
Methodology	7
□ Data Sources	7
□ Developing the Decision Skill Taxonomy	7
Skill Prevalence and Importance Across the Labor Market	9
□ Sector-Level Patterns	9
□ Occupation-Level Analysis	11
■ Skill Prevalence	11
■ Skill Importance	14
□ Geographic Patterns of Demand	16
□ Alignment with High-Growth Occupations	19
Skill Value: Career Seniority and Wage Premiums	20
□ Career Seniority	20
□ Wage Premiums	21
The Strategic Advantage of Decision Skills	25
□ Decision Skills in the AI Era	25
Recommendations and Implications	27
□ For Education Stakeholders	27
□ For Career and Technical Education Providers	28
□ For Policymakers	29
□ For Employers	29
Conclusion	30
Appendices	31
□ A.1 Data Sources	32
■ Lightcast Job Postings Data	32
■ Lightcast Postings Filtering	32
□ A.2 Decision Skill Taxonomy Methodological Details	33
□ A.3 Additional Methodological Notes	38
■ Prevalence Methodology	38
■ Skill Importance Methodology	39
■ Wage Premium Methodology	40
□ A.4 Additional Charts and Figures	41
Endnotes	46

Executive Summary

Decision-making is one of the most valuable and widely applicable skill sets in today's labor market. In every job, workers are expected to weigh options, assess risks, and make sound choices. Whether navigating uncertainty, solving problems, or setting direction, decision-making skills are core to a productive economy and career advancement. Even as technology reshapes industries and the economy evolves, decision-making skills remain a constant, essential foundation for success across roles, sectors, and career stages.

This report, produced by the Burning Glass Institute (BGI) in collaboration with the Alliance for Decision Education (the Alliance), analyzes how decision skills are reflected in current employer demand data and rewarded through wage premiums. This analysis draws on over 6.8 million U.S. job postings from Lightcast across white- and blue-collar occupations. To structure this analysis, BGI and the Alliance collaborated to develop a decision skill taxonomy that includes 106 decision-related skills grouped into three categories: Adaptive and Reflective Thinking, Quantitative and Statistical Reasoning, and Structured and Systematic Decision-Making. The findings through the report offer a clear picture of how those decision skills shape job opportunity, compensation, and career growth for students entering the workforce.



AI may transform the landscape, but decision-making skills will endure as critical because choices are framed and guided by human aspirations, understandings, values, and responsibility.

– Eric Horvitz, Chief Scientific Officer, Microsoft

Key Findings

- 1. Widespread Demand:** Between 2022 and 2024, over 2.7 million job postings explicitly requested decision-making skills across our sample of over 6.8 million postings – but true demand is even broader. In many cases, these skills are expected but not named directly in the job advertisements, especially for roles where **good judgment**, **problem solving**, or **strategic thinking** are assumed as baseline competencies. Instead of through job postings, many of these skills are evaluated through the interview process.
- 2. Career Progression:** As workers move from entry-level to senior roles, their employers increasingly expect their decision-making skills to grow from supporting day-to-day task execution to long-term strategic thinking. Hiring for entry-level roles often focuses on skills like **adaptability**, **taking initiative**, or **troubleshooting**, while senior roles emphasize skills like **negotiation**, **forecasting**, **strategic thinking**, and **risk analysis**.
- 3. Wage Premiums:** Employers reward decision-making skills with significantly increased pay. Across occupations, the most financially valuable skills are those that reflect **strategic thinking**, the ability to **navigate risk**, and the capacity to **lead others through complex decisions**.

Decision-making skills are not niche. They are essential across industries, roles, and career stages. As the economy continues to evolve, these skills will remain critical to navigating complexity, advancing in the workplace, and making meaningful contributions in any field.



Introduction and Context

The importance of decision-making remains one of the few constants in a changing economy. Even as technology evolves and industries shift, employers continue to value the human ability to weigh options, evaluate tradeoffs, and make sound judgments under pressure. From the classroom to the boardroom, decision-making shapes how we learn, lead, and adapt. Decision skills are durable skills that are clearly defined, measurable, and grounded in science, and they play a critical role in long-term career success. Workers who can demonstrate strong decision-making skills, including assessing risk, thinking critically, and navigating uncertainty, are better positioned to succeed in any role, in any sector.

Our analysis draws on millions of job postings to understand where and how decision skills appear across occupations, industries, and regions in the United States. We developed a skill taxonomy aligned to employer language and the skills outlined in the Alliance Learning Standards for Decision Education,¹ measured the prevalence of these skills in job postings, and examined the associated wage premiums. The result is a data-driven examination about how decision-making skills shape economic opportunity and why embedding these skills across education and workforce systems is essential for the future of work and success of the next generation.

Connecting Classroom Standards to Career Skills

Decision-making is a practical, real-world skill that plays a critical role in career success. While employers may not always use the term “decision-making” or others like it in job postings, they consistently seek the skills that power strong decision-making such as problem solving, risk assessment, critical thinking, and strategic planning.

This project demonstrates the widespread demand for decision-making skills in the labor market and highlights the gap that Decision Education can fill to support students’ development. By translating the Alliance’s Decision Education K-12 Learning Standards into a set of terms that reflect the language employers use in job postings, the skills taxonomy in this project provides a practical lens for understanding how decision skills show up in the world of work. Rather than replacing the Learning Standards, this translation helps workforce leaders, educators, and policymakers recognize Decision Education as a meaningful way to prepare students for lifelong success and economic opportunity.

Methodology

This research draws on labor market data to examine how decision-making skills appear in job postings, wage patterns, and career progressions.

Data Sources

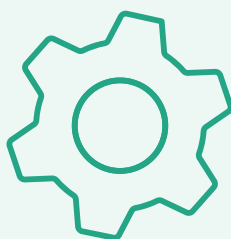
The analysis of this report uses postings data obtained from Lightcast, a labor market analytics company.² Postings data has been widely used as a rich data source to assess labor market trends and employer needs.^{3 4 5}

Our analysis begins with over 120 million U.S. job postings from Lightcast in 2022-2024 inclusive. Using several years allows for analysis of smaller pockets of the labor market, e.g. analysis at the Metropolitan Statistical Area (MSA) level,⁶ as well as reducing the risk of capturing trends that are specific to one year.^{7 8} On this data set, additional filters have been applied in order to ensure the analysis is based on a high quality, representative sample.⁹

The filtered sample used for analysis contains 6,801,838 job postings, out of which 2,793,188 postings mention at least one decision-making skill (41%). We also incorporated occupational projections data for 2023–2033 from the Bureau of Labor Statistics (BLS) to support our occupational analysis.¹⁰

Developing the Decision Skill Taxonomy

To assess the role of decision-making skills in the labor market, we developed a taxonomy grounded in the Alliance for Decision Education's K-12 Learning Standards and aligned with the language employers use. This taxonomy was built by mapping the Alliance's Learning Standards to employer-demanded skills found in job postings using Lightcast data and refined in collaboration between the Alliance and BGI.¹¹



We categorized 106 skills into three groups with these themes:

► **Adaptive and Reflective Thinking:**

Includes skill areas such as flexible thinking, self-regulation, and interpersonal collaboration

► **Quantitative and Statistical Reasoning:**

Includes skill areas such as numeracy, data analysis, probabilistic thinking, and risk analysis

► **Structured and Systematic Decision-Making:**

Includes skill areas such as strategy, problem-solving, and goal-oriented planning

We then analyzed labor market patterns using:

► **Prevalence:**

Frequency of skill mentions in job postings

► **Wage Premiums:**

How much more employers pay for each unique skill within the same occupation, controlling for education and experience

► **Skill Importance:**

A combined measure of how unique a skill is to specific occupations and its frequency across occupations

► **Career Stage Analysis:**

How demand shifts across entry-, mid-, and senior-level roles

Together, these methods and metrics offer a clear picture of decision-making skills in the labor market.

Skill Prevalence and Importance Across the Labor Market

Across a broad range of industries and occupations, decision-making skills are in demand by employers.¹³ The skills most frequently requested across the identified 2.8 million postings mentioning at least one decision skill are often embedded within broader competencies that guide effective action, such as problem solving, communication, collaboration, and strategic thinking.

Figure 1: Top 10 Decision-Making Skills

Data represents the 3-year average between 2022 and 2024 in the U.S.
Denominator is the total number of postings mentioning at least one decision-making skill, supporting the understanding of which skills are most listed in the decision-making skill labor market.

Skill Rank	Decision-Making Skill	Decision-Making Skill Category	Percentage of Job Postings ¹²
1	Problem Solving	Structured and Systematic Decision-Making	33%
2	Self-Motivation	Adaptive and Reflective Thinking	18%
3	Verbal Communication Skills	Adaptive and Reflective Thinking	18%
4	Troubleshooting	Structured and Systematic Decision-Making	14%
5	Decision-Making	Structured and Systematic Decision-Making	11%
6	Critical Thinking	Adaptive and Reflective Thinking	8%
7	Data Analysis	Quantitative and Statistical Reasoning	7%
8	Forecasting	Quantitative and Statistical Reasoning	6%
9	Negotiation	Adaptive and Reflective Thinking	6%
10	Proactivity	Structured and Systematic Decision-Making	5%

Source: Lightcast

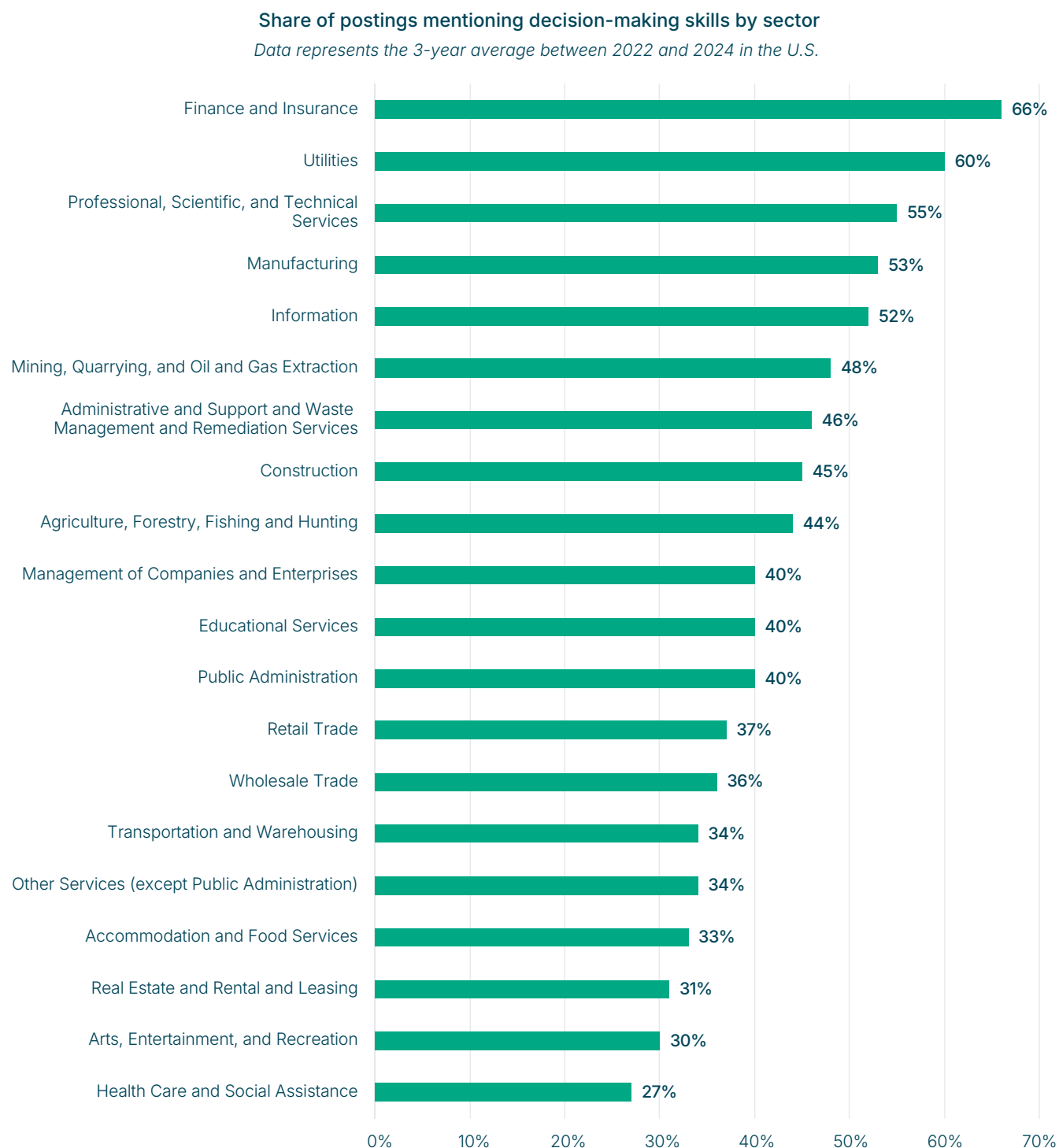
This distribution of top skills underscores the demand for cognitive ability, collaboration, and judgment, rather than just technical competencies. Further analysis below shows that while quantitative skills carry high value in some sectors, such as business and finance, most employers across sectors more frequently seek capabilities that support decision quality in more general settings.

Sector-Level Patterns

Decision skills are in high demand across sectors in which both white- and blue-collar jobs predominate. Between 2022 and 2024, decision skills appeared most frequently in sectors such as finance, information, and professional services, as well as in traditionally blue-collar industries like utilities, manufacturing, and mining.

Figure 2: Decision-Making Skill Prevalence by Sector

Denominator is the total number of postings for a given sector.



Source: Lightcast

The presence of utilities, manufacturing, and mining among the top sectors highlights the importance of decision-making in operational environments where safety, timing, and coordination are essential.

Occupation-Level Analysis

SKILL PREVALENCE

Decision-making skills are present across all occupational groups with varying frequency. At the top, 68% of postings in computer and mathematical occupations reference decision skills, followed by business and financial operations and architecture and engineering.

In installation, maintenance, and repair, 44% of postings mention decision skills, showing that frontline and technical roles also rely on skills such as independent thinking and real-time problem solving. Lower prevalence is observed in occupations such as food preparation (21%) and building and grounds cleaning and maintenance (19%).

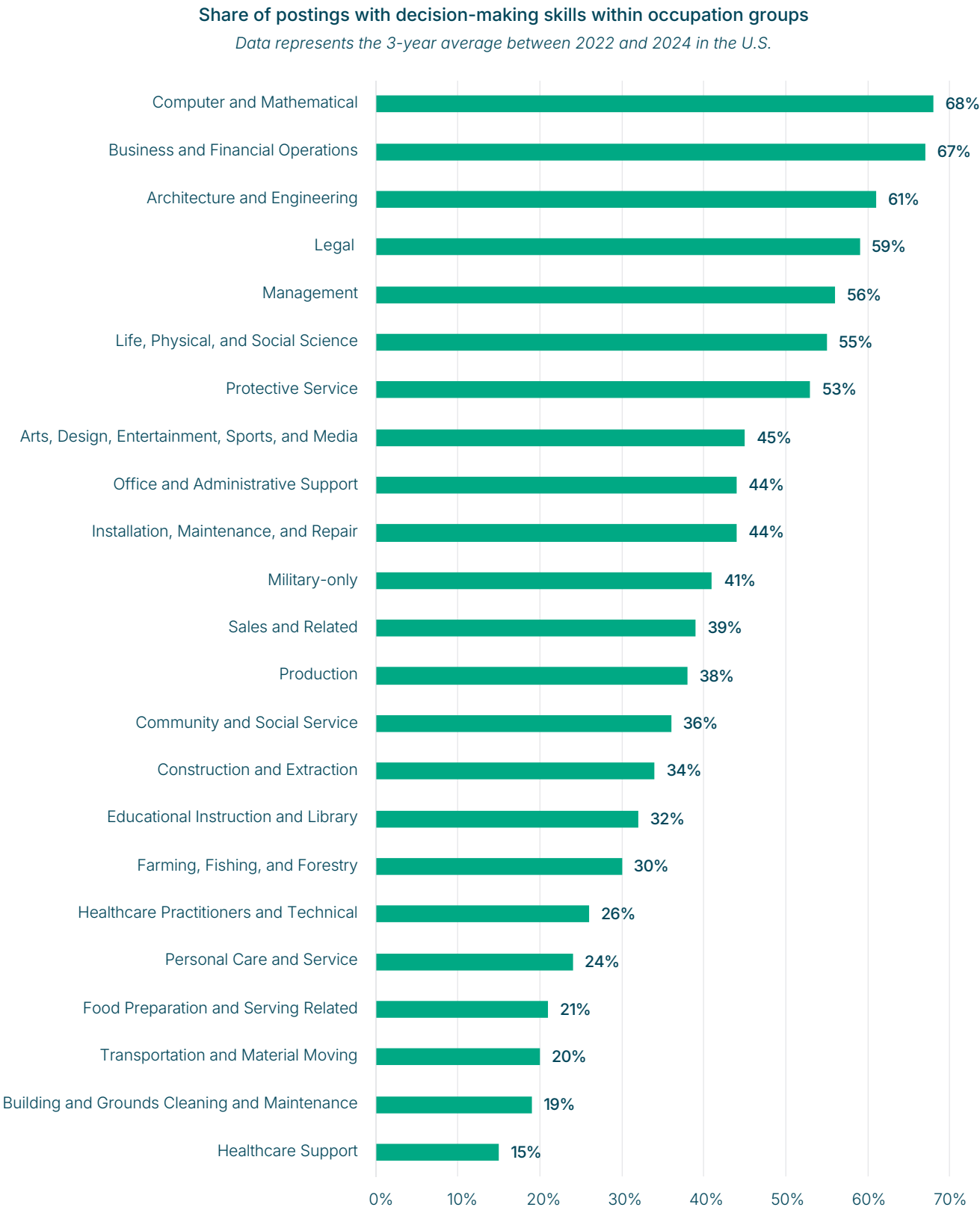


Decision Education empowers students with rigorous intellectual training, cultivating discernment, independent thought, and essential skills needed to excel in an increasingly complex and dynamic world.

– BJ Huff, Senior Director of Risk, Data, and Decision Science, Fortune 100 Company

Figure 3: Decision-Making Skill Prevalence by Occupation Group

Denominator is the total number of postings for a given occupation.



Source: Lightcast

Making Sense of Decision-Making Skill Prevalence

Within our sample of over 6.8 million job postings, over 2.7 million explicitly reference decision-making skills—but the true demand is almost certainly higher. In many roles, these skills are foundational “table stakes,” going unstated in job postings. Employers may not always advertise these skills as requirements, but they still screen for them.

Interviews are one key venue where these skills surface. Employers leverage behavioral questions, case studies, or other problem-solving prompts to assess how candidates make decisions, manage tradeoffs, navigate uncertainty, and exercise judgment. Structured interviews and pre-employment assessments are now widely used to evaluate these kinds of decision-making capabilities.

According to a 2022 survey from the Society for Human Resource Management (SHRM), 56% of employers use pre-employment assessments, and 79% say those assessments are just as or more important than traditional hiring criteria like degrees or experience.¹⁴ One particular method is the Situational Judgment Test (SJT), an interview format in which employers ask applicants how they would respond to real-world job scenarios.¹⁵ These tests are designed to assess competencies like conflict management, problem-solving, social skills, and negotiation, many of which are core to strong decision-making.

These practices underscore a key point: even when decision-making skills aren’t listed in a job posting, they still influence hiring decisions through interviews and assessments. Therefore, decision skills play a central role in various stages throughout the job selection process and candidates without them face a serious disadvantage.



Decision-making skills are at the heart of every career journey. When education and workforce programs integrate these skills into local delivery, students and job seekers gain the practical tools they need to make informed choices, seize opportunities, and build lasting economic mobility.

– Dr. Mardy Leathers, Executive Vice President, Adaptive Construction Solutions

SKILL IMPORTANCE

The decision skills that matter most can vary significantly depending on the job. To understand which skills help people get hired and succeed in different fields, we look at how distinctively each decision skill shows up across occupations.¹⁶ Foundational skills like problem solving and critical thinking are broadly valuable but not unique to a small set of roles. In contrast, skills like risk analysis and statistical analysis are far more specialized to fields like engineering.

Decision-making skills are demanded by employers across white- and blue-collar occupations, though with different skills emphasized. In blue-collar occupations such as construction, production, and maintenance, the most in-demand decision skills are practical, predictive, and people-oriented. These jobs demand situational decision-making under pressure, centered on adaptability and direct execution.

Figure 4: Top 10 Most Important Decision-Making Skills by Blue-Collar Occupation Group

Construction and Extraction (SOC 47-0000)	Installation, Maintenance, and Repair (SOC 49-0000)	Production Occupations (SOC 51-0000)
1. Adaptability	1. Resilience	1. Adaptability
2. Critical Thinking	2. Critical Thinking	2. Critical Thinking
3. Active Listening	3. Adaptability	3. Self-Discipline
4. Proactivity	4. Deductive Reasoning	4. Collaboration
5. Complex Problem Solving	5. Forecasting	5. Active Listening
6. Self-Discipline	6. Collaboration	6. Creativity
7. Negotiation	7. Listening Skills	7. Risk Analysis
8. Risk Analysis	8. Active Listening	8. Forecasting
9. Collaboration	9. Self-Discipline	9. Proactivity
10. Forecasting	10. Complex Problem Solving	10. Mental Concentration

Source: Lightcast

In contrast, white-collar roles prioritize quantitative, strategic, and persuasive skills. These positions emphasize risk and statistical analysis while demanding other skills such as persuasive communication, ideation, and negotiation.

Figure 5: Top 10 Most Important Decision-Making Skills by White-Collar Occupation Group

Architecture and Engineering (SOC 17-0000)	Business and Financial (SOC 13-0000)	Legal Occupations (SOC 23-0000)
1. Risk Analysis	1. Forecasting	1. Negotiation
2. Statistical Analysis	2. Negotiation	2. Collaboration
3. Forecasting	3. Risk Analysis	3. Persuasive Communication
4. Complex Problem Solving	4. Analytics	4. Risk Analysis
5. Collaboration	5. Critical Thinking	5. Strategic Thinking
6. Creativity	6. Risk Appetite	6. Intellectual Curiosity
7. Critical Thinking	7. Collaboration	7. Proactivity
8. Ideation	8. Adaptability	8. Critical Thinking
9. Curiosity	9. Intellectual Curiosity	9. Analytical Thinking
10. Data Mining	10. Data Mining	10. Information Gathering

Source: Lightcast

Healthcare occupations bring together a hybrid of typically blue-collar and white-collar decision skills. Decision-making in these roles must balance precision and proactivity with collaboration and resilience. Healthcare professionals across clinical and support roles need both the rapid situational judgment often found in frontline roles and the cognitive rigor more typical of professional or technical roles.

Figure 6: Top 10 Most Important Decision-Making Skills by Healthcare Occupation Group

Healthcare Practitioners and Technicians (SOC 29-0000)	Healthcare Support (SOC 31-0000)
1. Critical Thinking	1. Adaptability
2. Mental Concentration	2. Proactivity
3. Collaboration	3. Collaboration
4. Curiosity	4. Critical Thinking
5. Adaptability	5. Self-Discipline
6. Risk Analysis	6. Active Listening
7. Creativity	7. Information Gathering
8. Self-Discipline	8. Resilience
9. Information Gathering	9. Mental Concentration
10. Proactivity	10. Listening Skills

Source: Lightcast

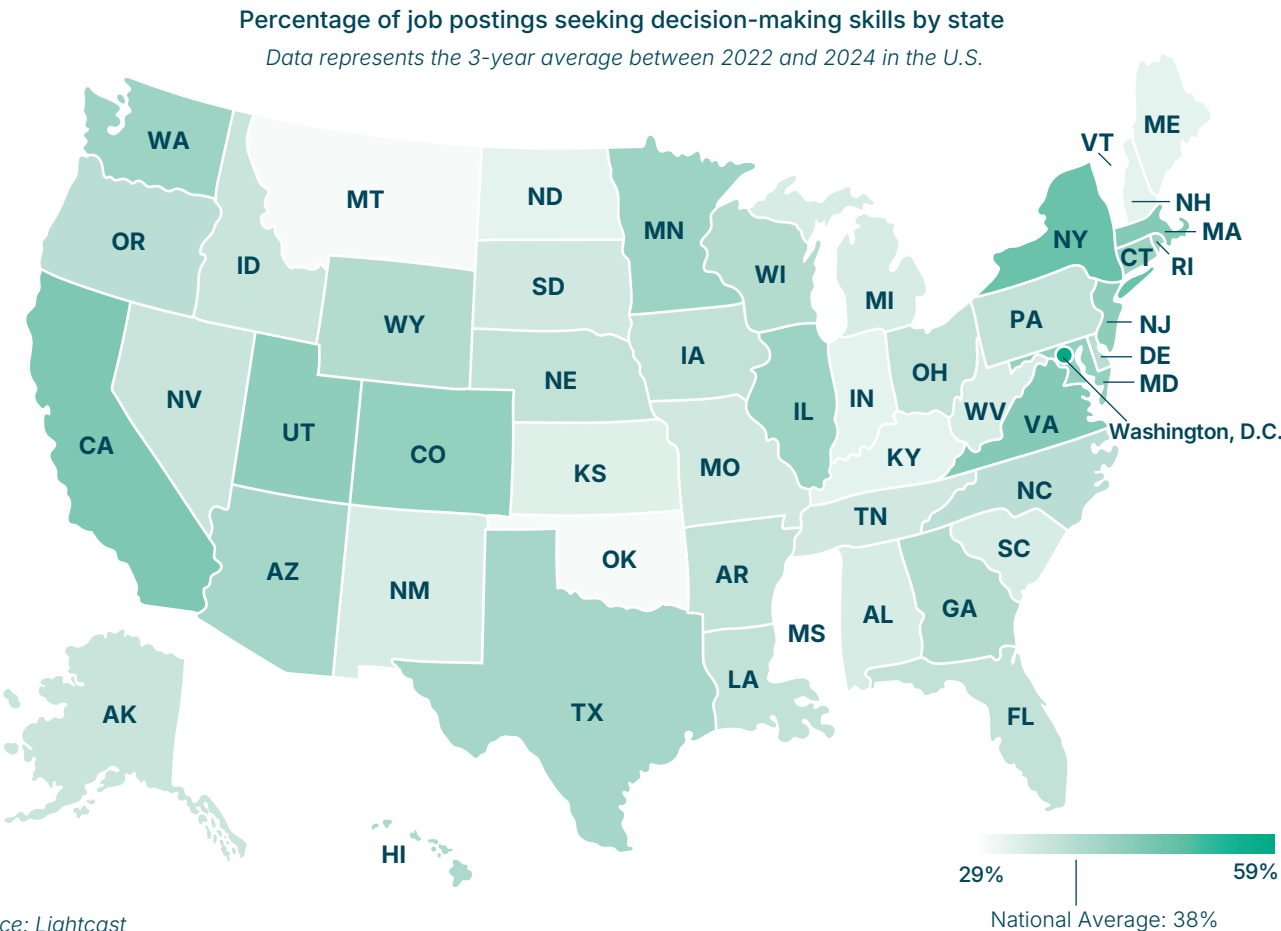
Decision-making skills are valued across a wide range of sectors and occupations. In hands-on roles, these skills often show up as quick thinking and adaptability. In business and professional fields, it focuses on strategy, analysis, and persuasion. Healthcare roles demand a mix of both. Because these skills are essential no matter the field, it's critical to begin developing them early. When K-12 education prioritizes decision-making skills as core competencies, students graduate better prepared to succeed in a plethora of careers. Developing these skills early helps young people enter the workforce with the competencies, judgment, and flexibility needed to navigate complex environments and stand out to employers.

Geographic Patterns of Demand

Geographic analysis reveals that decision-making skills are prioritized in both traditional economic centers and emerging hubs. Washington, D.C. rises to the top of the list with over 50% of postings mentioning decision skills. Other states with large professional workforces (e.g., New York, California) rank towards the top of the list, while some states, like Utah, rank high because of strong manufacturing and mining industries.

Figure 7a: Decision-Making Skill Prevalence by State

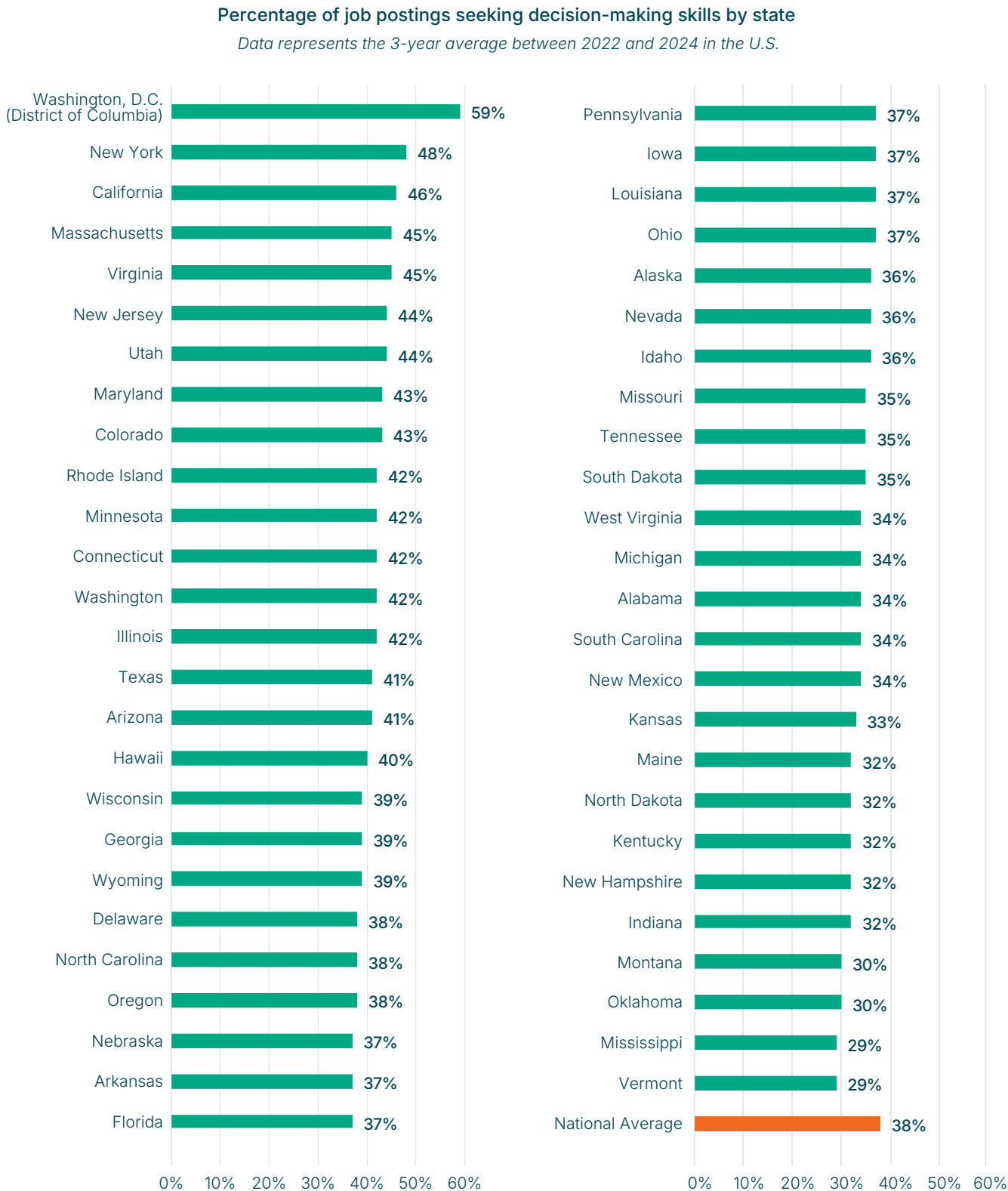
Denominator is the total number of postings for a given state.



Source: Lightcast

Figure 7b: Decision-Making Skill Prevalence by State

Denominator is the total number of postings for a given state.

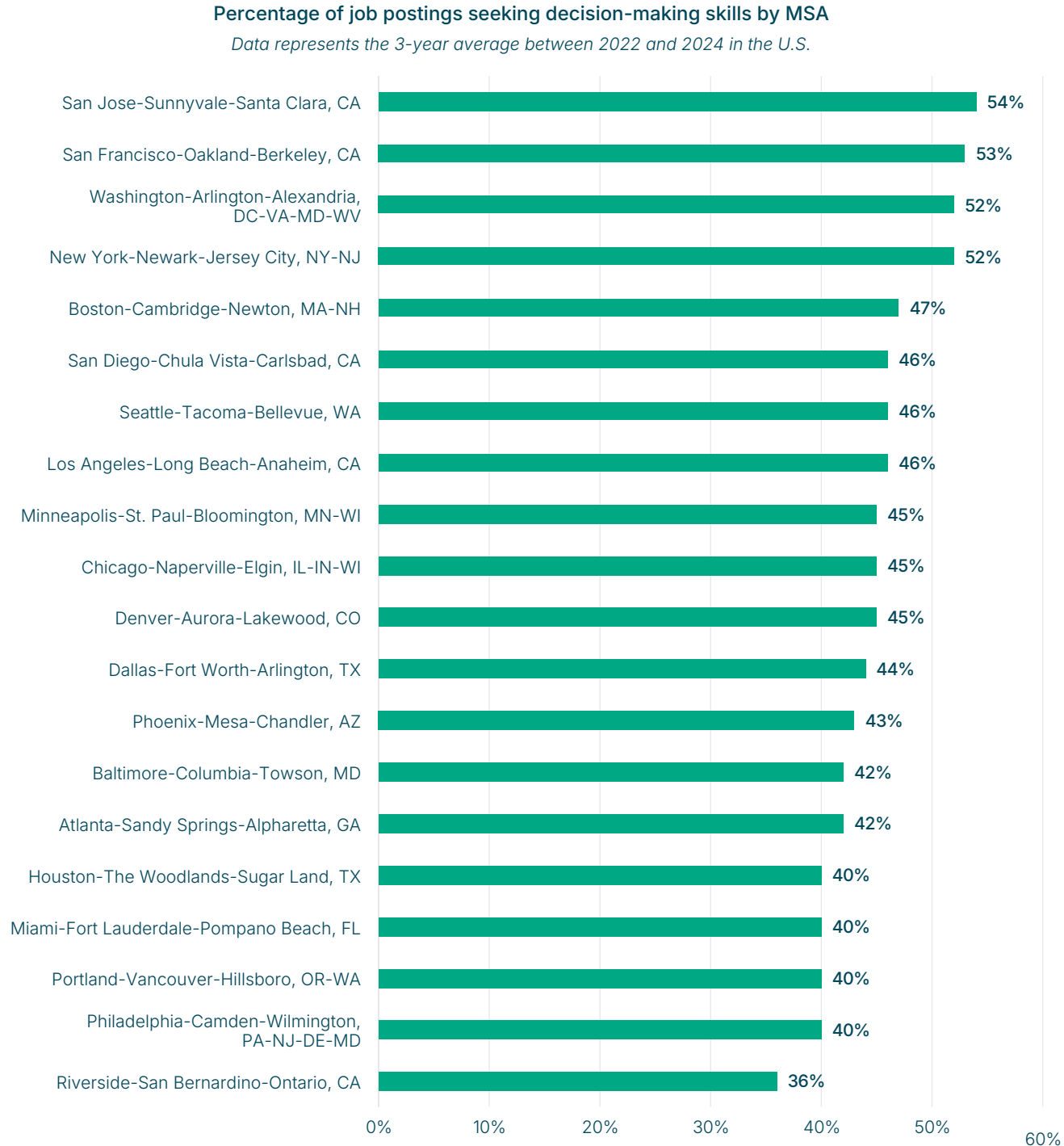


Source: Lightcast

When looking by region, we see leading tech hubs across the country, such as the Bay Area in California, emerge with a high prevalence of decision skills among job postings. Many of these geographies are also in the top 20 highest personal income regions in the U.S.¹⁷

Figure 8: Top 20 Metropolitan Areas with Highest Decision-Making Skill Prevalence

Denominator is the total number of postings for a given MSA.

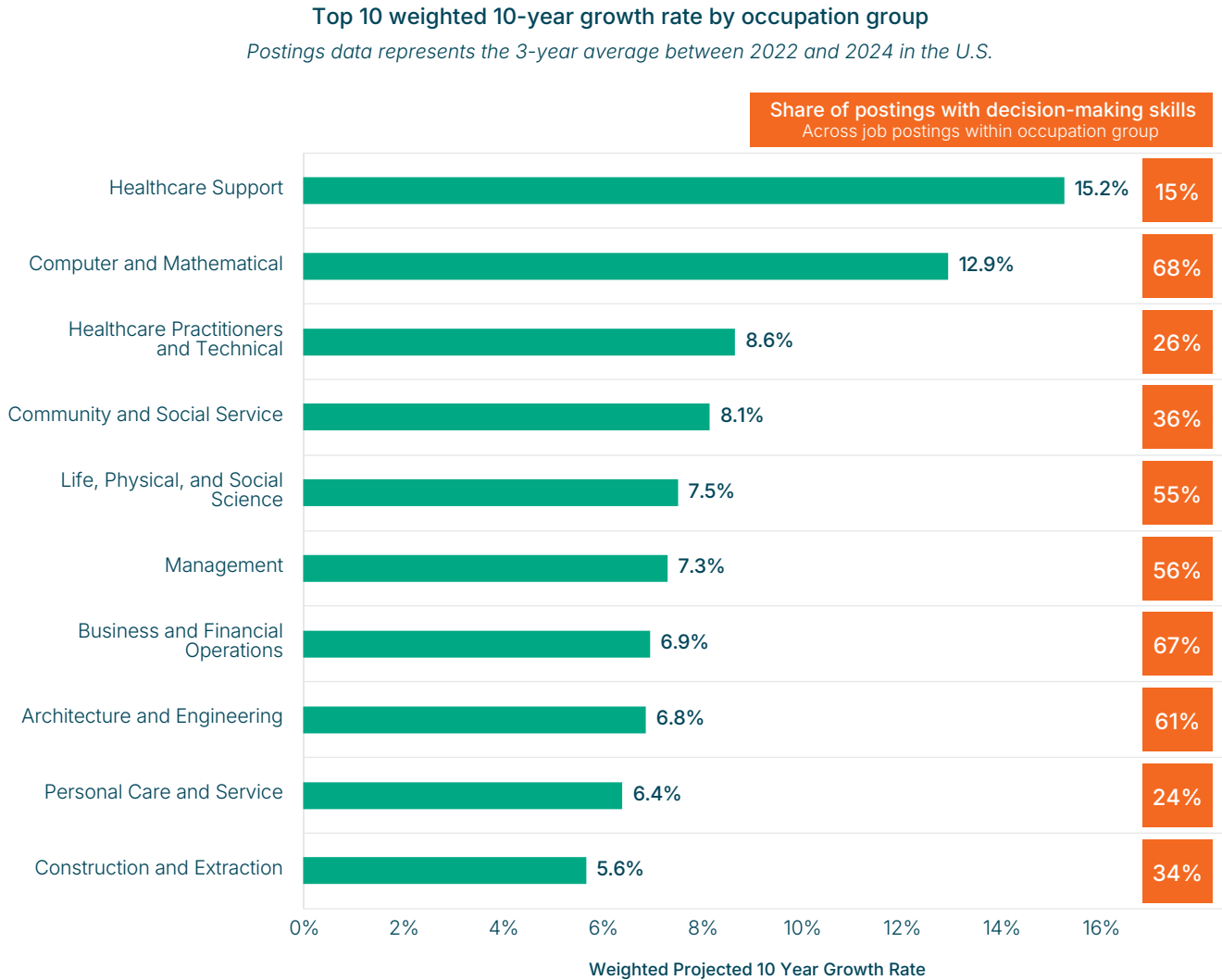


Source: Lightcast

Alignment with High-Growth Occupations

Decision-making skills are important in many of the fastest-growing occupations. Projections from the Bureau of Labor Statistics show strong growth in occupation groups where decision skills are highly prevalent.¹⁸

Figure 9: Projected Occupation Growth Rates (2023–2033) and Decision-Making Skill Prevalence



Source: Lightcast and Bureau of Labor Statistics

The strong growth projected by the BLS in these occupation groups points to a likely continued rise in demand for decision-making skills across the labor market, particularly in fields like architecture and engineering; business and financial operations; management; life, physical, and social sciences; and computer and mathematical.

Skill Value: Career Seniority and Wage Premiums

Decision-making skills evolve in importance as workers advance in their careers. Some skills are required to get in the door, helping workers secure their first job. Others drive advancement and command higher pay. Our analysis, based on millions of job postings and regression models that control for occupation, education, and experience, highlights how employers reward different types of decision-making skills and when they matter most.

Career Seniority

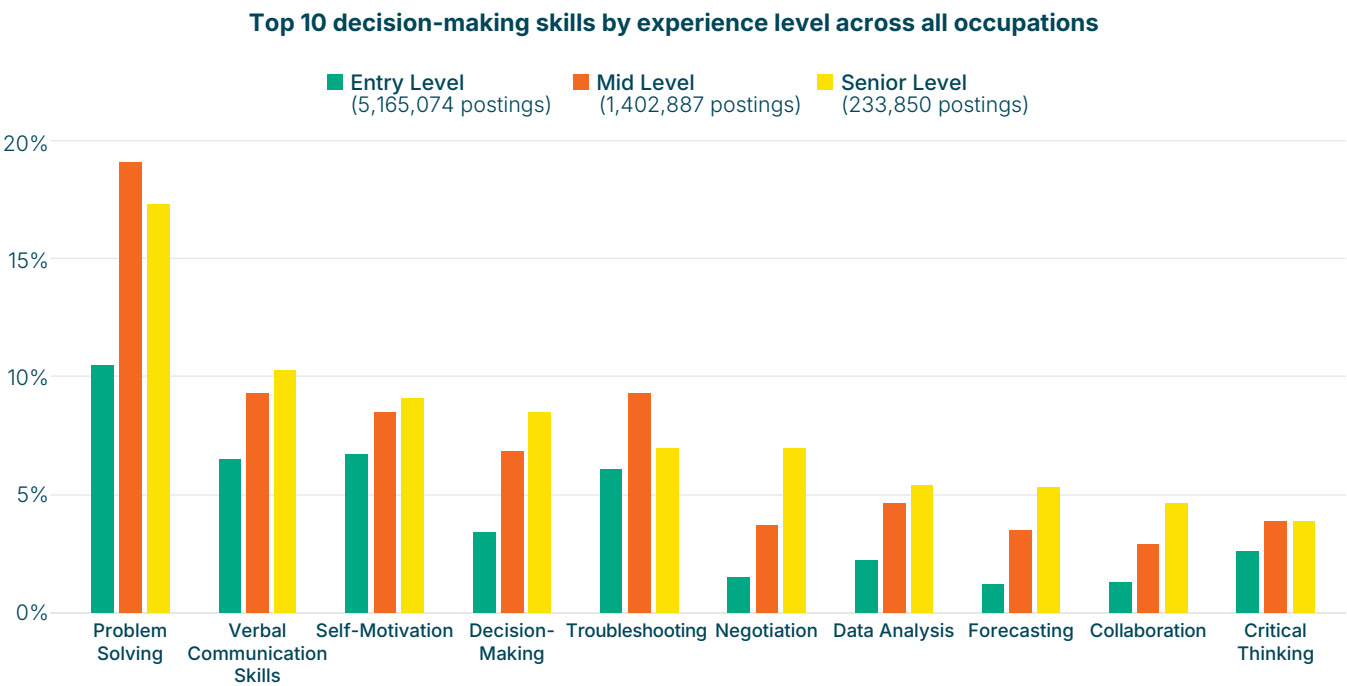
By looking at decision-making skills requested in job postings with varying years of experience, we can observe an evolving group of skills as workers move forward in their careers. Using the minimum years of experience listed in a job posting, we split career experience into three categories:

- 1. **Entry Level:** Less than three years
- 2. **Mid Level:** Three to eight years
- 3. **Senior Level:** Eight or more years

Within these groupings, we identify the most prevalent decision-making skills across the career progression.

Figure 10: Top 10 Decision-Making Skills by Experience Level Across All Occupations

Denominator is the total number of postings mentioning at least one decision-making skill.



Source: Lightcast

As workers progress in their careers, the skills emphasized in job postings shift in ways that reflect changing responsibilities and expectations. At the entry level, foundational skills like problem solving and verbal communication are among the most frequently requested. These skills are core to daily execution and collaboration, helping early-career workers contribute effectively to their work environments.

Moving into mid level roles, a different set of skills begins to emerge. Skills like self-motivation, decision-making, and negotiation see a noticeable increase in importance, suggesting that mid-career professionals are expected to take on more autonomy and begin influencing decisions beyond their immediate tasks. Problem solving and troubleshooting peak at the mid-career level, reflecting the increasing need to manage complex situations and design solutions.

At the senior level, the emphasis shifts again. Skills such as data analysis, forecasting, and collaboration become more prominent. These skills signal a transition to roles that require a broader strategic lens to support long-term planning across teams. Decision-making continues to grow in importance at the senior-level, underscoring its relevance to guiding organizational strategy and managing risk.

Overall, while some skills remain valuable across career progressions, others rise or fall in importance depending on the level of experience and responsibility, demonstrating how skill demands evolve with career advancement.



The future of work depends not just on technical skills, but on the ability to make sound judgments. The “Decision Skills in the Labor Market” report highlights that these are essential career skills, not just “soft skills.” By integrating decision-making into Career and Technical Education (CTE) programs, we can equip students with the human judgment needed to succeed in an increasingly AI-driven economy.

– Zachary Adams, Assistant Vice Chancellor for Academic Affairs & Workforce Alignment, Tennessee Board of Regents

Wage Premiums

Not all decision-making skills are valued equally in the labor market. While foundational skills like mental concentration, deductive reasoning, and information gathering are essential to job performance, we have found in this analysis that they do not carry wage premiums. These skills are often seen as prerequisites to enter the workforce.

The real financial upside comes from higher-order thinking. The decision-making skills most valued by employers for workers in white-collar occupations reflect a blend of risk orientation and strategic planning. Rather than focusing on task execution, these skills signal a capacity to navigate uncertainty, prioritize competing options, and drive long-term outcomes.

Figure 11: Top 10 Decision-Making Skill Wage Premium Percentages in White Collar Occupations

Wage Premium Rank	Decision-Making Skill	Decision-Making Skill Category	Wage Premium Percentage
1	Risk Appetite	Quantitative and Statistical Reasoning	23.1%
2	Risk Analytics	Quantitative and Statistical Reasoning	22.2%
3	Risk Mindset	Quantitative and Statistical Reasoning	18.8%
4	Risk Awareness	Quantitative and Statistical Reasoning	18.3%
5	Strategic Thinking	Structured and Systematic Decision-Making	17.4%
6	Strategic Decision-Making	Structured and Systematic Decision-Making	16.8%
7	Risk Aversion	Quantitative and Statistical Reasoning	16.5%
8	Risk Prioritization	Quantitative and Statistical Reasoning	15.5%
9	Opportunity Analysis	Structured and Systematic Decision-Making	14.2%
10	Growth Mindedness	Adaptive and Reflective Thinking	13.5%

Source: Lightcast

Across white collar occupations, and after controlling for education and experience, employers are willing to pay the highest wage premiums for skills related to risk and strategy. Several risk-oriented skills top the list, with wage premiums ranging from 18.3% to 23.1%. Strategic thinking and strategic decision-making also stand out, each associated with wage premiums around 17%.^{19 20}

Figure 12: Top 5 Decision-Making Skill Wage Premium Percentages Across White Collar Occupation Groups

Occupation Group	Decision-Making Skill	Wage Premium Percentage
Management	Risk Appetite	32.0%
	Systems Thinking	23.8%
	Strategic Decision-Making	23.1%
	Strategic Thinking	20.2%
	Intellectual Curiosity	19.9%
Business and Financial Operations	Risk Appetite	25.2%
	Risk Awareness	24.8%
	Risk Analytics	24.7%
	Consensus Decision-Making	15.8%
	Ideation	15.3%
Architecture and Engineering	Intellectual Curiosity	14.6%
	Data-Driven Decision-Making	14.5%
	Strategic Thinking	12.4%
	Systems Thinking	11.8%
	Creative Thinking	9.6%
Computer and Mathematical	Strategic Thinking	11.8%
	Resilience	11.4%
	Risk Appetite	10.9%
	Ideation	10.2%
	Data-Driven Decision-Making	7.4%
Life, Physical, and Social Science	Strategic Thinking	18.1%
	Analytical Thinking	16.5%
	Forecasting	15.5%
	Curiosity	13.1%
	Negotiation	12.5%

Source: Lightcast

Wage premium trends show that decision-making skills tied to risk and long-term thinking hold value across multiple white collar fields. Risk appetite appears among the top five highest wage premium skills in management, business and financial operations, and computer and mathematical occupations, while strategic thinking appears in four occupation groups. These recurring patterns suggest that employers place a monetary premium on workers who can navigate uncertainty and shape direction across a range of professional settings.

Notably, in computer and mathematical occupations, the most rewarded decision-making skills are not narrowly technical. Skills like resilience, ideation, and strategic thinking command higher wages, pointing to the importance of complementary strengths beyond core technical ability. In these roles, and many others, employers value workers who can think critically, adapt quickly, and contribute to broader organizational goals.



The Strategic Advantage of Decision Skills

As the workplace continues to evolve, decision skills remain a critical component of both workforce readiness and career mobility. Decision-making is a foundational capability that supports adaptability, leadership, and long-term growth in a career.

For individuals entering the workforce, decision-making helps translate education into effective action. It supports the ability to assess uncertainty, weigh options, and shift direction when needed. These skills continue to develop over time and must be strengthened through experience and continuous learning. Skills such as risk assessment, systems thinking, and reflection encourage flexibility and allow individuals to grow as roles, technology, and industries change.

Decision-making also contributes directly to upward mobility. Workers who demonstrate sound judgment and strategic thinking are more likely to be trusted with greater responsibility. These skills often mark the difference between executing tasks and leading others. In a labor market that values initiative and foresight, decision skills help individuals move from support roles into more influential positions.

Decision Skills in the AI Era

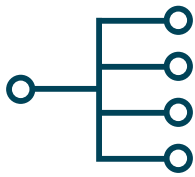
Artificial intelligence is reshaping nearly every corner of the labor market. While generative AI excels at automating structured, repeatable tasks such as data processing, code generation, and basic writing, it lacks the discernment, contextual awareness, and judgment required for higher-level decision-making.²¹

Skills like strategic and systems thinking, risk evaluation, adaptability, and collaboration remain difficult to automate. They rely on human discernment, that is the ability to weigh context, navigate ambiguity, and align decisions with complex goals and stakeholder priorities.

While AI is increasingly capable of mimicking certain types of judgment (especially in structured or repeatable contexts), it still struggles with hallucinations and the nuance, ethics, and contextual awareness that define high-stakes decision-making. As automation scales, the premium on thoughtful human oversight is likely to grow. Workers will need to understand where AI is likely to perform well, recognize when to question its outputs, and know how to intervene when things go wrong.

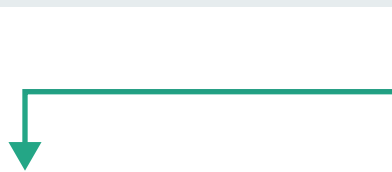
This is precisely why decision-making remains one of the most valuable skillsets in a changing labor market. It is a durable advantage, one that grows with experience and becomes more important as the tools around it become more powerful. In the age of AI, the ability to choose wisely is what sets humans apart.

In an AI World, Decision Skills Become the Defining Human Advantage



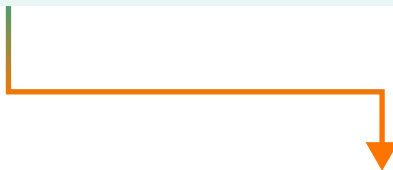
AUTOMATION AND AUGMENTATION FOCUS ON ROUTINE COGNITIVE TASKS

GenAI is automating structured, repeatable thinking, such as number crunching, code generation, basic writing, etc. These are tasks that require accuracy, speed, and retrieval, but not deep discernment or judgment.



DECISION SKILLS RELY ON HUMAN JUDGMENT AND STRATEGIC THINKING

Decision skills like strategic and systems thinking, risk evaluation, adaptability, and collaboration aren't easily automatable. These skills require subjectivity, context, and stakeholder alignment, areas where AI still lags.



DECISION SKILLS WILL POWER HUMAN-AI COLLABORATION

As AI takes on lower-level execution tasks, workers will increasingly supervise, interpret, and orchestrate AI outputs. This shift demands strong decision-making skills: knowing which AI outputs are reliable, when to override them, and how to align them to broader goals.

"AI's Expanding Reach: Mapping the Spread of AI Skills Across America." AI Bulletin | October 2024. The Burning Glass Institute.

"Generative Artificial Intelligence and the Workforce." February 2024. The Burning Glass Institute & The Society for Human Resource Management.

Recommendations and Implications

Decision-making skills are essential in every career. The widespread demand for decision skills across occupations and industries demonstrates that decision-making capabilities are not niche or optional. They help individuals succeed on the job and guide them in making thoughtful career decisions. These skills represent key components of the Alliance's Learning Standards for Decision Education. They empower workers to, among other things, assess tradeoffs, adapt to change, and align their actions with long-term goals.

To fully support their development, decision skills should be embedded as core competencies across K-12 education, all postsecondary pathways, and workforce development programs.



For Education Stakeholders

State education agencies and school systems should embed decision-making skills across K-12 curricula.

For example, at least three states, Georgia, Tennessee and Utah, have **integrated decision-making skills** into high school math courses meeting graduation requirements. These mathematical reasoning and decision-making courses help students build decision-making skills through topics like finance, modeling, probability, and statistics. Students learn to use technology and other tools to model decisions and develop abstract thinking, numeracy, and quantitative reasoning. Professional development can support teachers in teaching Decision Education in math or any subject.

As leaders, educators, and policymakers, we have a responsibility to prepare all students for the future ... young people face decisions that previous generations never had to. But one thing remains the same: the fundamental building blocks of decision-making skills span across all ages and times.

– Lt. Governor Sabina Matos, Rhode Island



For Career and Technical Education Providers

Career and Technical Education (CTE) programs are ideal platforms to integrate decision-making into training and upskilling pathways. Decision Education can and should be a part of both college and career readiness.

Training programs can incorporate decision skills by:

- ▶ **Teaching frameworks** that help learners evaluate alternatives, risks, and outcomes
- ▶ **Aligning instructional content** with real decisions workers face as they progress in a career

Workforce programs could also support learners in comparing career paths. For example, someone choosing between an associate degree in nursing versus a welding apprenticeship could use a structured decision-making framework to consider wages, work schedules, advancement potential, and lifestyle preferences.

At College Board, we believe that preparing students to own their futures means equipping them with more than academic knowledge – it requires cultivating the skills that drive thoughtful action. Decision-making is one of the most essential competencies for college, career, and life. CTE that teaches decision making builds students' capacity to manage uncertainty, identify and compare options, and take purposeful steps as they pursue college and in-demand careers. We want every student to have the power to choose and pursue a path with purpose and confidence.

– **Jose Ortega-Luo**, Director of Workforce Partnerships, The College Board



For Policymakers

Policymakers play a critical role to scale decision skill development. These stakeholders should prioritize resources and legislative support. This includes program funding and encouraging school systems and workforce agencies to adopt Decision Education as a core component of college and career readiness. For example, a state may begin by including “Empowered Decision Maker” in their statewide portrait of a graduate (as some large cities, such as Chicago, have done) and go on to adopt K-12 Learning Standards for Decision Education. Further, policymakers could fund pilot programs in Decision Education and ultimately build a statewide requirement for instruction in Decision Education.



Giving students Decision Education tools will have such a great influence on how our country is led in the future.

– Utah First Lady, Abby Cox



For Employers

Employers already reward decision-making, even when it’s not explicitly listed in job advertisements. Across industries, several decision skills lead to higher pay and advancement. As AI transforms how work gets done, the demand for sound human judgment is only growing. The ability to evaluate options, navigate uncertainty, and guide AI outputs will define the most effective workers.

Employers can stay ahead by doubling down on strong decision-making skills, promoting those who demonstrate them and building opportunities to continue developing this skillset across teams.

Conclusion

Decision-making skills are foundational to success across industries, occupations, and levels of experience. From early career roles to senior leadership, skills such as the ability to evaluate options, manage uncertainty, and lead strategy are critical.

Employers are already rewarding decision-making skills in tangible ways. For example, workers who demonstrate strength in risk-related skills, as well as adaptive reasoning and strategic thinking, consistently earn higher wages. These skills signal readiness for responsibility, leadership, and long-term growth.

As artificial intelligence transforms how work gets done, decision-making will become even more important. While emerging GenAI technologies are well suited to automate execution, it is human judgment that determines what matters, what is ethical, and what is effective. The ability to make sound decisions will be a key advantage in a world that increasingly relies on both people and machines.

To meet this moment, decision skills should be embedded into every stage of education, workforce training, and employer practice. In today's evolving labor market, these are the capabilities that help individuals navigate complexity, seize opportunity, and build strong careers.



Generative AI is transforming the way work gets done, but the ability to make sound decisions remains an enduring capability. Building decision-making skills alongside new technologies is essential for developing a resilient, adaptable, and capable workforce.

– Charles Westrin, Managing Director & Chief Product Officer, BCG U

Appendices

■ A.1 Data Sources	31
■ A.2 Decision Skill Taxonomy Methodological Details	32
■ A.3 Additional Methodological Notes	37
■ A.4 Additional Charts and Figures	40

A.1 Data Sources

LIGHTCAST JOB POSTINGS DATA

Lightcast is a labor market analytics company that collects and analyzes data from job postings, government sources, and online profiles to offer insights into the supply and demand of skills, industries, and occupations. An analysis by the Organisation for Economic Co-operation and Development (OECD) on the representativeness of Lightcast job postings data states that this data set provides granular information about the skills employers look for.²² This level of detail allows us to capture specific pockets of the labor market that are not accessible through traditional labor market data sources like survey data.

Lightcast's postings data set only includes postings that were advertised online. Traditionally, certain types of jobs are not advertised online, for example jobs in the food services industry. However, this effect is likely to be smaller every year, especially since the pandemic as the OECD report outlines. Job postings may also not contain every single skill needed to perform the job advertised since employers tend to focus on skills that employers explicitly need or feel they may be hard to find, and some skills remain implied.

LIGHTCAST POSTINGS FILTERING

While filtering removes a high number of postings, the sample remains of considerable size and results in higher confidence in the quality of the coded outputs. To ensure representativeness, researchers ran the prevalence analysis on both the full and restricted sample and found that the results align. The smaller sample has higher confidence as we know more about where the data comes from and what it contains, and it is more likely to be well-structured and easier to be parsed by Lightcast. For simplicity and the readers' benefit, researchers decided to use the same sample throughout the report.

The filters include:

- ▶ Filtering out any postings from staffing firms which tend not to be for the firms themselves but for other companies and are aggregation of actual company postings and in this way may result in duplicates.
 - ❑ Note: Sometimes it is virtually impossible to know whether two postings are, in fact, the same, as staffing firms tend not to mention the firm they are hiring for. A de-duplication mechanism would therefore not be able to conclusively determine such cases. Using only postings that are from direct employers avoids this problem.
- ▶ Filtering out any postings that are not advertised on company websites. Job postings sourced directly from company websites have the highest quality since the firm has full control over the content, does not have to conform with the format or conventions of a job board, and no intermediary is involved since it is hosted on their own page and applications go straight to the company.
- ▶ Filtering out any postings that don't list salary. This is relevant for the wage analysis of the report.
- ▶ Filtering out any postings that don't have an occupation assigned.
- ▶ Filtering out any postings that don't list any skills.
- ▶ Filtering out any postings that advertise an internship. The report aims to analyze the relevance of decision-making in the existing labor market, not what's demanded as part of training jobs.

A.2 Decision Skill Taxonomy Methodological Details

To develop the decision skill taxonomy, we mapped the existing Lightcast skills taxonomy to the Alliance’s Learning Standards via semantic matching and translating between Decision Education concepts and the skills employers list in job postings.

This report leverages the skills data from Lightcast’s postings data set. As described by Lightcast’s documentation, to extract skills from the job postings, the full job text is segmented and tokenized and any word sequences representing skills are flagged. These phrases are then standardized into the Lightcast taxonomy, which has over 33,000 skills. More details can be found in Lightcast’s knowledge base.²³

To align the Alliance’s skills list from the Decision Education K-12 Learning Standards report with the Lightcast skills taxonomy, we adopted a two-stage, embedding-based mapping procedure followed by expert validation.

First, every unique skill title and synonym in both inventories was cleaned to remove punctuation, use lower case and similar normalization procedures. The cleansed strings were then converted into semantic vectors using OpenAI’s text-embedding model. Using cosine similarity, the closest match in the Lightcast taxonomy was determined.

The matching result was reviewed by BGI’s and the Alliance’s experts to ensure the final list reflects all skills included in the four K-12 Learning Domains “Recognizing and Resisting Cognitive Biases”, “Valuing and Applying Rationality”, “Thinking Probabilistically” and “Structuring Decisions”.

Not every single skill could find a match since the Alliance’s list is teaching based, not labor market based. Concepts may either be described differently in the Lightcast skills taxonomy or not be listed in postings.

Other taxonomies leveraged in this development include:

- **Occupation Taxonomy:** Analysis by occupation uses the O*NET-SOC 2019 Taxonomy,²⁴ in particular the 23 Major Groups.
- **Industry Taxonomy:** Analysis by industry uses the NAICS 2017 Taxonomy.²⁵

To organize our findings and provide clarity for both educators and employers, we grouped the 106 decision-making skills in the taxonomy into three categories that represent the four domains of Decision Education. The mapping between groups can be loosely thought of as follows:

Decision Education Learning Domain	Decision Skill Taxonomy Category
Valuing and Applying Rationality	Adaptive and Reflective Thinking
Recognizing and Resisting Cognitive Biases	
Thinking Probabilistically	Quantitative and Statistical Reasoning
Structuring Decisions	Structured and Systematic Decision-Making

- **Adaptive and Reflective Thinking:** Skills involving flexible thinking, open-minded curiosity, and continuous growth that guide mindful decision-making. This category encompasses cognitive processes such as analytical thinking, inductive and deductive reasoning, and creative ideation, as well as self-regulation, mental focus, and reflection. It also includes interpersonal abilities such as active listening, collaborative communications, and group facilitation, which foster teamwork and shared understanding.
- **Quantitative and Statistical Reasoning:** Skills involving data analysis, statistical thinking, forecasting, and risk assessment that guide evidence-based decision-making. This category encompasses numerical interpretation, probability, computational methods, and empirical evaluation, enabling individuals to model uncertainty, evaluate facts objectively, and leverage quantitative insights.
- **Structured and Systematic Decision-Making:** Skills involving strategic planning, problem-solving frameworks, and methodical evaluation that guide efficient decision-making. This category encompasses fact-finding, opportunity analysis, heuristic evaluation, and goal-oriented approaches, enabling individuals to navigate complexity, integrate perspectives, and produce well-grounded outcomes.

Figure 13: Decision-Making Skill Taxonomy

Decision-Making Skill Category: Adaptive and Reflective Thinking	
Decision-Making Skill	Posting Count, 2022-2024
Self-Motivation	499,910
Verbal Communication Skills	489,656
Critical Thinking	213,362
Negotiation	168,930
Collaboration	131,837
Adaptability	107,980
Resilience	75,083
Creativity	71,472
Curiosity	70,350
Self-Discipline	63,202
Listening Skills	45,988
Persuasive Communication	42,728
Active Listening	36,933
Analytical Thinking	28,783
Mental Concentration	27,158

Decision-Making Skill Category: Adaptive and Reflective Thinking	
Decision-Making Skill	Posting Count, 2022-2024
Creative Thinking	25,096
Intellectual Curiosity	22,182
Ideation	19,341
Deductive Reasoning	17,285
Self-Awareness	14,095
Growth Mindedness	12,343
Independent Thinking	7,944
Open Mindset	6,819
Group Dynamics	5,109
Discussion Facilitation	5,002
Humility	4,854
Logical Reasoning	1,724
Collaborative Communications	1,456
Fact Checking	1,442
Recognizing Others	1,345
Self-Regulation	1,222
Questioning Skills	1,079
Reflective Practice	767
Lateral Thinking	504
Inductive Reasoning	494
Hindsight	465
Rhetoric	438
Attribution Analysis	282
Impulse Control	171
Reflective Listening	170
Cognitive Flexibility	109
Integrative Thinking	109
Use Diversity of Perspectives	106
Higher-Order Thinking	75
Adaptive Reasoning	46
Critical Reflection	18

Decision-Making Skill Category: Quantitative and Statistical Reasoning	
Decision-Making Skill	Posting Count, 2022-2024
Data Analysis	208,646
Forecasting	171,033
Risk Analysis	69,483
Analytics	37,810
Data-Driven Decision-Making	25,312
Statistical Analysis	24,023
Risk Appetite	21,451
Data Mining	16,614
Cost Benefit Analysis	8,944
Numeracy	3,295
Impact Assessment	2,396
Risk Analytics	1,909
Risk Aversion	1,786
Risk Awareness	1,374
Risk Prioritization	1,131
Risk Mindset	1,039
Confidence Intervals	888
Decision Analysis	745
Scientific Reasoning	675
Empirical Evidence	631
Probability And Statistics	624
Descriptive Analytics	555
Bayesian Inference	416
Probabilistic Risk Assessments	250
Uncertainty Analysis	140
Predictive Statistics	136
Data Comparison	121
Measurement Uncertainty	104
Computational Thinking	78
Evidence Analysis	69
Statistical Thinking	56
Probabilistic Analysis	55
Probabilistic Design	8
Uncertainty Modeling	7
Risk-Benefit Ratio	6
Information Economics	2

Structured and Systematic Decision-Making	
Decision-Making Skill	Posting Count, 2022-2024
Problem Solving	929,986
Troubleshooting	397,126
Decision-Making	318,173
Proactivity	150,997
Strategic Thinking	52,564
Information Gathering	43,454
Goal-Oriented	35,284
Creative Problem Solving	29,126
Complex Problem Solving	24,049
Strategic Decision-Making	16,244
Systems Thinking	6,041
Consensus Decision-Making	4,533
Information Synthesis	4,514
Fact-Finding	969
Opportunity Analysis	745
Decision-Making Software	540
Secondary Source Information	536
Group Decision-Making	307
Heuristic Evaluation	281
Heuristic Analysis	102
Diagrammatic Reasoning	54
SMART Criteria	36
Information Advice And Guidance	14
Thinking Maps	4

A.3 Additional Methodological Notes

We used several approaches to assess where decision skills appear in the labor market and how they are valued:

- ▶ **Prevalence:** We measured the frequency with which decision-making skills appear in job postings across occupations, industries, and regions.
- ▶ **Skill Importance:** We combine a measure of specialization (how much more frequently a certain skill appears in a specific occupation compared to others) with how commonly a skill appears within job postings for a robust skill importance metric.
- ▶ **Career Stage Analysis:** We segmented job postings by required years of experience to examine how decision skill demand evolves from entry-level to mid- and senior-level roles, indicating how the basket of critical decision skills evolves with career seniority. As this analysis is focused on assessing skill prevalence across career stages, we do not control for years of experience.
- ▶ **Wage Premiums:** We ran fixed-effects regression models that control for occupation (SOC6), education requirements, experience level, and year of the job posting to isolate the wage impact of specific decision-making skills. The wage premium is interpreted as how much more employers are willing to pay for that skill compared to similar jobs in the same field. They are expressed as percentages.

Together, these methods provide a robust picture of how decision-making skills shape hiring, compensation, and advancement in the labor market.

PREVALENCE METHODOLOGY

We define prevalence as the share of postings that mention at least one decision-making skill out of all postings. We distinguish different types of prevalence:

1. **Out of all postings:** This is the overall share of postings, i.e. how many postings mentioned at least one decision-making skill out of all 6.8 million postings advertised in our filtered sample in the U.S. between 2022 and 2024. This indicates what share of the overall labor market has demand for decision-making skills, using all postings in the filtered sample as the denominator (6,801,838).
2. **Within the decision-making “universe”:** This universe is the subset of all postings that mentions at least one decision-making skill. Here we measure how many postings mention each decision-making skill as a percentage out of all postings mentioning at least one decision-making skill. It indicates the size of demand for each of the decision-making skills, using only postings mentioning at least one decision-making skill as the denominator (2,793,188).
3. **Within each analysis field:** Analysis fields are used to slice the data by occupation, industry, state, or MSA. Here prevalence measures how many postings out of all postings within a given analysis field (e.g. occupation) mention at least one decision-making skill. This indicates the size of demand for decision-making skills within a given occupation, and therefore which occupations have high demand for decision-making skills. It uses all postings advertised for a given occupation as the respective denominator.

SKILL IMPORTANCE METHODOLOGY

This metric measures how specialized a skill is to a particular occupation while ensuring the skill has sufficient demand across the broader labor market. This dual approach captures the “middle set of skills” that are valuable due to their specialization but also widely sought after by employers. In essence, this methodology trims the top end of the highly specialized skills but also drops the “table stakes” skills that nearly every worker needs to enter the labor market. This methodology highlights skills that are particularly relevant and worth investing in as they are not niche skills with high demand in only one occupation, but also high in demand in other parts of the labor market.

Additional Data Filters:

- ▶ Keeps skill-occupation combinations where the skill appears in more than 50 job postings, **or**
- ▶ Keeps skill-occupation combinations where the skill appears in more than 2% of postings for that occupation
- ▶ Skills mentioned in over 500 postings (small sample flag)

Component 1: Specialization Analysis

Within this component, researchers identify when a skill appears much more frequently in a specific occupation compared to others. This component includes two metrics that serve to answer the following questions:

- ▶ **Symmetric Revealed Comparative Advantage (SRCA)**²⁶
 - ❑ How many times more or less does this job use the skill vs. average?
- ▶ **Term Frequency-Inverse Document Frequency (TF_IDF)**²⁷
 - ❑ How often does this job mention the skill? (TF)
 - ❑ How rare is this skill across all jobs? (IDF)

Together, these metrics combine to indicate how important a skill is *relative to other skills* within the same occupation group utilizing SRCA_TF_IDF scores. Further methodological detail is as follows:

- ▶ **SRCA:** A measure that shows how specialized an occupation is in a particular skill compared to the overall economy. It makes values more symmetric and bounded between 0 and 2 (with 1 being the neutral point). SRCA is a symmetrically transformed version of Revealed Comparative Advantage (RCA²⁸). RCA is the ratio of a skill's frequency within a specific occupation to its frequency across all occupations.
- ▶ **TF-IDF:** This measures how important a skill is to an occupation while accounting for how common that skill is across all occupations. The TF component is the skill share within the occupation, while the IDF component penalizes skills that appear commonly across many occupations.
- ▶ **Steps:**
 - ❑ Rank all skills within an SOC2 group by their relative importance scores
 - ❑ Convert ranks to percentiles: $(\text{Rank} - 1) \div (\text{Total Skills} - 1) \times 100$
 - ❑ Scale: 0–100, where 100 = most specialized skill in that occupation

Component 2: Prevalence (Percentile Rank)

- ▶ Measures how frequently a skill appears in job postings within the occupation
- ▶ Calculated as: $(\text{Number of postings mentioning skill} \div \text{Total postings in SOC2}) \times 100$
- ▶ Converted to percentile ranks within the occupation group
- ▶ Scale: 0–100, where 100 = most prevalent skill in that occupation

Final Calculation:

- ▶ Formula: $(\text{Specialization Percentile} + \text{Prevalence Percentile}) \div 2$
- ▶ Result: Relative rankings that balances skill sophistication with market demand
- ▶ Higher rankings indicate skills that are both highly specialized to the occupation AND frequently requested by employers

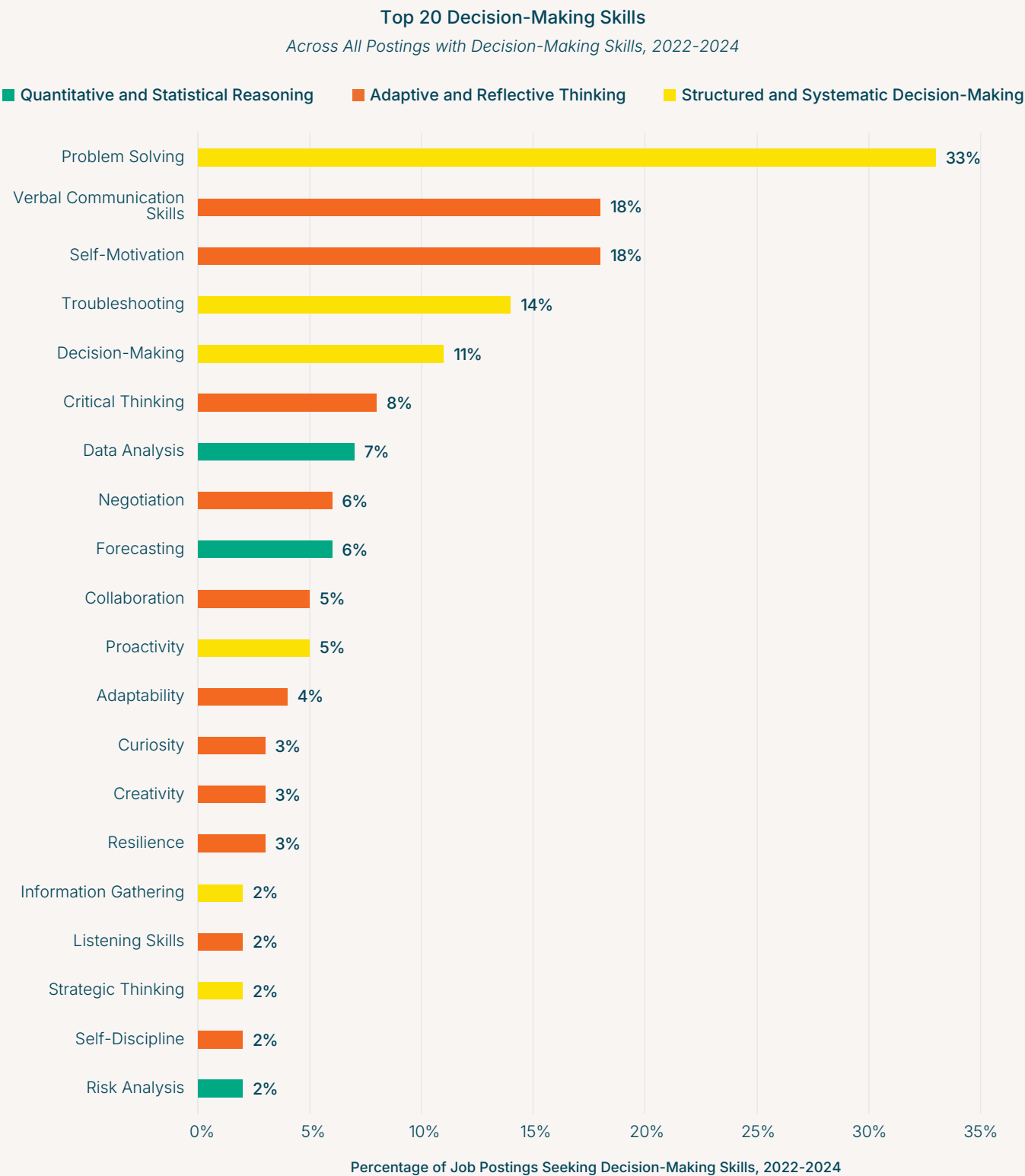
WAGE PREMIUM METHODOLOGY

The wage premium for a skill is within a specific occupational group (SOC2). The results represent how much more employers are willing to pay for that skill compared to similar jobs in the same field. For this reason, we require variation in our data set between skills demanded. The main wage premium methodology looks specifically at professional occupations (SOC 11-0000 Management Occupations, 13-0000 Business and Financial Operations Occupations, 15-0000 Computer and Mathematical Occupations, 17-0000 Architecture and Engineering Occupations, 19-0000 Life, Physical, and Social Science Occupations). Our dataset captures more professional occupations but most importantly, professional occupations are more likely to have variation in the skills demanded than blue collar occupations.

These premiums are calculated after controlling for detailed occupation codes (SOC6), education requirements, experience levels, and year. Wage premiums are expressed as percentages indicating how much more employers pay for a skill. We ran fixed effects regression models that controlled for detailed occupational codes (SOC6), education requirements, experience level, and year of the job posting. We controlled collinearity by excluding skills that appeared in only one occupation type or one education level. We also filter for skills that have 500 + observations at the regression level. For each skill, we compared salaries of similar job postings with and without that skill. This approach isolated the wage premium associated with each specific skill. We organized and presented results by major occupational groups (SOC2). We filtered results to include only statistically significant findings ($p < 0.05$).

A.4 Additional Charts and Figures

Figure 14: Top 20 Decision-Making Skills



Source: Lightcast

Figure 15: Number of Job Postings Mentioning Decision-Making Skills by Sector

Sector (NAICS2)	Number of Postings With At Least One Decision-Making Skill	Number of Postings Within Sector in Sample
Retail Trade	373,521	1,019,587
Manufacturing	369,268	699,849
Health Care and Social Assistance	314,219	1,181,876
Professional, Scientific, and Technical Services	293,929	531,376
Finance and Insurance	277,384	423,144
Administrative and Support and Waste Management and Remediation Services	158,662	345,018
Wholesale Trade	136,524	384,411
Information	134,263	256,736
Accommodation and Food Services	130,538	390,141
Other Services (except Public Administration)	74,382	216,066
Transportation and Warehousing	73,645	218,377
Real Estate and Rental and Leasing	64,996	208,318
Construction	60,327	133,105
Educational Services	41,690	105,070
Utilities	35,730	59,622
Arts, Entertainment, and Recreation	23,331	78,154
Public Administration	23,098	57,976
Management of Companies and Enterprises	7,626	19,109
Mining, Quarrying, and Oil and Gas Extraction	7,142	14,743
Agriculture, Forestry, Fishing and Hunting	4,265	9,626

Source: Lightcast

Figure 16: Number of Job Postings Mentioning Decision-Making Skills by Occupation Group

Occupation Group (SOC2)	Number of Postings With At Least One Decision-Making Skill	Number of Postings Within Occupation Group in Sample
Management	425,423	764,137
Sales and Related	373,988	967,140
Computer and Mathematical	313,455	458,539
Business and Financial Operations	305,166	456,471
Office and Administrative Support	257,960	583,203
Healthcare Practitioners and Technical	198,472	749,232
Installation, Maintenance, and Repair	144,645	330,540
Architecture and Engineering	99,762	163,315
Transportation and Material Moving	95,153	477,077
Protective Service	86,957	164,416
Production	80,162	208,504
Food Preparation and Serving Related	80,103	382,070
Arts, Design, Entertainment, Sports, and Media	70,111	156,737
Community and Social Service	56,078	156,826
Life, Physical, and Social Science	41,965	76,186
Healthcare Support	41,557	269,635
Educational Instruction and Library	27,296	86,092
Building and Grounds Cleaning and Maintenance	26,801	143,647
Construction and Extraction	24,800	72,921
Personal Care and Service	24,567	100,644
Legal	16,729	28,353
Farming, Fishing, and Forestry	1,363	4,488
Military-only	675	1,665

Source: Lightcast

Figure 17: Number of Job Postings Mentioning Decision-Making Skills by State

State	No. of Postings With At Least One Decision-Making Skill	No. of Postings Within State in Sample
California	522,183	1,143,346
New York	264,241	549,021
Colorado	167,757	389,572
Texas	161,468	395,145
Washington	140,632	331,362
Florida	113,262	305,143
Illinois	94,099	222,647
Virginia	84,380	188,535
Pennsylvania	78,913	214,303
Minnesota	70,243	166,682
Massachusetts	65,951	147,677
Ohio	64,332	172,634
North Carolina	63,471	165,938
New Jersey	62,614	142,033
Georgia	60,193	153,103
Arizona	58,004	140,489
Maryland	55,437	130,189
Missouri	45,299	130,385
Wisconsin	44,741	114,876
Oregon	44,659	117,129
Michigan	37,416	110,005
Tennessee	36,878	106,658
Utah	34,921	79,540
Indiana	33,957	105,739
Connecticut	32,471	77,945
South Carolina	25,737	76,266

State	No. of Postings With At Least One Decision-Making Skill	No. of Postings Within State in Sample
Iowa	24,888	67,370
Washington, D.C. (District of Columbia)	24,631	41,790
Nevada	24,602	68,442
Alabama	23,940	69,407
Louisiana	19,571	52,945
Kentucky	18,824	59,401
Kansas	18,546	55,416
Oklahoma	17,003	55,988
New Mexico	15,765	46,398
Arkansas	15,098	40,377
Nebraska	14,481	38,819
Hawaii	13,070	32,654
Idaho	10,722	29,662
New Hampshire	9,909	31,385
Mississippi	9,439	32,153
Montana	9,307	31,287
Rhode Island	7,980	18,992
North Dakota	7,698	24,014
Alaska	7,678	21,461
Maine	7,541	23,304
South Dakota	7,158	20,442
Delaware	6,979	18,297
West Virginia	5,878	17,173
Vermont	4,811	16,848
Wyoming	4,410	11,451

Source: Lightcast

Figure 18: Number of Job Postings Mentioning Decision-Making Skills Among Top 20 Metropolitan Statistical Areas (MSAs)

MSA	Number of Postings With At Least One Decision-Making Skill	Number of Postings Within MSA in Sample
New York-Newark-Jersey City, NY-NJ	238,359	460,557
Los Angeles-Long Beach-Anaheim, CA	167,340	360,078
San Francisco-Oakland-Berkeley, CA	106,058	201,251
Denver-Aurora-Lakewood, CO	104,921	231,185
Seattle-Tacoma-Bellevue, WA	104,095	227,351
Washington-Arlington-Alexandria, DC-VA-MD-WV	93,005	180,292
Chicago-Naperville-Elgin, IL-IN-WI	77,288	173,105
Dallas-Fort Worth-Arlington, TX	62,839	141,876
San Jose-Sunnyvale-Santa Clara, CA	59,453	110,082
Boston-Cambridge-Newton, MA-NH	53,867	114,844
San Diego-Chula Vista-Carlsbad, CA	53,708	116,785
Minneapolis-St. Paul-Bloomington, MN-WI	48,294	107,753
Phoenix-Mesa-Chandler, AZ	43,991	103,027
Atlanta-Sandy Springs-Alpharetta, GA	41,436	99,819
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	41,194	102,607
Portland-Vancouver-Hillsboro, OR-WA	33,363	82,959
Riverside-San Bernardino-Ontario, CA	32,334	90,486
Miami-Fort Lauderdale-Pompano Beach, FL	29,997	75,562
Houston-The Woodlands-Sugar Land, TX	29,485	72,944
Baltimore-Columbia-Towson, MD	28,630	67,792

Source: Lightcast

Endnotes

¹ **Decision Education K-12 Learning Standards.** First Edition (2022). Alliance for Decision Education.

² **Lightcast Data: Basic Overview.** Lightcast Knowledge Base.

³ Acemoglu, D., Autor, D., Hazell, J., and Restrepo, P. (2023). Artificial Intelligence and Jobs: Evidence from Online Vacancies. MIT/NBER.

⁴ Romanko, O., and O'Mahony, M. (2022). **The Use of Online Job Sites for Measuring Skills and Labour Market Trends: A Review**, Economic Statistics Centre of Excellence (ESCoE) Technical Reports ESCOE-TR-19. Economic Statistics Centre of Excellence (ESCoE).

⁵ Carnevale, A., Jayasundera, T., and Repnikov, D. (2014). Understanding Online Job Ads Data: Technical Report. 10.13140/RG.2.2.13283.57124.

⁶ **About: Metropolitan and Micropolitan.** (2023) United States Census Bureau.

⁷ Cammeraat, E. and M. Squicciarini (2021). Burning Glass Technologies' data use in policy-relevant analysis: An occupation-level assessment. OECD Science, Technology and Industry Working Papers. No. 2021/05. OECD Publishing. Paris. <https://doi.org/10.1787/cd75c3e7-en>.

⁸ Methodological choices in this analysis help mitigate concerns about sample bias noted in prior research, including the publication referenced in footnote seven. That report highlights issues such as "breaks in the series" and "relative over- and underrepresentation of some occupational groups." To address these concerns, researchers use three years of job posting data (2022-2024) to reduce the influence of any single year's trends. While blue collar roles are often underrepresented and Management Occupations overrepresented in online job postings, this analysis is designed to account for these imbalances. Rather than centering on Management roles (where decision-making skills are well-established and expected), researchers focus on how decision skills appear across a wide range of occupations and experience levels. This approach offers a clearer view of how decision-making skills appear throughout the workforce, including in early- and mid-career roles.

⁹ Additional information regarding dataset filtering can be found in the Appendix.

¹⁰ **Table 1.2 Occupational projections, 2023-2033, and worker characteristics, 2023.** Employment Projections. U.S. Bureau of Labor Statistics.

¹¹ More detail about the development of the decision skill taxonomy can be found in the appendix.

¹² More detail about the Skill Prevalence methodology can be found in the Appendix.

¹³ Results are shown in percentages versus absolute numbers. As researchers are working with a sample of the data set, the absolute numbers wouldn't represent the full U.S. labor market and would seem low. Using the representative sample, researchers identify the top 10 skills in demand among jobs that require decision-making skills.

¹⁴ **New SHRM Research Makes the Case for Skills-Based Hiring.** (2022). Society for Human Resource Management.

- ¹⁵ **Situational Judgment Tests**. U.S. Office of Personnel Management.
- ¹⁶ More detail about the Skill Importance methodology can be found in the Appendix.
- ¹⁷ **Personal Income by County, Metro, and Other Areas**. Bureau of Economic Analysis. U.S. Department of Commerce.
- ¹⁸ **Table 1.2 Occupational projections, 2023-2033, and worker characteristics, 2023**. Employment Projections. U.S. Bureau of Labor Statistics.
- ¹⁹ Note: We restrict our analysis to white collar occupations due to greater expected heterogeneity in skill requirements across these roles. In contrast, blue-collar occupations tend to emphasize a more uniform set of foundational or entry-level skills, which limits the observable variation. Additionally, our dataset provides more robust coverage and higher representativeness for white collar roles, enhancing the reliability of our findings.
- ²⁰ More detail about the Wage Premium methodology can be found in the Appendix.
- ²¹ **Generative Artificial Intelligence and the Workforce**. (2024). The Burning Glass Institute and The Society for Human Resource Management.
- ²² Tsvetkova, A. et al. (2024). How well do online job postings match national sources in large English speaking countries?: Benchmarking Lightcast data against statistical sources across regions, sectors and occupations. OECD Local Economic and Employment Development (LEED) Papers. No. 2024/01. OECD Publishing. Paris. <https://doi.org/10.1787/c17cae09-en>.
- ²³ **Lightcast Skills Taxonomy**. Lightcast Knowledge Base.
- ²⁴ **The O*NET-SOC Taxonomy**. O*NET Resource Center.
- ²⁵ **North American Industry Classification System**. (2025) United States Census Bureau.
- ²⁶ **Appendix G: Symmetric Revealed Comparative Advantage Details**. Raspberries for Processing: Conditions of Competition between U.S. and Foreign Suppliers, with a Focus on Washington State, Inv. 332-577.
- ²⁷ **Tf-idf weighting**. (2009). Cambridge University Press.
- ²⁸ **Revealed Comparative Advantage**. Data Hub. UN Trade & Development.