

From Likely to Aligned

How skills data helps
jobseekers unearth new
opportunities



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INTRODUCTION

» In this guide, we'll take a look at the difference between likely and aligned transitions, and dive into the steps you can take to build aligned pathways for local jobseekers.

» From New York to Chicago to Spokane, too many workers are stuck in occupations with historically low or stagnant wages, and threatened by technology that could make their jobs obsolete. Meanwhile, businesses eager to expand are struggling to find the talent they need. Both the people and the opportunities are there: what we need is an efficient and achievable series of steps connecting the two.

How can workforce development and economic organizations ensure they are guiding jobseekers into options that are both realistic and optimal, and that best fulfill personal and economic needs? The answer lies in distinguishing between likely and aligned transitions, and capitalizing on the potential of aligned transitions to move jobseekers upward.

Likely transitions occur when a worker moves to a different organization but continues in the same role. The individual largely deploys the same knowledge, skills, and abilities to perform the new job. The requirements of the new role, and often the title, are the same as the previous one. For example, an accountant at a manufacturing company moves to an accountant role with a local nonprofit. In many cases, better pay or benefits spur the transition, or maybe the desire for a different work culture. Whatever the reason, the change might result in marginal career advancement or an increase in quality of life, but the transition doesn't represent significant career progress: the accountant is doing almost exactly what they were doing before.



Aligned transitions occur when a worker moves to a new role requiring them to leverage familiar skills in a new way or in a different environment. For example, [a journalist who moves into a business role](#) such as public relations or digital marketing will use their writing skills and knowledge of grammar, AP style, and storytelling. But instead of writing news stories, they'll be writing press releases, social media content, and blogs.

It's these aligned transitions—especially in a world where a job's tasks and required skills are constantly evolving to keep up with technology—that allow people to advance and adapt their career.

Professional roles lend themselves to more obvious career transitions. A journalist's ability to move into a content writer position is fairly obvious, but what about the aligned transitions that aren't so easy to spot?

» **That's where communities and jobseekers could use help spotting needs and opportunities.**

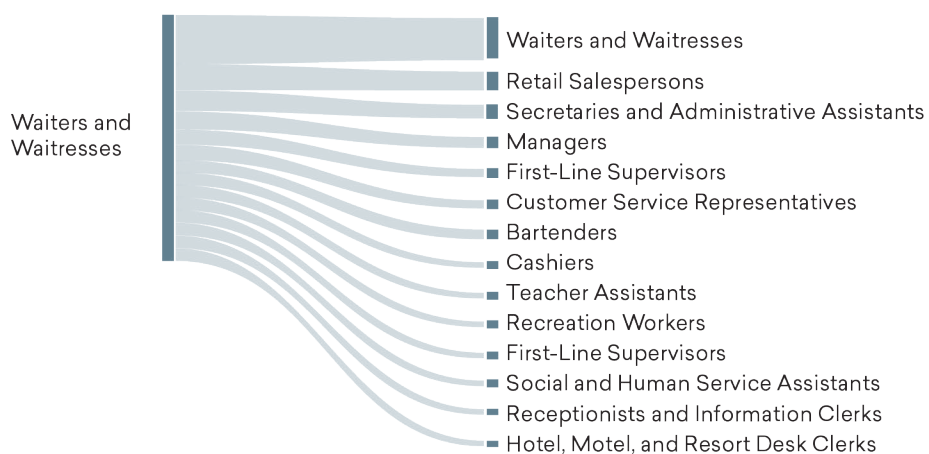


LIKELY TRANSITIONS

Waiters and Waitresses

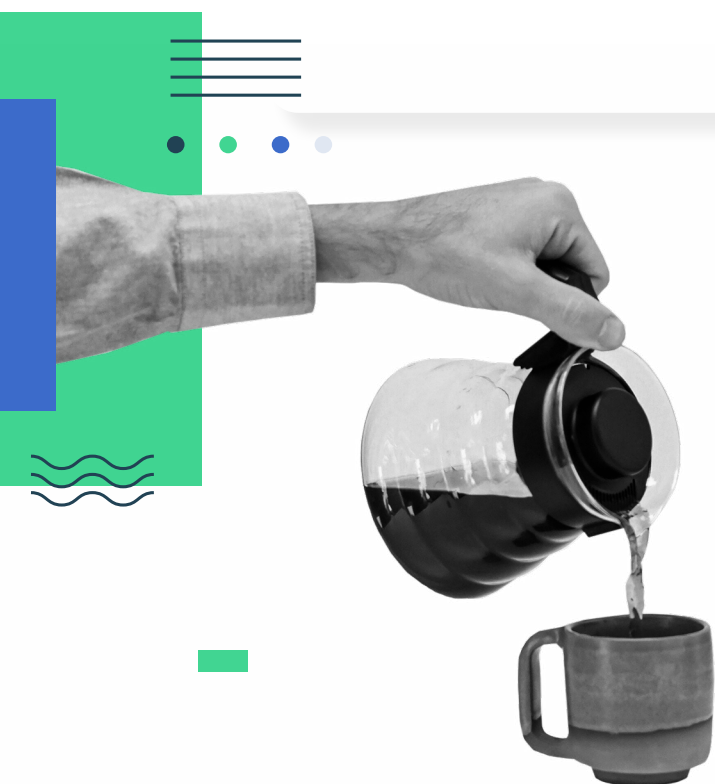
» Likely transitions are those job transitions which are most often being made. Though providing less opportunity for career advancement, likely transitions can still be very helpful to an individual. Likely transitions can help us understand where people are getting stuck. And combined with information about demand and wages, likely transitions can help us discover aligned transitions.

Waiters and waitresses in New York, for example, may want to change careers because waiting tables rarely results in professional development, increasing responsibility, and regular pay raises.



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But the largest single transition for waiters and waitresses is into... yet another position waiting tables. And retail salespersons, the next most frequent option, suffer from the same problem of career stagnation. So do bartenders, first line supervisors of food workers, cashiers, hotel desk clerks, and many of the other likely transitions on display here. If these are the only options, most waiters and waitresses face a revolving door of different types of service industry jobs that never offer a true progression.

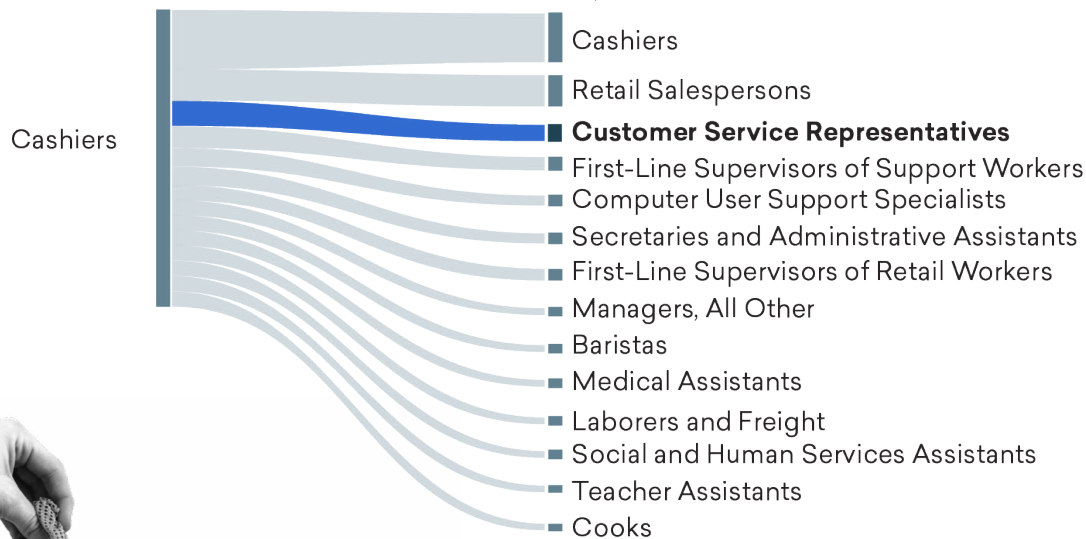


Cashiers

» Pay is a common reason people seek a job change. But likely transitions tend to be lateral moves when it comes to compensation. For example, adjusted for cost of living (COL), a cashier in Spokane makes approximately \$28,000 a year. But as we saw with waiters and waitresses, a common trend among cashiers is to wind up back where they started, in another cashiering or retail position. Where the pay is no better than where they started.

Just like with our waitress in New York, we can see that cashiers in Spokane are getting stuck. But likely transitions can be more than a diagnostic tool. They can give us clues about where we'll find aligned transitions that help people move forward.

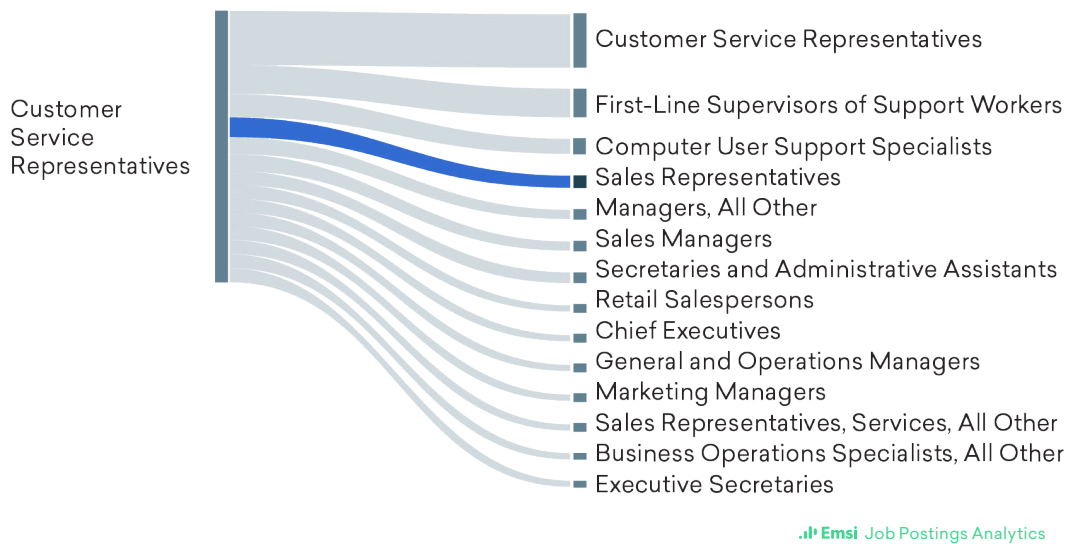
Here, we're trying to connect our hypothetical jobseeker with a better paying job. Disregarding "Cashier" and "Retail Salesperson," we might land on "Customer Service Representative." Customer service representatives make \$34,000 annually in COL adjusted salary—about a 20% increase over cashier earnings.



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» What's more, when we look at the likely transitions of customer service representatives in Spokane, we see another set of possible transitions. This time, rather than retail to customer service, we see a much more fruitful set of transitions, particularly a transition from customer service to sales.



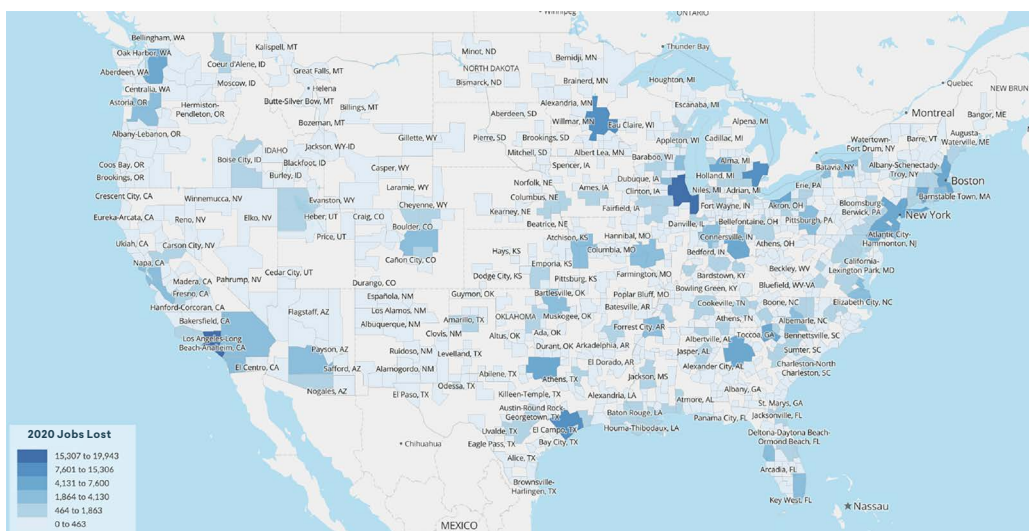
» Sales representatives of wholesale, manufacturing, and technical products in Spokane make a median COL adjusted \$63,000 annually—more than double what the cashier in question initially made.

Identifying likely transitions doesn't just provide a diagnosis of problems. It also allows communities to spot existing pathways that can be encouraged through expanded training programs and career counseling. Perhaps most importantly, it allows workforce development organizations to find the possible segments in a pathway that, considered as a whole, might seem difficult or unrealistic. After all, the transition from cashier to sales manager doesn't sound all that likely. But when broken down to smaller transitions, big jumps like these become manageable and achievable, helping workers break out of a career rut and helps communities supply talent to local employers.

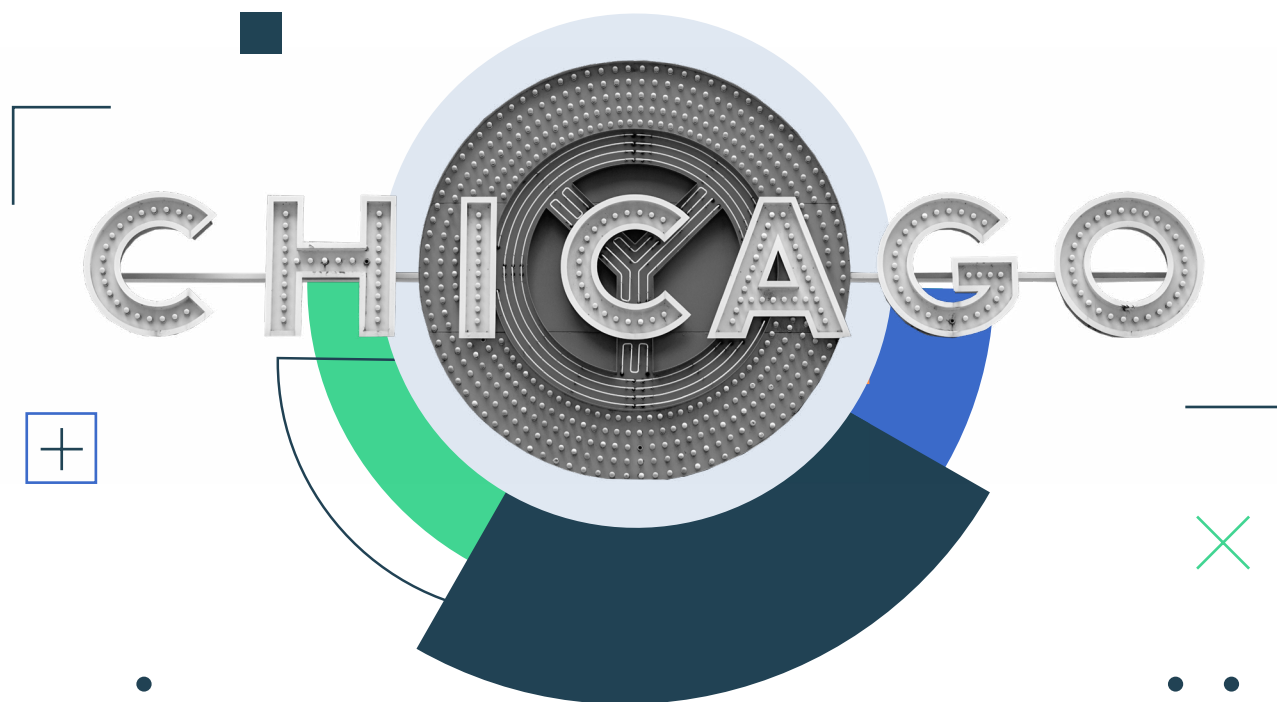
Machinists

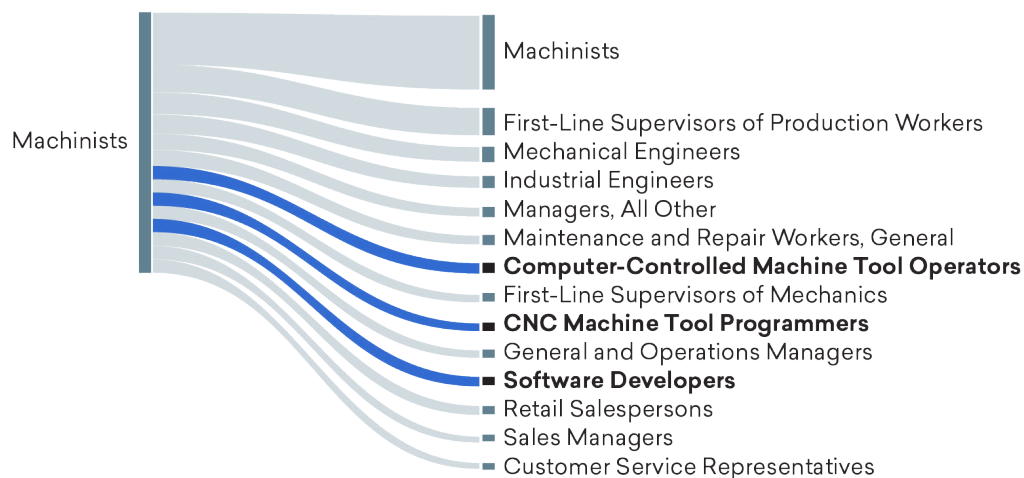
» Out of all MSAs across the country, Chicago saw the greatest loss in machinist jobs between 2020 and 2021.

Lack of local demand for a given occupation is a key reason why someone might explore career transitions. But even in Chicago, machinists still tend to become machinists.



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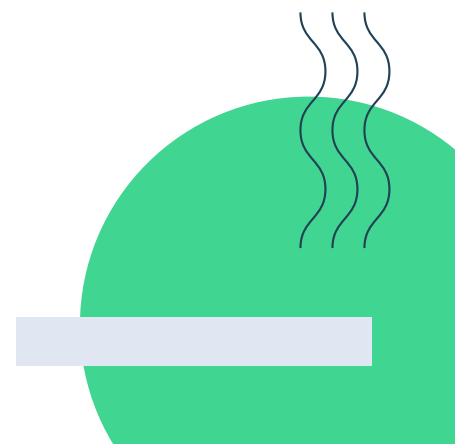
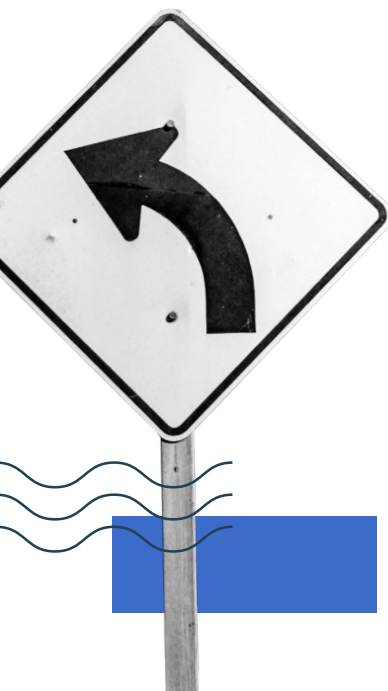




• Emsi Job Postings Analytics

» Again, once we move from the top likely transition to smaller but expandable pathways, intriguing roles emerge: computer controlled machine operators, computer numerically controlled machine tool programmers, and software developers, to name a few.

Since the original problem is dropping demand for an occupation, we need to make sure these pathways lead to occupations whose job numbers are more stable. In fact, computer controlled machine operator jobs shrank by 2% (117 jobs) in Chicago over the last year, and is expected to shrink by 8% (447 jobs) over the next five years. But CNC machine tool programmer jobs grew by 1% over the last year, and is expected to have 3% growth over the next five years, adding 33 jobs. And Chicago added 884 software developer jobs in the last year alone, and is expected to add more than 3,000 over the next five.



HOW TO MOVE FROM LIKELY TO ALIGNED

» Likely transitions in and of themselves aren't bad. For entry-level workers gaining experience and valuable skills, those seeking part-time or supplemental income, a person needing a different work culture, or those seeking career exploration, likely transitions allow them to move into the right role. This becomes problematic when a worker is seeking advancement and wage growth but only making likely transitions.

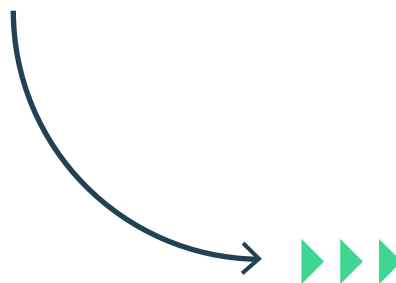
Put another way, likely transitions have limitations. They can only do so much to bridge the gap between career-seeking workers and talent-seeking businesses. As we've seen, the majority of likely transitions keep workers in much the same career plane as they started. Though some likely transitions do offer upward mobility, we need a solution that offers career-advancing transitions on a much larger scale.

To identify these transitions we need skills. Skills data helps reveal the roles where workers can use familiar skills, perhaps in a different environment, to attain wage and career

growth. These are aligned transitions. And by focusing on aligned transitions, we're able to better serve jobseekers in moving from point A to B, B to C, or any given pathway which results in an increased quality of life.

Skills data provides a jobseeker greater insights about themselves and the roles they are pursuing. For communities, skills data builds on the foundation of labor market information (LMI), adding detail to SOC or O*Net definitions. As job functions and responsibilities morph due to technology, market shifts, and countless other factors, skills reflect the actual nature of a job. Consequently, skills-based analysis best reveals gaps in a local labor market and pathways to fill those gaps. This gives local leaders greater insights about how to strengthen their workforce.

» Here are three ways skills data and information from job postings can alter workforce strategies to move towards more aligned transitions for workers.



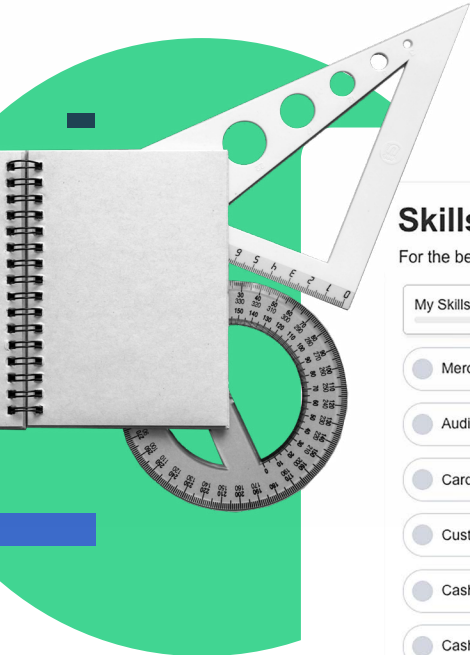
SKILLS-BASED PROFILING OF JOBSEEKERS

» Too often jobseekers believe their marketability for a job only exists in past titles or formal education. But whether by choice or because of circumstances, not all people will pursue a four-year college degree. However, taking a non-traditional education path doesn't mean a person doesn't have the skills necessary for in-demand jobs. And increasingly, [employers are more focused on skills than degrees.](#)

Similarly, we accumulate valuable skills in many different ways beyond just work and education. Self-study, apprenticeships/internships, workforce training programs, and general life experience all develop relevant skills.

Consequently, assessing experience in terms of skills unearths a person's qualifications and more clearly identifies training needs. It also helps people recognize the abilities and knowledge they don't know they have.

Historically, when people begin the job search process, they start with the job description and try to make their experience and education fit into the requirements of the posting. But skills allow jobseekers to flip the job search experience on its head. For example, [SkillFit](#) is a new Emsi Burning Glass tool that starts with the jobseeker selecting their skills. An algorithm powered by AI inventories those skills and matches them to local jobs. Users can also browse live job postings that match the skills they have as well as the skills they are thinking about obtaining.



Assessment
Skills
Jobs
Upskilling

Skills Selection

For the best match, select all of your skills!

My Skills 0

Merchandising

Restaurant Operation

Selling Techniques

Warehousing

Nursing

Auditing

Accounting

Basic Life Support

Customer Experience

Cardiopulmonary Resuscitation (CPR)

Customer Satisfaction

HVAC

Customer Relationship Management

Advanced Cardiovascular Life Support (ACLS)

Cash Handling

Billing

Purchasing

Call Centers

Caregiving

Cash Register

Budgeting

Food Services

Packaging And Labeling

Quality Control

Strategic Planning

Loans

Forecasting

Automation

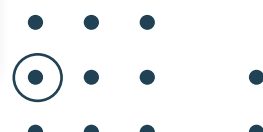
Project Management

Intensive Care Unit

↑ Resume

✕

🌐 Jobs



» Additionally, jobseekers can review recommended training programs based on their skills, interests, and what employers are seeking.

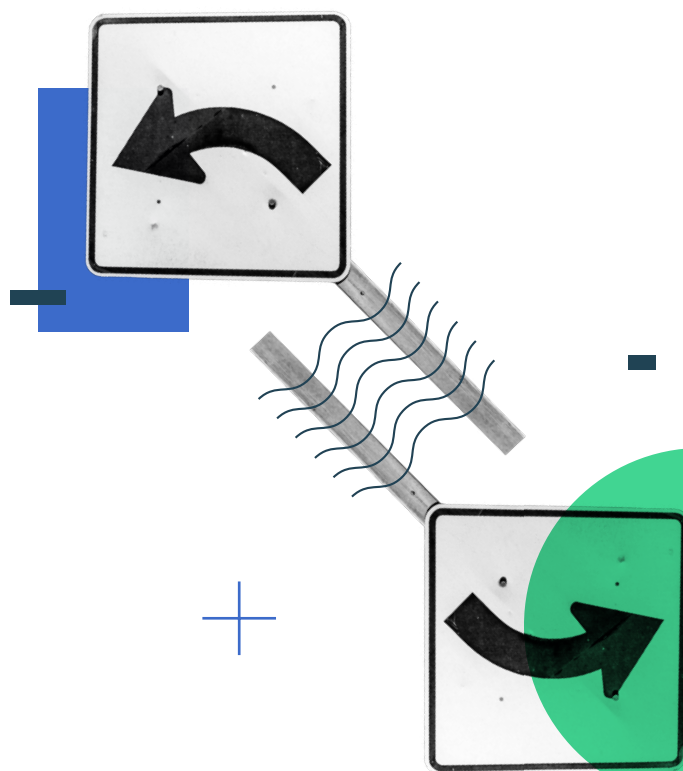
Assessing in this way allows jobseekers to identify how their skills qualify them for jobs outside their current career path—an aligned transition—and determine which of their knowledge and abilities are in-demand or relevant for today's economy.

UPSKILLING AND RESKILLING TAILORED TO LOCAL MARKET DEMAND

» For waiters and waitresses in New York trying to move beyond a likely transition (bartending, retail sales, and other hospitality jobs) to an aligned transition like public relations specialist, skills tell us where their current qualifications align and where there are gaps.

A good place to start is by first looking at skill clusters. These are the various competencies that naturally coalesce together. They are built by first aggregating detailed Standard Occupational Classification (SOC) codes into career areas and career sub-areas. Skills data in professional profiles and resumes are then analyzed using statistical methods to identify relationships between skills. The result: sets of skill clusters for a given region and career sub-areas, reflecting the unique qualifications of local workers.

The food services cluster includes the skills and competencies of waiters and waitresses as well as similar roles (hosts and hostesses; first-line supervisors of food preparation and serving workers; hotel, motel, and resort desk clerks; etc.). From that career area, we actually see that moving into the public relations and communication career area is a transition already being made.



Food Services: Restaurant Management



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Top skills for role transitioning to/coming from



Emsi SkillScope

» This food service cluster does also include management-level roles: restaurant general managers and shift managers. These workers likely account for the transitions being made into the professional roles in marketing and communications. But because skills allow us to see the overlap and adjacency of abilities in career areas, we can conclude the abilities which allow managers to make this transition also exist, at least to some degree, in waiters and waitresses.

Adding job postings (demand) to the equation, we're able to see the supply/demand of skills needed to transition into the marketing career area. It quickly pops out that there is a huge under supply for detail oriented people in public relations, a trait common amongst food service workers. Identifying skill competencies common in each cluster makes it easier to see which skills can make an aligned transition possible.



Going from the career areas of food service and marketing, and drilling down to specifically waiters and waitresses and the role of public relations specialist, we learn more about which skills need to be acquired and developed to make aligned transitions. From job postings we learn the top 10 skills in demand for public relations specialists. From professional and social profiles we see the supply of those skills.

Top 10 Skill Demand for Public Relations Specialist in New York MSA



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While an initial interpretation of the above might be that huge skill gaps exist between waiters and public relations specialists roles, it's likely more of a self-marketing opportunity. That is, waiters and waitresses have great communication skills, are detail oriented (as mentioned earlier), and are public relations gurus within their restaurant.

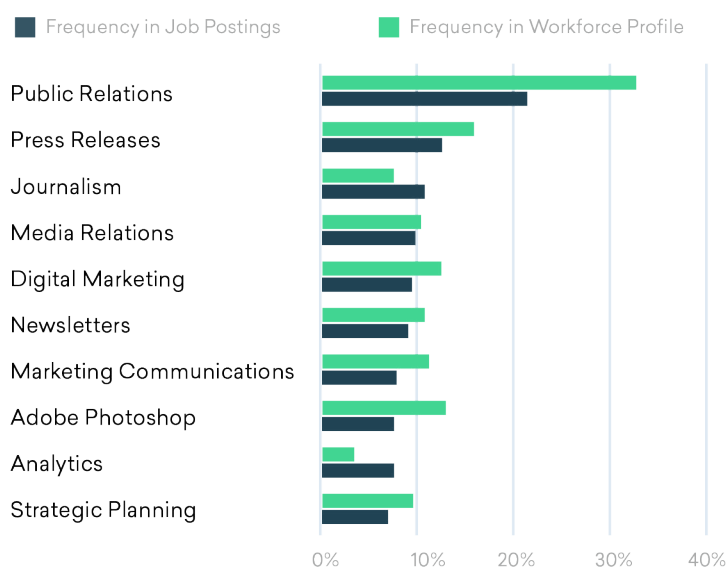
The issue is less whether they have these skills, but that they need to be talked about and highlighted when pursuing public relations specialist roles.

The top 10 skills for public relations specialists are largely human skills (or soft skills), which puts many service sector workers in a good place to pursue these roles. They have skills that are difficult to teach and mostly learned through real world situations.



However, when looking at technical skills (or hard skills) for public relations specialists, waiters and waitresses are at a disadvantage (when compared to those who already hold these positions). Below in dark blue are the most common technical skills required for a public relations specialist in New York. The green are the skills of individuals currently in those roles. People holding these roles are very well suited for them.

Hard Skills for Public Relations Specialist in New York



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» But so are waiters and waitresses—with the right upskilling. They already have the human skills (perhaps just need to market them better), and with the right training they can gather the necessary technical skills as well. This could be through writing courses at a community college (to learn journalism and press release writing techniques) or the plethora of digital marketing classes offered through Coursera. If they want to really set themselves apart with analytics and strategic planning skills, they could obtain Google's new Data Analytics certificate (which costs \$39/month).

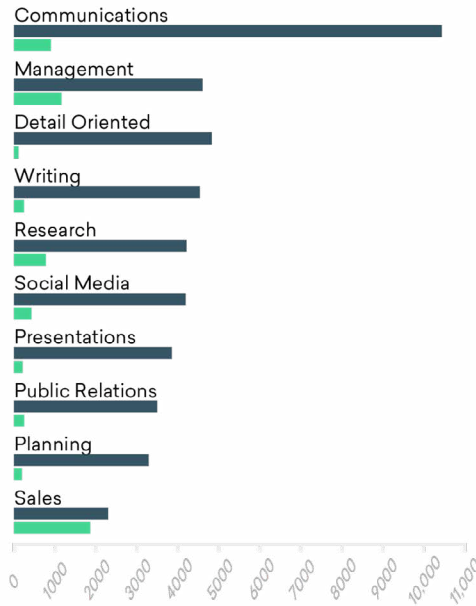
Making this aligned transition in New York will look different than in other cities. LMI provides great regional context and tells us all sorts about an economy—everything from industry and occupation mixes, to historical and expected job counts, to industry clusters and staffing patterns, and much more. But skills data surfaces nuanced differences by regions, identifying varying workforce gaps and upskilling or reskilling needs.



» We can see this in how the skills of waiters and waitresses and the skills sought for a PR specialist in Cleveland look different than in NY. Most notably, customer service appears in the top 10 for Cleveland but not for New York. Conversely, planning is a top skill for public relations specialists in New York, but not in Cleveland.

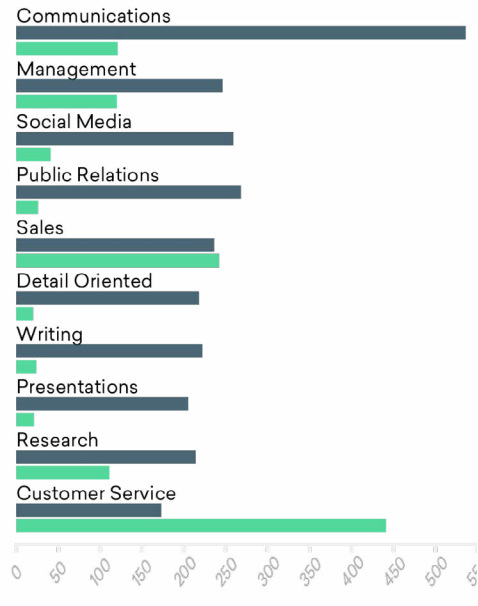
New York

■ Skill in Postings May 2020 - May 2021
■ Waiter and Waitress Profiles With Skill



Cleveland

■ Skill in Postings May 2020 - May 2021
■ Waiter and Waitress Profiles With Skill



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» National trends regarding job losses and hiring struggles may provide a starting point for workforce strategy discussions or adapting policies. But any actions will need to be rooted in local data. Skills data is real-time and reflects the specific demand of employers and supply of local talent.



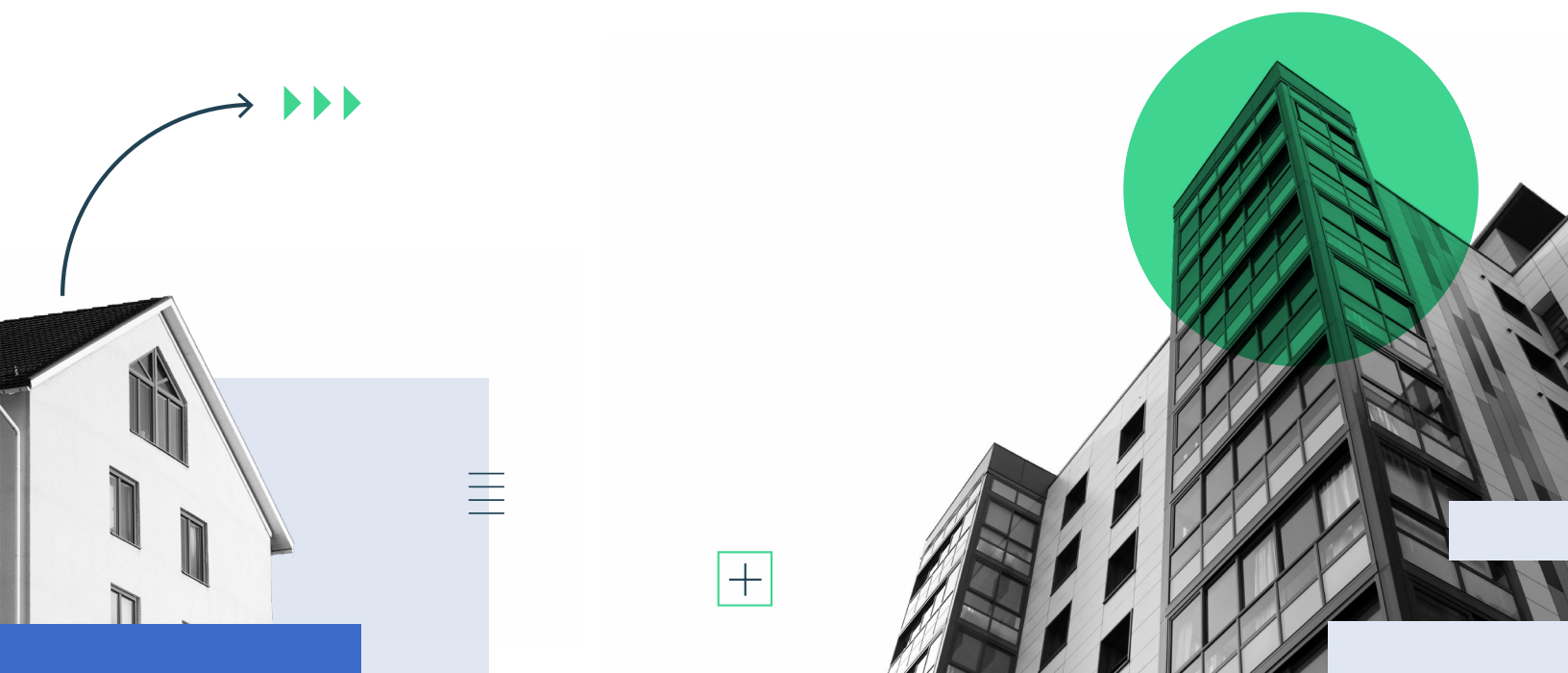
TIMELY DATA TO CONNECT JOBSEEKERS TO HIGH GROWTH, HIGH DEMAND JOBS

» It has been well documented that [businesses are struggling to find workers](#). COVID related barriers (lack of childcare, unemployment benefits, and fear of returning to close contact work) is one contributing factor. But the U.S. is also at the beginning of a persistent labor shortage. Driven by a [demographic shift](#) and changing views on work, it has been predicted that by 2030 the U.S. could face a [deficit of more than 6 million workers](#).

What this means is that even as the economy recovers from COVID, it's only going to get harder for businesses to find talent. Efficiency in connecting employers with available talent will thus become increasingly important for communities. Additionally, this labor shortage will make it a jobseeker's market. Those who assess their skills and identify proper upskilling and reskilling will have a great advantage in this new normal.

Workforce and economic development organizations will greatly benefit both jobseekers and local employers by using skills to more efficiently connect them to each other. Whether strategically filtering people to in-demand jobs with wage and staying power, or simply funneling jobseekers to available jobs, communities will retain existing businesses and attract new ones if they are efficient in making skills-based job connections.

If high growth, in-demand roles haven't already been identified, leveraging job posting data is a great avenue to begin doing so. Job postings signal the intentions of businesses and are the earliest indicator of what skills they need. Here are a few of the insights they provide.



Who's hiring and popular titles

» Postings data quickly tells communities which employers are most actively seeking talent. Posting intensity is the ratio of total to unique (deduplicated) job postings. A higher than average posting intensity can mean that employers are putting more effort than normal into hiring that position. Median posting duration reveals which firms are having more difficulty filling open positions.

Top Company Postings in Austin

COMPANY	TOTAL / UNIQUE (MAR 2021 - MAY 2021)	POSTING INTENSITY	MEDIAN POSTING DURATION
International Business Machines Corporation (IBM)	33,596 / 3,113	11:1	36 days
Oracle Corporation	36,027 / 2,797	13:1	56 days
Apple Inc.	15,521 / 1,783	9:1	55 days
HCA Holdings, Inc.	16,705 / 1,596	10:1	34 days
Dell Inc.	12,379 / 1,497	8:1	14 days
Amazon.com, Inc.	7,481 / 1,471	5:1	32 days
General Healthcare Resources, Inc.	8,271 / 1,453	6:1	26 days
Deloitte LLP	13,107 / 1,427	9:1	41 days
Baylor Scott & White Health	18,727 / 1,427	14:1	21 days
Texas Department of State Health Services	5,465 / 1,308	4:1	35 days

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Job [titles](#) (as opposed to occupation codes) are what employers use when hiring and seeking talent. Seeing data on openings as they actually appear in the market provides more detail than the job buckets created by government sources.

In the case of IBM in Austin, unsurprisingly developer and computer science titles are prevalent, but so are less technical titles such as associate partners, business development executives, and offering managers.

Top Company Postings at IBM in Austin

COMPANY	TOTAL / UNIQUE (MAR 2021 - MAY 2021)	POSTING INTENSITY	MEDIAN POSTING DURATION
Software Developers	660 / 43	15:1	37 days
Associate Partners	502 / 41	12:1	39 days
Offering Managers	350 / 33	11:1	29 days
Cloud Architects	262 / 26	10:1	44 days
Business Development Executives	234 / 25	9:1	39 days
DevOps Engineers	254 / 22	12:1	39 days
Cloud Solution Architects	219 / 22	10:1	22 days
Cloud Software Developers	279 / 20	14:1	46 days
Site Reliability Engineers	242 / 18	13:1	47 days
Client Solutions Executives	233 / 18	13:1	69 days

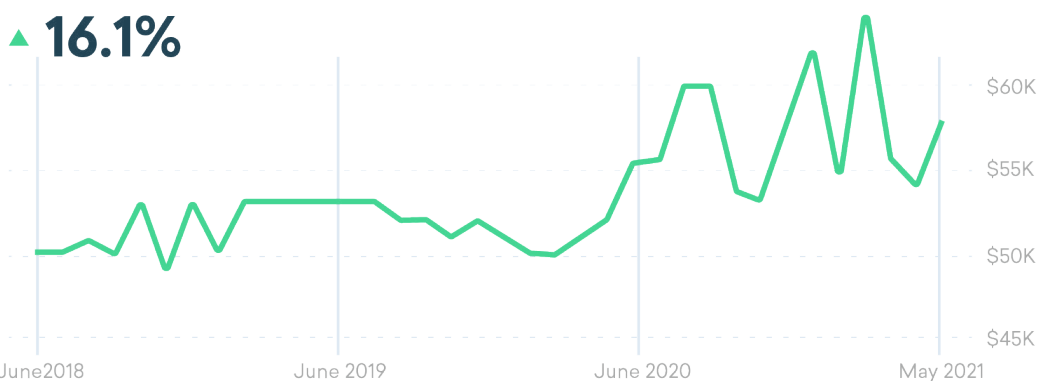
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Advertised wage trends

» Advertised wage trends—the salary listed in actual job postings—provide a timely and accurate representation of compensation in the market. For example, in addition to seeing the last three years of wage data for human resources specialist in Austin, we can also see the average wage being offered all the way up to the most previous month.

Advertised Wage Trend

Human Resources Specialist in Austin



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But this median advertised salary (\$57,500) is more than \$12,000 below the government recorded salary. As discussed earlier, likely transitions can become aligned transitions when the right growth and wage conditions are met. Advising jobseekers based on advertised wage trends provides them with information reflective of the current market, ensuring wage conditions are met before making any training investment for the aligned transition.

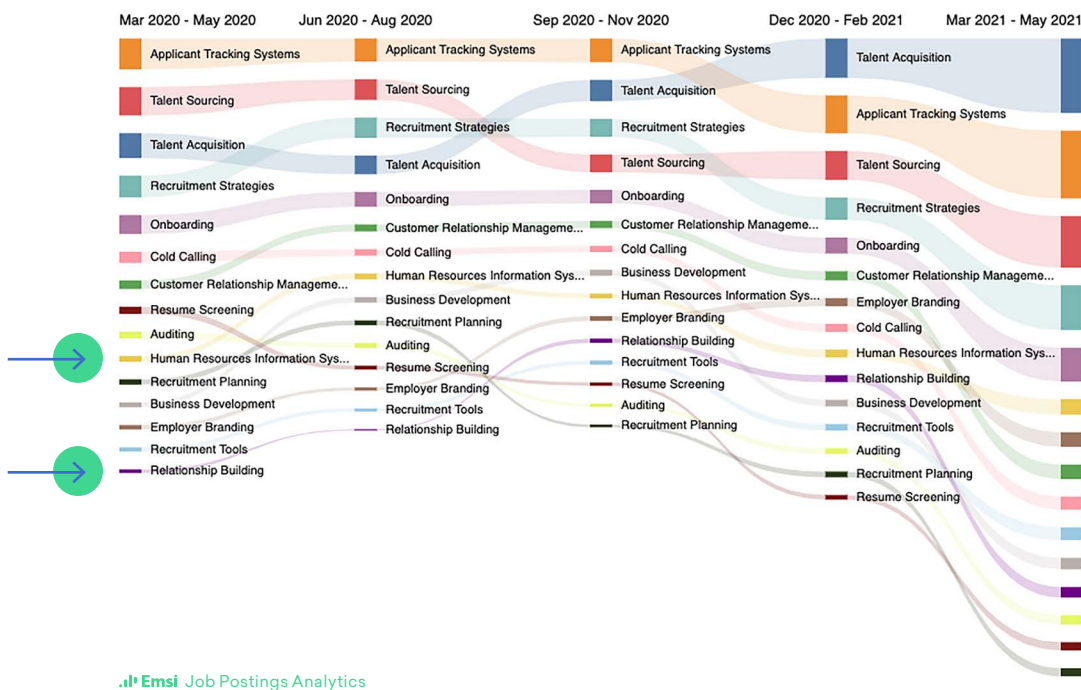
Top skills demand change over time

» We hear it all the time: [jobs are evolving fast](#). But more specifically, the skills that are needed for jobs are changing fast. [Skills required](#) for a job can change for a range of reasons, from new technology to changes in consumer taste. Whatever the reason, communities and workforce leaders need to keep a pulse on how skill demand is changing.

In Austin for instance, since the March-May 2020 quarter we see that a soft skill like relationship building has jumped from being present in 23 postings to 67. Similarly, the hard skill of human resource information systems rose from being in 36 job postings to 98.

Top 15 Skills for Human Resources Specialists by Quarter

Skills help us understand the direction an occupation is headed.



These are three of many ways job postings, and the skills within them, can help identify in-demand jobs and consequently where the skills of workers can best be deployed. And because of the timeliness of the data (pulled from active postings and profiles), jobseekers can be confidently matched to training that is filling a market demand.

THE GROWING NEED FOR EFFICIENCY

Just as people themselves grow and change over time, so do their careers.

» And as they progress through a career, people gather an array of knowledge and skills. Sometimes this comes via traditional education, but just as often it doesn't. Additionally, it's common to not even recognize many of the skills acquired.

Furthermore, even though additional skills are acquired, workers tend to make horizontal job changes. These likely transitions are the result of not recognizing their transferable skills, how to talk about their collection of skills, and a lack of understanding around how those skills fit into local demand.

From online profiles and resumes, we see the current transitions occurring in a region. From those same profiles and resumes we're able to create clusters of skills which exist in career areas and extract the individual skills present in roles.

These skills are fungible. They don't have to be used in their existing form or location. By then examining job postings based on skills, communities can determine how much a jobseeker's skillset overlaps with openings, allowing for aligned transitions. In some cases simply using skills data to identify aligned transitions will be the goal. In other cases, using the skills data to understand gaps and where upskilling is needed will be needed.

But in both cases, taking a skills-based approach to connecting people and employers greatly increases efficiency. And with 9.3 million job openings in April 2021 (the most ever on record) finding more efficient ways to determine the best fit for peoples' skills becomes increasingly vital.

The discouragement which comes with continuous likely transitions is reason enough to seek innovative ways of supporting jobseekers. But communities will also experience an added benefit of a better functioning labor market.

From Likely To Aligned

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