

Filling America's 6 Million Job Vacancies

Real-time data on the labor market promise to finally help employers and job-seekers make better decisions. Will it work?



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In the 1980s, a typical laid-off auto-worker would participate in a months-long job-training program. It would take lots of convincing—reentering the classroom after years on the factory floor can be both daunting and uninspiring—but she'd eventually give in, perhaps taking classes at her local community college where she'd learn, say, the clerical skills necessary to land an administrative job in real estate or insurance. Toward the end of the program, she'd get to brush up on her resume-writing and in-person interviewing skills, too. But when it was time to

actually apply for those administrative jobs, she'd find that said jobs didn't, in fact, exist: The employers in her area weren't hiring.

As automation begins again to take over repetitive tasks, workers will need to improve their digital skills (typing on a computer or Microsoft Excel, for example) and potentially even prepare for jobs in entirely new fields. It's incumbent on policymakers to ensure this transition is as seamless—and as casualty-free—as possible. But if the country's experience in the late 20th century is any indication, federal job-training programs are an all but futile mechanism for shepherding Americans into their local workforces. Those programs historically tended to prepare workers for the wrong jobs, partially because they didn't have enough up-to-date data on the needs of local economies—what exactly employers were looking for, for example, and when they were hiring.

Federal job-training programs of the future may have more success than did their counterparts of the past, though, thanks in part to new initiatives such as LinkedIn's Economic Graph, which is available to a select group of researchers and contains data on job-seekers, employers, educators, and skills. In its December monthly *Workforce Report*, LinkedIn was able to determine which areas of the country have “skills gaps”—scenarios in which employers don't have enough candidates with relevant skills or, conversely, are contending with a candidate pool that's oversaturated with qualified applicants. The report also shows which industries are hiring, where they are hiring, and who gets those jobs, among countless other datasets.

I spoke with LinkedIn's Nicole Isaac, who as the head of the company's U.S. public-policy and government-affairs efforts works with governments at all levels to inform job-training programs using the Economic Graph. We talked about the growing importance of digital skills, whether the skills gap is a myth, and whether she fears people will game the LinkedIn platform now that there's potential for them to dishonestly adapt their profiles to employers' needs. This interview has been lightly edited and condensed for clarity.

Lolade Fadulu: What is the Economic Graph?

Nicole Isaac: The economic graph is the way in which we're "digitally mapping" the global workforce. Currently, [LinkedIn's data on the global workforce] is comprised of over 530 million individuals around the world. We know that there are 18 million companies on LinkedIn that are using [LinkedIn as a whole] to identify and retain and recruit talent. We know that, right now, we have well over 11 million open jobs [across the world]. We also know that we have almost 30,000 institutions of higher education across all of LinkedIn globally, so we have visibility into where members are going to school, the courses that they're taking, the training programs they're enrolled in, and how those training programs lead to that desired job.

Finally, we have over 50,000 skills on LinkedIn, [data that allows us to] understand which skills are most in demand by a particular employer or by a particular industry and across localities.

Fadulu: What did employers do before digital mapping?

Isaac: Before we had this "digital map" of the global workforce, we had, and we still have, several sources of data in the U.S. that provide insights into what's happening in the City of Indianapolis versus Cleveland, for example, and how to best optimize for investments in one city versus another.

The challenge was some of the federal datasets weren't real time, and the beauty of LinkedIn data is that you generally have visibility into real-time decision making. I can see whom the international paper manufacturers may have just hired, and why that individual may have been more qualified for that job than someone else. I can also see who may have transitioned from Cleveland to Chicago because Chicago now has an increase in demand for a particular skill set that may not be reflected in Cleveland or in New York City, for instance.

Fadulu: Who uses LinkedIn?

Isaac: We acknowledge that we tend to skew a little bit more professional [than blue-collar workers in terms of members]. However, the Economic Graph ... [ensures] that every occupation is reflected. Right now we are working with policymakers such as mayors and governors, particularly in the U.S., to expand representation [on LinkedIn] from middle-skill and frontline workers [laborers who tend to have more than a high-school degree but less than a four-year degree], and we're doing that through additional engagement with community colleges, nonprofits, workforce-investment boards, and youth organizations.

Fadulu: What about people who don't have the digital skills or the basic computer skills to use a website like LinkedIn?

Isaac: Within the policy department at LinkedIn, we have programs in which we work closely with job centers and workforce-investment boards around providing curriculum and training for individual job-seekers to understand how platforms like LinkedIn can connect them to opportunity. We know that when we think about the digital workforce and the future of work, that more and more individuals will have to have an understanding of how to best utilize those [digital] skill sets to have access to that job. This doesn't mean that soft skills [such as teamwork and empathy] aren't important ... we recognize that there are skill gaps not only in the hardcore technical skills, but also in some of the [softer] skills.

Fadulu: Some economists have argued that the skills gap is a myth, citing that jobs go unfilled because they don't offer adequate compensation for poor working conditions. How do you respond to that argument?

Isaac: We would immediately refute it for several reasons. On LinkedIn we track the supply and demand of 50,000 skills, and therefore we can quantify skills gaps in a way that many other companies or organizations are unable to do. We know that there isn't one skills gap—there are many.

The gaps within “softer” skills, like additional types of literacy [e.g. coding, foreign languages], unfortunately are persisting across multiple industries. That's why

there has to be a baseline learning applied to training programs to best educate for those soft skill sets.

Fadulu: Do you fear that people will game the hiring system now that they know what exactly employers are looking for and can plug those skills into their profiles?

Isaac: When we provide research and insights to a policymaker or to a partner, we're providing insights based on customized analytics [identifying skills that appear somewhat consistently across a job]. Take a project manager—[the analytics reveal] what a project manager does in manufacturing versus healthcare versus tech, and the extent to which many of those skill sets are comparable. We'll take those baseline skill sets and then we'll make recommendations to individual partners based on the customized analytics and not, per se, around individual anomalies or individual signals that could be more embellished or less consistent.

I think there's a disincentive for employees and for members to over-embellish on LinkedIn, because typically on LinkedIn you're connected to your coworkers, you're connected to your boss. You're connected to people who can verify the extent to which you're doing what you say you're doing.

That said, we do have a team that investigates suspected violations and takes immediate action when they are uncovered. We have a number of measures in place to confirm authenticity of profiles, and members can also report suspicious profiles or content straight to us.

Fadulu: How willing are employers to look at candidates from nontraditional educational backgrounds such as those who were formerly apprentices or participated in online classes?

Isaac: Employers have to go beyond what they currently perceive as being a “qualified” or traditionally qualified candidate for that role. You do that by actually creating a network of employers who are willing to not list four-year degrees or particular qualifications for that job posting—and we've definitely seen some traction with employers who are willing to do that—but it does tend to be a challenge that I think even the federal government has [acknowledged].

President Trump has committed to increasing the number of apprenticeships by 5 million by 2020, and it's something that LinkedIn is actually very engaged with, but I do think it's going to require almost an industry-wide shift where you're seeing more and more employers committed to providing access to individuals who may not fit that traditional background.

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The possibilities and pitfalls of job training and apprenticeship

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