The New Shapes of the Labor Market in An AI Economy

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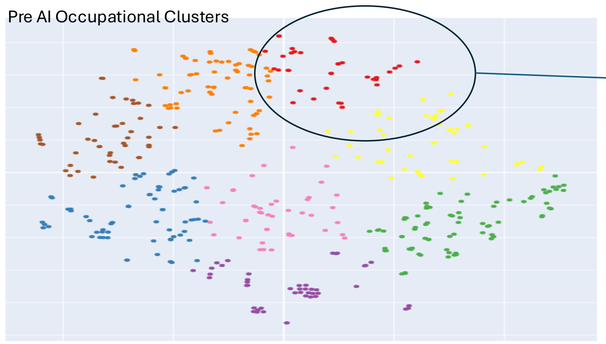
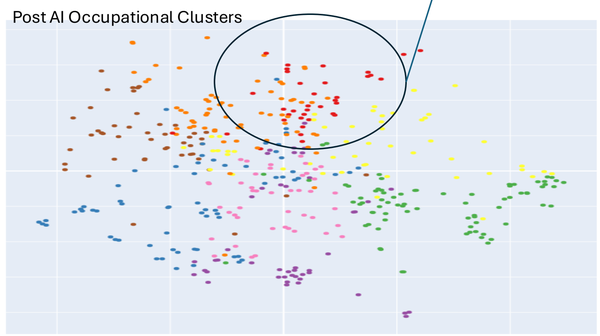
AI is Rewiring the Talent Pipeline Map

While AI may challenge existing talent supply chains, we may also see new routes emerge as some jobs move closer together. We are already seeing some changes manifest.

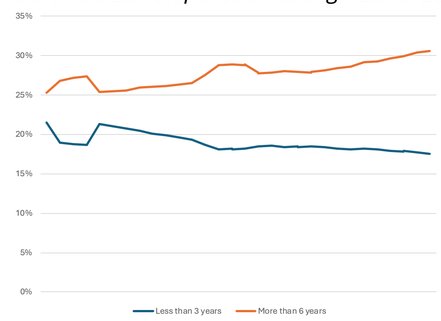
GenAI's impact on the skills of each job will rewire the career map, **moving some jobs closer together and opening new pipelines of talent**.



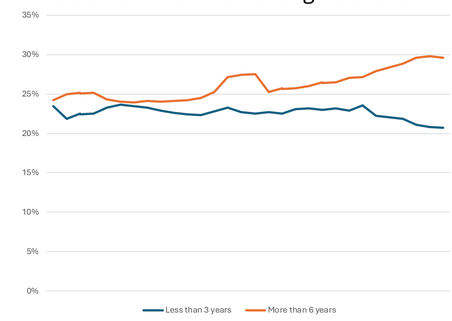
Tech roles were traditionally a distinct cluster of occupations. With the adoption and diffusion of AI, tech roles aren't being eliminated, but are reoriented across the labor market. The skills differences between tech roles and others are evident as the tech cluster of roles is broadening. This means there may be less of a premium on these roles, they may be less specialized, but also that these roles may see increasing opportunities for workers to access them and could increase opportunities for workforce development.



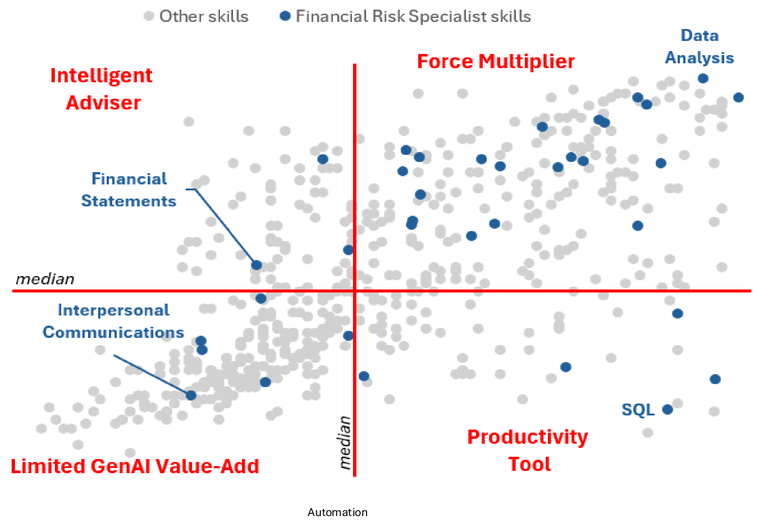
Software Developer Job Postings '23 to '25



Data Scientist Job Postings '23 to '25



AI makes some jobs more accessible, shortening learning curves. But in others **AI reduces the need for entry-level workers while increasing demand for expertise**.



Automation and augmentation aren't opposing forces. **Some AI-enabled capabilities make workers both more efficient and more effective**. This means that expertise in roles with high performance differences are suggesting that a new set of roles could emerge as critical to driving economic mobility. Workforce development organizations should consider how accessibility to roles changes and which roles will provide the greatest boosts in economic mobility. Skills analysis is an effective strategy to build new training strategies and priorities.

Methodology

To analyze changes in the labor market after the adoption and diffusion of AI, we utilized both job posting data and career history data from online professional profiles and then developed several models of skill change and occupational mobility. To understand the new linkages between occupations we built models of skills similarity using natural language processing between jobs and integrated actual observed changes in career history. We utilized postings to understand demand for experienced workers relative to others as well as data from public sources like the Bureau of Labor Statistics to identify where demand is changing for workers at different experience levels. Skills and experience demand are reorienting themselves.

The Diamond Labor Market

Fewer entry level roles and greater demand for expertise at the middle layer will reshape traditional routes to work. How do **talent pipelines need to change** to supply experienced workers even as entry-level opportunity shrinks? And what will it take to **help grads start their careers not at the beginning but in the middle?**