

PATHWAYS FOR CAREER TRANSITION



ANLY645 PROJECT MIDPOINT
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7/10/2023

1

Research Topic

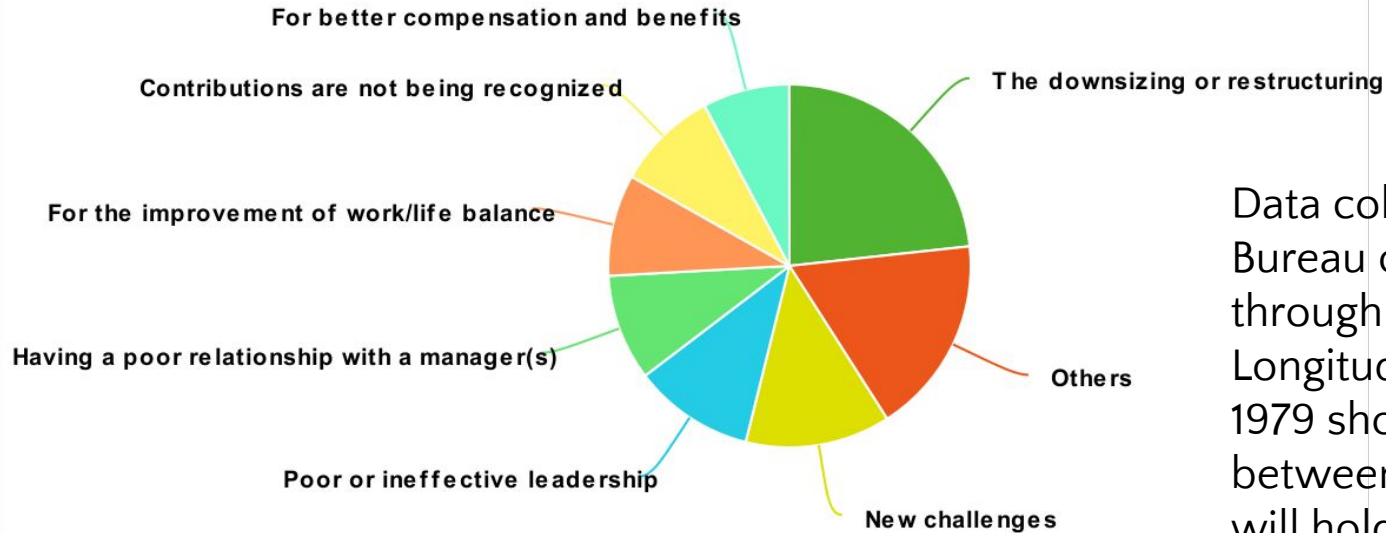
According to *LinkedIn Talent Blog*, more than half of recruiters who have left the field made a transition into a different HR role, making it the most popular function by far. Sales and business development are also popular landing spots.



“



Career (occupation) changing



Data collected by the U.S. Bureau of Labor Statistics through the National Longitudinal Survey of Youth in 1979 showed that individuals between the ages of 18 and 38 will hold more than 10 jobs.

2

Literature Review



Career Mobility and Activity Patterns^[3]

Determinants of career mobility

Environmental conditions:

- economic conditions
- societal characteristics
- industry differences
- organizational staffing policies.

Personal preferences:

- personality traits
- career interests, values
- family demands

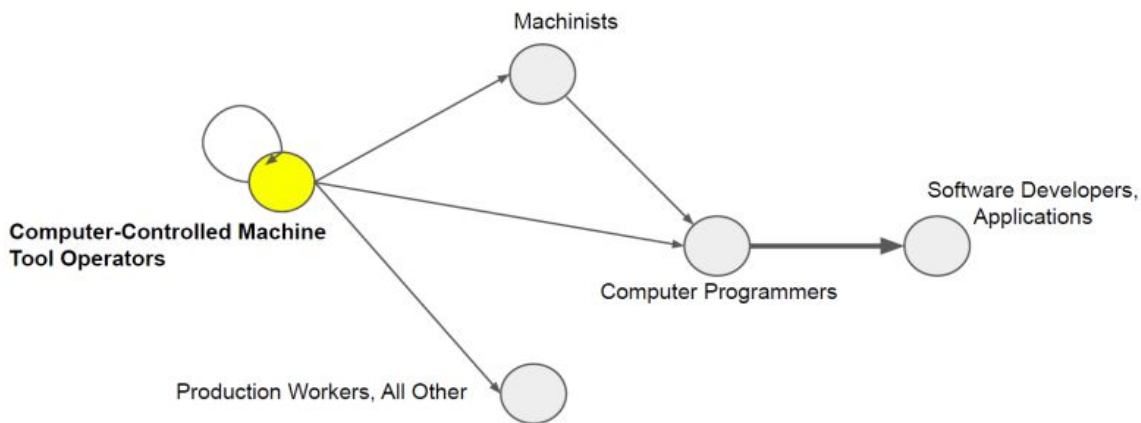
Correlation between activity patterns and job change

Career mobility may affect employees' consumption structures, sentiment fluctuation, activity sphere and activation.

* Activation refers to the check-in update frequency of location-based social networks (LBSNs) like *Foursquare*, which traces the human trajectories from all over the world.



Using Network Analysis of Job Transitions to Inform Career Advice^[4]

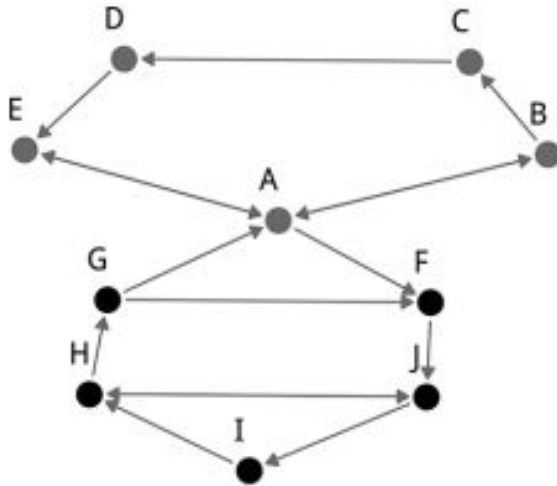


Note: Edge width is proportional to edge weight. Edge distance has no relationship to any edge attributes.

- There are a number of occupations that offer solid opportunities for both groups who are with or without Bachelor's degree.
- In fact, an occupation's baseline wages is often one of the strongest predictors of whether it offers occupational mobility.
- Educational investments are also more commonly involved in job transitions that span two different industries, perhaps because career changes are otherwise more difficult.



Flows and Boundaries^[5]



- This article emphasizes the interconnectedness and interdependencies between different occupations rather than viewing occupational mobility as isolated individual transitions.
- Occupations can be seen as nodes in a network, where transitions between occupations represent the edges or flows between these nodes.

3

Datasets



Career Pathways Descriptive and Analytical Study Data

Brief Description^[6]:

Data used for the Meta-Analysis of 46 Career Pathways Impact and data from four large nationally representative longitudinal surveys, as well as licensed data on occupational transitions from online career profiles, to examine workers' career paths and wages for the Career Trajectories and Occupational Transitions Study.

Link:

<https://www.dol.gov/agencies/oasp/evaluation/data-repo/career-pathways-da-data#apdu-5>

4

Research Questions & Objectives



Research Questions & Objectives

1

Which occupations have the highest/lowest outflow/inflow rates?

3

Are there clear categories for career transitions?

2

What occupations are suitable as intermediate bridges from occupation A to occupation B?

4

What are some of the jobs from cross-cutting industries?

5

Methods



Methods

- Build the network based on the data.
 - A directed weighted graph
- Basic statistics
 - Density
 - Degree, betweenness, closeness centrality
- Community detection
 - Louvain algorithm
 - Girvan-Newman algorithm
 - Infomap algorithm



References

- [1] The Most Common Career Transitions for Recruiters | LinkedIn. (n.d.). <https://www.linkedin.com/business/talent/blog/talent-strategy/most-common-career-transitions-for-recruiters>
- [2] Wikipedia contributors. (2023). Career. Wikipedia. <https://en.wikipedia.org/wiki/Career>
- [3] Xu, H., Yu, Z., Xiong, H., Guo, B., & Zhu, H. (2015). Learning Career Mobility and Human Activity Patterns for Job Change Analysis. 2015 IEEE International Conference on Data Mining, 1057–1062. <https://doi.org/10.1109/ICDM.2015.122>
- [4] Clochard, A. (2022). Using Network Analysis of Job Transitions to Inform Career Advice [PhD Thesis]. Massachusetts Institute of Technology.
- [5] Cheng, S., & Park, B. (2020). Flows and boundaries: A network approach to studying occupational mobility in the labor market. *American Journal of Sociology*, 126(3), 577–631.
- [6] Career Pathways Descriptive and Analytical Study Data. (n.d.). DOL. <https://www.dol.gov/agencies/oasp/evaluation/data-repo/career-pathways-da-data#apdu-5>