

Contextualizing Employee Turnover

The Data Incubator capstone proposal

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Why look at turnover?

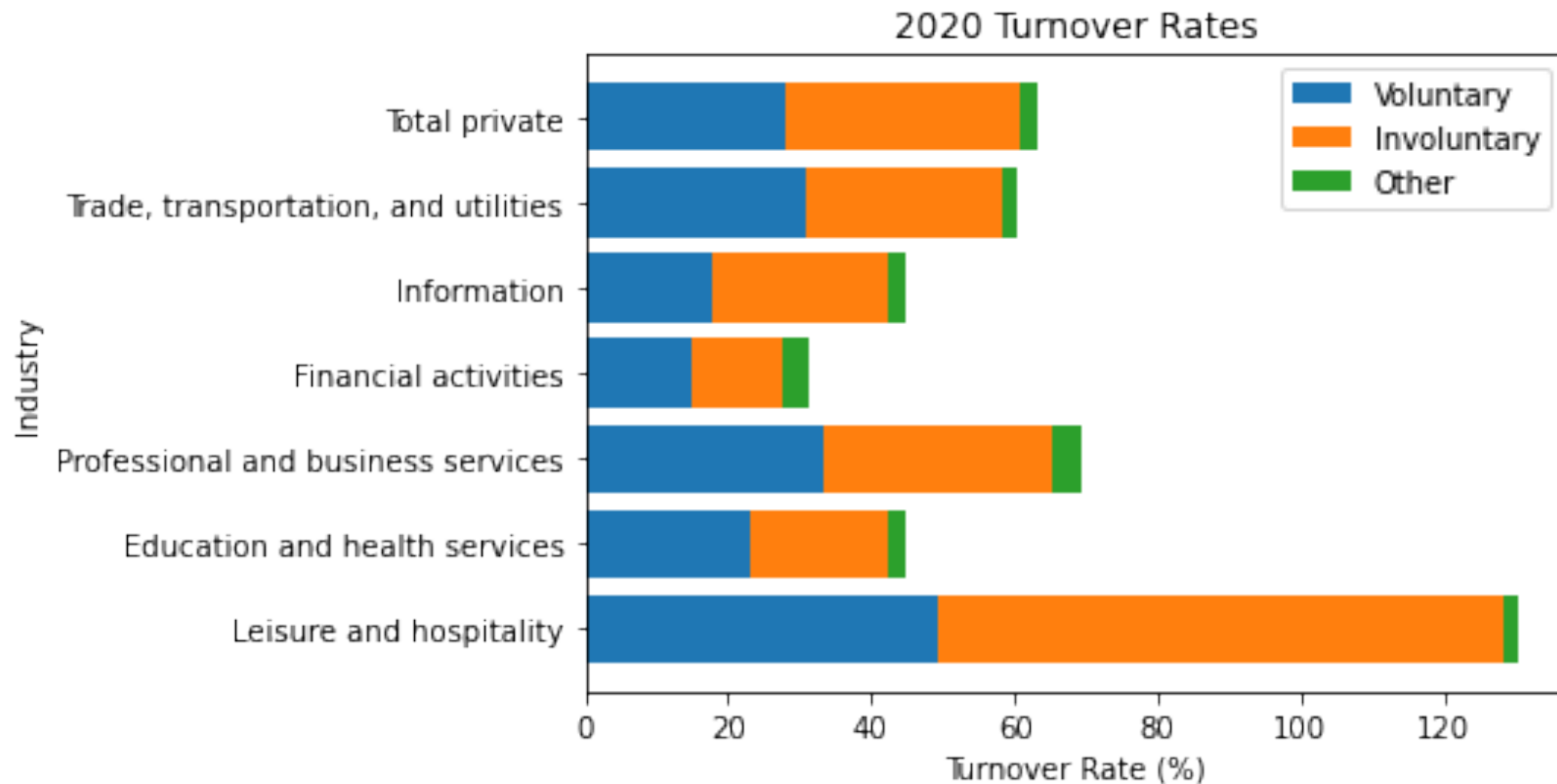
- 47% of HR professionals listed turnover as their top challenge ([SHRM 2018](#))
- Many online sources instruct how to determine employee turnover



Image: Vlacheslav Iakobchuk - stock.adobe.com

Simple Starter Solution

- Proposal: A web app that calculates and contextualizes your company's turnover rates



- Benefit: Define if it is worth spending money on expensive analytics packages and consulting services

Processed Data

- Tools: Python (Pandas, NumPy, SciPy) & Bash
- JOLTS Survey Data [12MB]

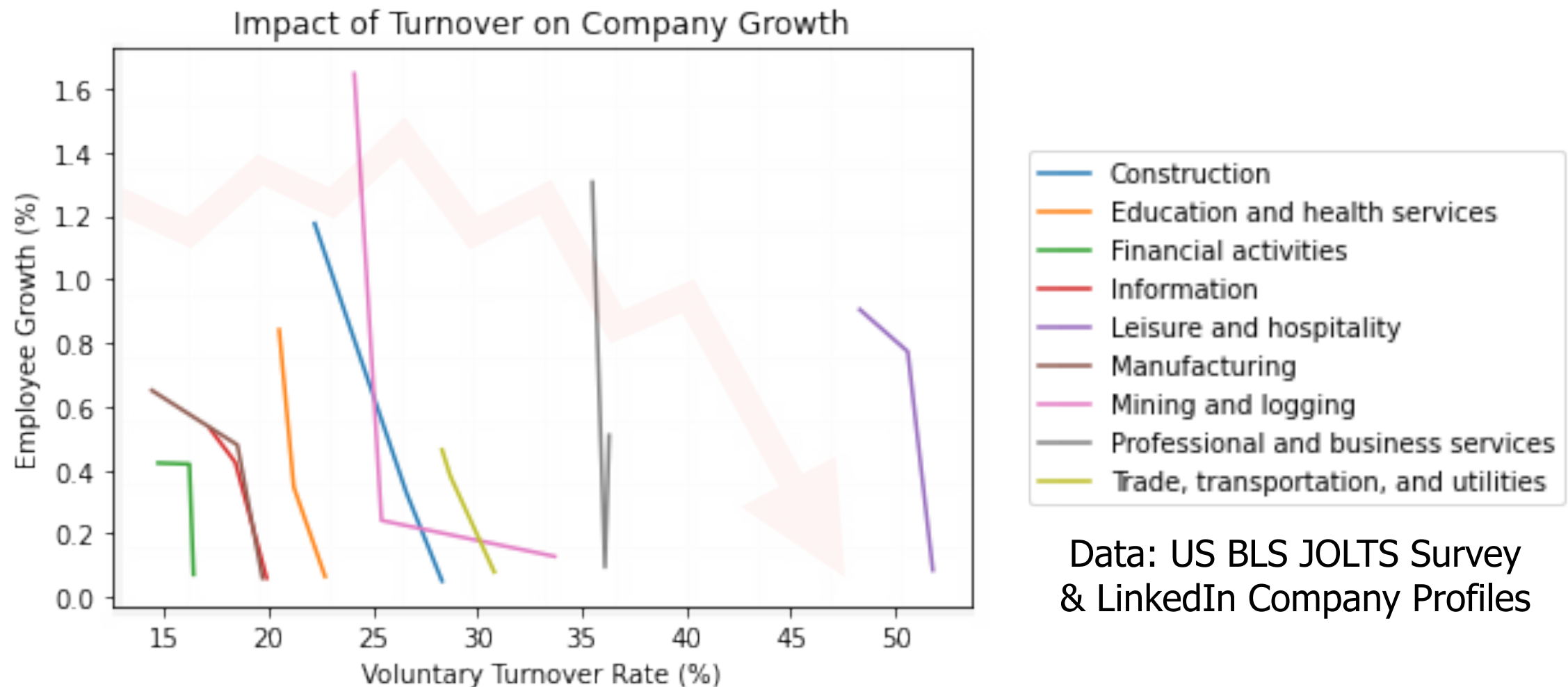
Seasonal	Industry	State	Area	Size Class	Data Element	Rate/Level	Date	year	period	value
U	710000	00	00000	00	TS	L	2000-12-01	2000	M12	99.0
S	230000	00	00000	00	OS	L	2016-01-01	2016	M01	13.0
S	100000	00	00000	05	LD	L	2009-09-01	2009	M09	82.0
U	420000	00	00000	00	JO	R	2013-04-01	2013	M04	2.5
S	620000	00	00000	00	OS	L	2019-02-01	2019	M02	44.0

- LinkedIn Company Data [920MB] + JOLTS turnover

bls_industry	year	n_employees	company_growth	company_growth_perc	turnover
Construction	2016	299532	161861.0	1.175709	22.2
Construction	2017	397558	98026.0	0.327264	26.6
Construction	2018	417700	20142.0	0.050664	28.3
Education and health services	2016	714999	326671.0	0.841224	20.5
Education and health services	2017	962445	247446.0	0.346079	21.2
Education and health services	2018	1024910	62465.0	0.064902	22.7
Financial activities	2016	3287991	975651.0	0.421932	14.7

Low Hanging Fruit

- Goal: Compare turnover rates with various company health metrics to highlight potential for growth

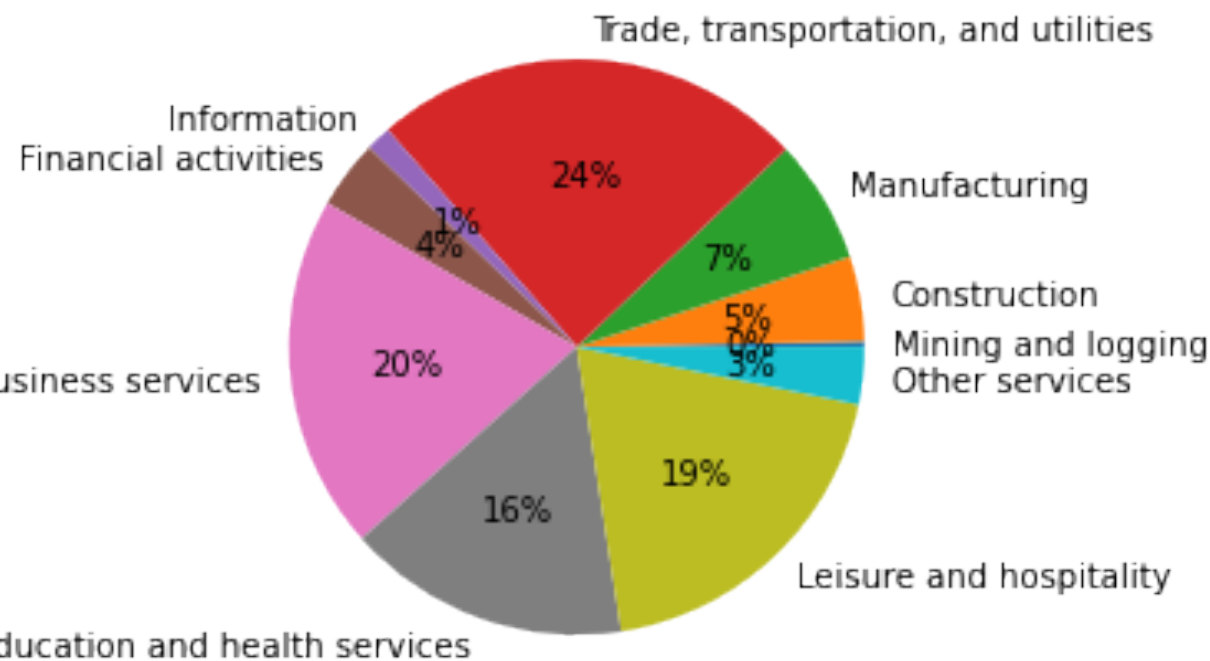


- Goal: Assess company turnover and provide curated resources on mitigation strategies

Appendix

JOLTS Survey EDA

Composition of 2020 Voluntary Turnover Levels
in Private Sector Industries



Which industries most heavily influence the combined private sector turnover?

How anomalous are turnover rates in 2020?

Change in Voluntary Turnover Rates

