Overlooked Talent Pools Data Series

Your Current Workforce



What is STEM Diversion?

STEM Diversion refers to the phenomenon in which **individuals in STEM** degree programs and / or STEM careers will **choose to leave** these tracts **for non-STEM fields**.

Where possible to calculate, estimated **rates of STEM diversion are alarmingly high**, especially when considering the rates in which individuals enter into those tracts to begin with alongside employer demands for workers with STEM competencies.

This Overlooked Talent Pools installment takes a look at none other than Your Current Workforce, focusing on the data surrounding STEM retention and STEM diversion, as well as the reasons behind why STEM-ready talent chooses to leave the STEM workforce.

- Georgetown University CEW, 2011

People with STEM competencies have lots of opportunities in school and in the labor market. **STEM students and workers**divert from **STEM because their competencies are valued in a growing share of highly paid non-STEM occupations** — and because students and workers have both personal and work values and interests that are better satisfied in non-STEM occupations."

- Georgetown University Center on Education and the Workforce

The STEM Talent Pipeline narrows significantly over time, even after individuals begin STEM careers



100%
All students who enter college and obtain a BA



19%
Students who graduate with a BA in a STEM major



10% STEM BA graduates working in STEM directly after college



8% STEM BA graduates working in STEM after 10 years

- Georgetown University CEW, 2011

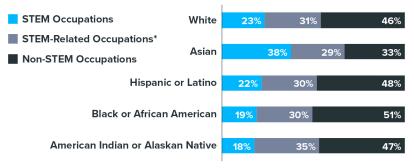
Only about half (55%) of employed STEM degree holders are working in STEM jobs

Percent of employed Science & Engineering degree earners, by occupation type (2017)



People of color with STEM degrees are more likely than their white colleagues to work outside STEM

Percent of employed Science & Engineering degree earners, by occupation type & race / ethnicity (2017)



*Examples of STEM-Related occupations include Healthcare, Management positions in STEM fields, and STEM K-12 Teachers

- STEMconnector analysis of NSF data, 2020

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In technology fields, employee turnover presents a very costly problem for employers

Based on results from the Tech Leavers study, researchers at the Kapor Center for Social Impact estimate that employers lose at least **\$16** billion/year in employee replacement costs.

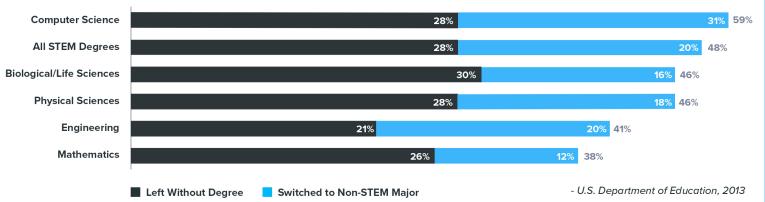
The number one reason those employees leave? Unfairness



- Kapor Center for Social Impact, 2017

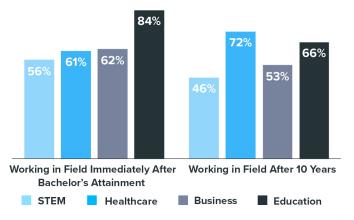
Roughly half of college students who enter STEM degree programs end up leaving before graduating

Percent of beginning Bachelor's degree students who entered STEM program but did not graduate, by field of degree entered (2003-09)



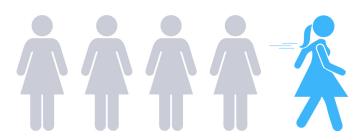
Diversion exists in many fields, but it is particularly acute in STEM

Percent of college graduates working in their field of study after graduation, by time period & undergraduate major (2011)



- Georgetown Univeristy CEW, 2011

Women in STEM are significantly more likely to leave their field compared to other professional women



The differences in job tenure between women in STEM vs non-STEM cannot be explained by family factors such as raising children. In fact, few women in either category chose to leave the workforce entirely.

- Glass et al., 2013