

Alternate careers to academia



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I am *NOT* here to:

- Discourage you from academia
- Inform that non-academic careers are better than academic careers
- Advocate only one perspective

I am here *TO*:

- Share my journey as a bench scientist to the industry
 - Share how cross-pollinating science to other disciplines can improve the overall “work product”
 - Answer your questions from my perspective
- 



<https://youtu.be/coBI6gZmbAY>

Where will a biology PhD take you?

A faculty job is an "alternative" career.



At this rate, <8% of entering PhD students will become tenure-track faculty. Yet, 53% rank research professorships as their most desired career.³

Arrows represent annual fluxes. Circles are total current workforce numbers.

1,900 to 3,900 foreign-trained PhDs start postdocs

30% do more than one postdoc¹

15% of postdocs get tenure-track faculty jobs within 6 years post PhD.²



17,000 current bio PhDs doing non-science jobs



22,500 current industry researchers



7,000 current gov't researchers



24,000 current non-research, science related jobs

20% get non-tenure track academic jobs within 6 years post PhD.²

25,000 current non-tenure track academic positions

37-68,000 current postdocs

? years

US PhDs spend an average of 4 years, but others must spend longer to account for number of postdocs.

10% of former postdocs (up from 2% in 2010) consider themselves unemployed.¹



86,000

current US biology PhD students

720 Leave the US

9,000 Receive PhDs

70% (5,800) Postdoc

Every year, 16,000 students start biology PhD programs

7 years

average time to degree

37% drop out

30% (2,500) Don't postdoc

Sources:
 1 - Science Careers Annual Postdoc Survey (2012) <http://goo.gl/nmVYCN>
 2 - doi:10.1038/472276a <http://www.nature.com/news/2011/110420/full/472276a.html>
 3 - Sauerbmann & Roach 2012 PLOS ONE; DOI: 10.1371/journal.pone.0036307
 Unless otherwise noted, NIH Biomedical Workforce Working Group (2012)

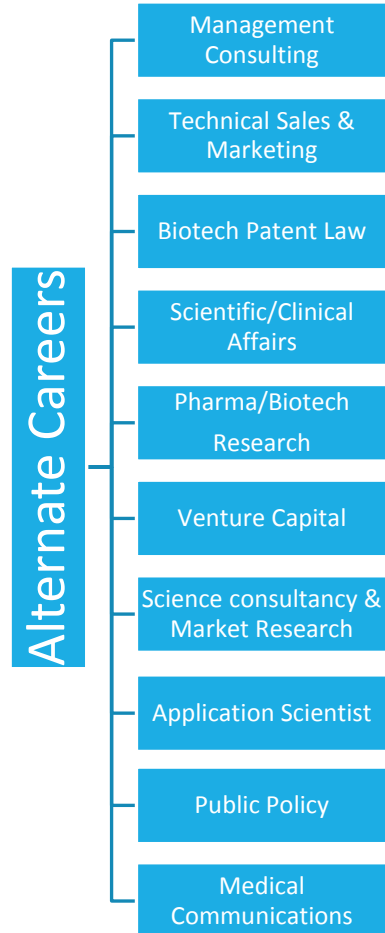


Profile of researchers and their new careers:

Source:

http://mass-awis.org/webapp/wp-content/uploads/Alternative-Careers-in-Science-2014-Final-Bios_FINAL.pdf

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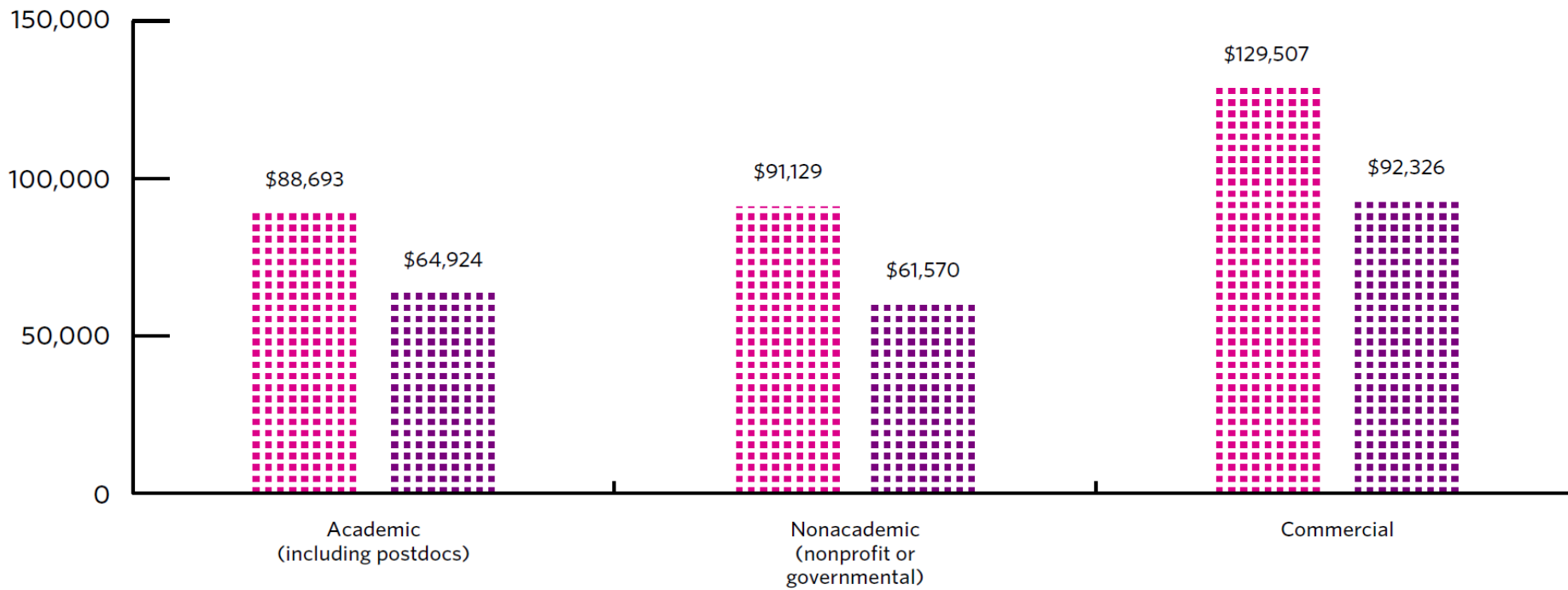


Compensation:

INDUSTRY VERSUS ACADEMIA

AVERAGE COMPENSATION

■ U.S./Canada ■ Europe

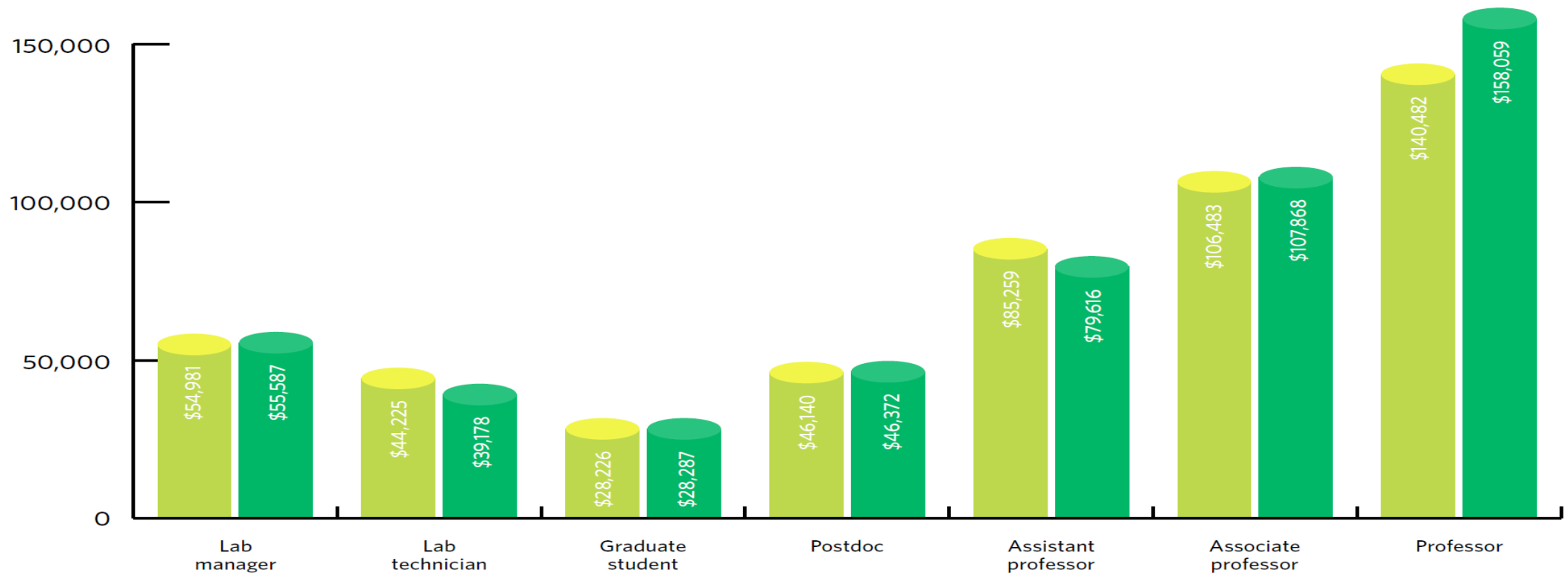


Academic compensation range

THE PERSISTENT GAP

AVERAGE COMPENSATION IN U.S.

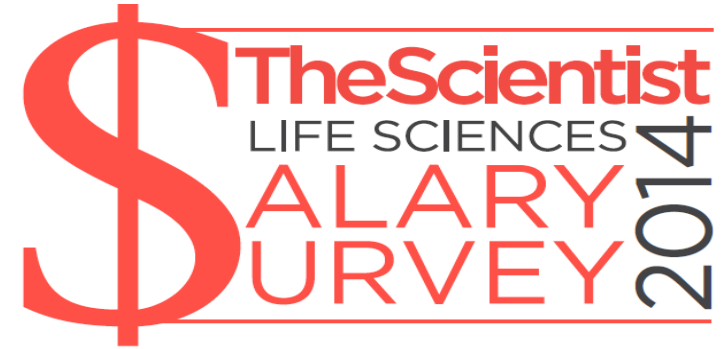
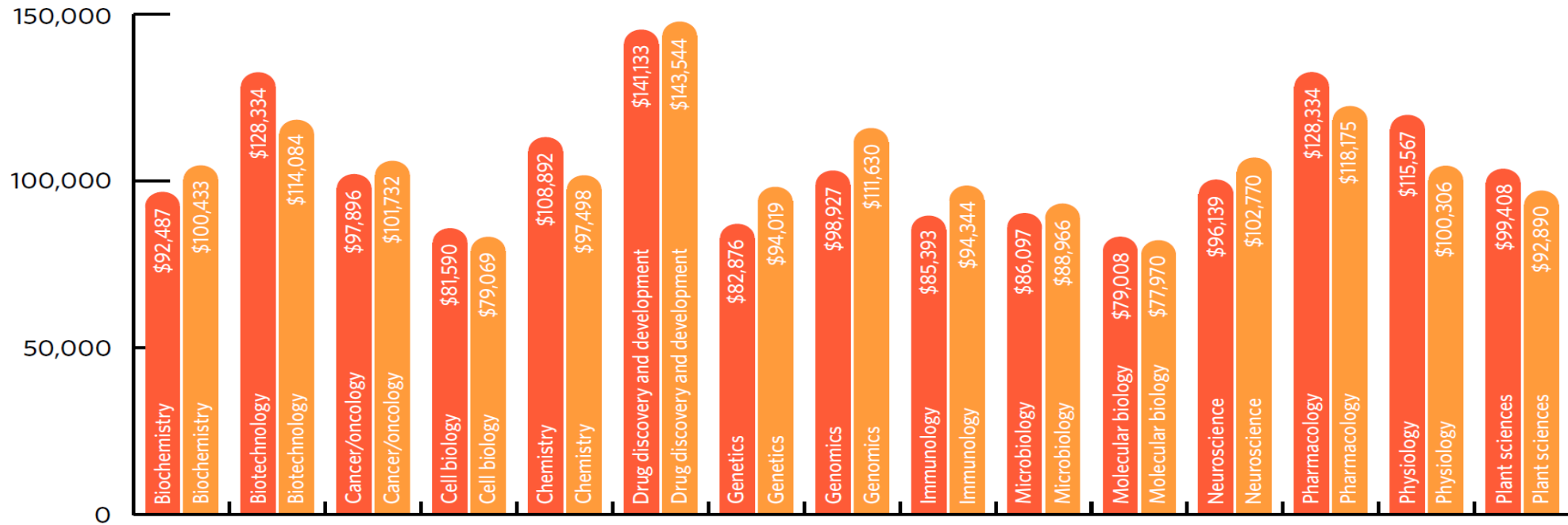
Female Male



SPECIALIZATION

AVERAGE COMPENSATION IN U.S.

■ 2013 ■ 2014



Good Luck!
