

**Beyond Fad, Women as Best Practice:  
The Path to a More Diverse and Competitive Tech Industry**

NICE

November 6, 2018

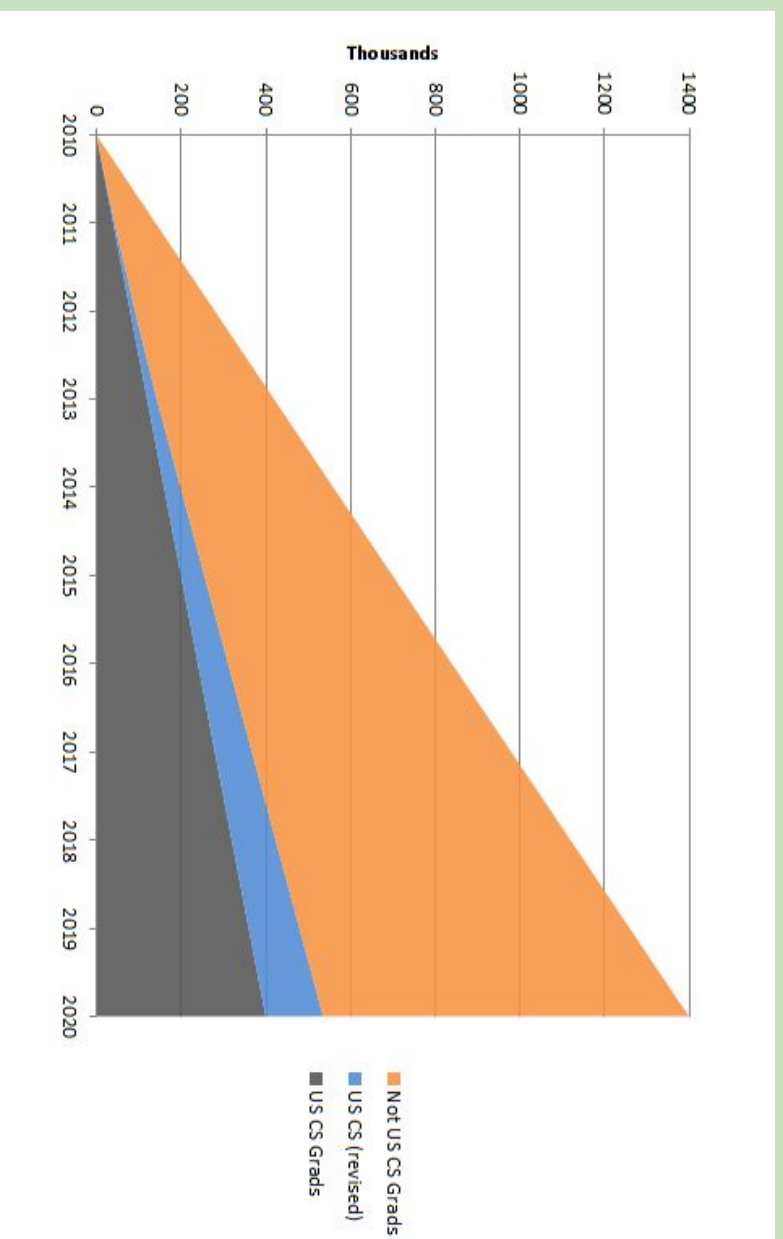
Tracey Welson-Rossman

# Why Do We Need More Women in the Tech Workforce?

**Plain and Simple.**

**We need them.**

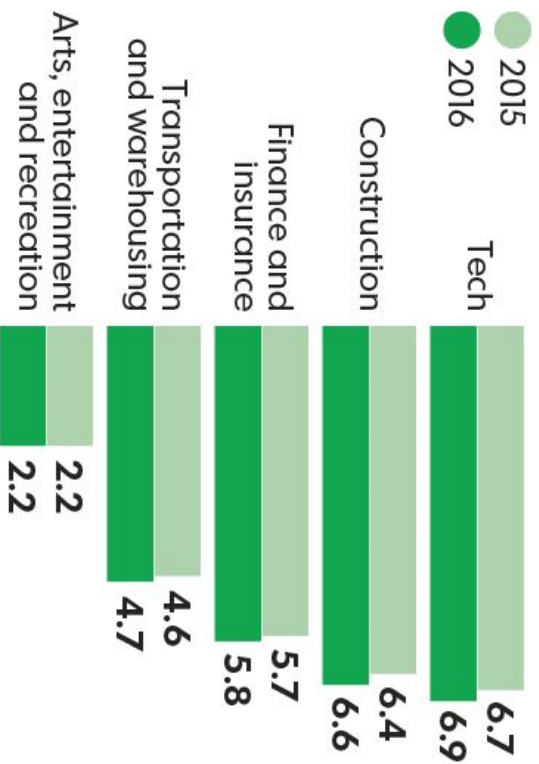
# Too Many Open Job Postings, Not Enough Candidates



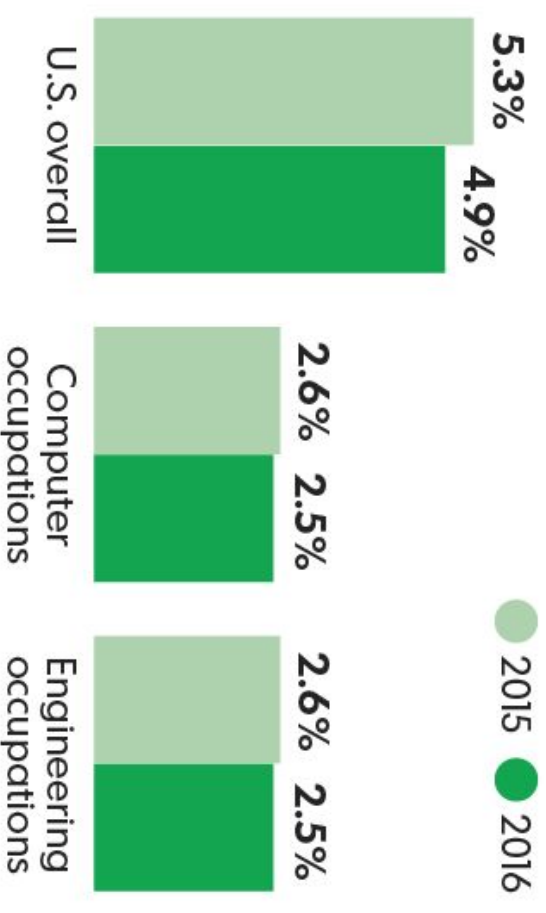
# Not Enough Job Applicants

## PLENTY OF TECH JOBS - AND THEY'RE GROWING

Number of tech jobs compared to other major industries (in millions)



Tech jobless rate is far below nation's average



SOURCES: EMSI; U.S. Bureau of Labor Statistics  
Frank Pompa, USA TODAY

 USA TODAY

# Diverse Teams, Better Products

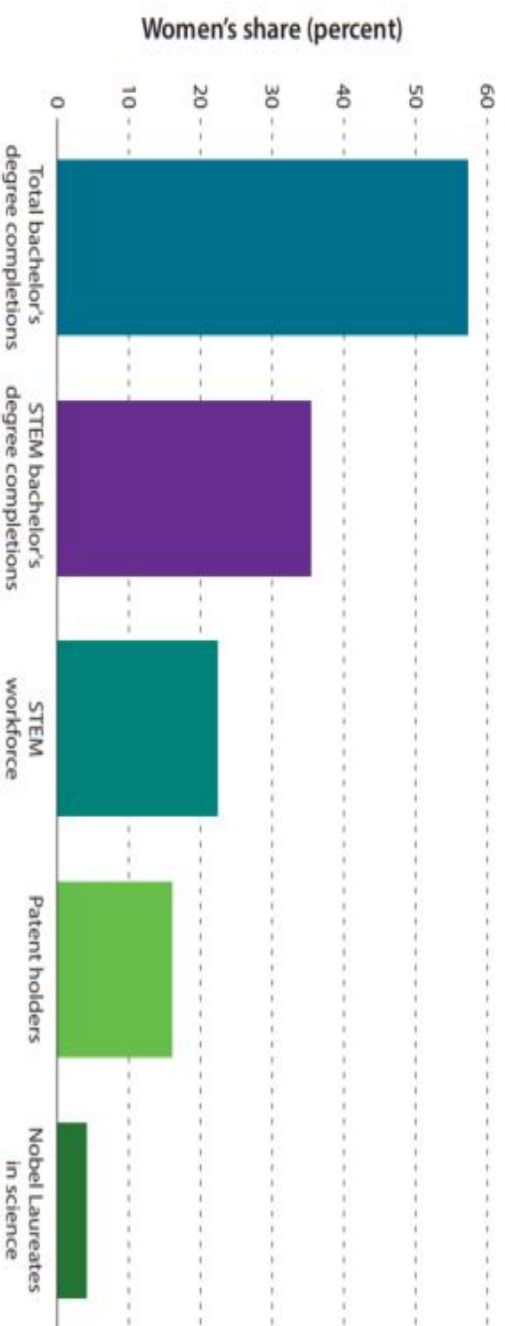


*Being around people  
who are different from  
us makes us more  
creative, more diligent  
and harder-working*

*\*Scientific American research  
2014*

# Affects the Innovation Pipeline

FIGURE 9.  
Share of Women, by Selected STEM and Innovation Measures



Source: Current Population Survey 2016; NCES 2016; National Women's Business Council 2012; Nobelprize.org 2017.  
Note: Bachelor's degree completion data are for 2014–15, workforce data are for 2018, patent grant data are for 2010, and Nobel Prize data are for 2000–16.



# Better Paying Jobs, Better for the Economy



# But Where are The Women in Tech?

Women earn 57% of Bachelor Degrees

Women earn 18% of Computer Science Degrees

Women are 12% of Software Engineers, nationally





# The Issue is Like an Onion



Images of technology workers

Portrayal of technology work

Girls can't be smart

Support at Home

School coursework

Value at work

# BAZINGA

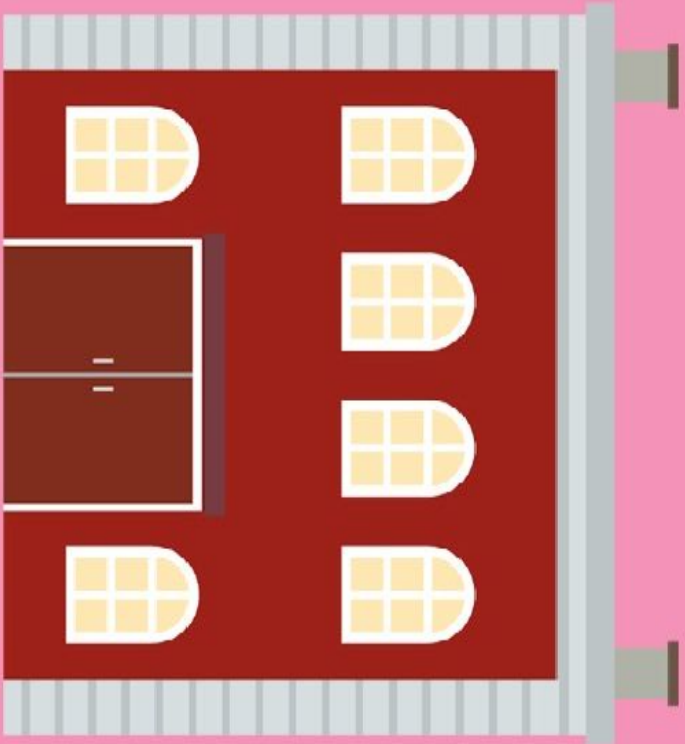


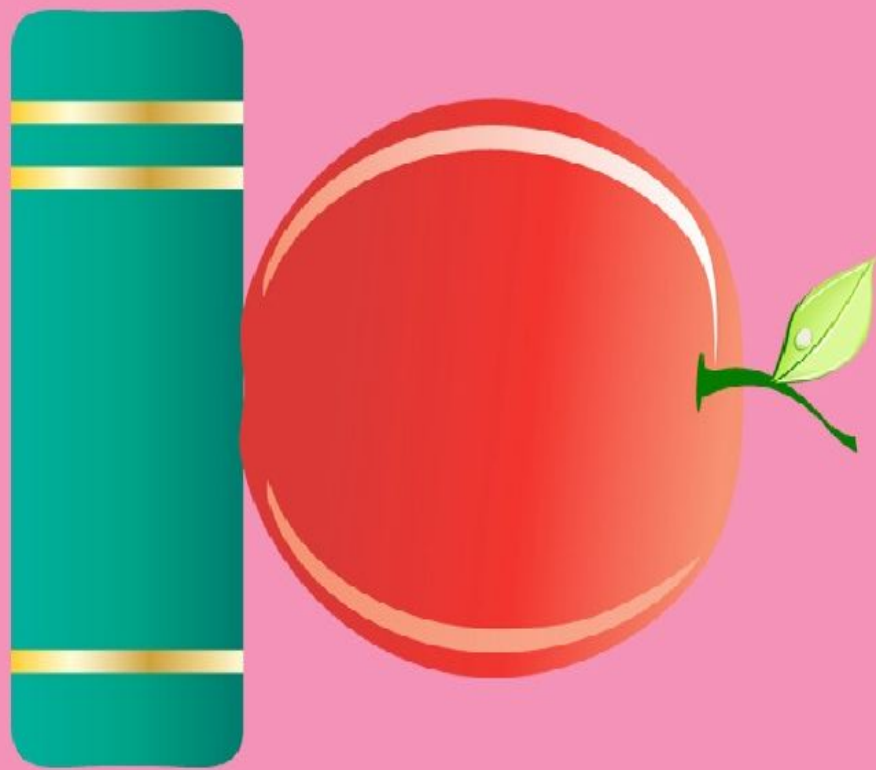
```
openjdk.compiler> vals = ...
sun.jnu.encoding = UTF-8String>
lna Sun.Management.compiler = HotSpot (64-bit)JDK Compilers
Has hot.p.patch.level = unknown new point (0)
    use.country_pos = 1 pos = new Rectangle()
    point = java.awt.Point(0,0)
    use.note = java.awt.Point(0,0)
    id = java.awt.RegionPlaceHolder
    phone_extends = Activity
    find.height = org.jboss.regexp.Regexp
    finalWidth =
    static final ...
ageView ...
tmr.pbt; ...
ring[]; pic# ...
ring[]; position = new String[100];
nal static ... EXTRA_MESSAGE ...
void onCreate(Bundle savedInstanceState) {
    onCreate(savedInstanceState);
    setContentView(R.layout.activity_home);
}
1.46.129-8080
00:01:07, 828 INFO [org.jboss.as.console]
00:01:08, 059 INFO [org.jboss.as.console]
```

FORGET THE SECRET



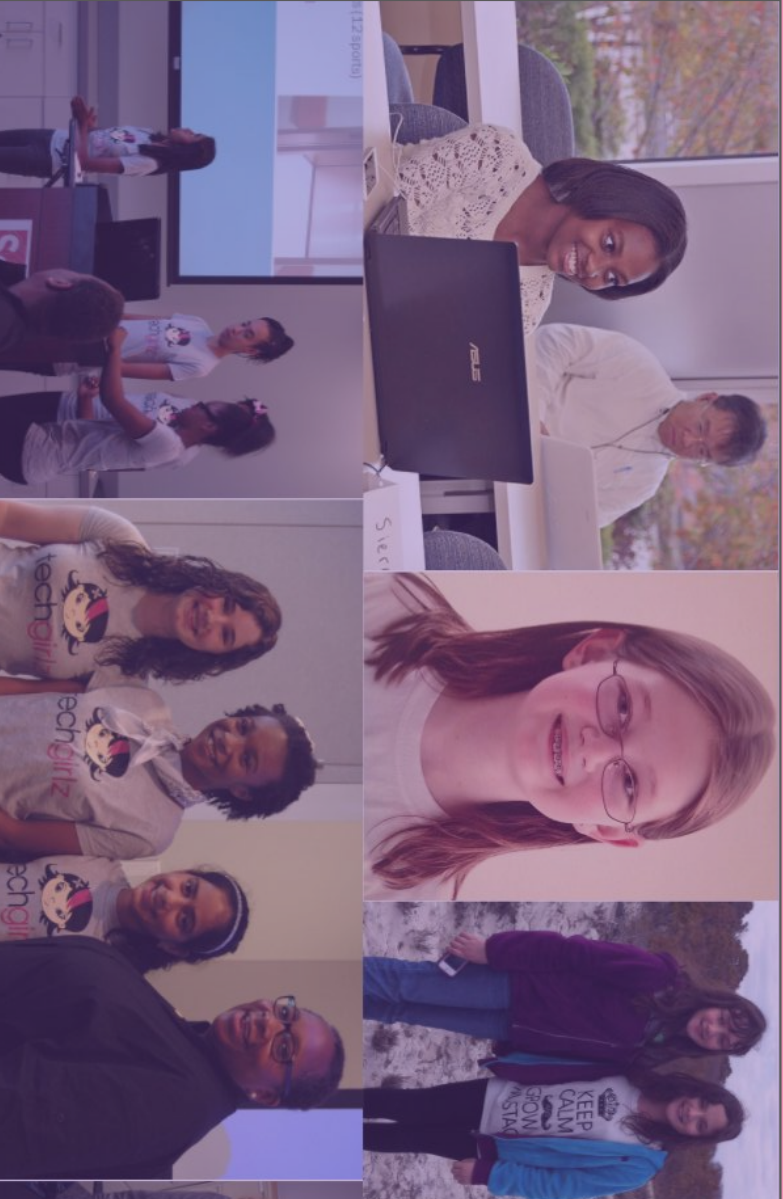




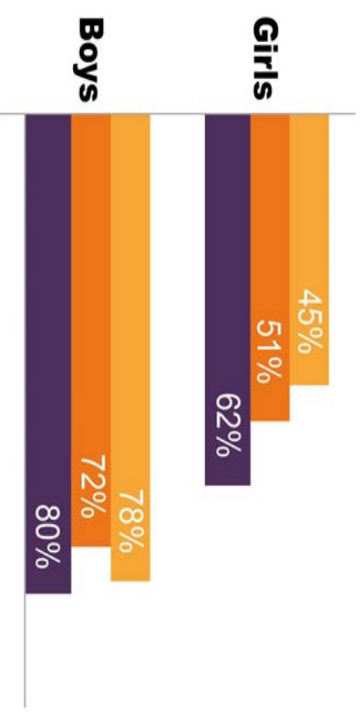




# Are Middle School Girlz Part of the Answer?



## NET Interest in Considering a Career in IT



Base: 1,006 U.S. respondents age 13-17,  
Boys=500, Girls=506



# Change the Script

What happens when we  
ask girls how they want  
to learn tech?



# TechShopz in a Box offerings



Types of workshops offered:

Tell Your Own Story with Graphics

Animation and

Graphics with Python

Digital Mapping for Humanity

# Results speak for themselves



**of TechGirlyz are enthusiastic  
about TechShopz**



**of TechGirlyz are comfortable with tech  
and want to learn more after attending  
a TechShop**

TechGirlyz can choose from a variety of careers,  
but the most interest is in Business,  
Engineering, and Computer Science



# Quotes from the Girls

*“I really think that I want to be a coder after hearing the helpers stories and actually learning that girls CAN be a great coder.”*

*“I learned more coding, so by the time I’m 20 I can make video games like my uncle, who says I’m a mini version of him”*

*“I liked that it was a hands on activity about what we were learning”*

*“I like the togetherness, the way everyone feels welcome, the patience that instructors have and the way that they interact with us.”*

*“I like learning about hacking and communication with other computers. I also made some friends.”*

# 10,000 Girls and Growing





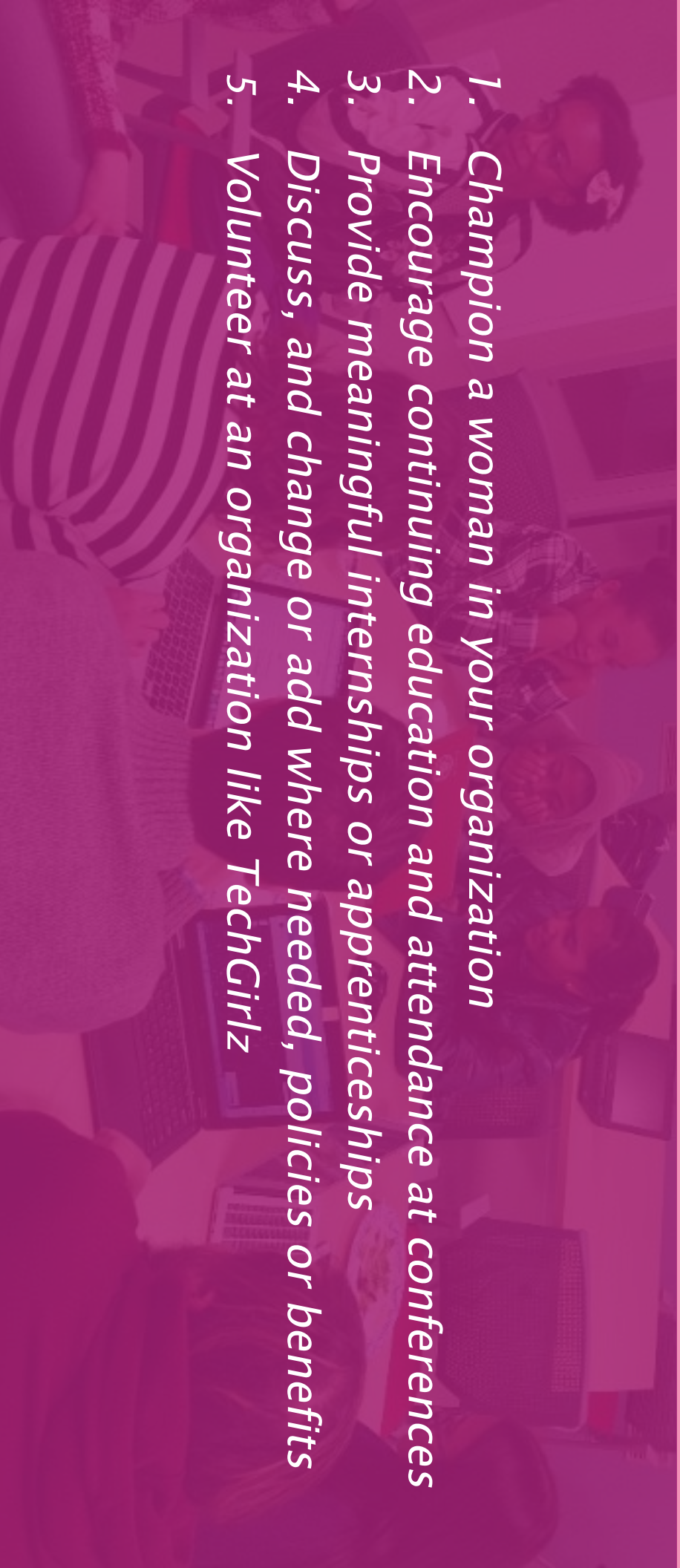
# Only the start of The Path

If we have inspired them to learn at 11-14, then what?

How do we continue moving them along to high school, college and beyond?

## 5 Things You Can Do

1. *Champion a woman in your organization*
2. *Encourage continuing education and attendance at conferences*
3. *Provide meaningful internships or apprenticeships*
4. *Discuss, and change or add where needed, policies or benefits*
5. *Volunteer at an organization like TechGirlyz*



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