

CAPITOL TECHNOLOGY UNIVERSITY

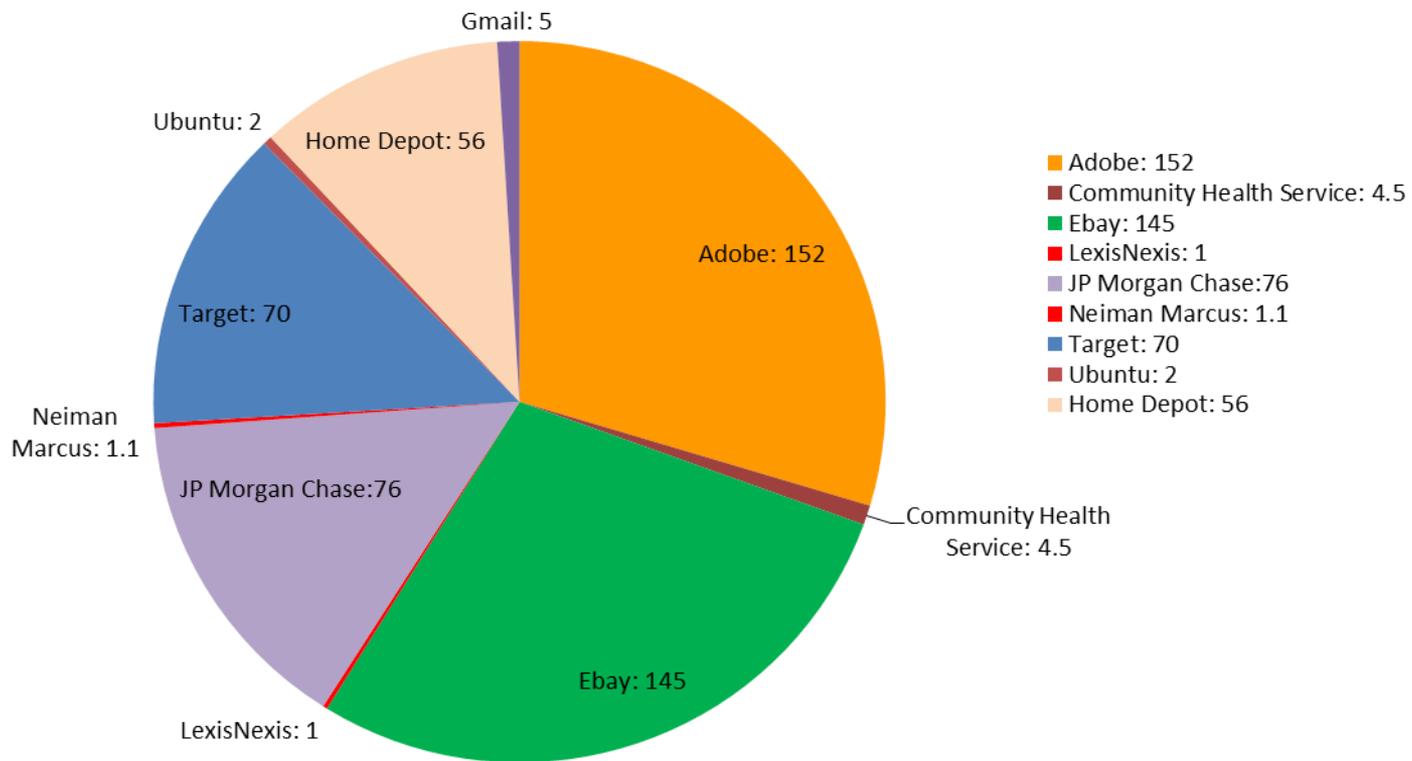
# Information Assurance as a College Major

Presented by Dr. Sherry Lakes

**Federal Information Systems Security Educators Association (FISSEA)  
28<sup>TH</sup> Annual Conference  
24-25 March, 2015**

# Background

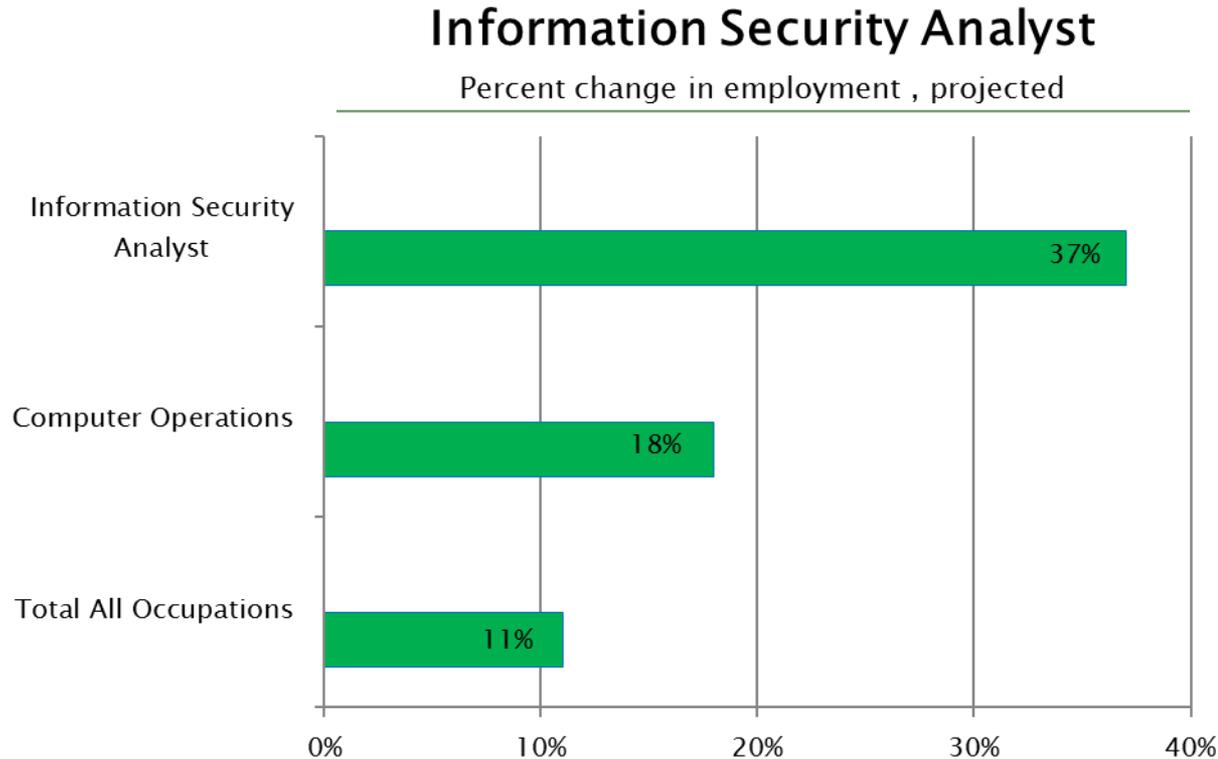
**Biggest *Known* Data Breaches of 2013 and 2014**



# Cybersecurity Initiatives

- ▶ Education
  - FISSEA
  - NICE
- ▶ Policy
  - Executive Orders
  - Publications
- ▶ Technology
  - Firewalls
  - Secure Token Services

# Cybersecurity Professionals (Projected Need)



Note: All Occupations include all occupations in the U.S. economy.

<http://www.bls.gov/ooh/computer-and-information-technology/information-security-analysts.htm#tab-6>

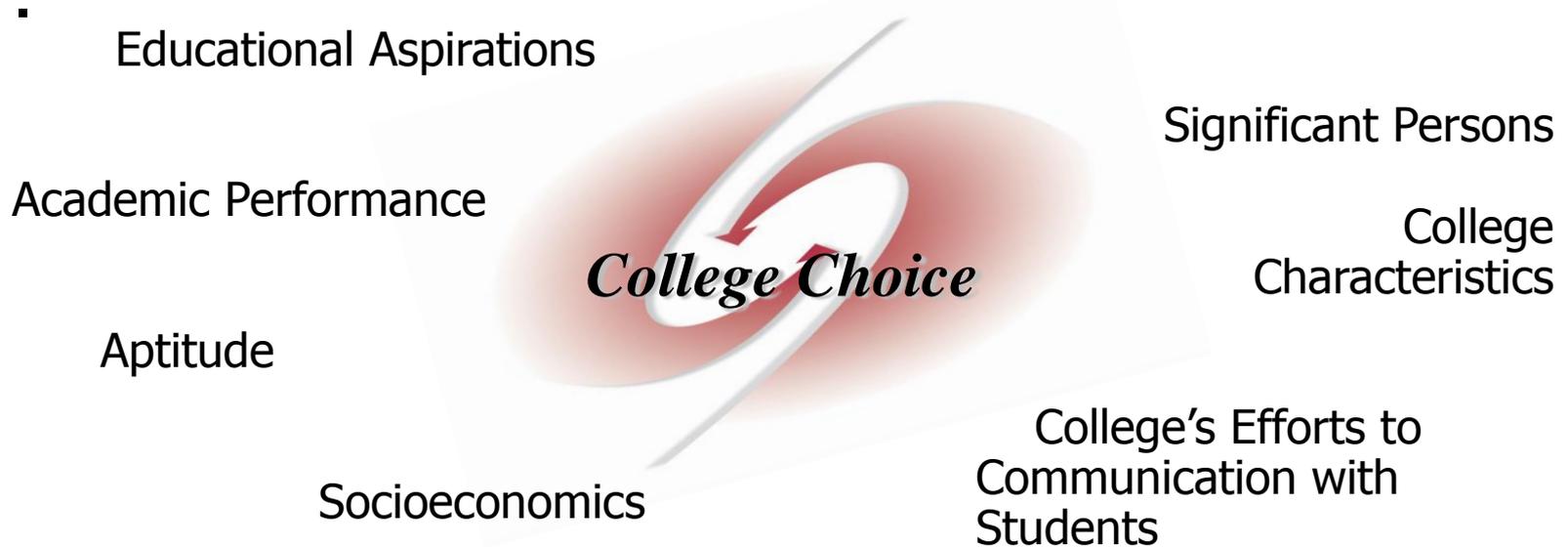
# Cybersecurity Professionals (Increased Demand)

- ▶ Increased the demand for cybersecurity professionals
- ▶ Shortage of cybersecurity professionals has caused cybersecurity-related job openings in U.S. companies to go unmet
- ▶ Potentially negative impact of the shortage of cybersecurity professionals

# Cybersecurity Professionals (Increased Demand)

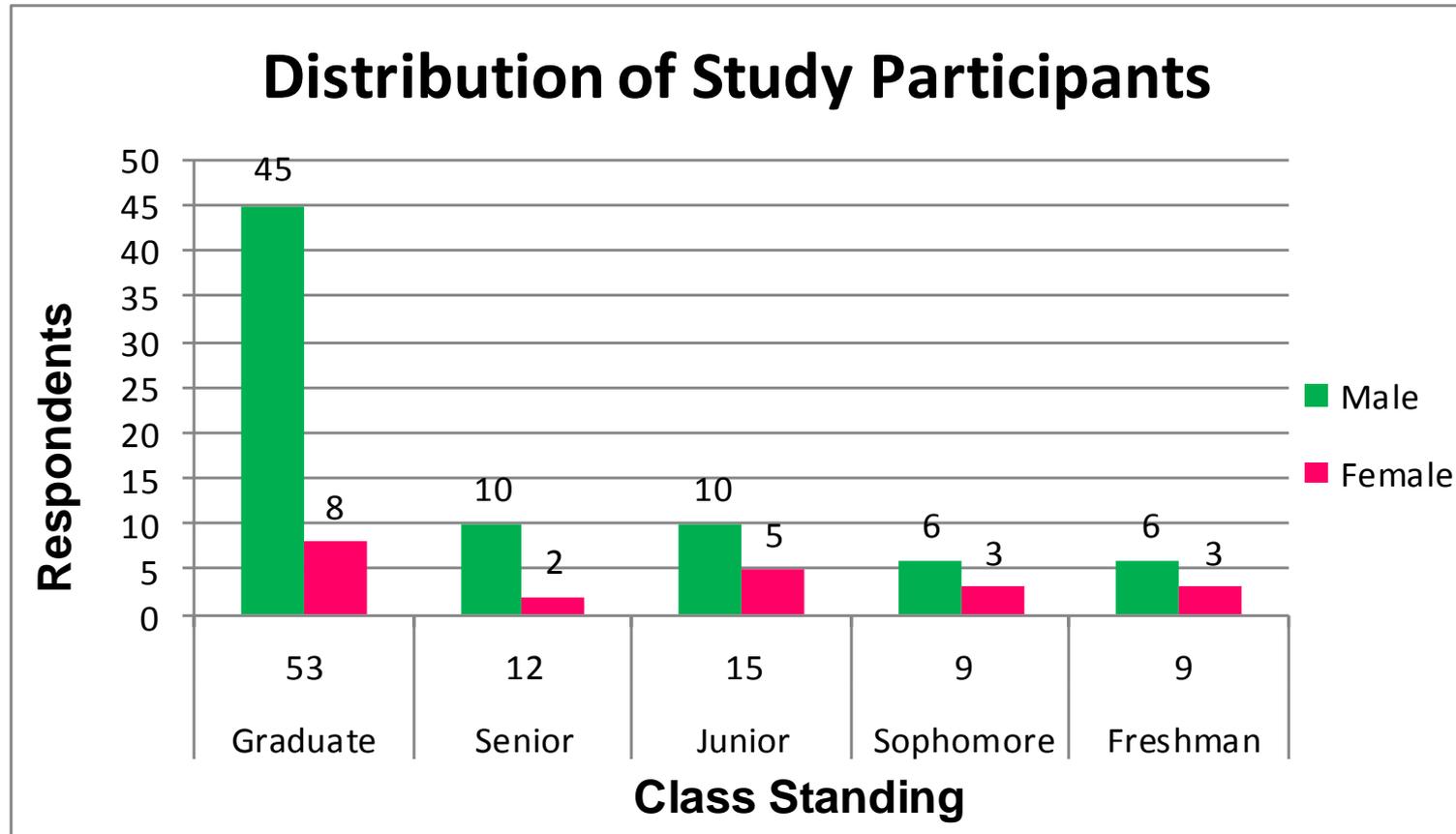
- ▶ The current landscape
- ▶ The predicted need
- ▶ Hiring regime

# Chapman's Model of Students' College Choice



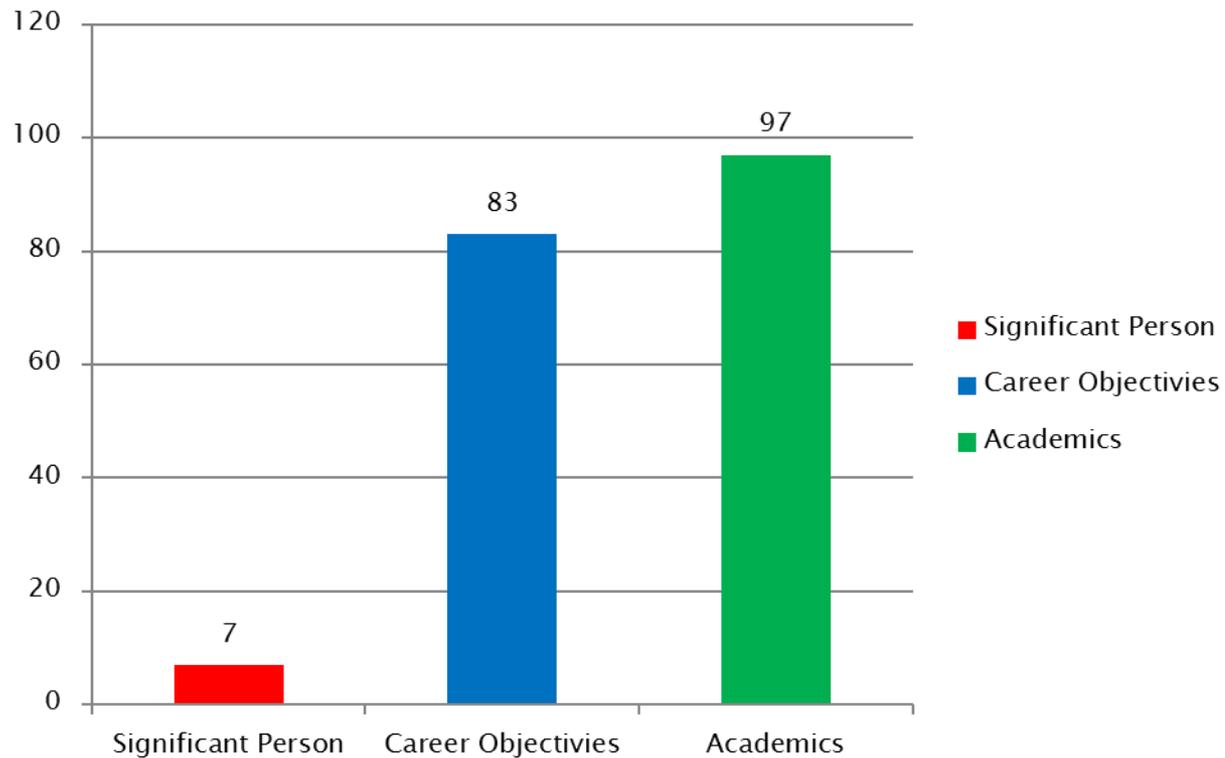
**\*\*Career Objectives** are not part of Chapman's model

# Study Population



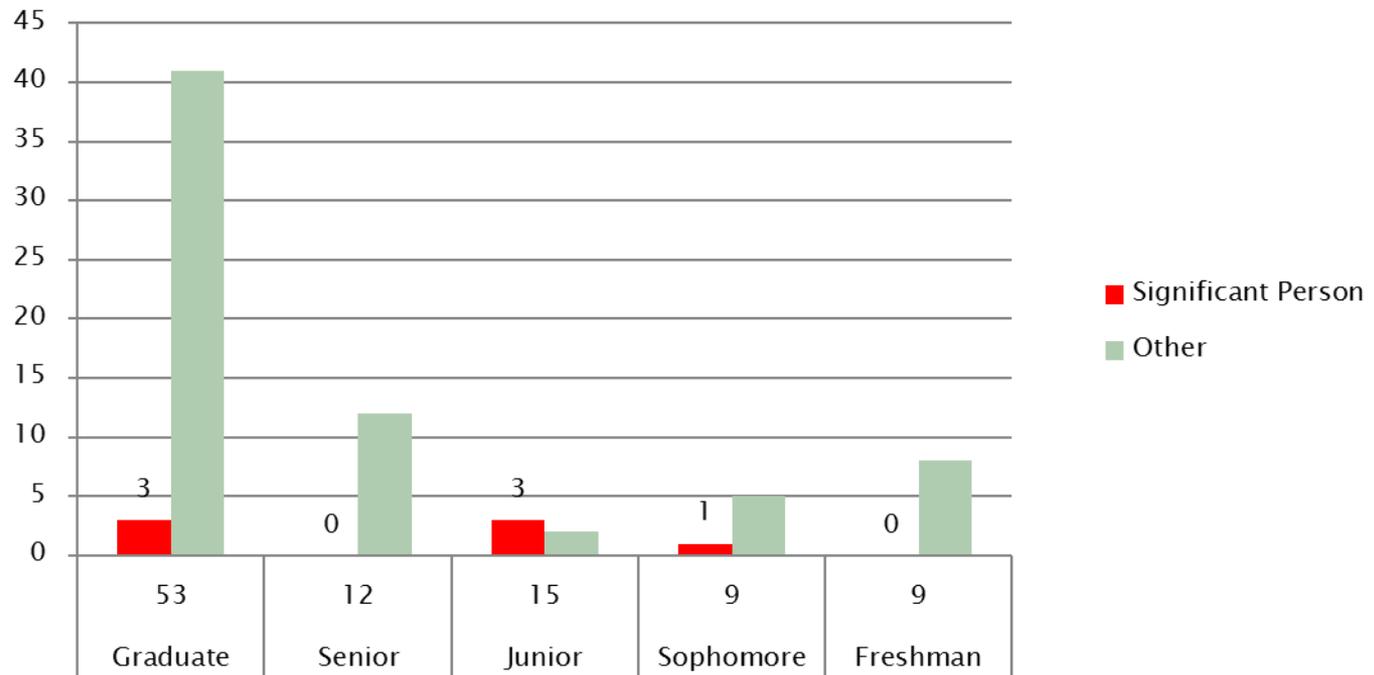
# Dominant Categories

## Thematic Categories



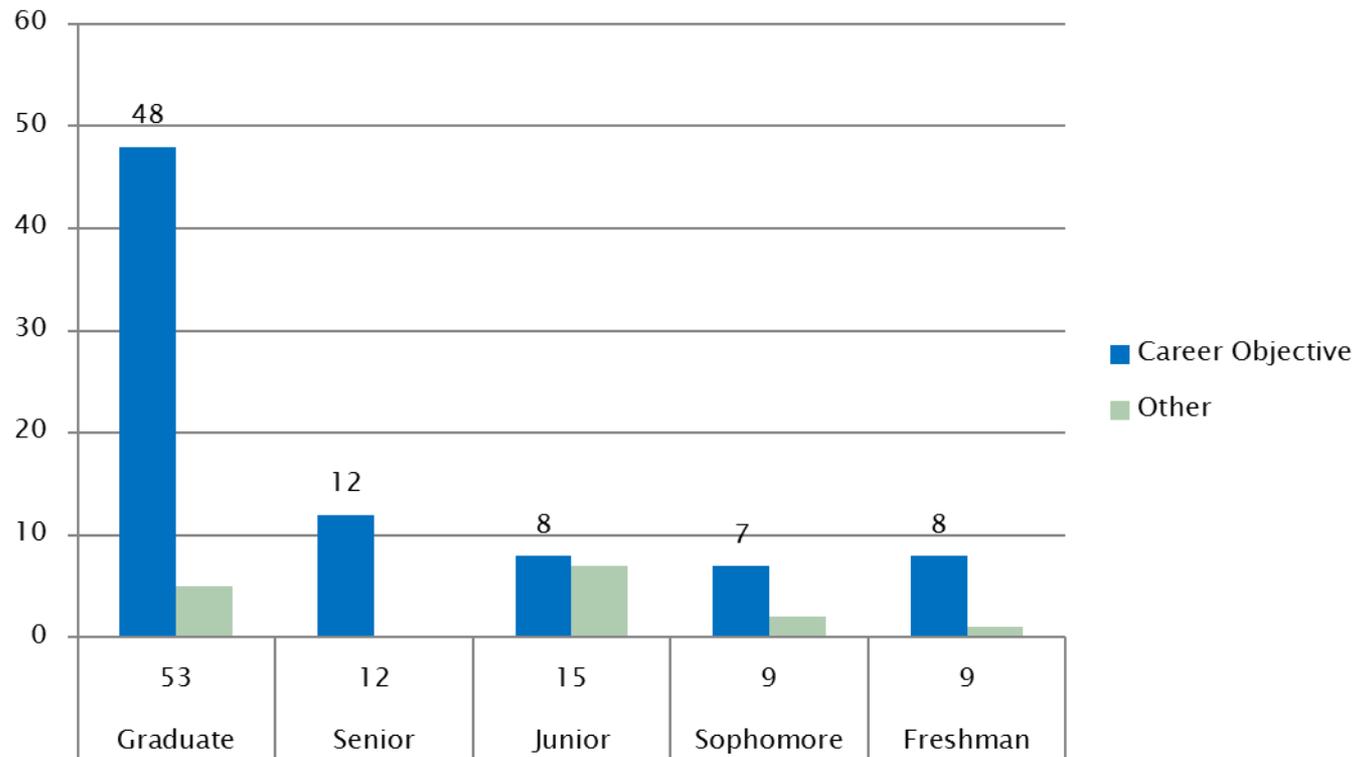
# Influence by Significant Person(s)

Influence by a Significant Person (7%)



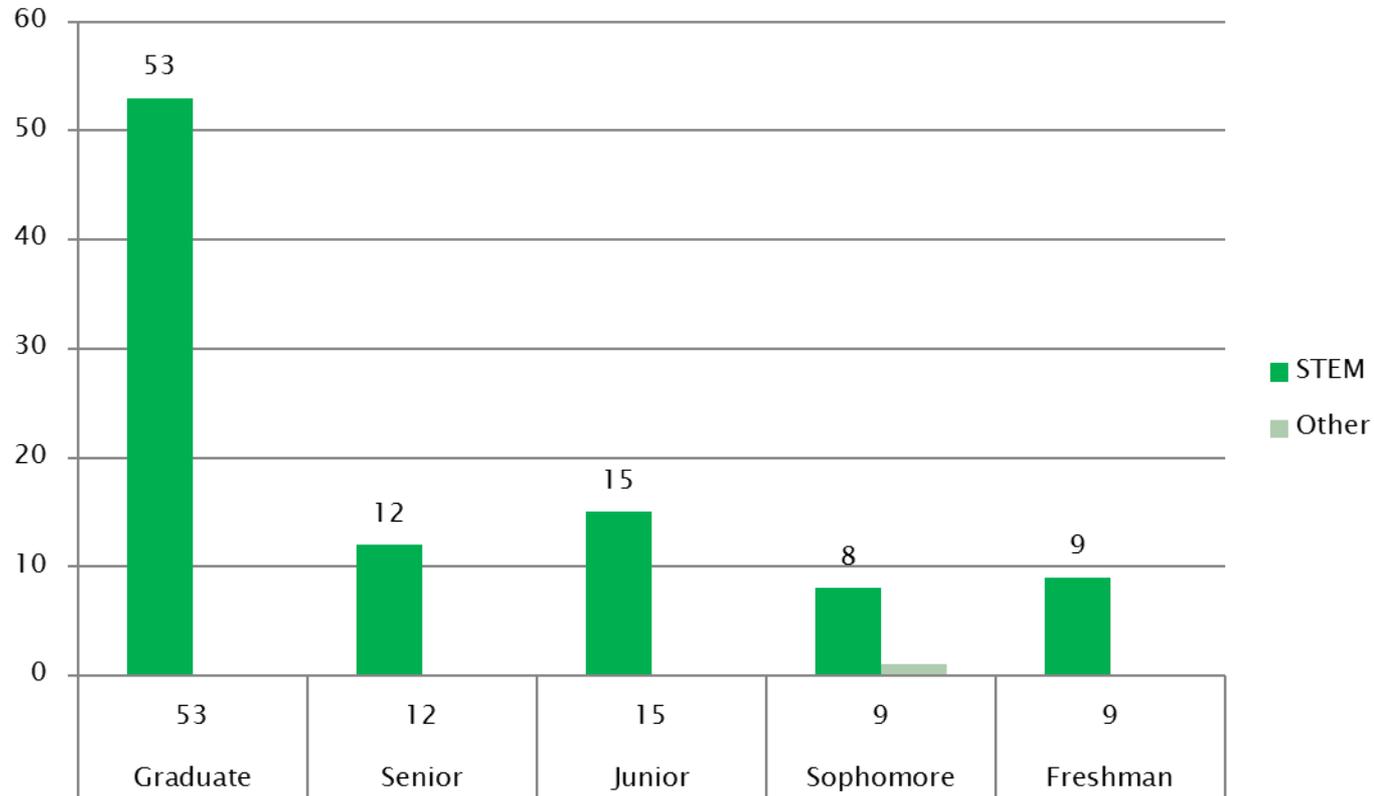
# Influence by Career Objectives

Influence by Career Objectives (85%)



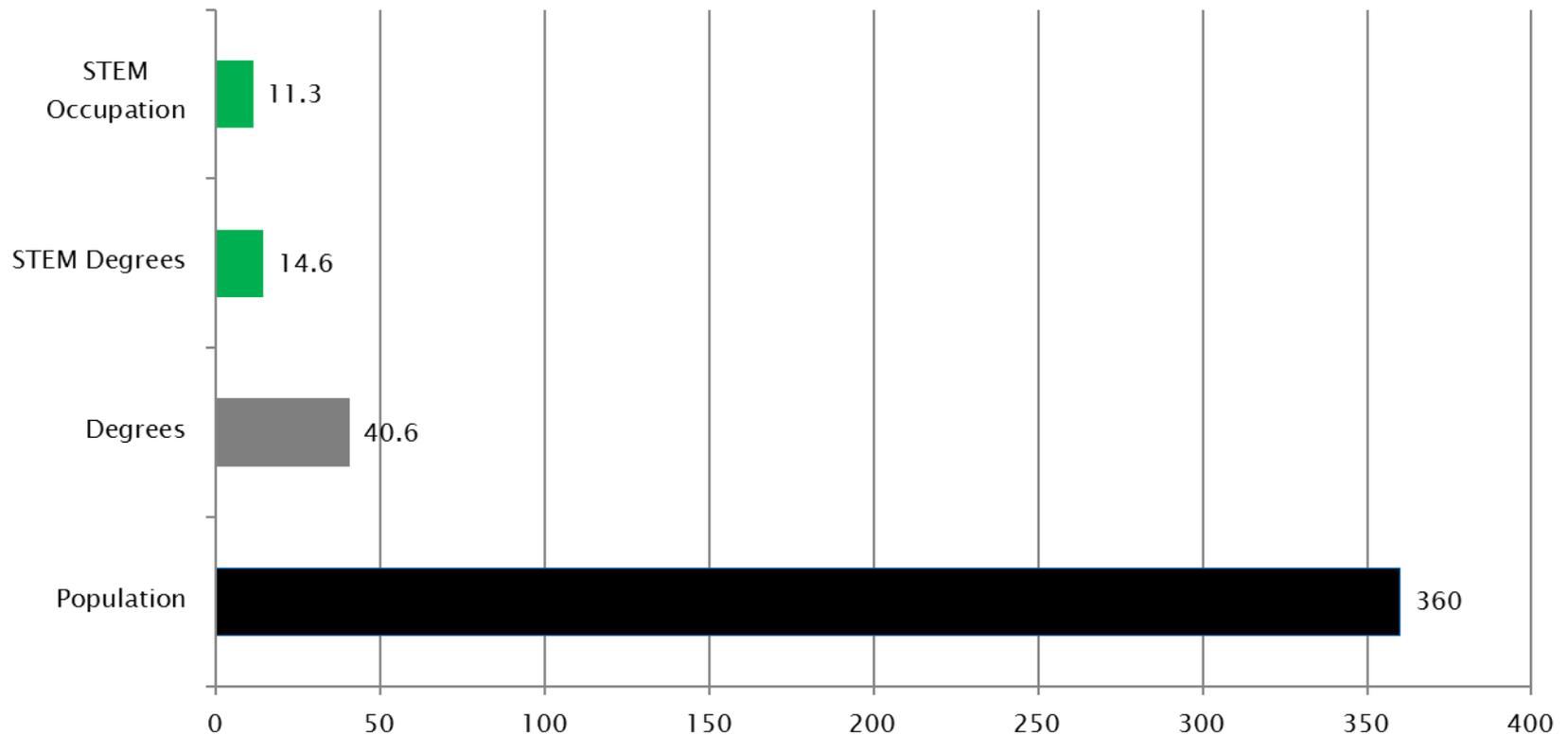
# Influence by Academics

## Influence by STEM Courses (99%)



# Census Report

## 2011 Census Report; STEM Excerpt



Note: Numbers in Millions

<http://www.census.gov/prod/2013pubs/acs-23.pdf>

# Conclusion

- ▶ Increased Demand for Cybersecurity Professionals
- ▶ Predominate Influencer toward IA Degree
  - Academics (STEM)
- ▶ Possible Strategies
  - Instruction Alignment
  - Additional Courses
  - Inclusion
  - Integration
  - Delivery
  - Cybersecurity Cognizance

**THANK YOU!!!**

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