





# Doubling Florida Jobs Opportunities for Biology/Psychology Majors

SHARING IDEAS. DESIGNING SOLUTIONS. ENSURING SUCCESS.

# **AGENDA**

- Welcome
- By the numbers
- Skills, Skills, Skills
- Resources



# **ABOUT US**

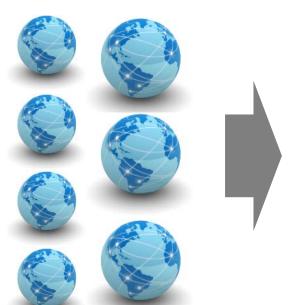
The Florida Consortium of Metropolitan Research Universities is a collaborative partnership between Florida International University, the University of Central Florida, and the University of South Florida, operationally formed with consultation and support from the Helios Education Foundation.

# Collecting Real-Time Labor Market Data

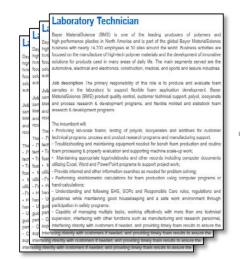


Burning Glass delivers real-time job market data offer up-to-date insights not possible through traditional sources.

# Visit Online Job Sites



# Collect & Deduplicate Job Postings



# Read Postings to Generate Detailed Data

- Job Title & Occupation
- Employer & Industry
- Technical Skills
- Foundational Skills
- Certifications
- Educational Requirements
- Experience Levels
- Salaries

# Academic Use Cases for Real-Time Data

- Academic Program Planning and Validation
- Curriculum Alignment
- Career Advising and Support
- Economic Development
- Workforce Planning



#### **BY THE NUMBERS:**

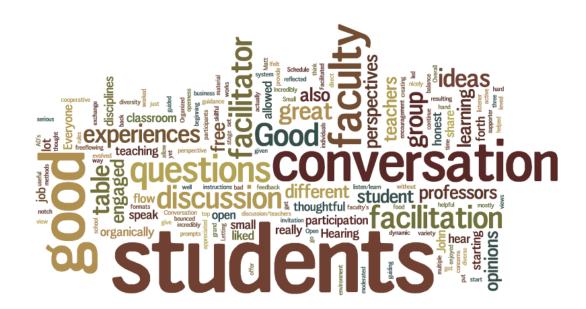


Governor Scott's charge challenged universities within the State University System to ensure students with the most common majors secure, "full-time employment one year post graduation"

## BY THE NUMBERS:

# According to the State University System, Board of Governors' Annual Baccalaureate Follow-Up Study:

- 92 percent of college graduates are employed within one year of completing their bachelor's degrees.
- The overall median wage for recent graduates is up from \$36,300 to \$39,100 between 2014 and 2015



## BY THE NUMBERS:

- 500K students graduate with degrees in biology or psychology in the US
- Only one fifth pursue graduate degrees in those fields or medicine
- Biology/Psychology bachelors degrees are the most common degrees across the nation
- And represent 10% of the degrees awarded nationally



# WHY DOES THIS MATTER?



## BIOLOGY DEGREES STATE OF FLORIDA DATA

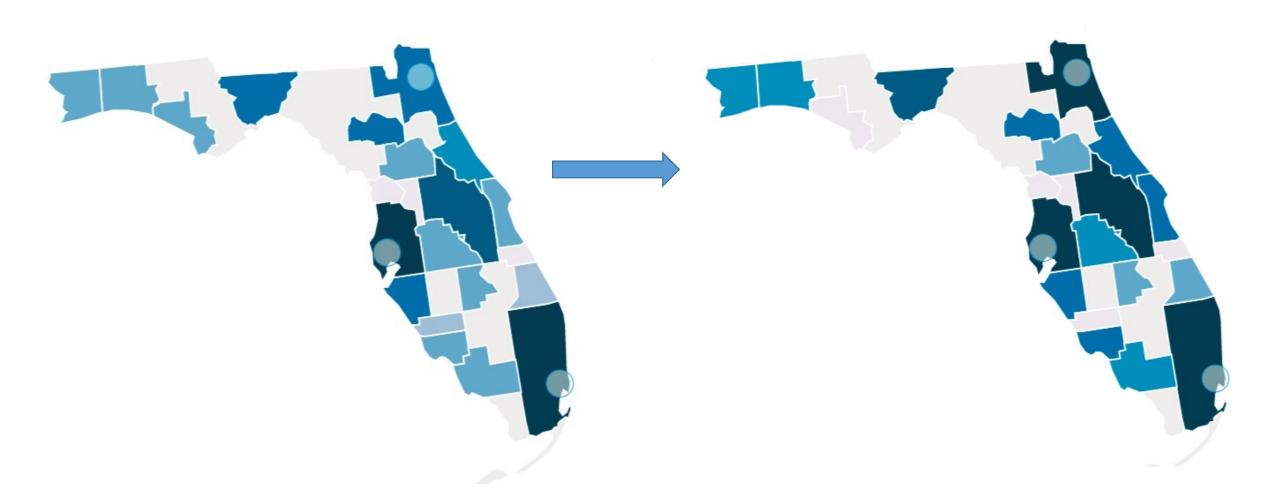
SKILLS	Entry Level Openings (2016)*	Sample Occupations	Avg. Entry Level Advertised Salary	Ave. Entry Level Wage Premium
Core Biology	6,433	Medical Lab Technician, Research Associate, Clinical Research Coordinator	\$60,475	
ADDITIONAL SKILLS				
Specialized Biology	403	Microbiologist, Biochemist	\$56,238	\$13,364
Statistics & Data Analysis Skills	1,017	Biostatistician, Data Analyst, Business Intelligence Analyst	\$68,910	\$9,127
Programming	1,142	Computer Programmer, Web Developer	\$61,874	\$21,799
Total Extension Occupations	3,223		\$61,874	\$14,763

## STATE OF FLORIDA DATA

SKILLS	Entry Level Openings (2016)*	Sample Occupations	Avg. Entry Level Advertised Salary	Ave. Entry Level Wage Premium
Core Psychology	7,255	Admissions Counselor, Youth Worker, Social Worker	\$43,976	
ADDITIONAL SKILLS				
Statistics & Data Analysis Skills	804	Data Analyst, Statistician, Business Intel. Analyst	\$60,143	\$16,167
Medical Research & Chemistry	461	Clinical Research Coordinator, Clinical Data Manager	\$49,342	\$2,343
Business Analysis, Project Management, and Business Process	1,850	Business Analyst, Business Intelligence Analyst, Operations Analyst	\$44,477	\$5,366
Marketing	2,004	Market Research Analyst, Marketing Specialist	\$44,477	\$501
Human Resources	2,706	Human Resources Assistant, Recruiters	\$49,686	\$5,710
Total Extension Occupations	7,825		\$48,753	\$10,299

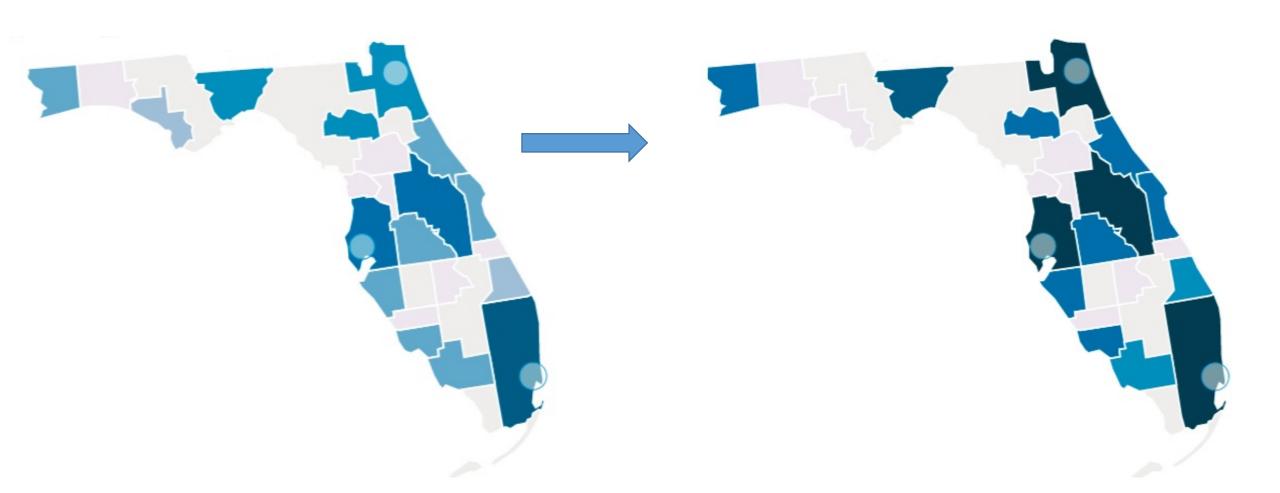
Core Biology – 5,517 postings

Expanded Biology – 12,984 postings



Core Psychology – 2,599

Expanded Psychology – 19,147



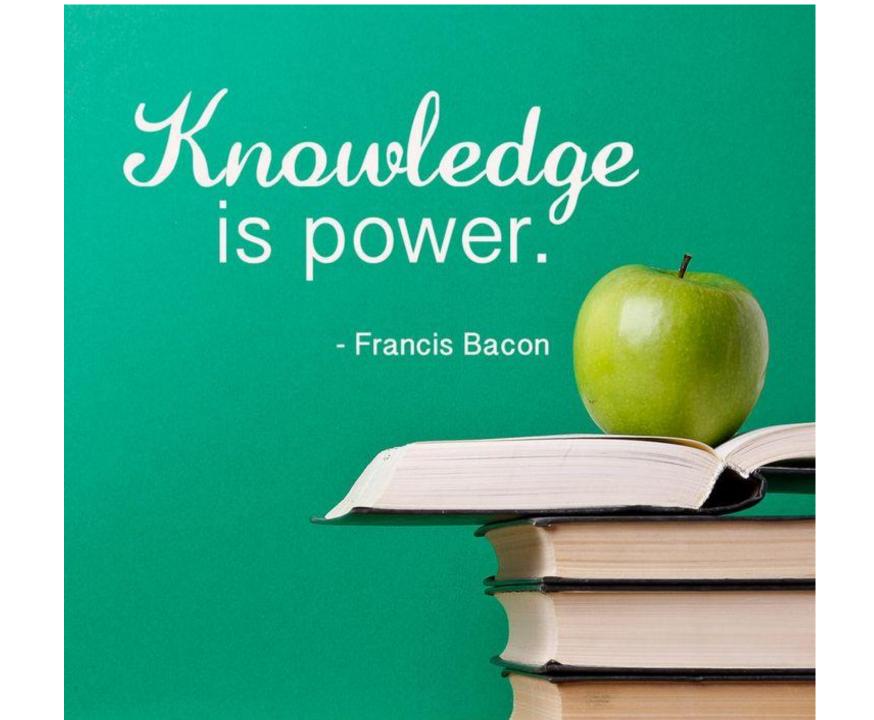
# **How Do We Prepare Students for the Jobs of the Future?**

Using methology from Osborne and Frey, we can compare the automation risk of each job:

	Core Jobs	Expanded Skill Jobs
Biology	Low Automation Risk	Moderate Automation Risk
Psychology	Moderate Automation Risk	Low Automation Risk

#### Notes:

- In biology, more advanced and technical skills help job seekers move to increasingly specialized research roles which are at less risk of automation than roles such as lab techs which are highly routinized.
- In psychology, the core roles in the human services are at low risk of automation because they depend heavy on social interaction.



#### **KEY TAKE-AWAYS**

- Utilizing labor market data in program and curricular design improves career outcomes for students and institution health
- Only an additional skill or two can greatly expand job opportunities for Biology or Psychology graduates
- Labor market vocabulary help students communicate in the terms employers use when resume writing, interviewing, and job hunting.
- Consortium members have access to real-time labor market tools NOW (contact La Toya for more information)
  - Labor Insight
  - Program Insight
  - Job Pulse
  - latoya.hodge@ucf.edu

#### **RESOURCES**

Burning Glass Research: How to Double Job Openings for Biology Majors and Psychology Degrees

The Quant Crunch - How the Demand for Data Science Skills is Disrupting the Job Market

Beyond Point and Click - The Expanding Demand for Coding Skills

Baseline Skills - The Human Factor: The Hard Time Employers Have Finding Soft Skills

<u>Hybrid Jobs - How Business and Technology Skills Are Merging to Create High Opportunity Hybrid Jobs</u>

<u>Liberal Arts - Developing technical skills with a liberal arts education can nearly double the jobs available to graduates</u>

**Demand for Digital Marketing Skills Doubles** 

## REFERENCES

Gov. Rick Scott challenges Florida universities to help graduates get job", Orlando Sentinel

State University System of Florida, Board of Governors' Annual Baccalaureate Follow-Up Study

Burning Glass Research: How to Double Job Openings for Biology Majors and Psychology Degrees

