Alumni & Labor Market Data

Measuring Outcomes and
Identifying Opportunities

.ıl⊩ Emsi

PREMISE: Leveraging Traditional and Non-Traditional Data Sources for Program Review and Development

Emsi Primary Data Sources:

- *Traditional LMI Sources – Government Sourced*
- *Real-Time LMI Sources – Job Posting Data*
- *Workforce Profile Data – Resumes, Social/Professional Profiles*

Agenda

Identifying New Program Opportunities

- ✓ Traditional LMI to **<u>identify</u>** expected job growth
- ✓ Real-time LMI to **<u>focus</u>** on in-demand skills and companies looking to hire
- ✓ Alumni/Workforce profiles to **<u>measure</u>** the supply of graduates and develop your regional workforce skills inventory

Program Outcomes and Review

- ✓ Traditional LMI for program review and viability
- ✓ Alumni/Workforce profiles for program outcomes

New Program Development

- Program and Occupational Demand: Using traditional labor market data to identify occupational projections, median wages, and annual openings

- Companies Looking to Hire: Using job posting data to identify companies posting jobs on online job boards

- Skills in Demand: Synthesizing job posting data to understand the skills that employers are looking for by occupation and programs

- Supply of Skill: Using Alumni and Workforce profiles to identify potential gaps (areas of opportunity) in your regional workforce

Program and Occupational Demand

- Competitive landscape

- Median hourly earnings

- Annual openings

- Projected occupational growth

+32.2%
⊞ % Change (2017-2023)
Nation: +22.7%

$27.65/hr
⊞ Median Hourly Earnings ❓
Nation: $27.21/hr

195
Annual Openings

4
Regional Institutions
had Completions in the last 14 years

26
Regional Program Completions (2016)

Companies Looking to Hire

Company	Total/Unique (Jan 2017 - Dec 2017)	Posting Intensity	Unique Postings Trend (Jan 2017 - Dec 2017)
Benchmark Physical Therapy	673 / 239	3 : 1	
Rehab Options, Inc	848 / 131	6 : 1	
Gentiva Health Services, Inc.	360 / 114	3 : 1	
Select Medical Holdings Corporation	309 / 112	3 : 1	
Pruitthealth Corporation	209 / 88	2 : 1	
Rehabcare Group, Inc.	353 / 83	4 : 1	
Amedisys Home Health, Inc. of Virginia	198 / 80	2 : 1	
Healthpro Rehabilitation	279 / 72	4 : 1	
Supplemental Healthcare	464 / 68	7 : 1	
Genesis Healthcare, Inc.	220 / 62	4 : 1	

Skills in Demand

Top Hard Skills

Skill	Frequency in Postings	Postings with Skill / Total Postings
Rehabilitations	40%	882 / 2,215
Nursing	23%	510 / 2,215
Physical Therapy	23%	499 / 2,215
Nursing Homes	14%	304 / 2,215
Hospice	11%	237 / 2,215
Geriatrics	10%	220 / 2,215
Performance Improvement	9%	190 / 2,215
Acute Care	7%	150 / 2,215
Long-Term Care	6%	143 / 2,215
Diseases And Disorders	6%	132 / 2,215
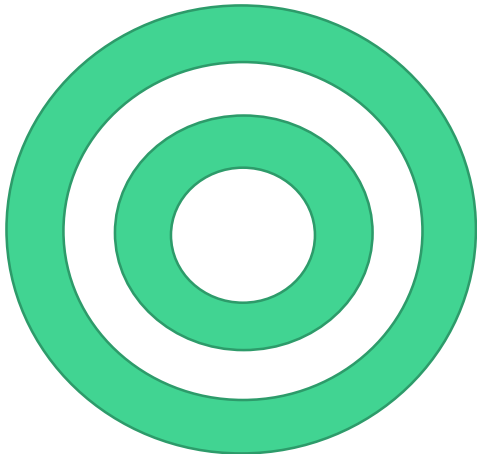
Supply of Skills in Workforce

Fred Peete

Given Job Title: physical therapy tech

Job Description: *Unknown*

Standard Job Title: Therapy Technician

Last Updated: January, 2017

Email: fred.peete@siskin.org

Phone: +1 423-643-4059

Is an alum of:

- Life University
- University of Tennessee at Chattanooga

Has these skills (standardized):

- Rehabilitations
- Kinesiology
- Weight Training
- Electrocardiography
- Physical Therapy
- Anatomy
- Health Promotion
- Biomechanics
- Sports Injury
- Customer Service
- Exercise Prescription
- Sports Medicine
- Strength Training
- Health Education
- Exercise Physiology
- Injury Prevention
- Prescription
- Physiology

Top Skills & Qualifications

Skill/Qualification	Profiles	Percent
Physical Therapy	237	38.73%
Rehabilitations	187	30.56%
Management	121	19.77%
Cardiopulmonary Resuscitation	111	18.14%
Customer Service	111	18.14%
Orthopedic Surgery	108	17.65%
Research	70	11.44%
Microsoft Office	68	11.11%
Nursing	64	10.46%
Leadership	63	10.29%

Skill Gaps in the Workforce – Hard Skills

Top Hard Skills

Skill	(Frequency in Job Postings)	(Frequency in Workforce Profiles)
Rehabilitations	~40%	~35%
Nursing	~22%	~8%
Physical Therapy	~22%	~45%
Nursing Homes	~13%	~6%
Hospice	~11%	~0%
Geriatrics	~10%	~6%
Performance Improvement	~8%	—
Acute Care	~7%	~12%
Long-Term Care	~6%	~1%
Diseases And Disorders	~6%	~1%

■ Frequency in Job Postings   ■ Frequency in Workforce Profiles
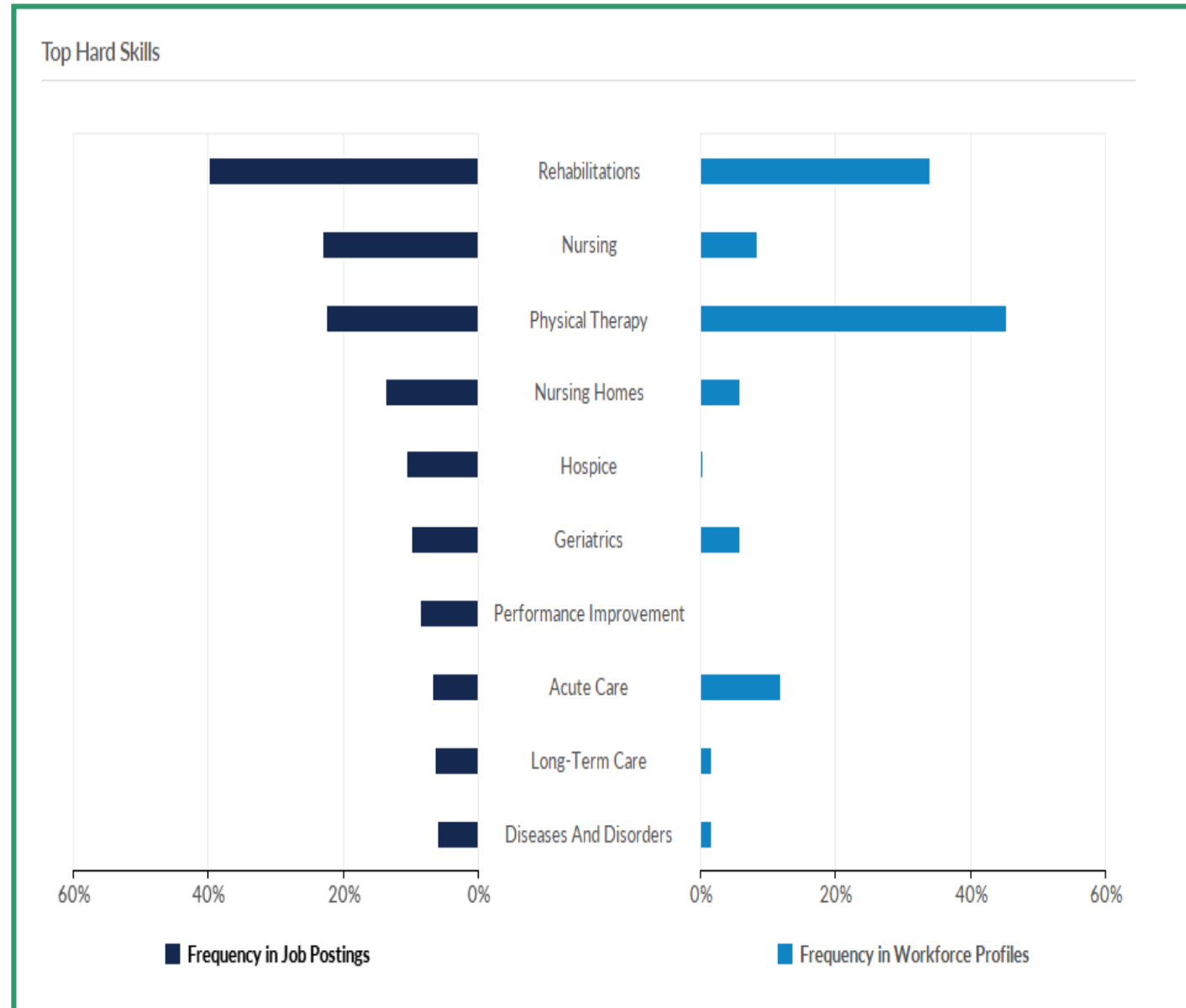
Skill Gaps in the Workforce – Common Skills

Top Common Skills

Frequency in Job Postings — Frequency in Workforce Profiles
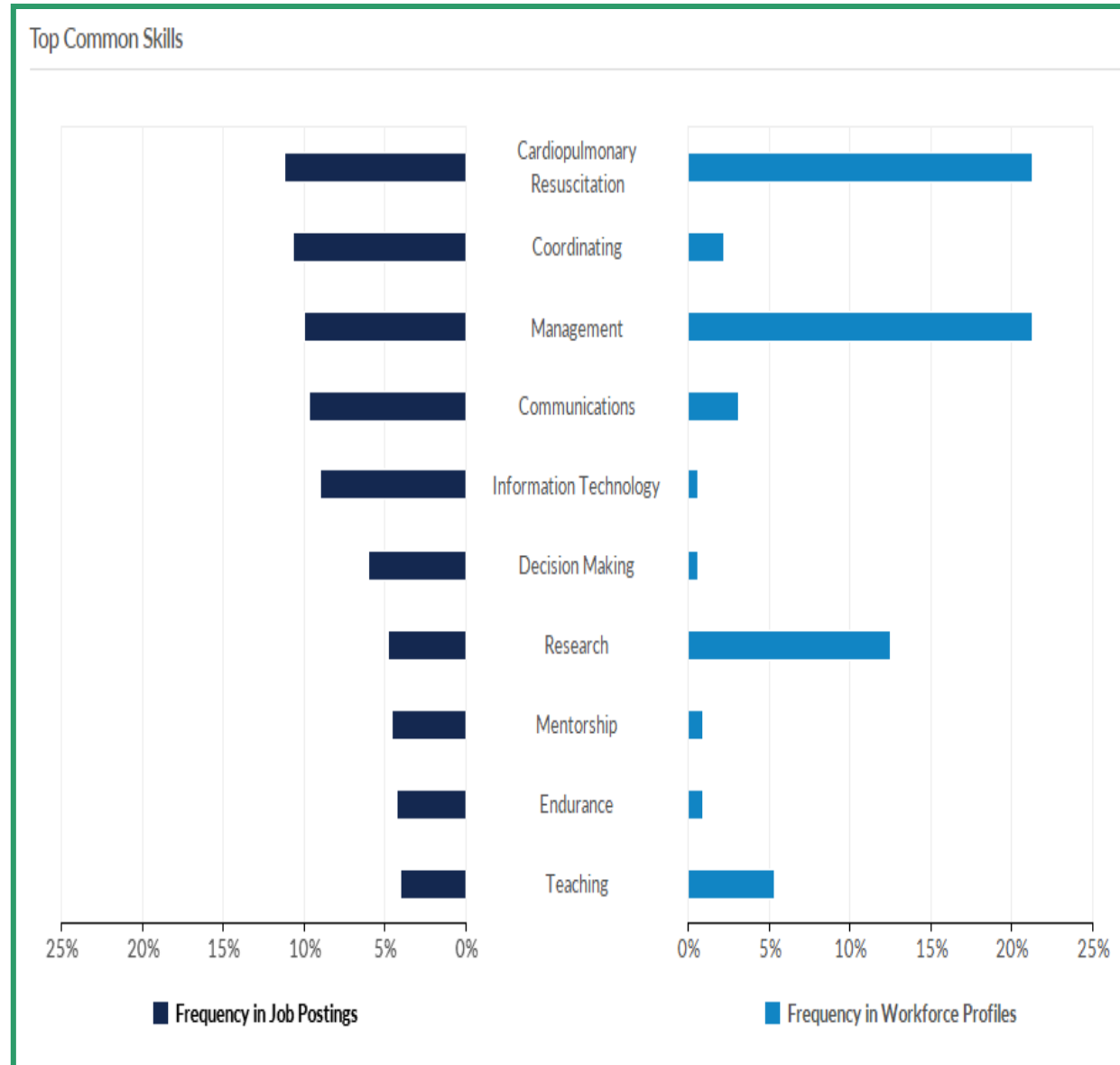
Program Review & Viability

- Occupational Demand: Growth (or Decline) Projections and Market Saturation.

- Alumni Employment Outcomes: Are your graduates getting jobs? Are they working in our region?
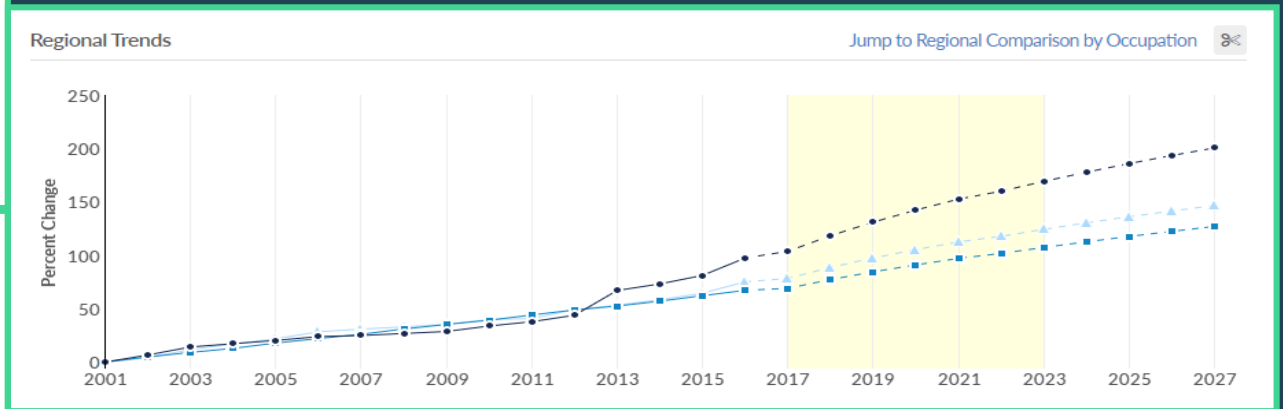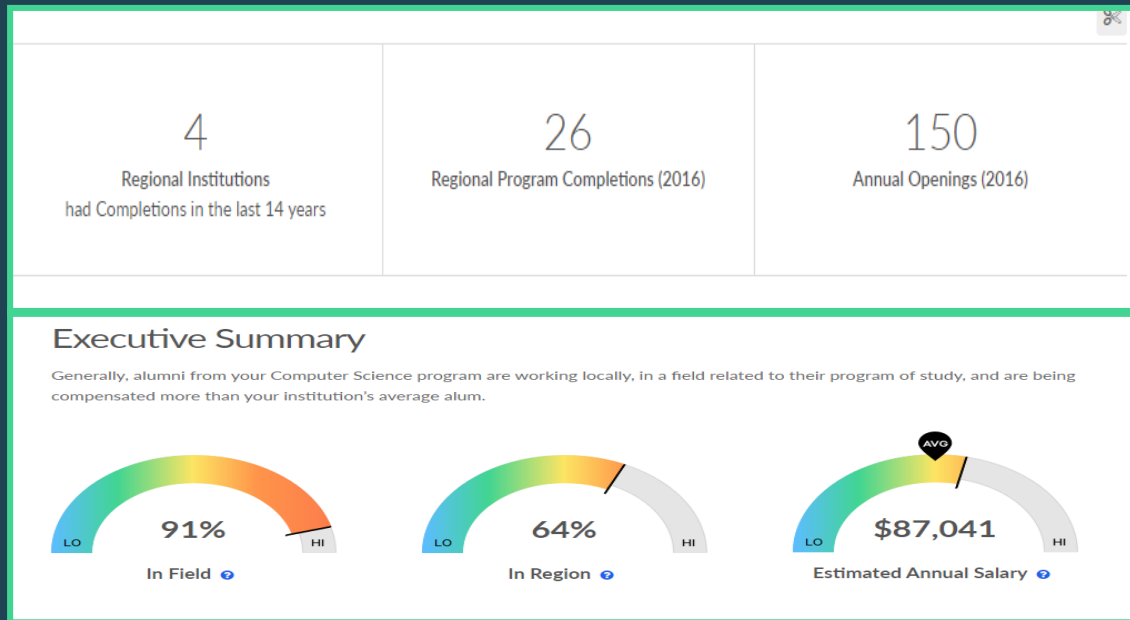
Program Viability: Projected Growth

Regional Trends

Region	2017 Jobs	2027 Jobs	Change	% Change	
● Region	1,030	1,520	490	47.6%	
■ United States	87,472	117,505	30,033	34.3%	✖
▲ Georgia	2,005	2,773	768	38.3%	✖

Add Regions...   Load a Group
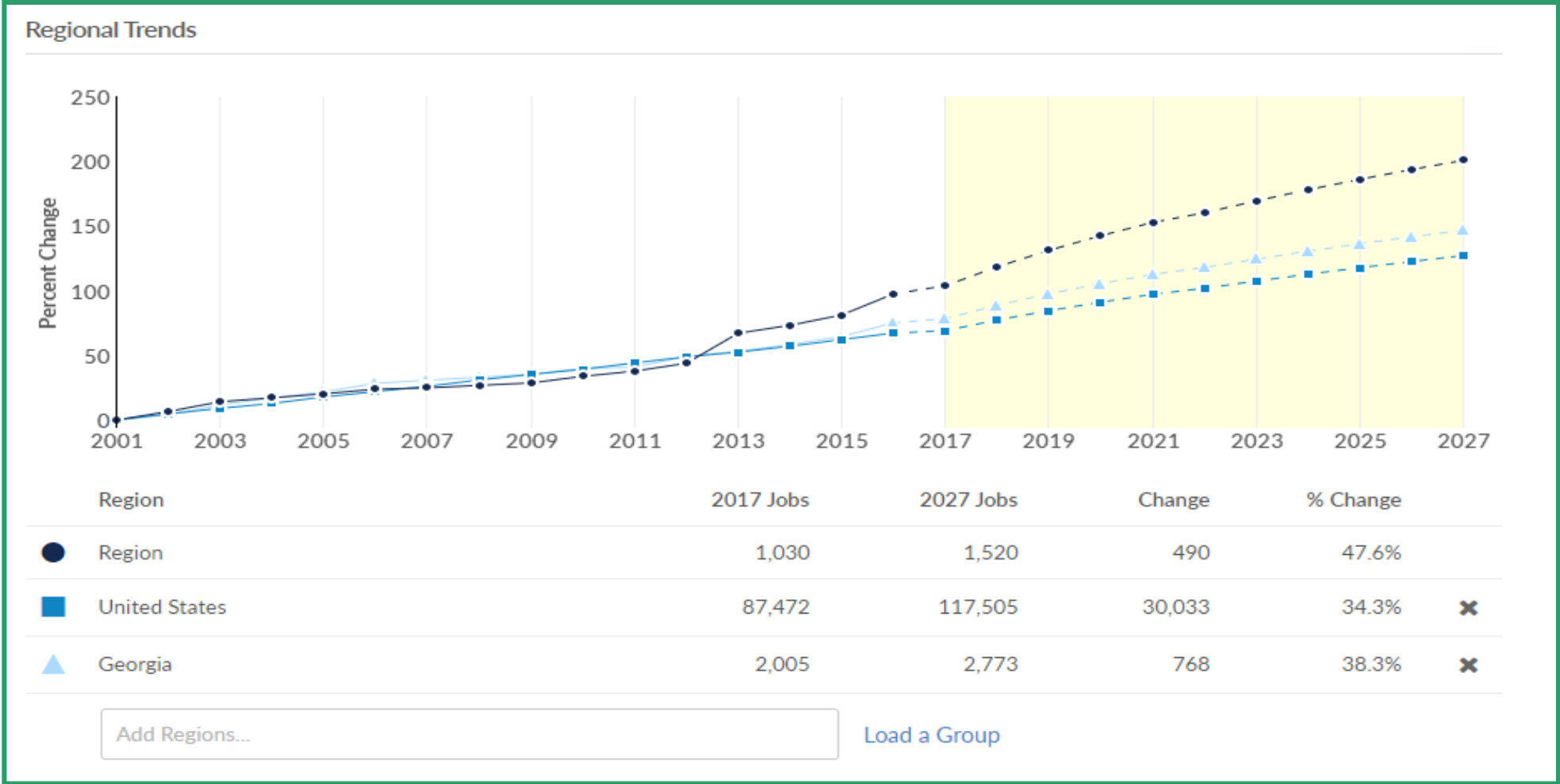
Program Viability: Market Saturation

- Are you over saturating the market?

- Is there room to expand?
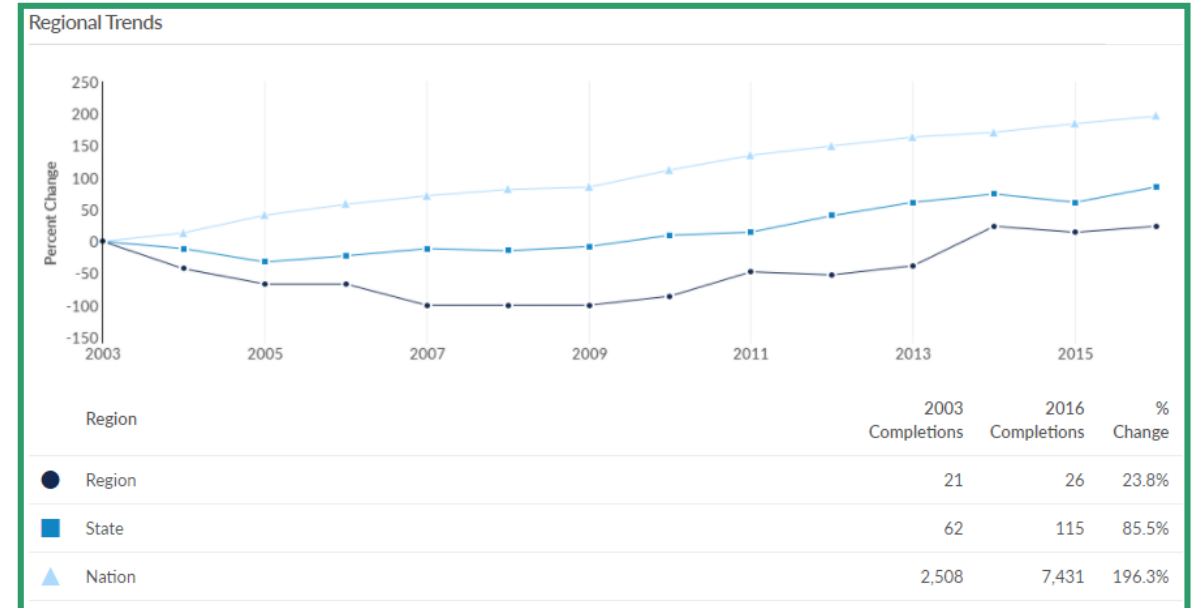
Regional Trends				
Region		2003 Completions	2016 Completions	% Change
● Region		21	26	23.8%
■ State		62	115	85.5%
▲ Nation		2,508	7,431	196.3%

4	26	150
Regional Institutions had Completions in the last 14 years	Regional Program Completions (2016)	Annual Openings (2016)

Program Viability: Market Saturation, Cont.
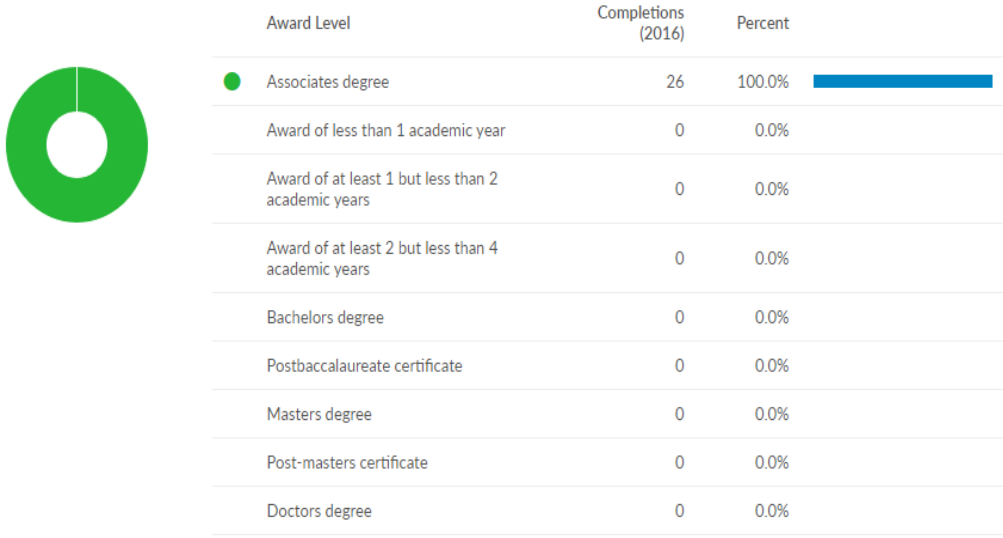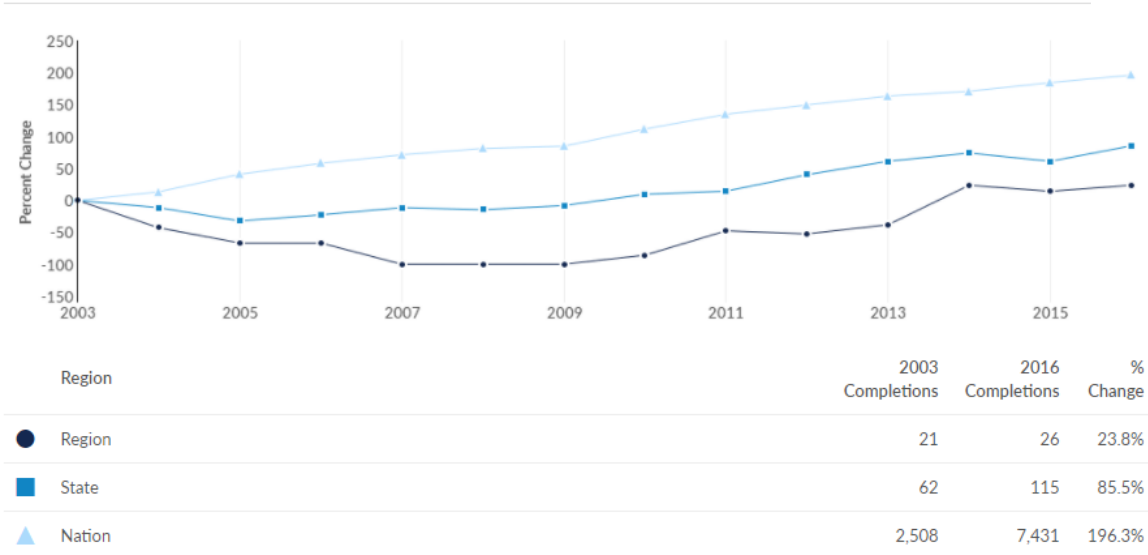
Alumni Employment Outcomes

- Are your alumni gainfully employed?

- Are they working in region?
  - In Field?

- What is their estimated annual Salary?
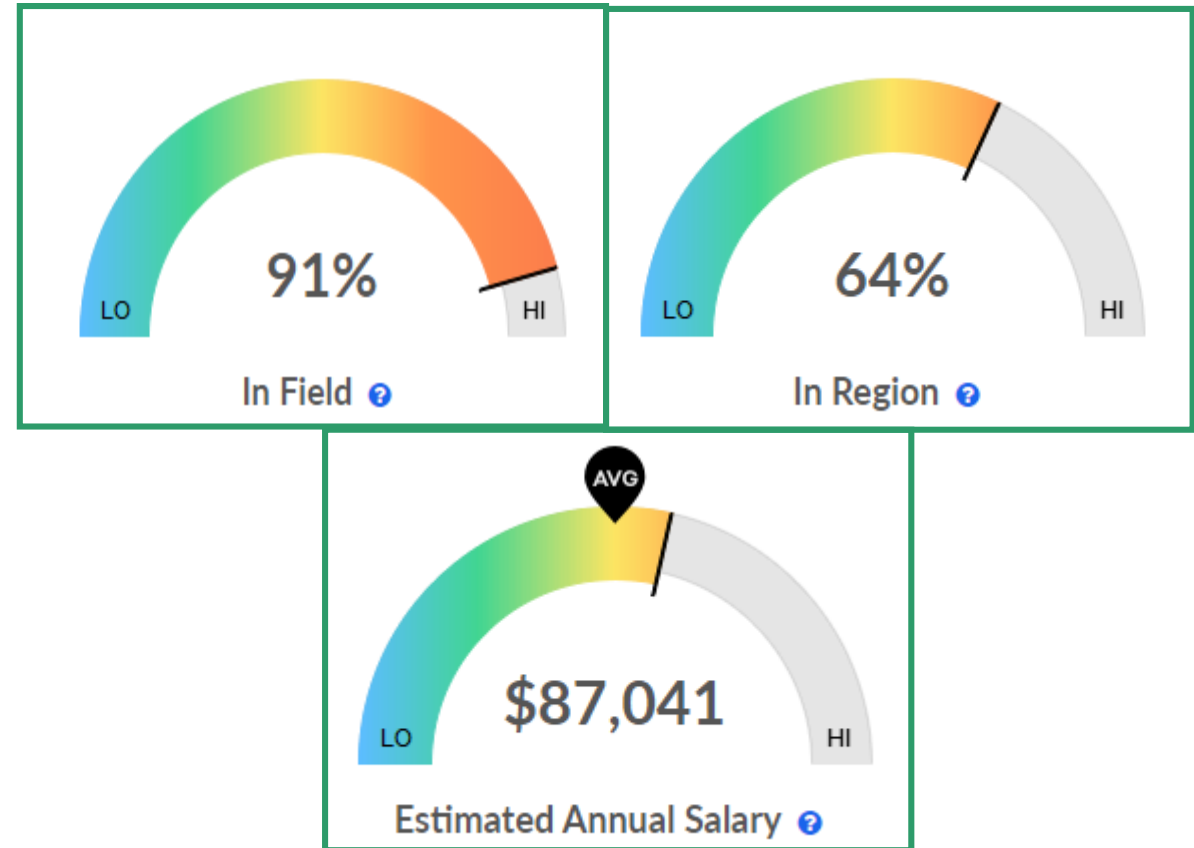
Empirical Program-to-Career Outcomes
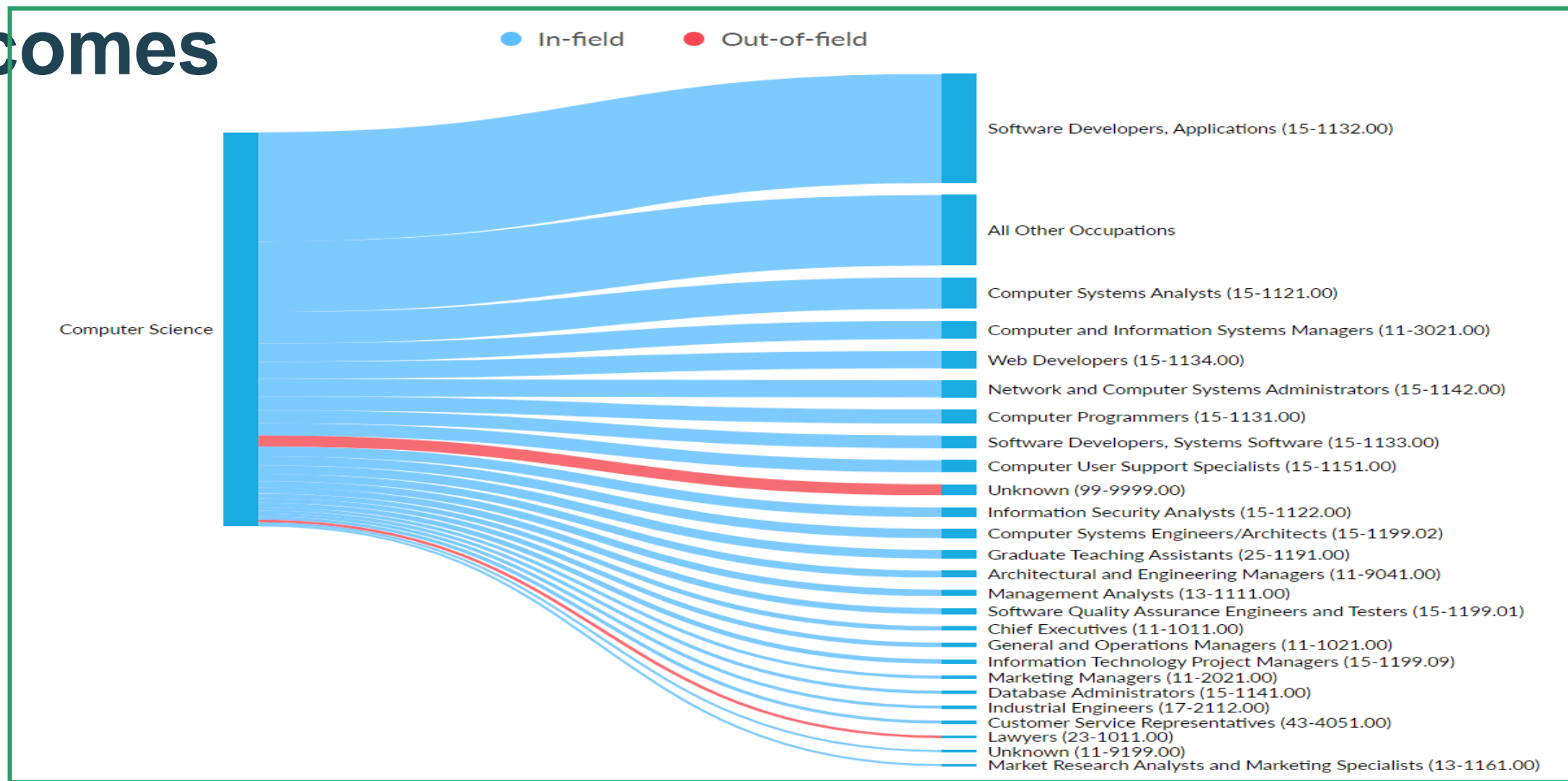
SKILL CLUSTERS – CURRICULUM

This diagram shows the top skills possessed by alumni from your Computer Science program.

'Java (Programming Language)' is the most frequently stated skill, associated with 50% of alumni. This skill is often paired with 'SQL (Programming Language)', 'C++ (Programming Language)', and 'JavaScript (Programming Language)'.

Atlanta - MSA

Skill Clustering in Workforce Profiles

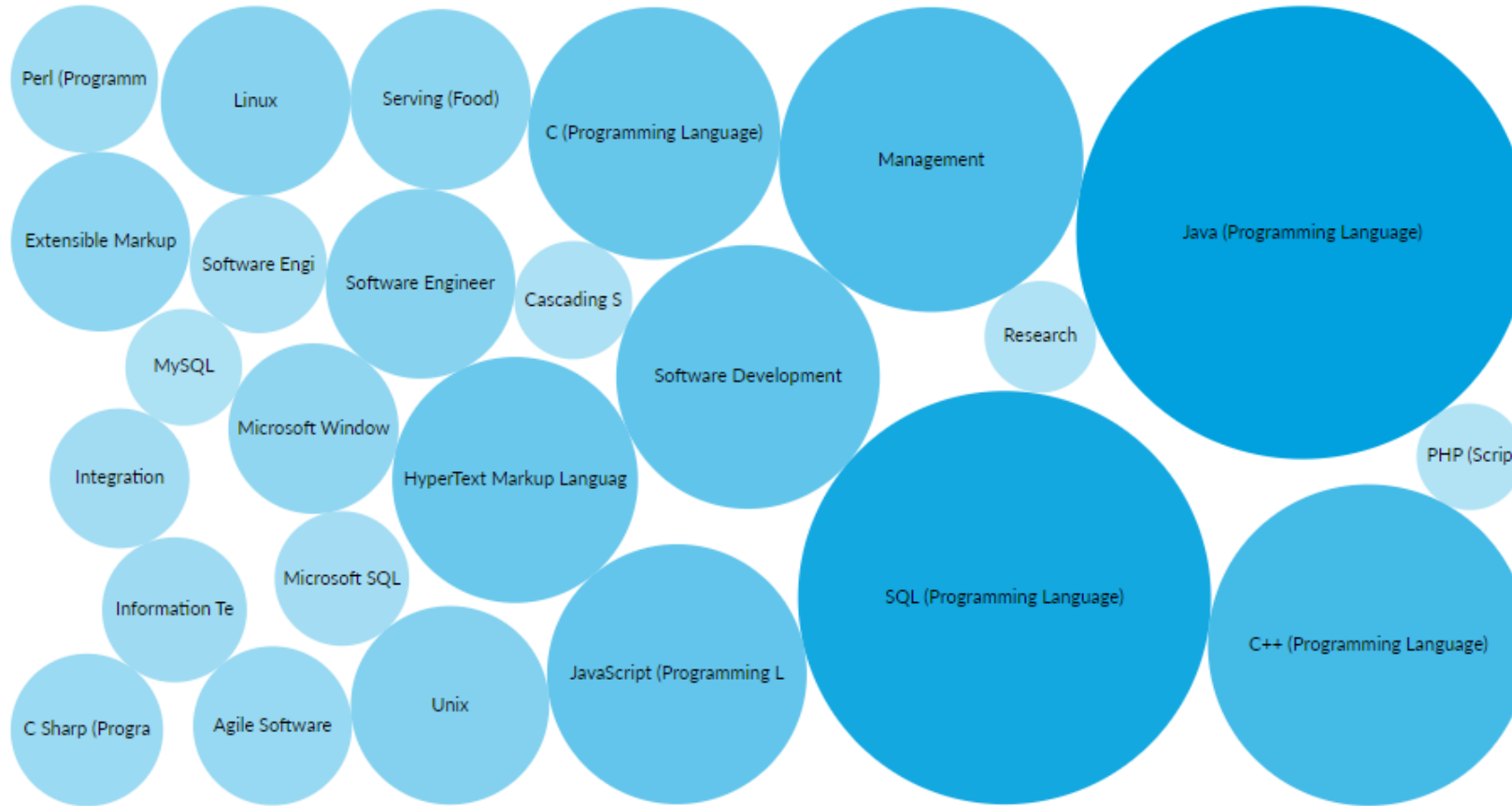| Skill/Qualification	Profiles	Percent
C++ (Programming Language)	12,221	100.00%
Java (Programming Language)	12,221	100.00%
SQL (Programming Language)	12,221	100.00%
HyperText Markup Language (HTML)	8,420	68.90%
C (Programming Language)	8,051	65.88%
JavaScript (Programming Language)	6,893	56.40%
Management	6,478	53.01%
Extensible Markup Language (XML)	6,258	51.21%
Microsoft Windows	5,528	45.23%
Visual Basic (Programming Language)	5,094	41.68%

Skill Clustering in Job Postings

Skill	Frequency in Postings	Postings with Skill / Total Postings
C++ (Programming Language)	100%	1,372 / 1,372
Java (Programming Language)	100%	1,372 / 1,372
SQL (Programming Language)	100%	1,372 / 1,372
C Sharp (Programming Language)	42%	576 / 1,372
C (Programming Language)	39%	539 / 1,372
JavaScript (Programming Language)	36%	500 / 1,372
.NET Framework	32%	435 / 1,372
Extensible Markup Language (XML)	29%	392 / 1,372
Software Development	27%	373 / 1,372
HyperText Markup Language (HTML)	27%	372 / 1,372

Atlanta - MSA

Job Title and Occupation - Workforce

Occupation (SOC)	Job Title
Software Developers, Applications	Software Engineer
Computer Occupations, All Other	Java Developer
Computer Systems Analysts	IT Quality Assurance Analyst
Web Developers	Project Manager
Management Analysts	Software Developer
Computer and Information Systems Managers	Business Analyst
Computer User Support Specialists	Graduate Assistant
Postsecondary Teachers	Web Developer
Network and Computer Systems Administrators	Database Administrator
Computer Programmers	Systems Engineer

Job Title and Occupation - Job Postings

Occupation (SOC)	Job Title
💼 Software Developers, Applications	Software Engineers
💼 Computer Occupations, All Other	Data Scientists
💼 Computer and Information Research Scientists	Salesforce Developers
💼 Web Developers	Java Developers
💼 Computer Systems Analysts	.Net Developers
💼 Computer Programmers	Programmers
💼 Operations Research Analysts	Systems Engineers
💼 Management Analysts	Test Automation Engineers
💼 Information Security Analysts	Business Analysts

Case Studies:

- Columbus State, Ohio – Job Postings to create a collaborative "Electro-Mechanical Technology Degree" with Honda

- Monroe College, New York – Identified a Middle-Skills gap in their manufacturing. Created an accelerated cohort-based instructional model aimed at adult learners.

- Montgomery College, Maryland – used Real Time Data and Business Partnerships to identify demand for big data skills.

- Southwest Wisconsin Tech – uses an efficient process combined with well developed partnerships to review the viability and health of every program, every year.

Questions?

Joshua LaFon

Account Executive

joshua.lafon@economicmodeling.com

208-892-9927

Emsi
DATA WORKS