



OREGON | Office of the State

Chief Information Officer

SB 90 (2017) Implementation Update.

JLCIMT

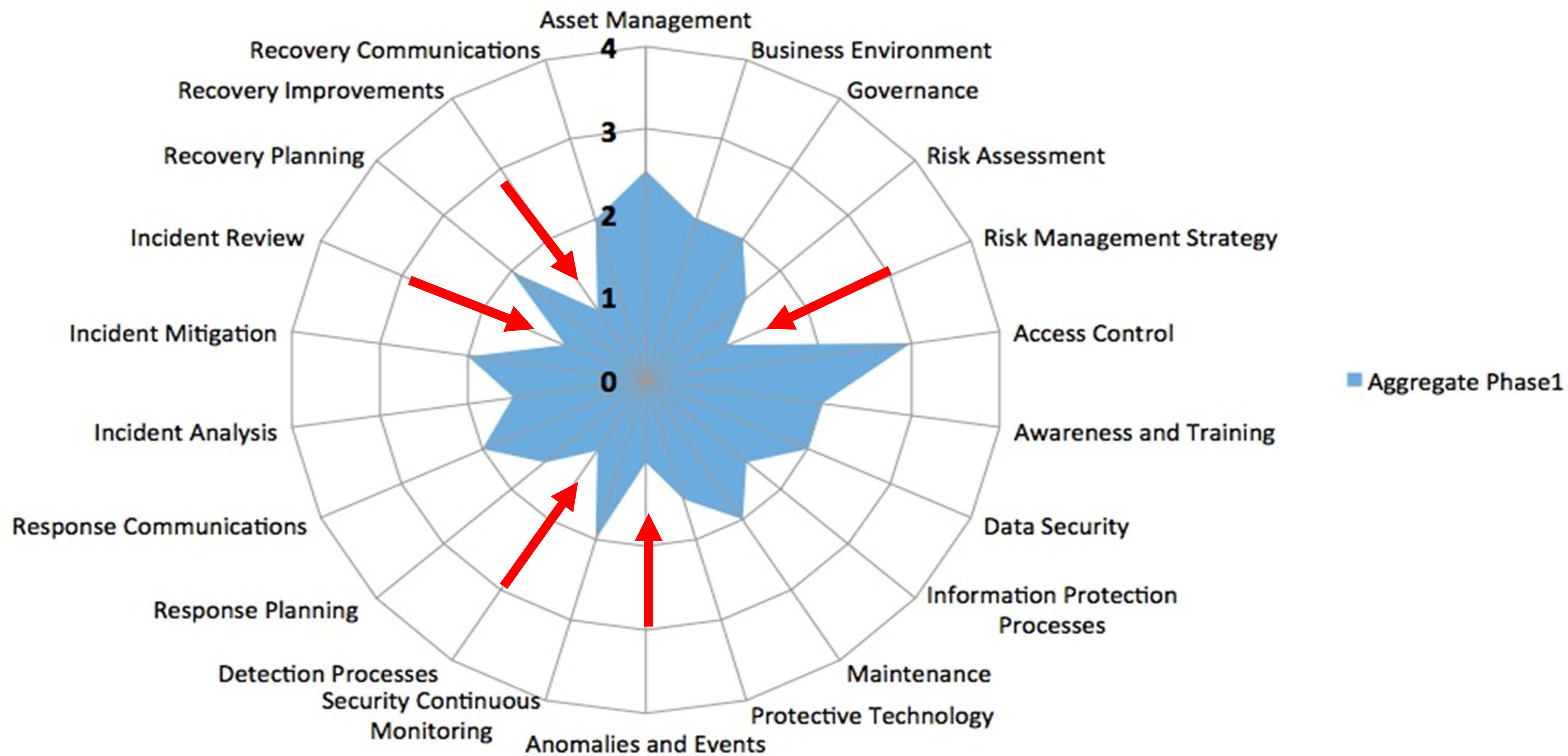
14 November 2017





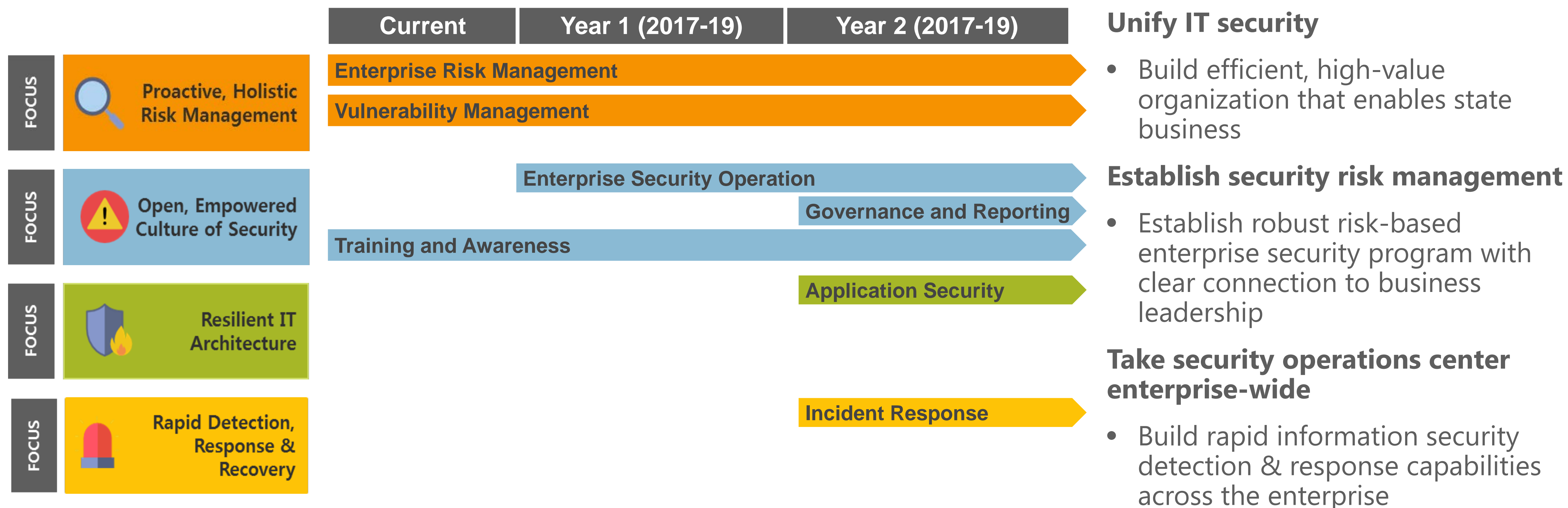
Oregon Security Risk Landscape

IT ecosystem and *vulnerability awareness* and *risk-based governance*



Enterprise Security Strategic Roadmap

2017-19 strategic priorities



Enterprise Security Goals

2017-19 Biennium

2017	2018		2019
Form new ESO, Ops review, Governance	Continuity of existing services, metrics	Services in top risk areas, reporting	Evaluate, course correct as needed
<ul style="list-style-type: none"> • Identify affected personnel • Individual and organizational meetings with affected entities • Determine enterprise security org structure • Staff key vacancies • Execute IAAs to cover period through end of 2017 where necessary • Establish enterprise security risk oversight and governance within state leadership • Start existing staff reassignments 	<ul style="list-style-type: none"> • Establish enterprise security services: <ul style="list-style-type: none"> • Vulnerability Scanning/Mgmt. • Security Architecture & Solutions • Security Risk Assessment • Institute ESO agency enabling capabilities • Define agency & enterprise report cards • Identify requirements for role-based or sector-based training • Complete all existing staff reassignments 	<ul style="list-style-type: none"> • Establish enterprise security services: <ul style="list-style-type: none"> • Enterprise Detection & Response (SOC) • Application Security • Publish revised enterprise information security policy • Start publishing quarterly report cards 	<ul style="list-style-type: none"> • Conduct external review/audit of enterprise program • Identify gaps and need for additional new services • Conduct customer satisfaction survey





Cyber Oregon

Implementing and SB 90 (2017) and planning for a
Cybersecurity Center of Excellence

Oregon Cybersecurity Advisory Council

advising the State CIO on [cybersecurity](#)

Andrew Plato, Council Chair
Anitian

Kerri Fry, Council Vice Chair
Redhawk Security

Michael Gutsche
Microfocus

Charlie Kawasaki
Software Diligence and Technology
Association of Oregon

Andy Schroder
Public Law Enforcement/Intel

Tom Quillin
MacAfee

Kris Rosenberg
Oregon Institute of Technology

Ken Kestener
Lake County Commissioner

Dennis Tomlin
Multnomah County and Technology
Association of Oregon

**the biggest cybersecurity concerns facing organizations in Oregon*



Cyber Oregon Stakeholders

cross-sector coordination, cyber *talent development* and *collective impact*

Private Sector



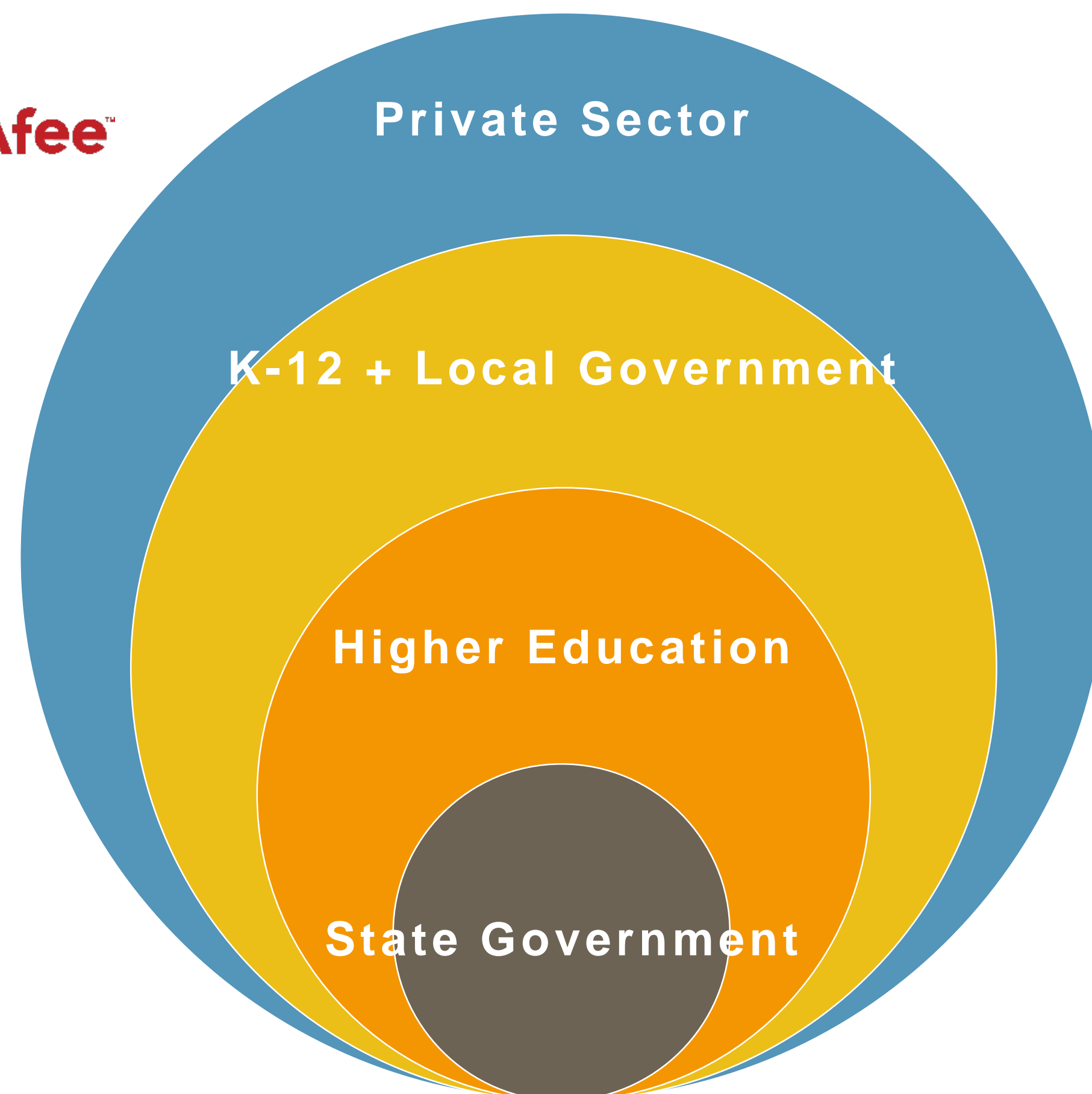
K-12 + Local Government



Higher Education

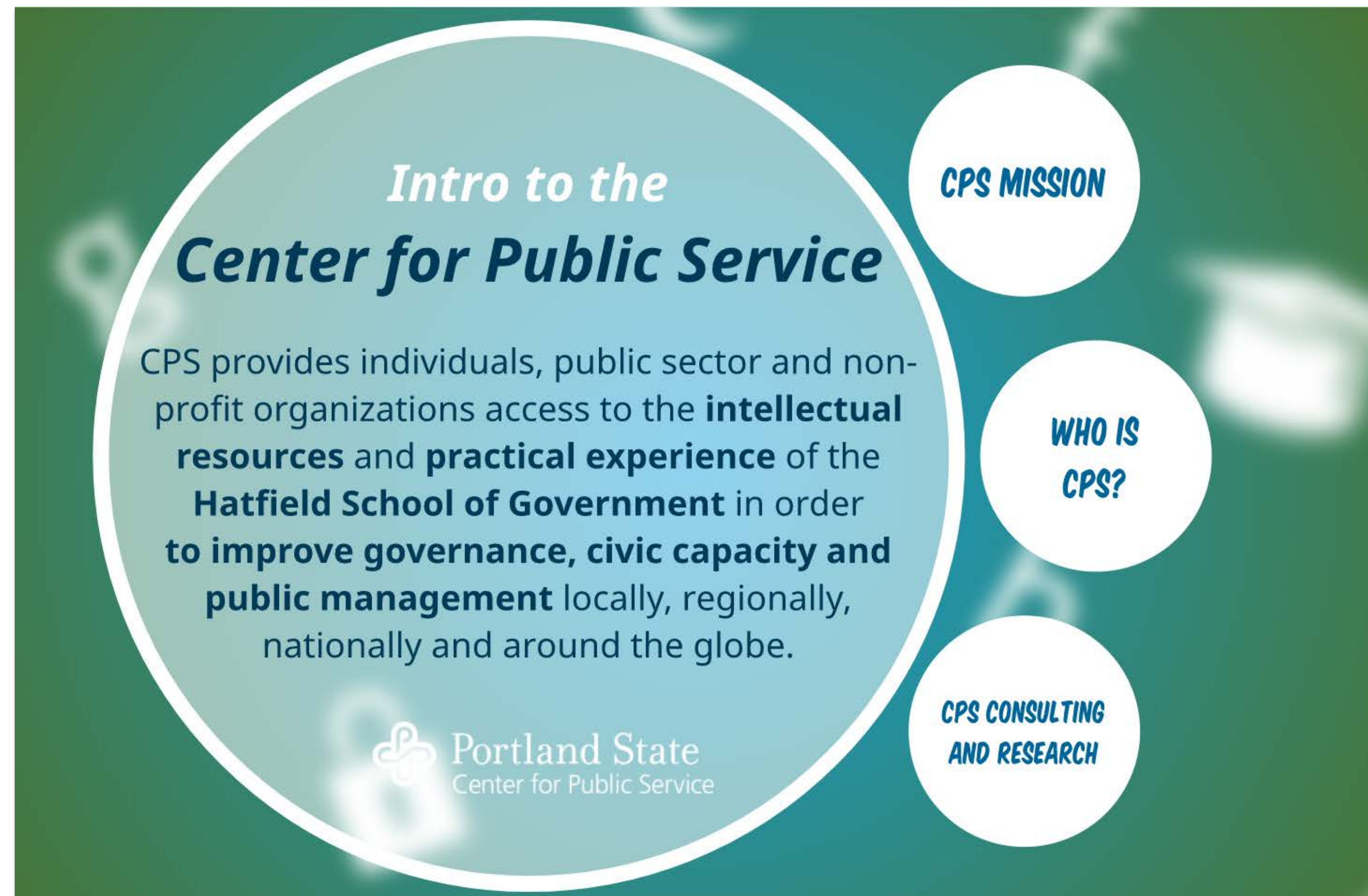


State Government



Cybersecurity Center of Excellence (CCoE)

engaging with the Center for Public Service



Cybersecurity Center of Excellence (CCoE)

engaging with the Center for Public Service

OUR KEY RESEARCH QUESTIONS

1. How are **other states** approaching cybersecurity?
2. What are the **biggest needs** for Oregon organizations?
3. Where are the **cybersecurity resources and networks** that can help fulfill these needs, and where are there new resources needed?
4. What **funding opportunities** are available?

AND FINALLY,
What does all of this mean for the CCoE initiative in Oregon?

 Portland State
Center for Public Service

TO DO LIST

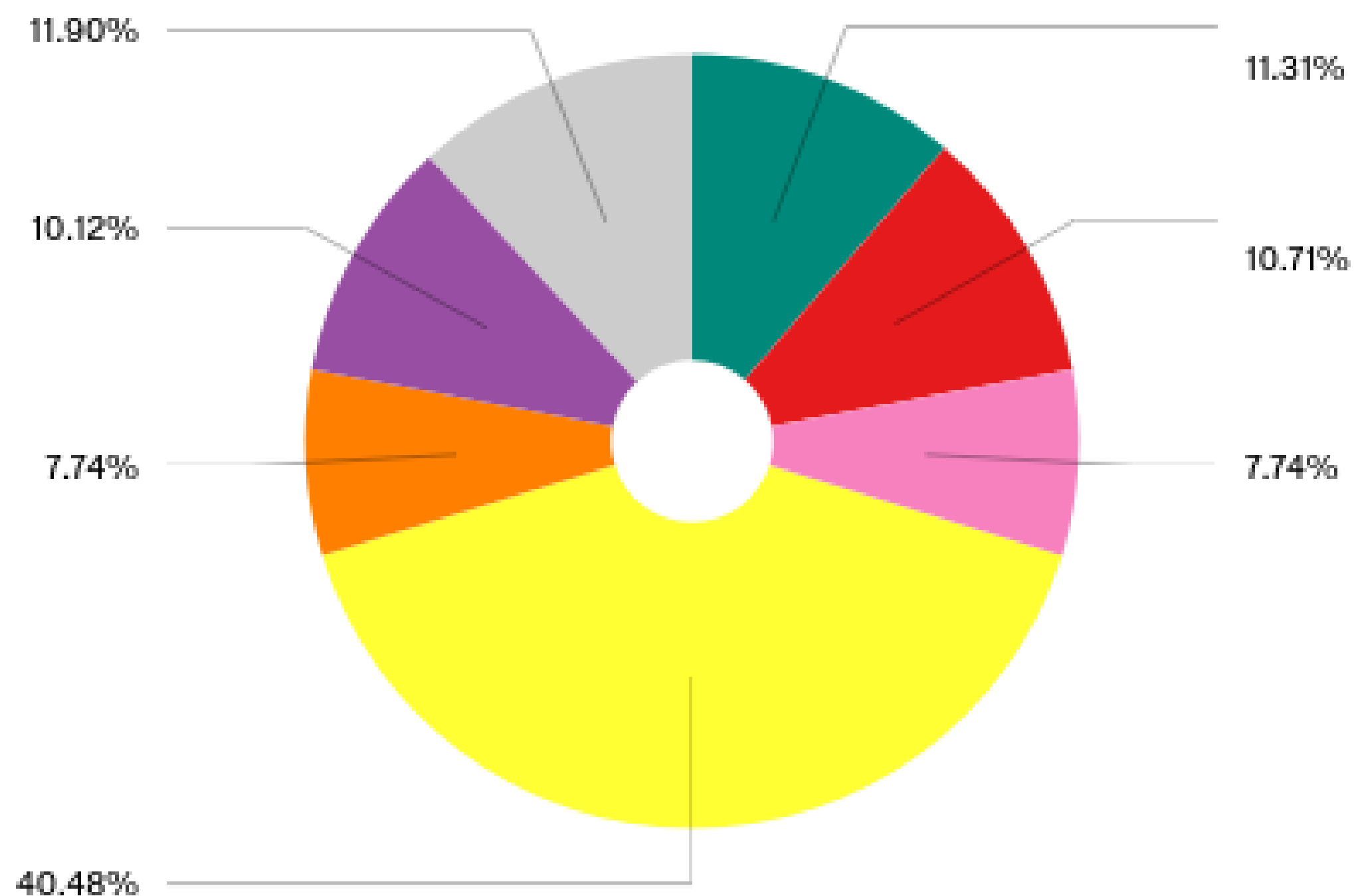
- 1 Comparative Policy Analysis
- 2 State-Wide Web Survey
- 3 Regional Focus Groups
- 4 Geographical and Network Analysis
- 5 Funding Opportunities Catalog

[HTTP://WWW.PDX.EDU/CPS/CYBERSECURITY](http://www.pdx.edu/cps/cybersecurity)



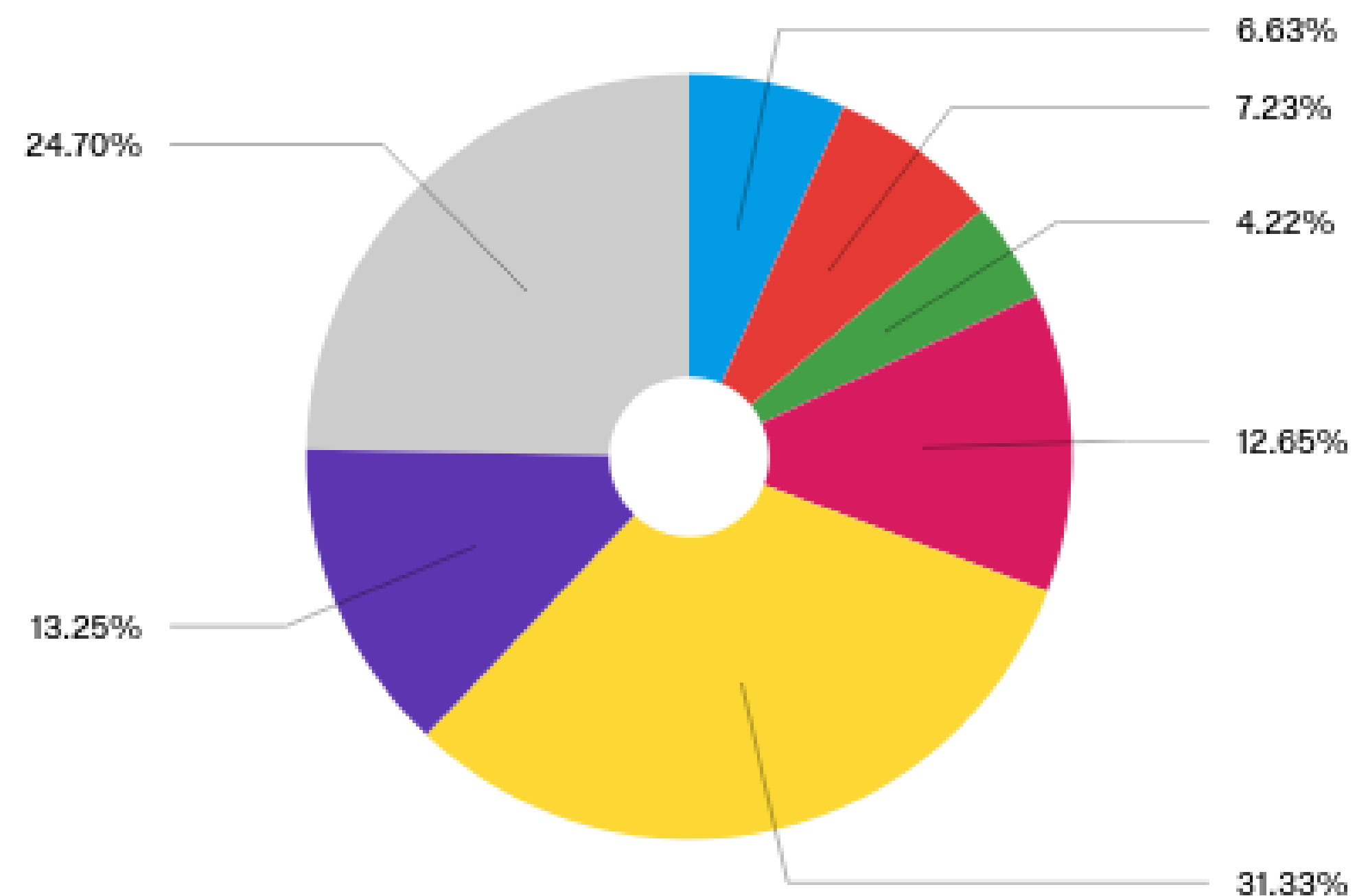
Cybersecurity Center of Excellence (CCoE)

Center for Public Service statewide web survey – responses by *industry*



Cybersecurity Center of Excellence (CCoE)

Center for Public Service statewide web survey – responses by *county*



Clackamas County

Deschutes County

Lane County

Marion County

Multnomah County

Washington County

All Others



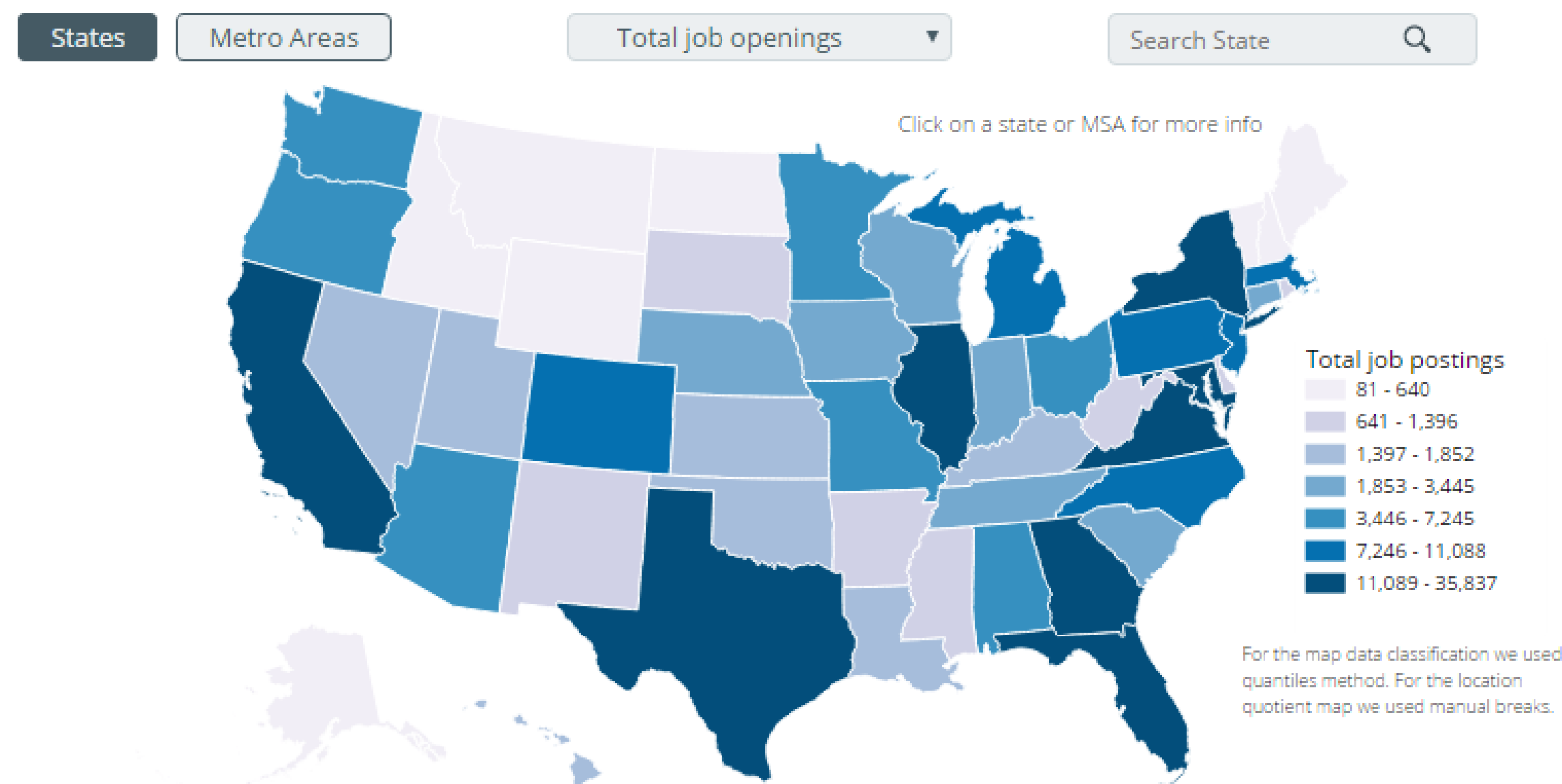
National Trends in Cybersecurity

struggling to meet workforce *demand*

Cybersecurity Supply/Demand Heat Map

Cybersecurity talent gaps exist across the country. Closing these gaps requires detailed knowledge of the cybersecurity workforce in your region. This interactive heat map provides a granular snapshot of demand and supply data for cybersecurity jobs at the state and metro area levels, and can be used to grasp the challenges and opportunities facing your local cybersecurity workforce.

Share



National level

TOTAL CYBERSECURITY JOB OPENINGS ⓘ

299,335

TOTAL EMPLOYED CYBERSECURITY WORKFORCE ⓘ

746,858

SUPPLY OF CYBERSECURITY WORKERS ⓘ

Very Low

CYBERSECURITY WORKFORCE SUPPLY/DEMAND RATIO



National average

GEOGRAPHIC CONCENTRATION ⓘ

Average

LOCATION QUOTIENT



National average

TOP CYBERSECURITY JOB TITLES ⓘ

- Cyber Security Engineer
- Cyber Security Analyst
- Network Engineer / Architect
- Cyber Security Manager / Administrator
- Software Developer / Engineer
- Systems Engineer
- Systems Administrator

<http://cyberseek.org/heatmap.html>

Snapshot Sept 17, 2017



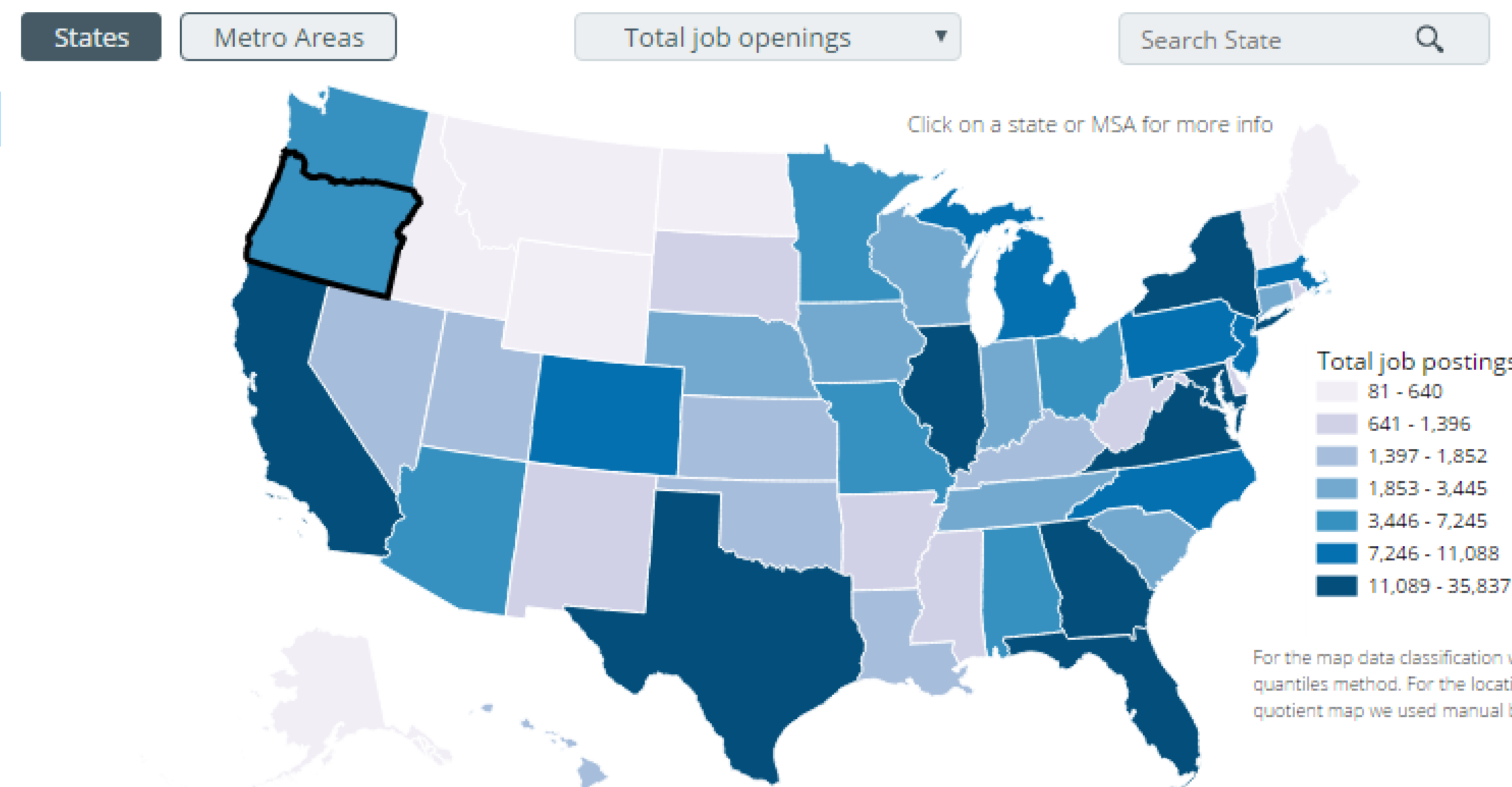
Oregon Trends in Cybersecurity

struggling to meet **local** workforce **demand**

Cybersecurity Supply/Demand Heat Map

Cybersecurity talent gaps exist across the country. Closing these gaps requires detailed knowledge of the cybersecurity workforce in your region. This interactive heat map provides a granular snapshot of demand and supply data for cybersecurity jobs at the state and metro area levels, and can be used to grasp the challenges and opportunities facing your local cybersecurity workforce.

Share



Oregon

TOTAL CYBERSECURITY JOB OPENINGS ⓘ

3,448

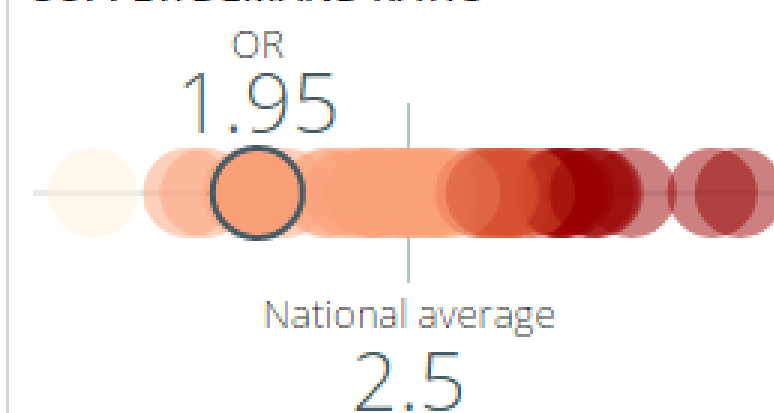
TOTAL EMPLOYED CYBERSECURITY WORKFORCE ⓘ

6,724

SUPPLY OF CYBERSECURITY WORKERS ⓘ

Very Low

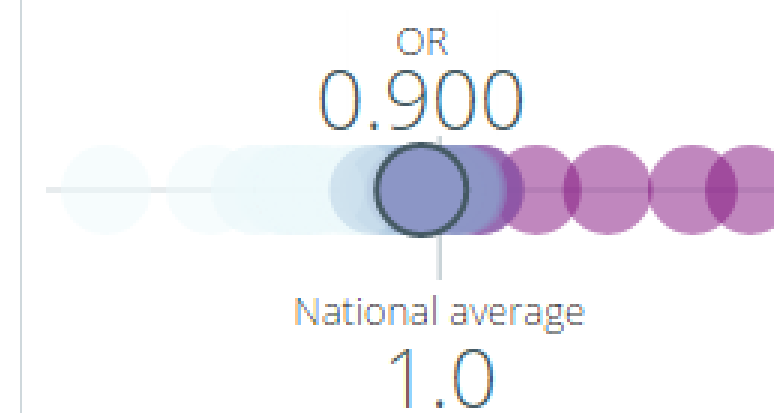
CYBERSECURITY WORKFORCE
SUPPLY/DEMAND RATIO



GEOGRAPHIC CONCENTRATION ⓘ

Average

LOCATION QUOTIENT



TOP CYBERSECURITY JOB TITLES ⓘ

- Cyber Security Engineer
- Cyber Security Analyst
- Network Engineer / Architect
- Cyber Security Manager / Administrator
- Systems Engineer
- Vulnerability Analyst / Penetration Tester
- Cyber Security Architect
- Software Developer / Engineer
- Systems Administrator

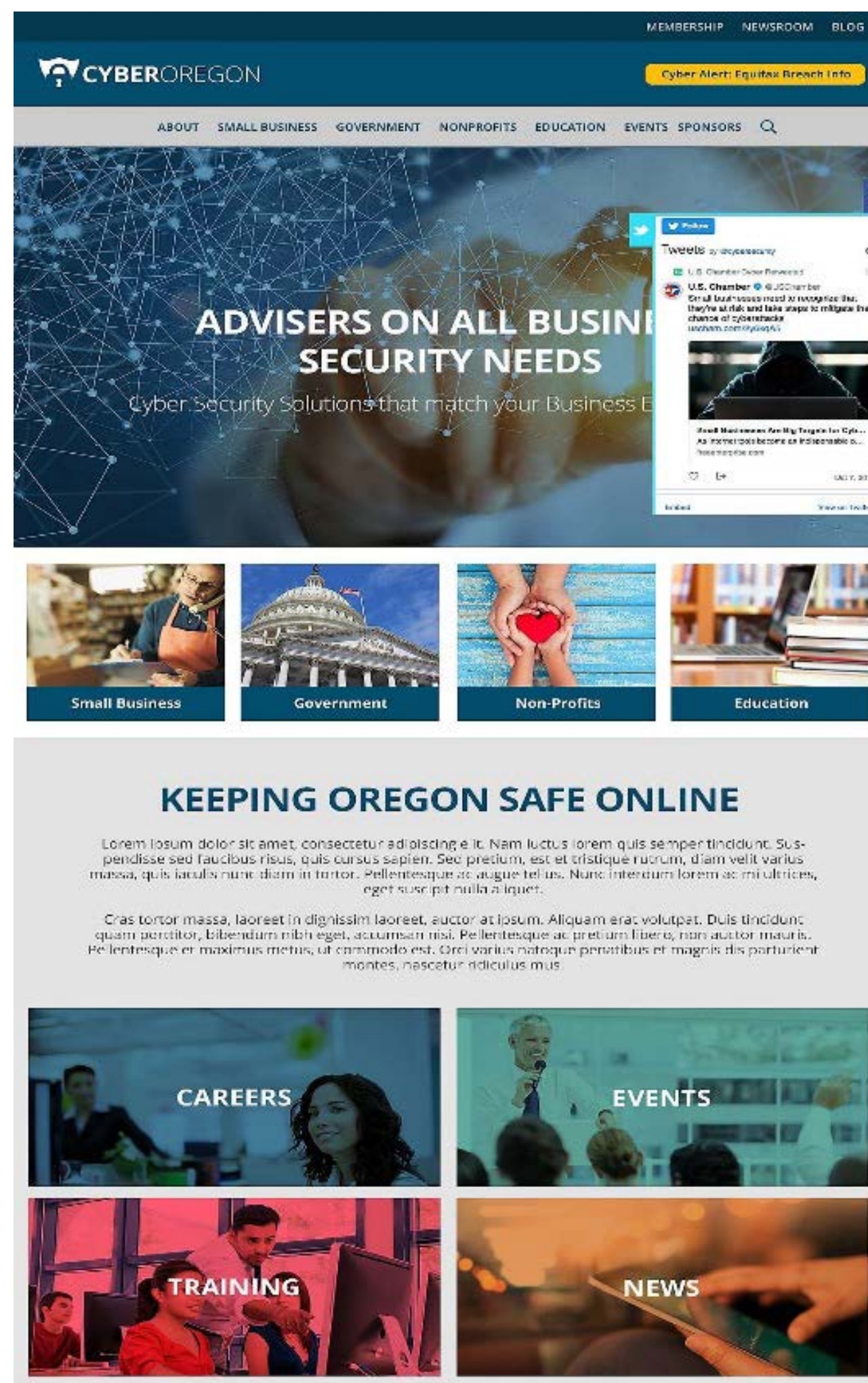
<http://cyberseek.org/heatmap.html>

Snapshot Sept 17, 2017



Cyber Oregon

Oregon *Day of Cyber*, cyberoregon.com website launch and upcoming events



Oregon Day of Cyber, November 20th

- **Location.** Oregon Institute of Technology, 27500 SW Parkway Ave, Wilsonville, OR 97070
- **Time.** 10:00 am -- noon
- **Agenda.**
 1. Cyber Networking and Job Fair
 2. Cyber Oregon Overview - TAO
 3. Remarks by Governor Kate Brown
 4. Cybersecurity Panel Discussion

