



UNIVERSITY OF
LOUISVILLE[®]

GROWING KENTUCKY'S
CYBERSECURITY
WORKFORCE

louisville.edu/research

A GROWING THREAT

Cybersecurity is a critical element in the lives of all Americans, yet we are not generating enough non-academic cybersecurity professionals to meet demand.



69

The number of cybersecurity workers available for every 100 open jobs.

3 MILLION

Workforce gap for qualified defense civilians and active military personnel with specialties in cybersecurity, per ISC2.

4,000

Currently unfilled highly-paid positions in Kentucky alone, forfeiting potential tax revenue and leaving our critical infrastructure, utilities and businesses vulnerable.

Academic Cybersecurity Training

- Graduate certificate in cybersecurity, including an on-campus and an online program.
- Bachelor of Arts in Computer Science, with a track in cybersecurity.
- B.A. in Business Admin/Computer Information Systems (CIS) track in cybersecurity.
- Ph.D. in Computer Science and Engineering.
- Graduates now working for major employers like UPS, Yum! and Humana Inc.

Cyber Program Enrollment

	2018-19	2019-20	2020-21	2021-22	2022-23
BS CIS with track in Cybersecurity	212	224	231	196	161
Graduate Certificate in Cybersecurity	21	19	26	30	58
BA CS with track in Cybersecurity	NEW program with first admit term: Summer 2023				

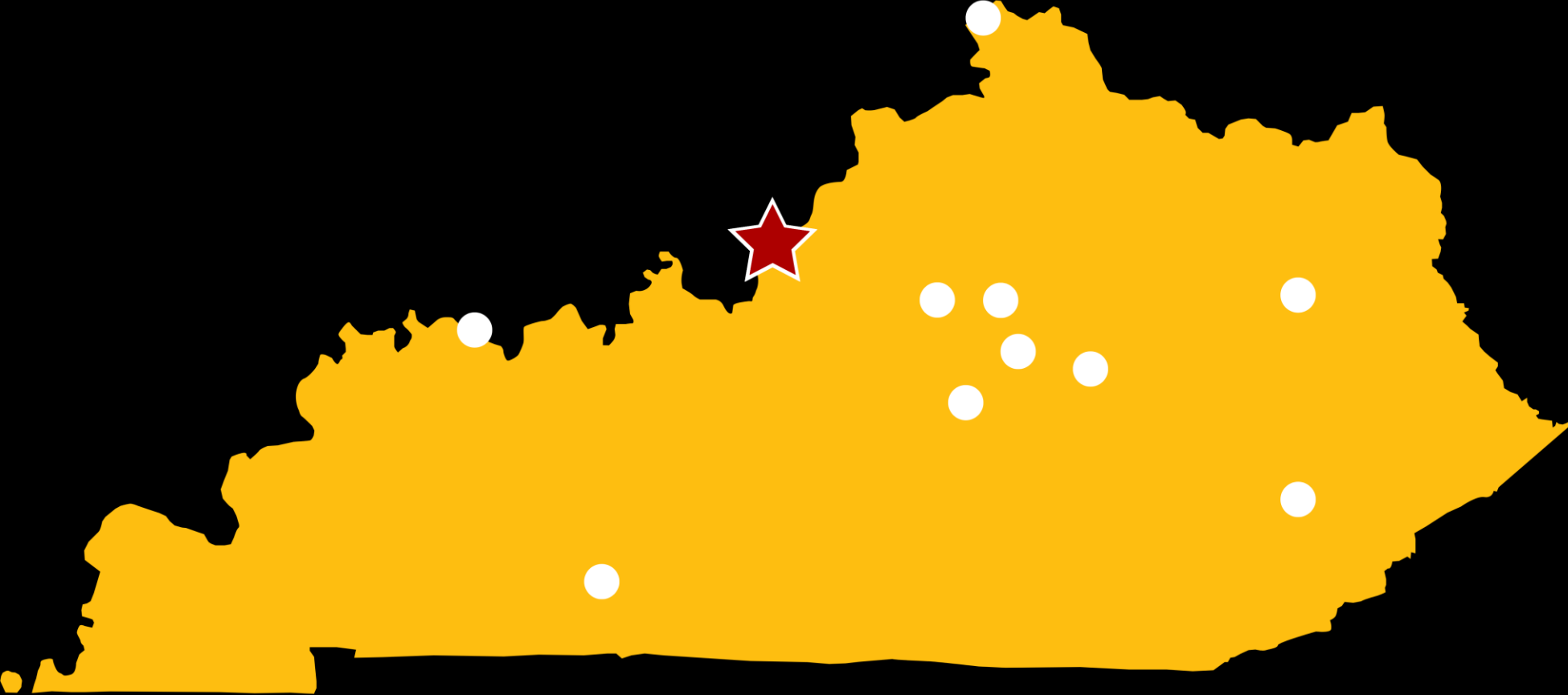
Building Partnerships

In-State Partners

- Bluegrass Community Technical College
- Kentucky State University (HBCU)
- Simmons College (HBCU)
- University of Kentucky
- Western Kentucky University
- Kentucky State University
- Eastern Kentucky University
- Northern Kentucky University
- Morehead State University

National Partners

- University of Arkansas - Little Rock
- University of North Florida
- Cumberland University
- Universidad Politecnica- Puerto Rico



★ (Additional funds available for more partners.)

Cybersecurity Workforce Certification

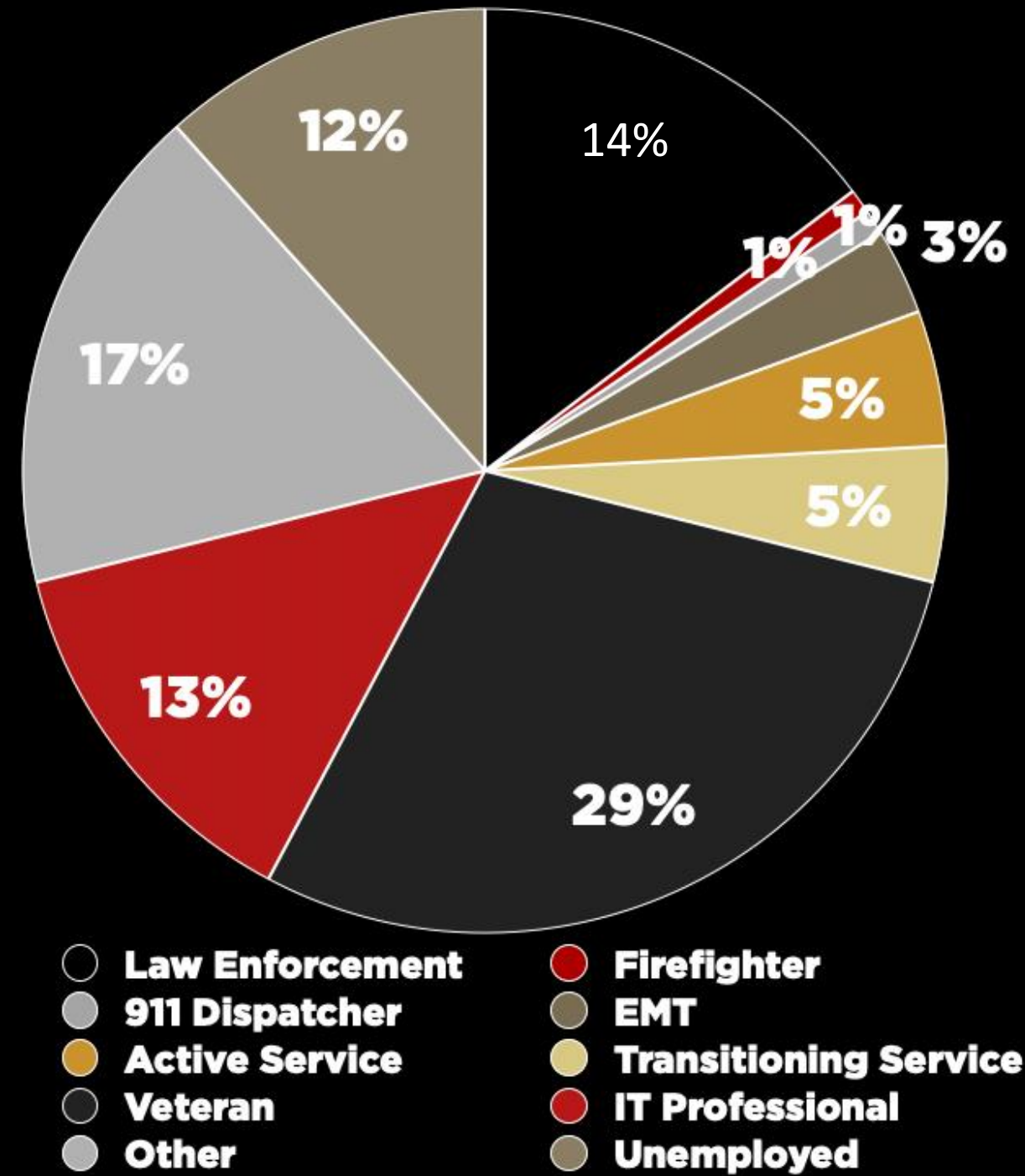
- UofL has received more than \$10 million in federal funding between DHS, DoD and NSA for research and training;
- Established partnerships with AWS, Microsoft, IBM, Google, Intel, etc.
- UofL leads consortium of schools, each an NSA-designated **National Center of Academic Excellence in Cyber Defense**;
- Modular and easily customized curriculum has already been applied to healthcare, logistics, etc.



Non-Academic Workforce Certificate:

Upskilling industry, law enforcement, first responders and military

Admissions By Industry



Non-Academic Cyber Training Programs

Military

The **Cybersecurity Certifications, Careers and Communities (C4) Project** provides training to military, veterans and their spouses transitioning to civilian cyber careers;

- Backed by \$2 million from the Commonwealth of Kentucky;
- So far, has produced 184 graduates.

Law Enforcement

The **Law Enforcement Cybersecurity Project** provides training to law enforcement and criminal justice employees fighting cyber crimes;

- Backed by grant from the U.S. Department of Homeland Security;
- 171 participants across a variety of ranks from 32 states.

Teachers

The **National Cyber Teaching Academy** provides cyber training to high school teachers;

- Scholarships to teachers pursuing 12 credit hour certificate;
- 400 high school teachers applied, and 31 were accepted to begin in summer 2022.

NSF's CyberCorps Scholarships for Service

- UofL received \$3.4 million in federal funding from NSF;
- Covers full tuition and stipends for dozens of students over the five-year project period;
- B.S./M.ENG. in computer science and engineering program or M.S. in computer science degree program.



Leading the Charge on Military Cyber Defense

- UofL joins DoD's National Cyber Command and Strategic Command to further military research and build a talent pipeline through education.
- UofL is one of only a handful of colleges in each network to hold both the Carnegie Research-1 and Community Engaged classifications.

