Building Digital Workforce Skills at the Local Level

NTIA Webinar Series

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Conference Line: 800-593-7190 Passcode: 984-4951#

November 20, 2019

Participants

Presenters

- David Keyes, Digital Equity Program Manager, City of Seattle Information Technology
- Stacey Wedlake, Research Coordinator and Analyst, Technology and Social Change Group (TASCHA) at University of Washington Information School
- Shonna Dorsey, Senior Business Systems Consultant, Mutual of Omaha
- Kagan Coughlin, Co-Founder & Trustee, Base Camp Coding Academy

Moderator

- Emy Tseng, Senior Program Specialist, NTIA, BroadbandUSA

Helpful Information

Questions

- Please type questions and comments in the question box on the right hand side of the screen. Questions will be taken after the final presenter.

Presentation

- The presentation along with a transcript and an audio recording will be available on the BroadbandUSA website within 7 days of this webinar under Events/Past Events.
- https://broadbandusa.ntia.doc.gov/past-event

Technical Assistance

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TECHNOLOGY & SOCIAL CHANGE GROUP
UNIVERSITY of WASHINGTON
Information School

Seattle
Information Technology

Digital skill sets for diverse workforce needs

David Keyes and Stacey Wedlake

November 20, 2019

Seattle digital equity program

We envision Seattle as a city where technology's opportunities equitably empower all residents and communities – especially those who are historically underserved or underrepresented.

- **Skills Training**
- **Connectivity**
- **Devices & Tech Support**
- **Applications & Online Services**

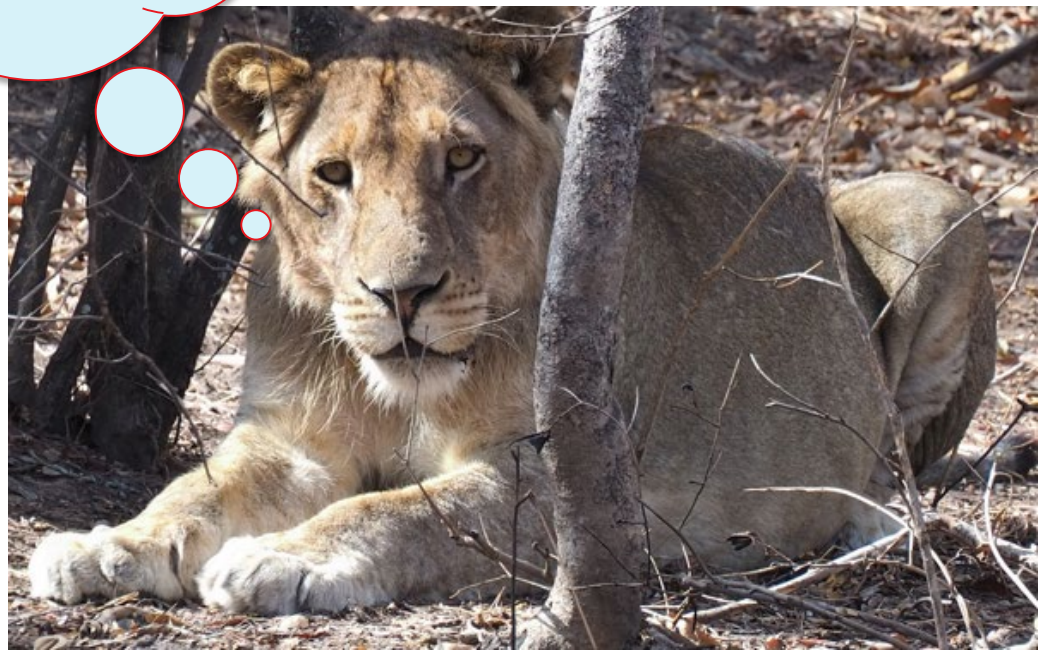
Foundational Skills

- Basic skills
- Applied life skills (e.g. transportation)
- How to learn online

Job Pathways

- Finding work & basic job skills
- Applied tech (e.g. health, sales)
- IT career
- Business/entrepreneurship

Should I learn to code?



Many Flavors of IT Careers

- Programming|Coding
- Data design, analytics & visualization
- Networks
- UX (user/universal) design
- Artificial Intelligence
- Web & Apps Development
- Tech & bioscience engineering

- Robotics
- Game Development
- Video/Audio
- Graphic design
- Cybersecurity
- Cloud computing

How we help foster workplace skills

- Support for community based training
  - Technology Matching Fund & targeted contracts
- Career exposure
- Internships & apprenticeships
- Support pathways work
- Linking soft skill supports

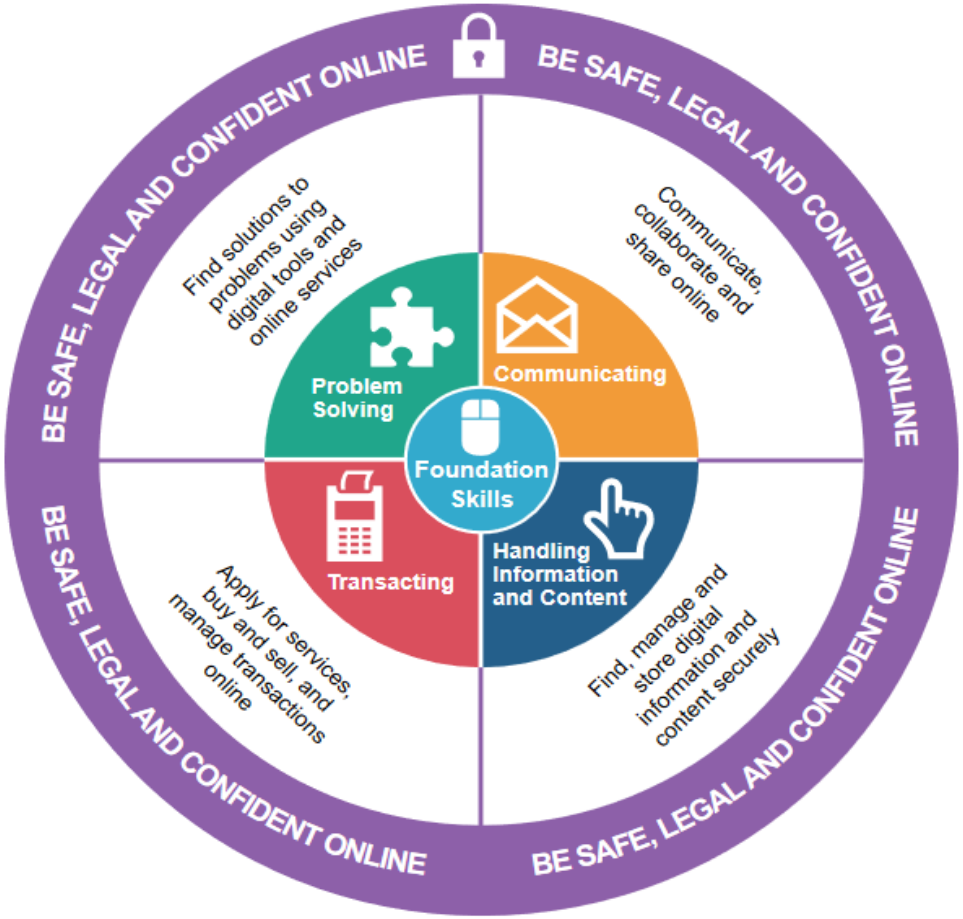
APPRENTi
The path, the plan, your career in tech.

SEATTLE COLLEGES
Central · North · South

Job Readiness Skills for **Youth**

What is an essential skills package?

We looked at frameworks and curriculum.



Graphic: [UK.gov digital skills framework]

6 Frameworks

- DigComp 2.1 (EU)
- Essential Digital Skills (UK)
- International Computer Driving License (ICDL)
- International Society for Technology in Education (ISTE)
- Mozilla Web Literacy
- Northstar Assessment

9 Curricula

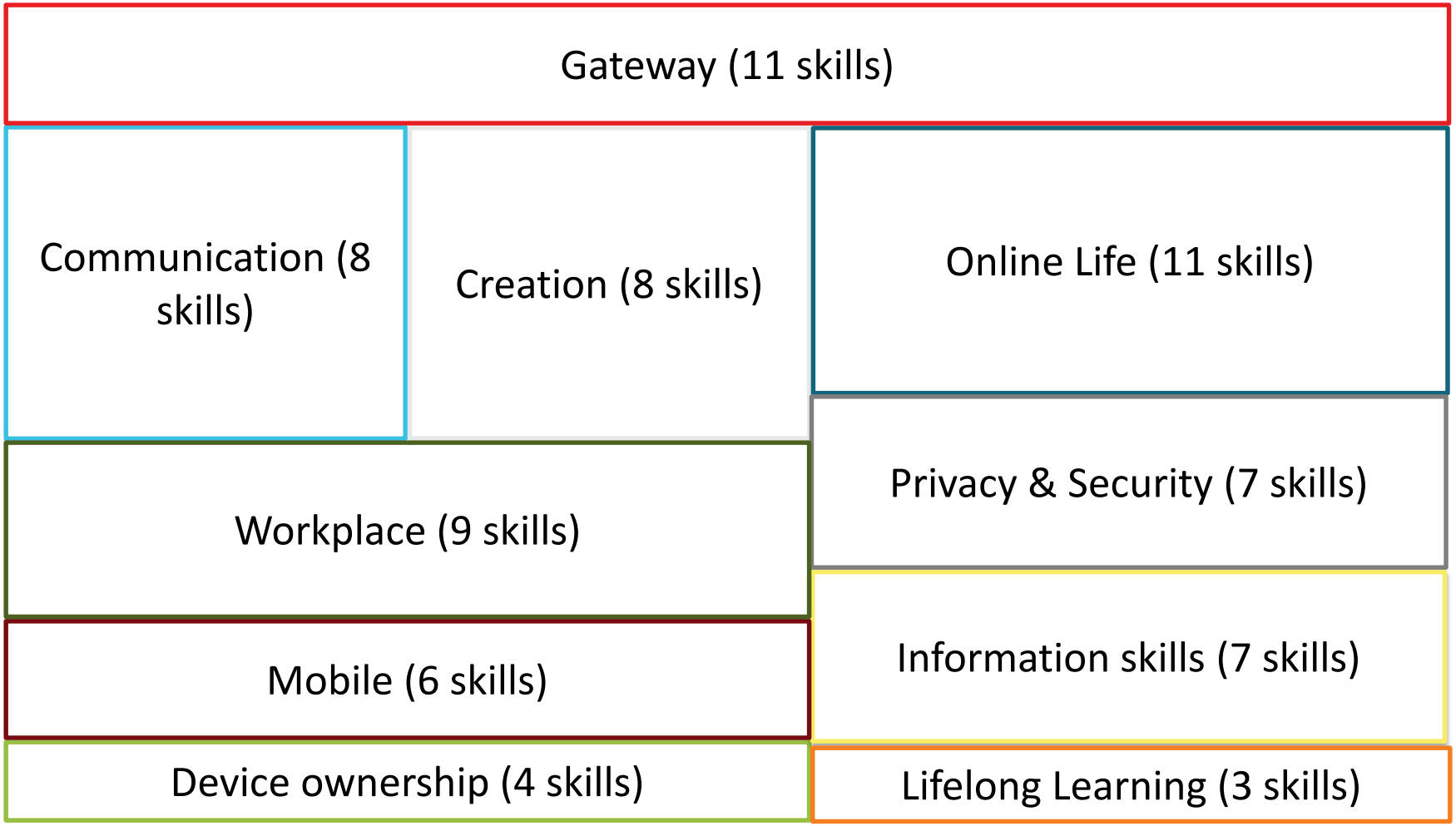
- Compass Digital Skills (EU)*
- Digital Learn
- Google Applied Digital Skills*
- Mozilla Core Curriculum*
- GCF Teacher Guide
- Learn My Way (UK)
- Literacy Source
- Microsoft Imagine Academy
- Seattle Goodwill

Available in other languages. Spanish: Digital Learn, GCF. Microsoft: Spanish, Vietnamese, Chinese, Russian, Japanese...

*Connected to framework

Ten skill use categories

for a range of learners found in our review



Sample of skills covered

Gateway

- Password basics
- Basic internet searching

Communication

- Digital collaboration
- Making Internet-based calls

Creation

- Coding
- Multimedia production

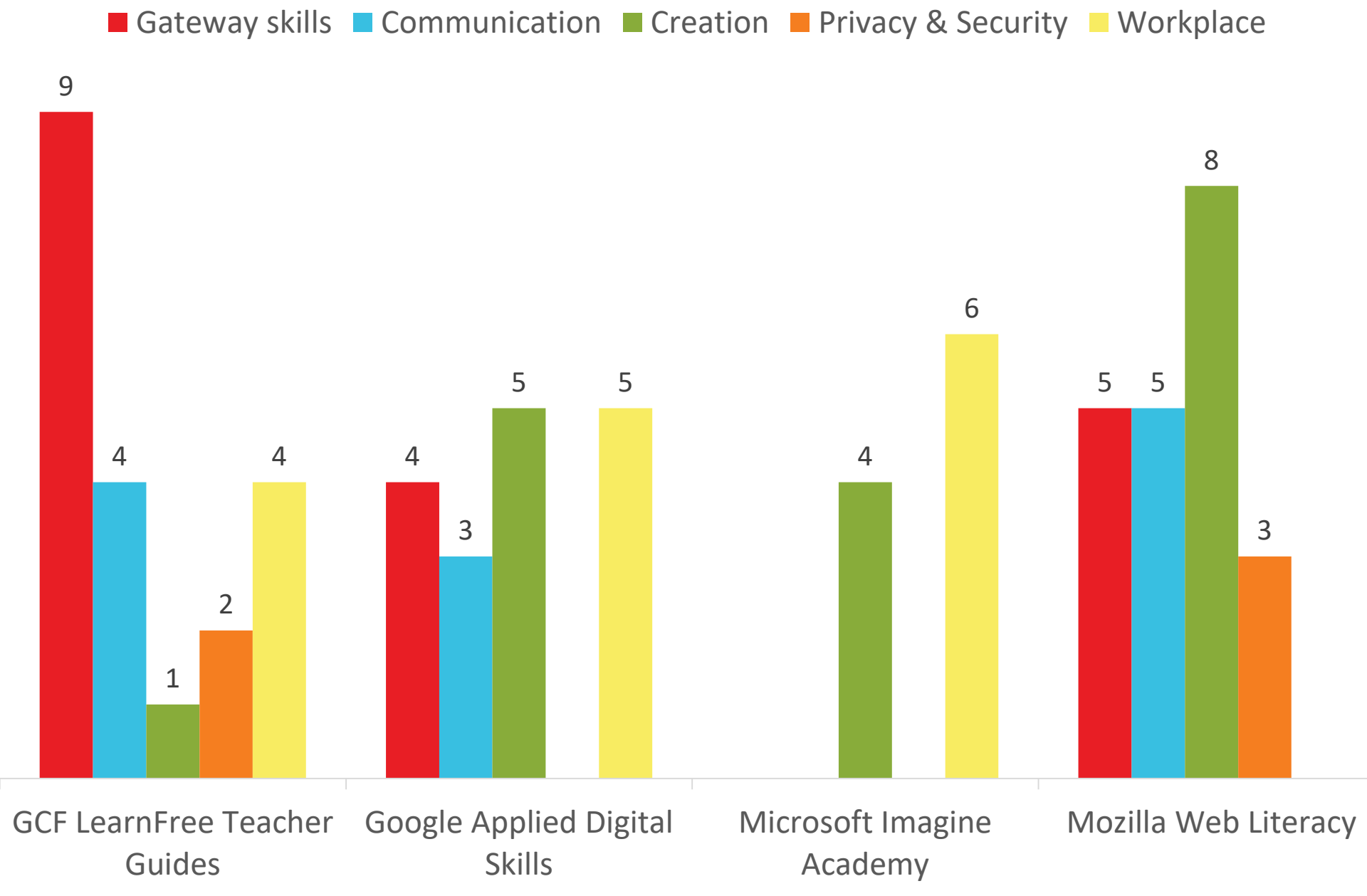
Privacy & Security

- Avoiding phishing, scams
- Managing digital identity

Workplace

- Using a word processor
- IDing right tools for work

Different curriculum, different workforce skills




Approach workforce skills holistically – what supporting digital skills sets do people need to succeed?

Download Digital skill sets for diverse users: A comparison framework for curriculum and competencies **report and comparison spreadsheet.**

Learn more about City of Seattle's Digital Equity work: https://www.seattle.gov/tech/initiatives/digital-equity

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Digital Skills for the Workforce

Shonna Dorsey, PMP, PMI-ACP
BroadbandUSA Webinar
November 20, 2019

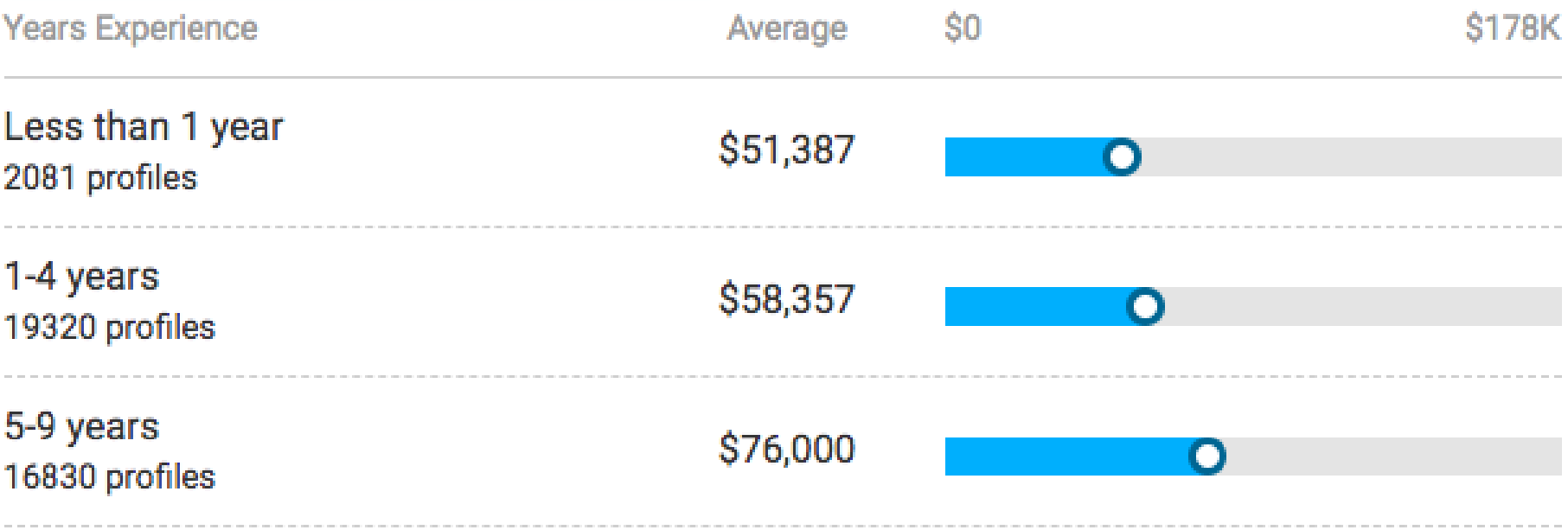
Tech Workforce Overview

Some of the BEST paying jobs of today and the future will be in tech and related positions.

Technology careers are one of the spaces where a motivated self-starter can be set apart from their peers

Some of the lowest unemployment rates exist in tech careers

Examples of Tech Job Salaries



Comparison: Top Growing Jobs

#10: Web Designer - $56K average, 3.4X growth

#6: Solutions Architect - $102K average, 3.7X growth

#1 fastest: Barista - $24K average, 5.6X growth

A bit about my pathway into tech

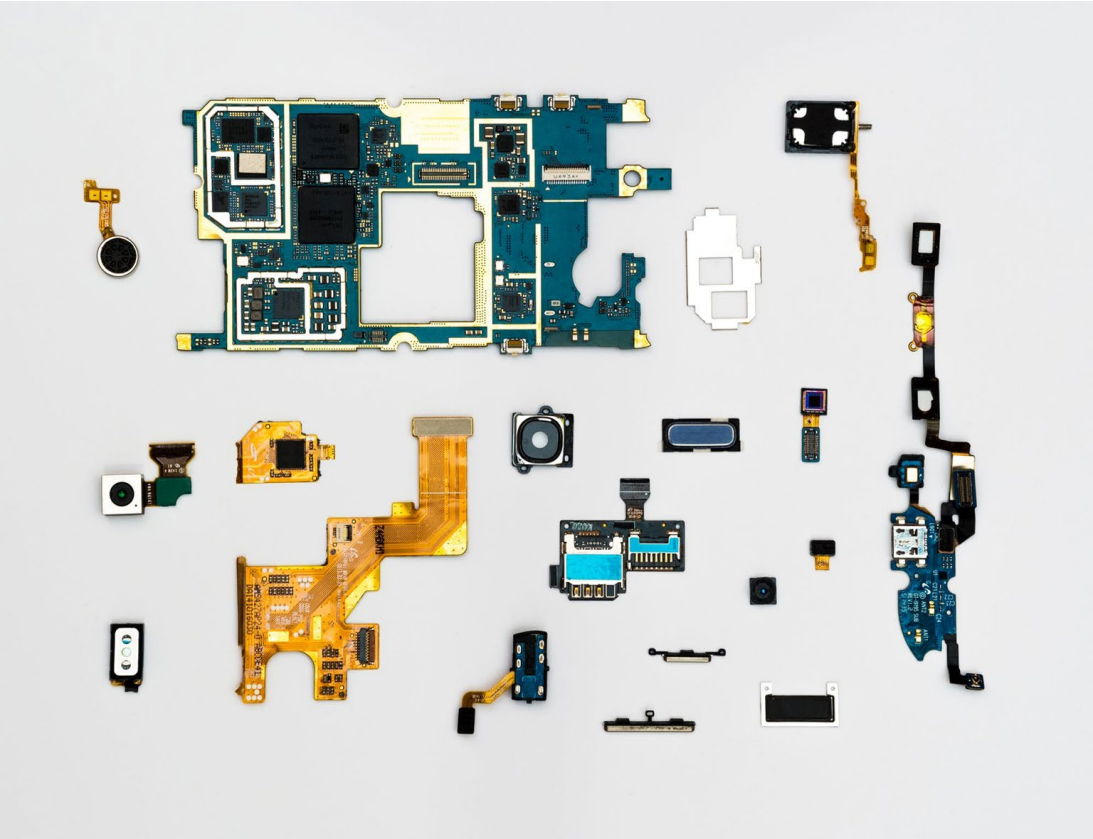
- Many turns throughout my career, but always landed back in tech
  - Waited tables
  - Sold cars
  - Pharmacy technician
  - Helpdesk agent
  - Process automation
  - Business analysis
  - Project management
  - Code school cofounder
  - Vice president at a nonprofit
  - Consultant for a Fortune 400 company

Advances in technology = creative opportunities

- Uber, Lyft, Rent the Runway, etc. formed based on leveraging technology advancements to provide new services.
  - GPS technology
  - In app payments
  - Social media connections
  - Near real-time user reviews
  - Tracked shipments

Tech jobs – Current and Future

- Robot repair
- Artificial Intelligence trainer
- Virtual world creator
- Autonomous car engineer
- Technology trainer
- Drone technician
- Streamcaster
- Science Ethicist/Tech Advocates
- Data manager



Tech workforce prep - audience, approach, opportunity

10K tech workers by 2025

According to recent tech workforce reports for the state of Nebraska, we are expecting a shortage of around 10K workers by 2025.

Some factors:

- Net migration
- Talent needs outpace college graduation rates (in 2015 alone, 2,318 open tech jobs w/438 total computer science and related program graduates)
- Quickly growing startups and ever changing tech workforce needs
- Tech inequities (training, access to resources)

Options to Address

Raise Tech Career Awareness

- Traditional
  - Job shadows
  - Classroom visits
- Expanding
  - Technology exploration fairs with hands on opportunities to engage
  - Support teachers with mentors who have experience in the field

Explore New Talent Pipelines

- Traditional
  - College students
  - Experienced workers
  - Hiring from competitors
- Expanding
  - High school internships
  - Hiring without college degrees
  - Code School graduate support and apprenticeships
  - Send experienced tech pros to teach college / code school classes

Options to Raise Awareness

Technology exploration fairs with hands on opportunities to attract tech talent

- Partnership with two local nonprofits to provide hands on opportunities for those who are new to tech to explore experience new technology.
  - Do Space
  - AIM Institute
- Support teachers with mentors who have experience in the field
  - Expanding opportunity to provide access to technical resources to teachers through mentorships/classroom visits

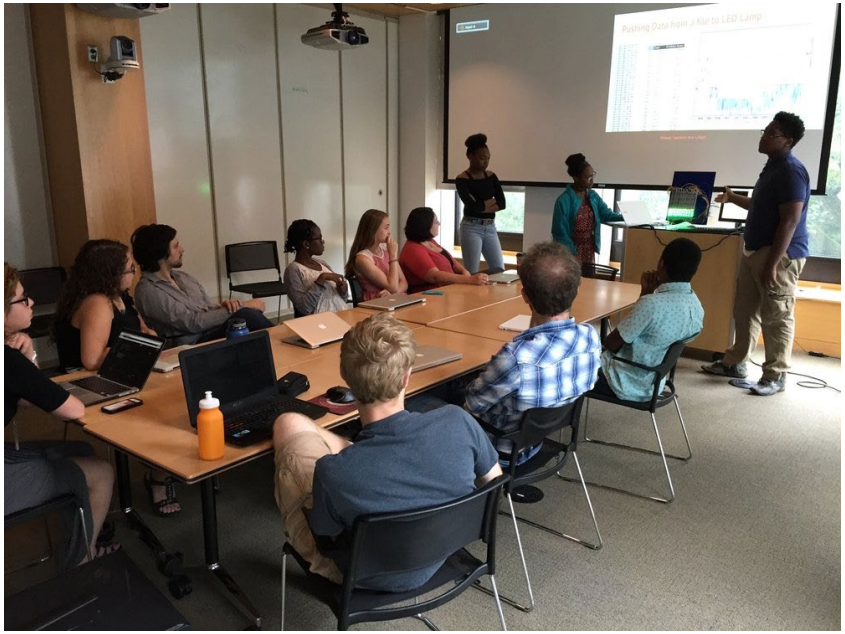
New Talent Pipelines

Apprenticeships

- Partnership with local community college to send existing employees through code school training
  - Maintain current employment
  - Culture fit
  - Business acumen meets technical skillset
  - Investment in existing talent

New Talent Pipelines

- **High school internships**
  - Partnership with local nonprofit to support high potential tech talent
  - Provide professional development and network opportunities to high school
- **Hiring without a 4-year degree**
  - Opening up to community college grads
  - Exploring options to support candidates with experience over degrees
  - Code School graduate support



Talent Development and Retention Goals

- Increased employee engagement and morale
  - Mentors
  - Code School Students
- Improved talent retention
- Decreased time to fill

Thank you.

Shonna Dorsey

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shonnadorsey.com

base camp

</CODING ACADEMY>

Kagan Coughlin, Co-Founder & Trustee, Base Camp Coding Academy

In a Nutshell:

- Fast-paced, focused vocational training in computer programming to support the technology needs of local and regional employers.
- Focusing on under-advantaged youth with high motivation, classes beginning immediately after high school graduation.
- 11.5 months, 40 hours each week, 2,000 hours of total instruction time. Zero cost to the students.
- Located in Water Valley, MS. Population 3,400.
- 501c3

Pilot: 2016-2019

Classes during the Pilot:

2017: 12 Graduated

100% Employed

2018: 9 Graduated

100% Employed

2019: 11 Graduated (May 12th)

10 Employed, 1 enrolled in college.

Regional Market Demand (Opportunities) for Base Camp Graduates?

2017: 3 Regional companies extended offers

2018: 6 Regional companies extended offers

2019: 5 Regional companies extended offers

Cost of locally sourcing highly skilled software developer: $15,000.

Class of 2017

Class of 2018

Class of 2019

Class of 2020

It Takes a Village.

Students | Instructors | Employers

Charleston
Coffeeville
Bruce
Water Valley
Pontotoc
South Pontotoc
North Panola
Tupelo
Lafayette
Oxford
Mooreville
Hernando
Coldwater
Ingomar
Horn Lake
Stone Memorial

Sean Anthony,
Executive Director

Nate Clark,
Senior Technical Director

John Terrenzio,
Software Developer in Residence

Fernae Ellard, Instructor

NWCC

C Spire
CoreLogic
FedEx
Mtrade
Elliot Logic
Matilda LLC
University of Mississippi

Renasant Bank
MorganWhite Group

Board of Trustees

Kagan Coughlin – Co Founder

10 years in mortgage finance and technology with Fannie Mae and FNC, Inc. as an analyst and Director of Product Management, respectively. 10+ years in historic preservation and creative economy initiatives in Mississippi.

Glen Evans – Co Founder

35+ years banking, financial services and financial technology experience including 19 years at First Tennessee bank and 10 years in current role as Executive, Valuation Technology for CoreLogic (NYSE: CLGX), a leading global property information, analytics and data-enabled solutions provider.

Carla Lewis

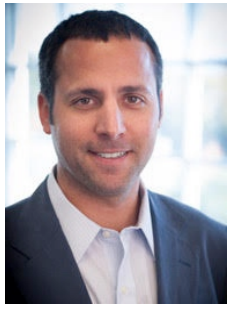
CTO of C Spire . Over 20 years in Information Technology, including leading all aspects of innovative software development, infrastructure, database, network operations, quality assurance and support operations as well as commercial data center and cloud services. Ranked as a top technology innovator in the nation.

Sage Nichols

Currently leads the sales organization for CoreLogic's Valuation Technology Platforms. 15+ years experience in the financial technology space with responsibilities focused on maximizing revenue growth, client relationships, financial planning and analysis, and business intelligence.

Bethany Cooper

National talent recruiter for CoreLogic with a focus on college and tech recruiting efforts. Experienced in a broad range of responsibilities including HR strategy, talent sourcing, benefit and leave management, training and development, and wellness and innovation programming. Prior to her role at FNC, she spent ten years working in higher education.



John Marsalis

Over 15 years in the technology industry leading highly productive engineering teams and organizational transformation in the adoption of agile practices and methodologies. Passionate about culture, technology excellence, and innovation. John currently leads development and testing resources at CoreLogic's flagship valuation technology platform.

Everest

Everest: Mississippi's First Rural Education and Innovation Hub

Base Camp Coding Academy

Northwest Mississippi Community College

Corporate Partners

Startup / Incubator Facilities

Everest

Everest

New Facility: Budget: $4.7 m

Public Funds (Approximately 60% of total budget):

- The City of Water Valley (as near as) donating the facility to this initiative.
- New Market Tax Credits (Federal and State)
- Historic Tax Credits (Federal and State)
- USDA: Facilities and Distance Learning Grants
- ARC Grant: $325k
- DRA Grant: $325k
- DOL WORC Grant: $635k
- Brownfield Redevelopment Grants

Sponsors

One time facility contributions:

- CoreLogic: $250k
- MorganWhite Insurance: $250k
- Renasant Bank: $150k

Base Camp Annual Operating contributions:

CSpire

Corelogic

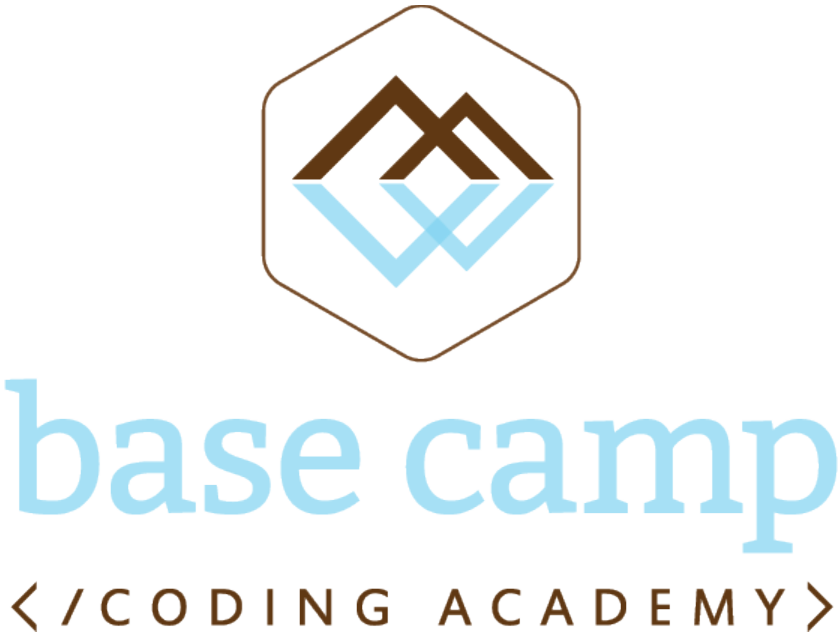
MorganWhite Insurance Group

Renasant Bank

FedEx

Rural Workforce Impact 2020-

Training Outcomes	Year 1	Year 2	Year 3
Coding	25	25	25
IT Support Desk	10	10	10
Project Manager (Tech)	8	12	16
Business Analyst (Tech)	8	12	16
Carpentry	15	20	20
Electrical (Residential/Commercial)	20	25	25
Plumbing	10	15	15
Manufacturing (Production)	20	25	25
Manufacturing (Leadership)	10	15	15
Customized Workforce Training	50	60	75
Adult Education	30	40	50
Entrepreneurship	10	10	10
TOTAL PROJECTION	*216*	*269*	*302*



Thank you.

Kagan Coughlin, Co-Founder & Trustee, Base Camp Coding Academy
basecampcodingacademy.org

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Questions and Answers

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The Benefits of Smart Building Technology

January 15, 2020
2:00 pm ET

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https://broadbandusa.ntia.doc.gov/event

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https:broadbandusa.ntia.doc.gov/resources

To Request Technical Assistance (TA):

Broadband TA Request Form - https://broadbandusa.ntia.doc.gov/ntia-common-content/how-we-can-help

BBUSA Resources

- Implementing a Broadband Network Vision: A Toolkit for Local and Tribal Governments
- Community Broadband Roadmap Toolkit
- Guide to Federal Funding of Broadband Projects
- Using Partnerships to Power Smart Cities