

KEEPING UP WITH APPRENTICESHIP IN 2022: (OR HOW APPRENTICESHIPS AND SKILLS-BASED LEARNING CREATE OPPORTUNITY)

PRESENTED BY

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Director | JFF

ECMC CTE Leadership Collaborative Convening | October 2022





Hi, I'm

ANDREA MESSING-MATHIE

Director

Andrea works to support communities to execute on the promise of skill-based learning, including apprenticeship, while creating opportunities for employers to build and sustain a productive workforce. She develops, implements, and promotes pre-apprenticeship, apprenticeship, work-based learning, and workforce strategies to expand economic mobility.

Building a Future That Works

Vision

A society in which economic advancement is attainable for all.

Mission

JFF is building a society in which everyone has the skills, resources, and credentials they need to achieve economic advancement.

To reach this goal, we drive transformation of the American workforce and education systems.



JFF's Strategic Priorities

We **design, scale, influence, and invest** in solutions that . . .



**Help People
Advance**

IMPACT ON PEOPLE



**Build Inclusive Regional
Economies**

IMPACT ON PLACES



**Redesign Education and
Workforce Development
Systems**

IMPACT ON SYSTEMS



JFF'S CENTER FOR APPRENTICESHIP & WORK-BASED LEARNING

The Center consolidates JFF's broad skills and expertise on apprenticeship and work-based learning into a unique offering.

We partner with employers, government, educators, industry associations, and others to build and scale effective, high-quality programs.

Visit jff.org/center.





CENTER FOR APPRENTICESHIP AND WORK-BASED LEARNING

JFF SUPPORTS COMMUNITIES THROUGH:

Apprenticeship program development and registration

Strategic visioning for national and local partners

Hosting and facilitating apprenticeship employer and partner accelerator and learning sessions

Connecting on-the-job learning and related technical instruction, including the support for the development of pre-apprenticeship programs that connect directly to Registered Apprenticeships

Creating and expanding strategic partnerships to support program creation and implementation, including secondary, postsecondary, community, and employer partners

Elevating best practices

Financial supports for programs and apprentices



TAKE NOTE

GUIDING QUESTIONS

How does Registered Apprenticeship help to address education/employment misalignment dynamics?

How are you connecting CTE and Registered Apprenticeship today? How would you like to in the future?

What barriers (i.e. policy, institutional, internal dynamics, funding, instructors, recruitment, lack of understanding/interest) do you face in incorporating apprenticeship into your program offerings?

What do you still need to understand about Registered Apprenticeship as a postsecondary option?



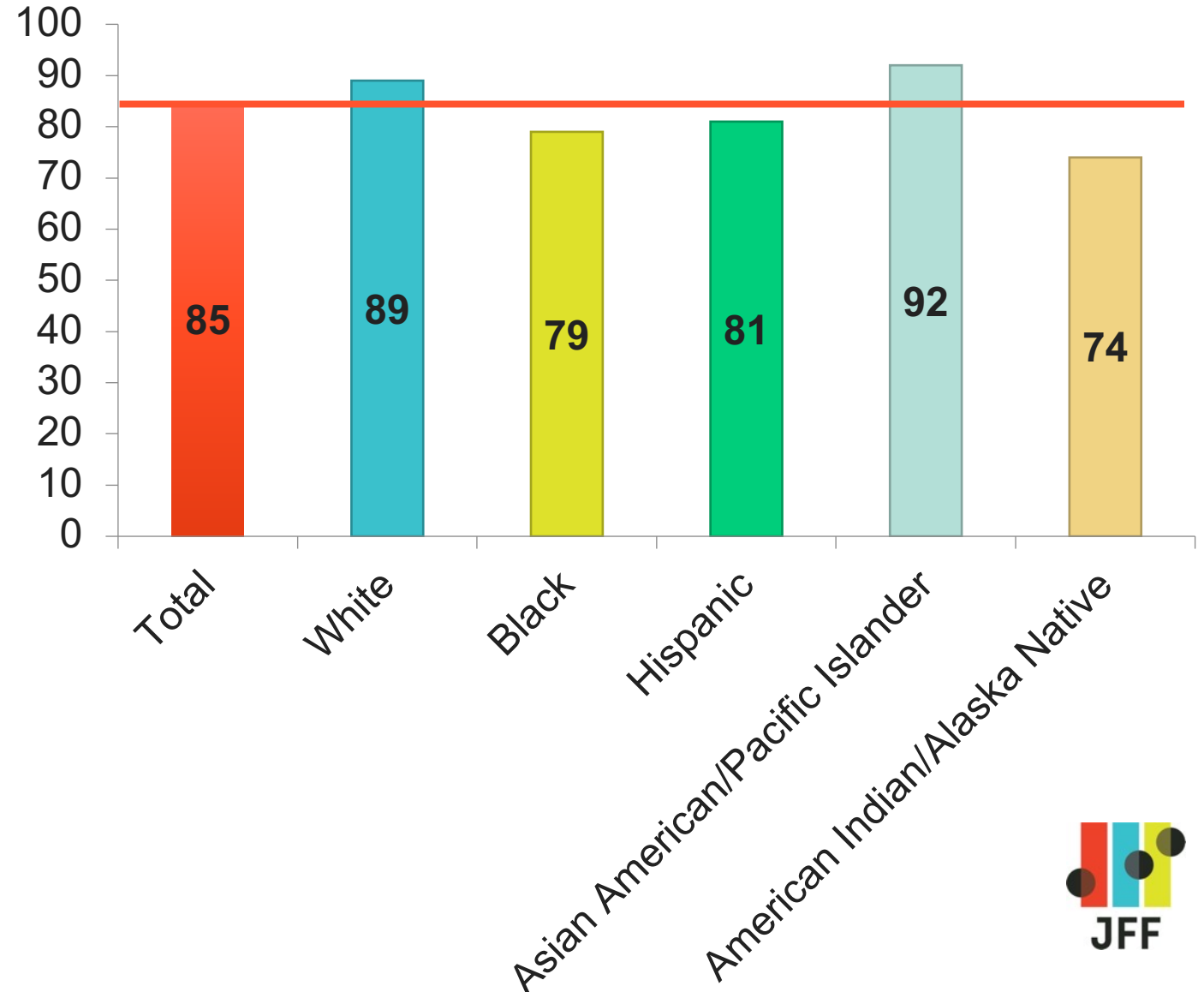


UNDERSTANDING PATHWAYS

SOME CONTEXT & STAGE SETTING

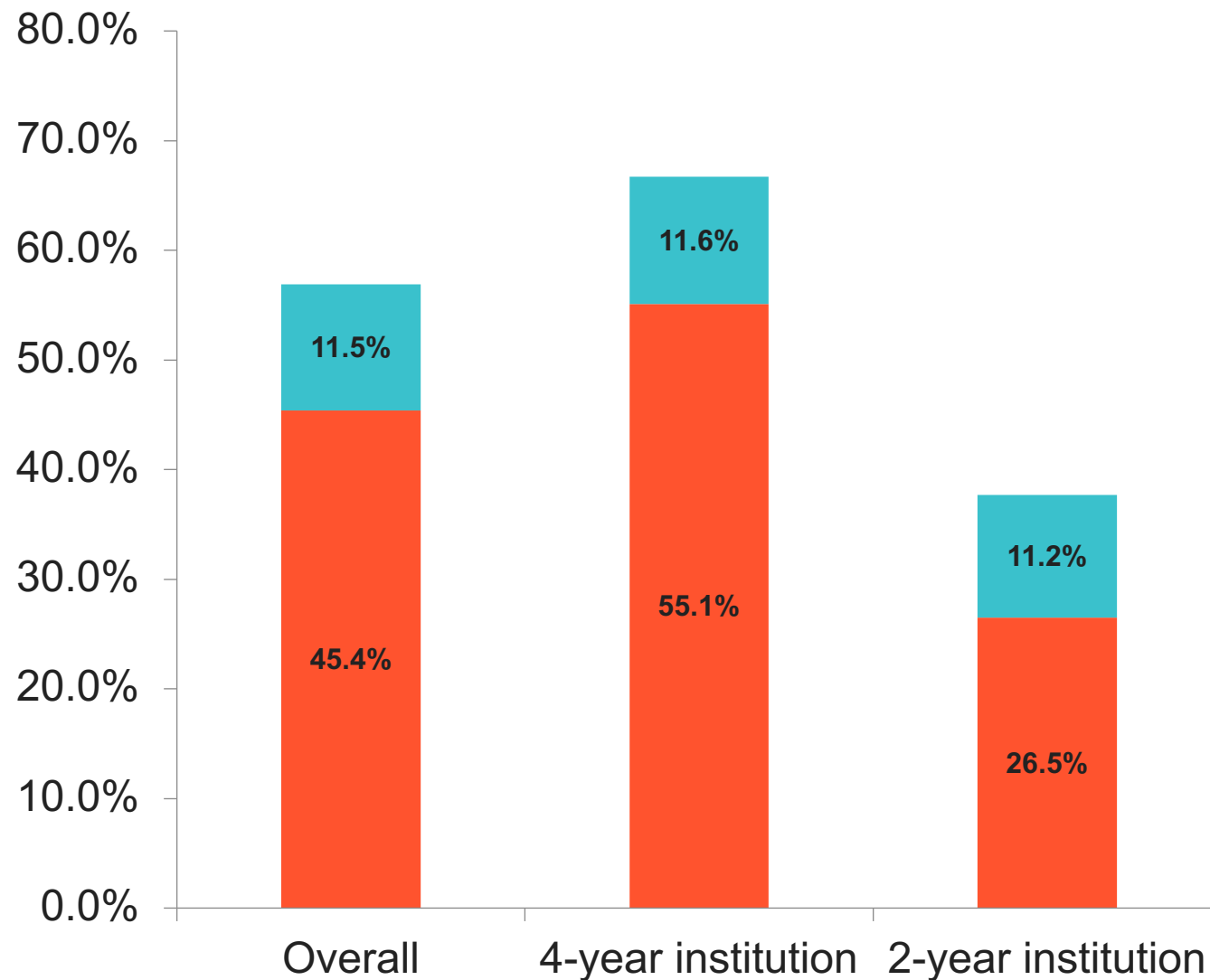
U.S. HIGH SCHOOL GRADUATION RATES

Adjusted cohort graduation rate for public high school students, by race/ethnicity, 2017-18



Source: National Center for Education Statistics, 2021.
https://nces.ed.gov/programs/coe/indicator_coi.asp





COLLEGE COMPLETION RATES ARE **ALARMINGLY** **LOW**

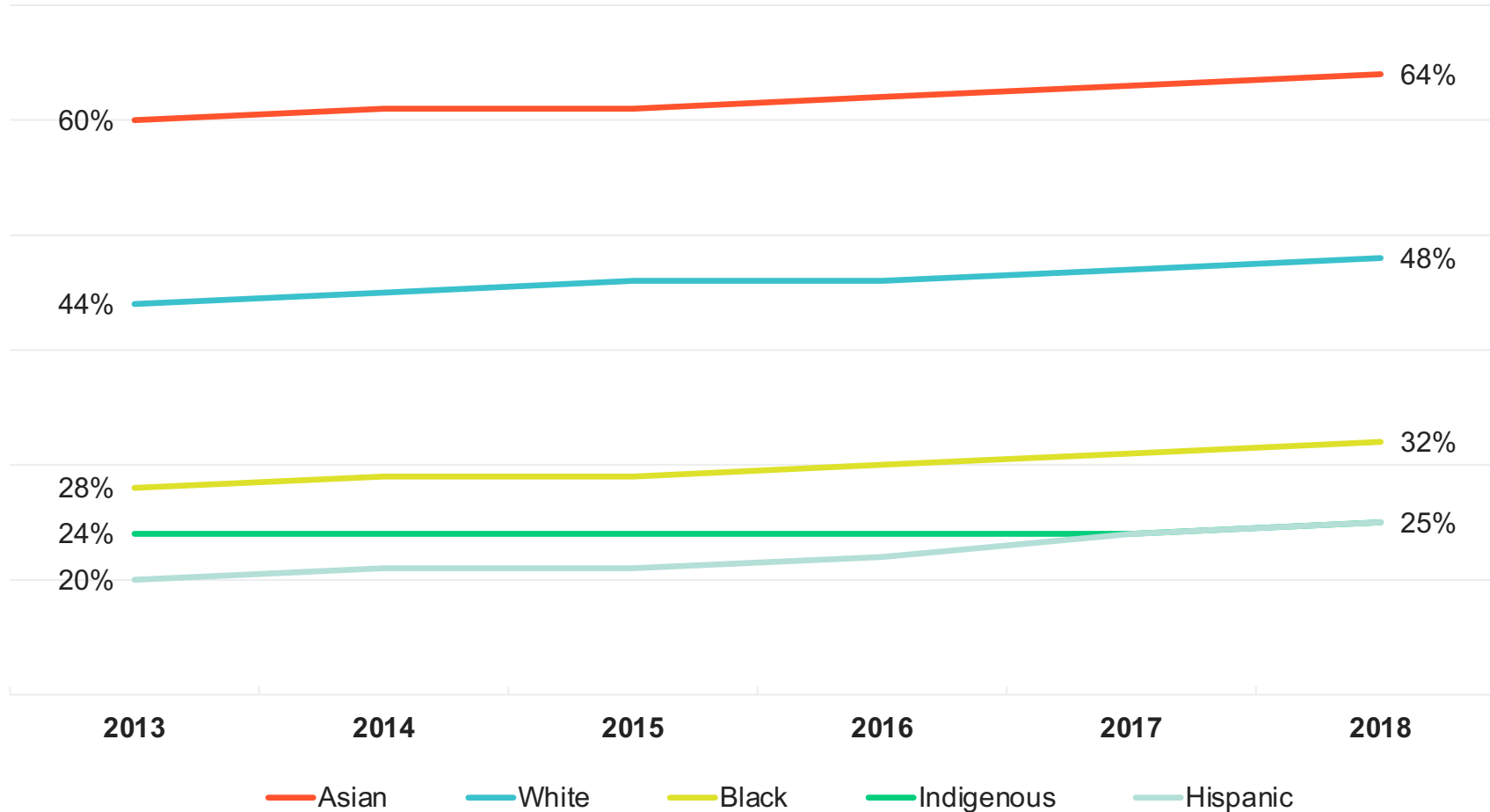
Six-year outcomes for all students who completed at their starting institution or at a different institution



- Completed at starting institution
- Completed at different institution

Source: National Student Clearinghouse Research Center
<https://nscresearchcenter.org/signaturereport14/>

GROWTH IN DEGREE ATTAINMENT REMAINS UNACCEPTABLY SLOW ACROSS RACIAL AND ETHNIC GROUPS



SOURCE: Lumina Foundation, A Stronger Nation. Using data from U.S. Census Bureau American Community Survey (ACS): One-year Public Use Microdata Sample (PUMS).

MAJOR THEMES SHAPING THE FUTURE OF WORK



Automation,
Robotics, AI



Employment
Status



Nature of Work

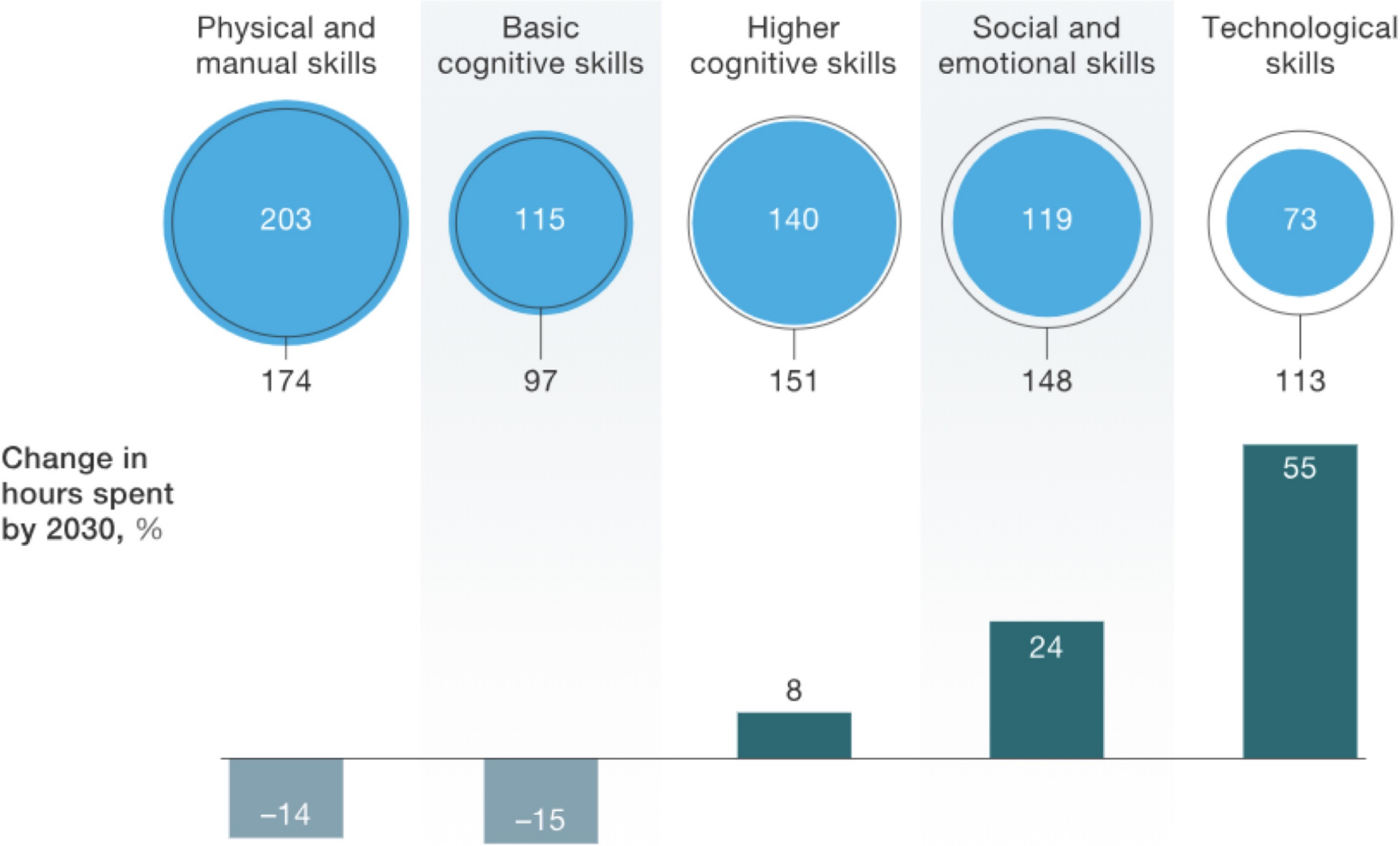


Accelerating
Change

HOW WILL WORKPLACE SKILLS **CHANGE BY 2030?**

Total hours worked in Europe and United States, 2016 vs 2030 estimate, billion

● 2016 ○ 2030



Source: McKinsey Global Institute Workforce Skills Model; McKinsey Global Institute analysis



96%

of college academic officers said they are confident in their institution's ability to prepare students for the workforce

but only 11%

of business leaders agree that today's college graduates have the skills and competencies that their business needs



EDUCATION AND BUSINESS MISMATCH

Gallup Poll of provosts and business leaders uncovers an enormous and concerning gap in perceptions of readiness

Inside Higher Ed, 2014. *Ready or Not*



ARE WE PREPARING PEOPLE TO BE **FUTURE-READY?**



Most young people **get little advice about pathways** from education to careers, and career possibilities.

Most students who enroll in community colleges expect to transfer to a 4-year institution and receive a bachelor's degree, but only 14% actually do.

Few families understand the **future labor market**—or even the current one.

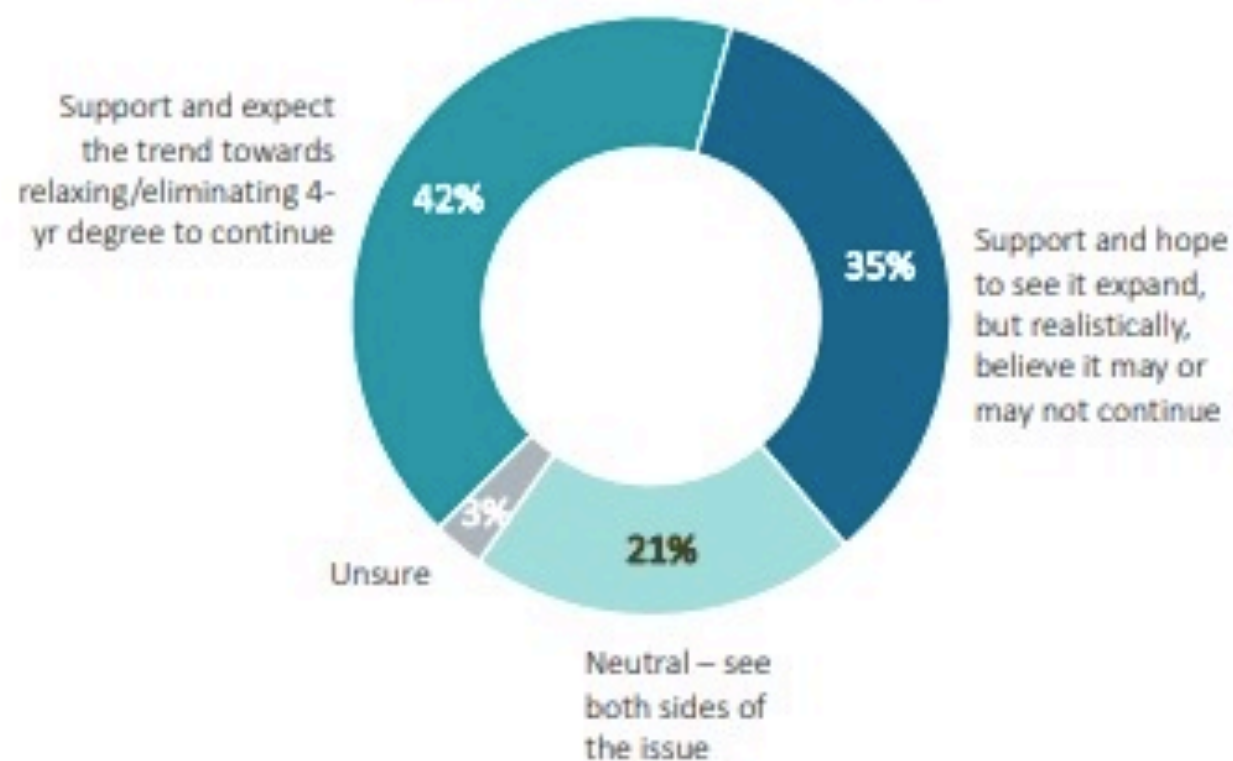


Teachers typically have **little experience of contemporary high-growth industries** and know little about labor market data and shifts in education and workforce.

HR professionals support relaxing or eliminating 4-year degree requirement for job candidates, but questions remain

HR stance on the issue

Net 76% support trend towards relaxing or eliminating 4-year-degree requirement



Support highest among HR professionals that value industry-recognized certifications





PAUSE

5-minute turn and talk

Is this new information?

Quick response: name 1-2 things you or your institution or organization has done to address these dynamics.

A photograph of three people (two women and one man) sitting around a wooden table, smiling and looking at laptops. The woman on the left is seen from the back, with blonde hair. The woman in the middle has long dark hair and is laughing. The man on the right has short dark hair, wears glasses and a denim jacket, and is also smiling. On the table are two laptops, a brown leather notebook, and glasses of water. The background is a dark, textured wall with some plants on the left. The text 'VALUING A DIFFERENT WAY OF LEARNING' is overlaid in large, bold, blue capital letters on the left side of the image.

VALUING A DIFFERENT WAY OF LEARNING

Understanding Registered Apprenticeship today

TAKE NOTE

GUIDING QUESTIONS

How does Registered Apprenticeship help to address education/employment misalignment dynamics?

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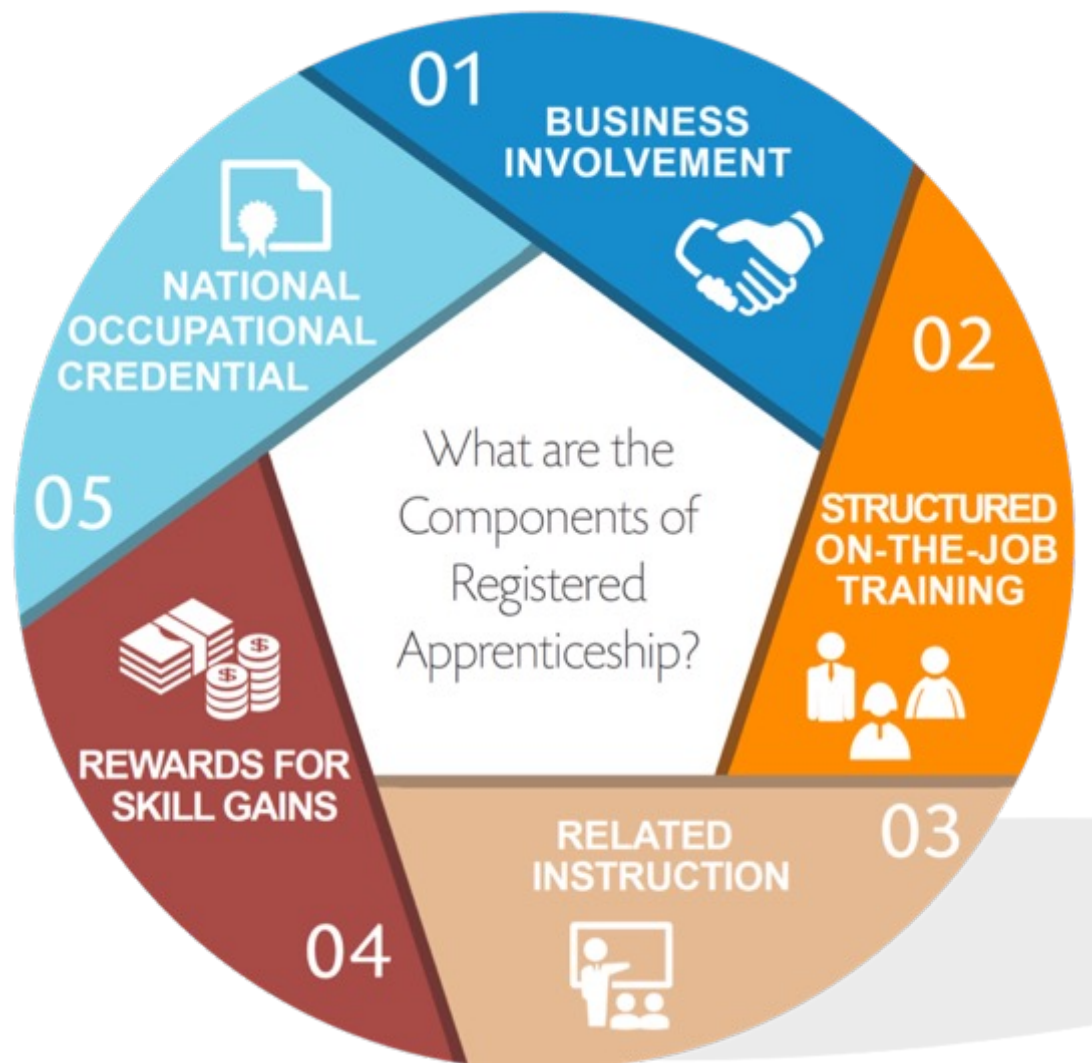
WHAT IS APPRENTICESHIP?

Apprenticeship is a paid job that provides

- Competitive wages
- Structured on-the job-training
- Quality classroom instruction related to training
- Mentorship and career exploration
- Portable, industry recognized credentials
- Resources to support apprentices



REGISTERED APPRENTICESHIP



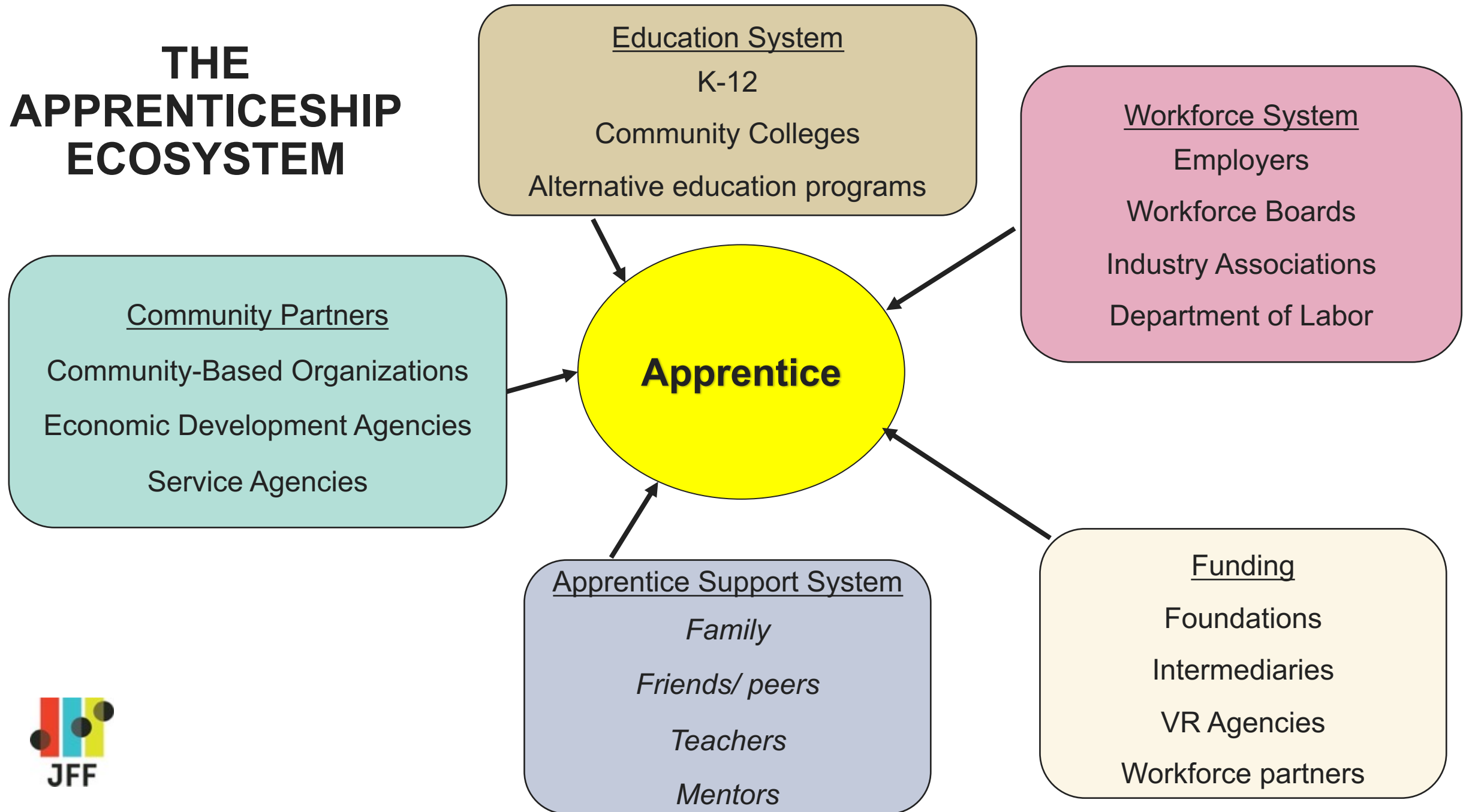
- Provides structured skills training developed facilitated by employers
- At least 2000 hours on-the-job training and 144 hours of related instruction
- Helps workers learn both the theoretical and practical aspects of an occupation
- Apprentices are employees of the company providing the apprenticeship and receive mentorship
- Apprentices can have access to post-secondary education, training, and certifications

BEING “REGISTERED” MAKES A DIFFERENCE

- High-quality and safe working conditions.
- Veterans may use GI Bill benefits.
- Federal and state funding available to support apprentices and program design.
- Tax incentives to offset wage and equipment costs.
- Automatic designation as an eligible training provider under the Workforce Innovation and Opportunity Act.



THE APPRENTICESHIP ECOSYSTEM



WHY APPRENTICESHIP?

“Apprenticeship is a proven industry-driven career pathway where employers can develop their future workforce and workers can get critical experience through paid and credentialed programs.”

Employers

92% of apprentices retain employment after program completion

\$1.47 return on investment of every dollar invested in RA programs

3.2 million jobs could be filled by increasing apprenticeship occupations

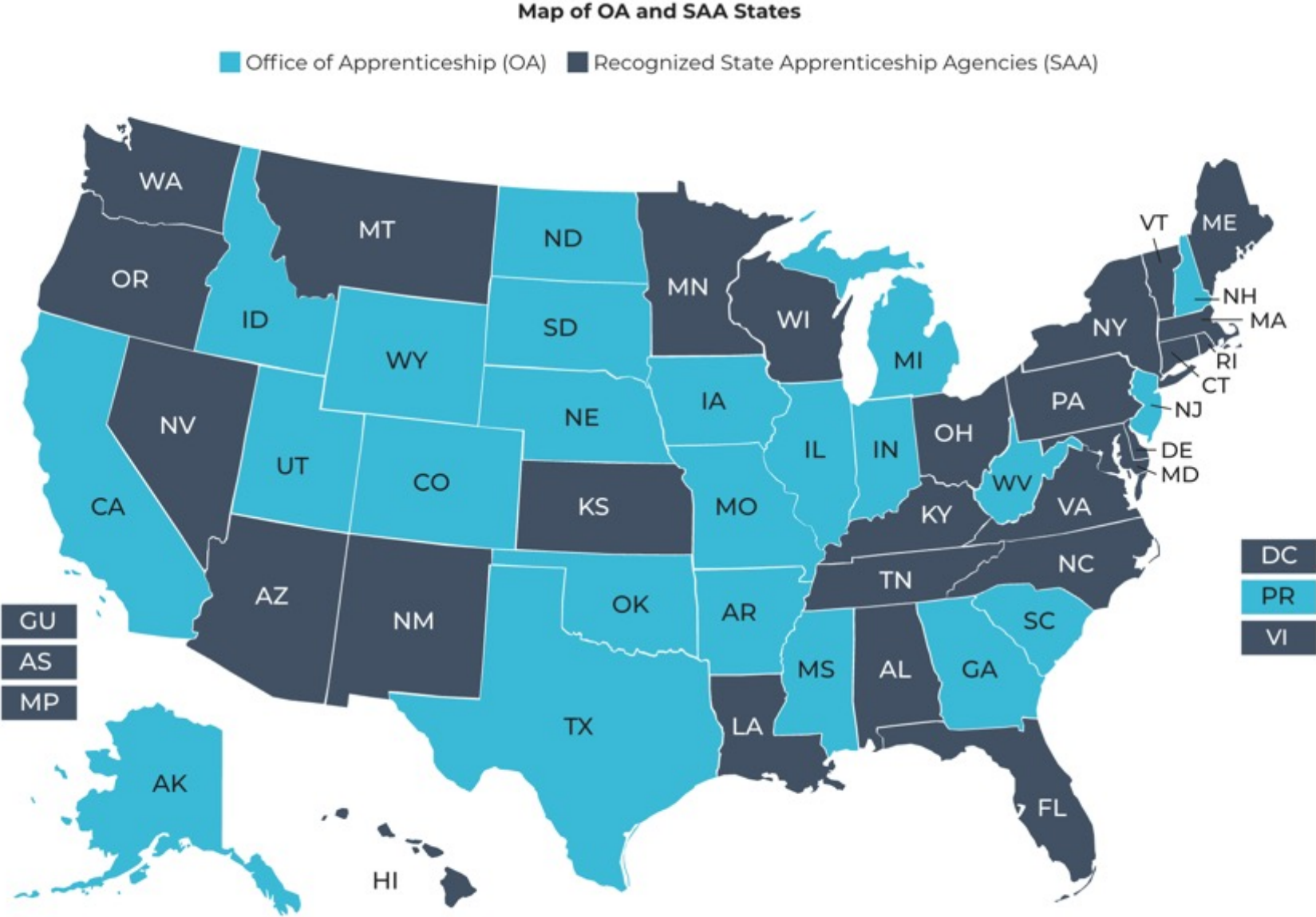
Apprentices

\$72,000 average starting salary after completion

\$100,000 to \$240,000 increase in career earnings for apprentices who completed their program

Connections to post-secondary education and high-wage occupations

OFFICE OF APPRENTICESHIP V. STATE APPRENTICESHIP AGENCIES



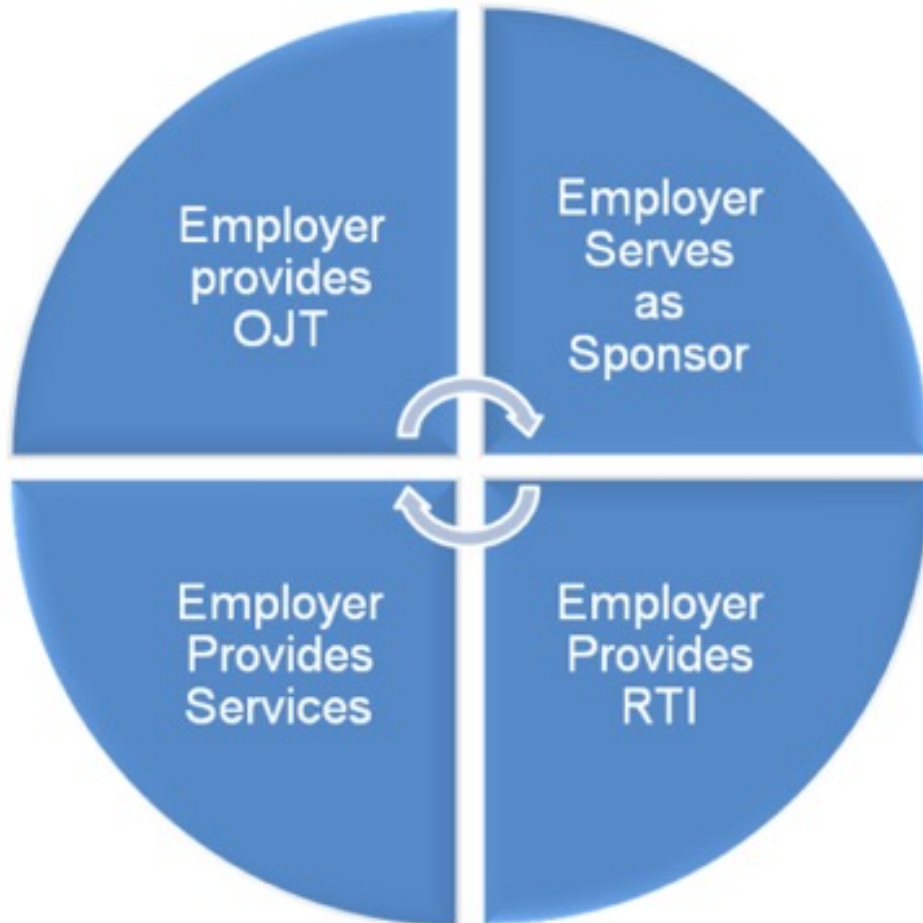
Key Roles in Apprenticeship

Employers (Employment)	Sponsors (Program Administrators)	Public Workforce Systems	Related Technical Instruction
<ul style="list-style-type: none">• Are required for apprenticeship programs• Provide on the job learning• Provide wages and support advancement• Support creation of related-technical instruction	<ul style="list-style-type: none">• Oversee program implementation• Manage apprentice data and reporting to USDOL• Support recruitment• This role can be filled by employers, education partners, unions, CBOs, and others	<ul style="list-style-type: none">• Can support skills training (pre-apprenticeship)• Provides funding to support training (WIOA, OJT contracts, etc)• Can support employer engagement• Can provide support services to apprentices	<ul style="list-style-type: none">• Provides classroom instruction that connects to job training• Supports credential attainment• Can provide services and supports• This role can be filled by different partners including education institutions, employers, and joint-labor management organizations

APPRENTICESHIP TAKES A VILLAGE

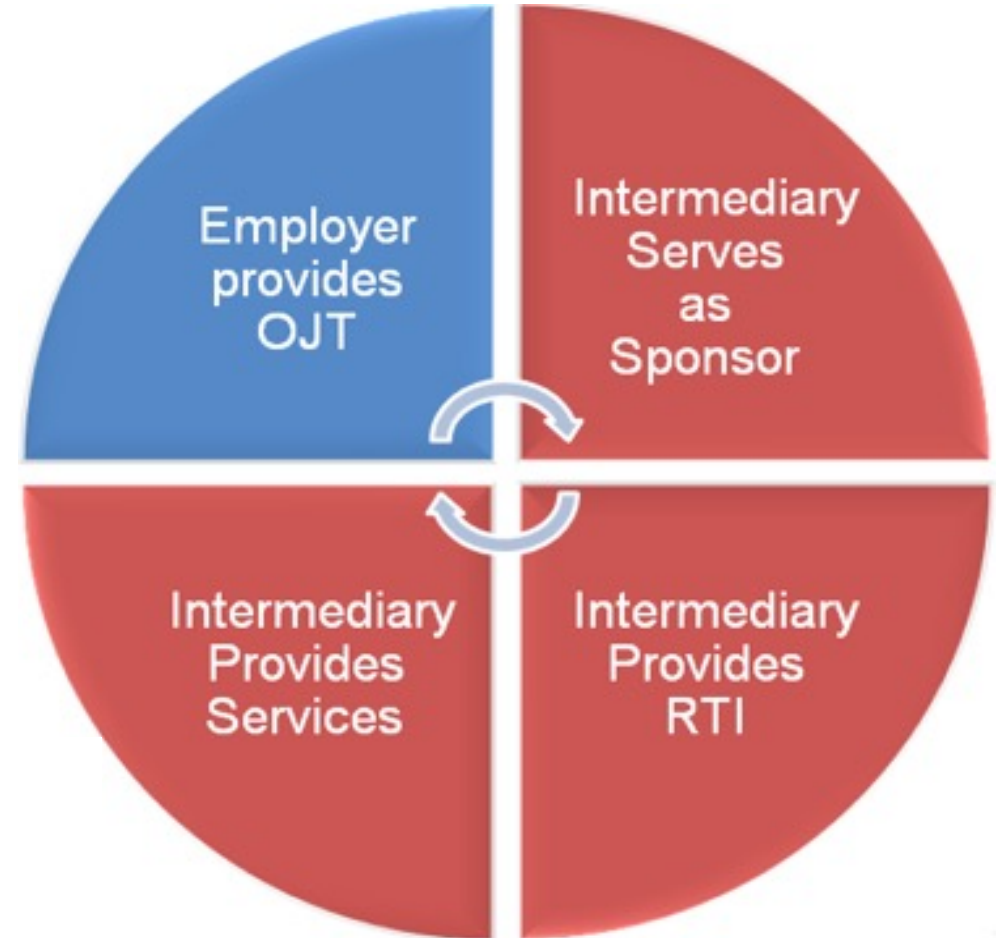
Single Employer Model

(e.g. [Apprentice School](#))



Multiple Employers + Intermediary Model

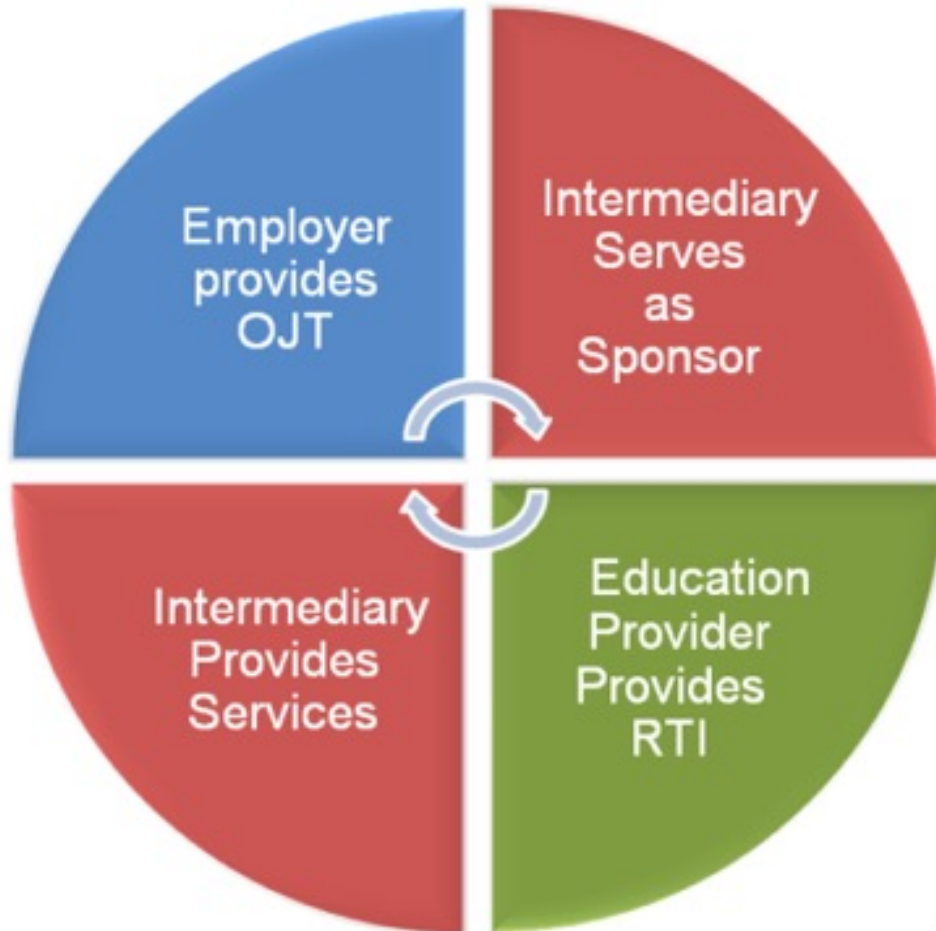
(e.g. Joint Labor Management or Community College Centered Programs)



APPRENTICESHIP TAKES A VILLAGE

Multiple Employers + Intermediary Model + Community College

(e.g. [New Century Careers, PA](#))



Multiple Employers + Multiple Intermediaries Model

(e.g. [Shasta Community College CRAFT program](#))



APPRENTICESHIP CONTINUES TO DEMONSTRATE STRONG GROWTH

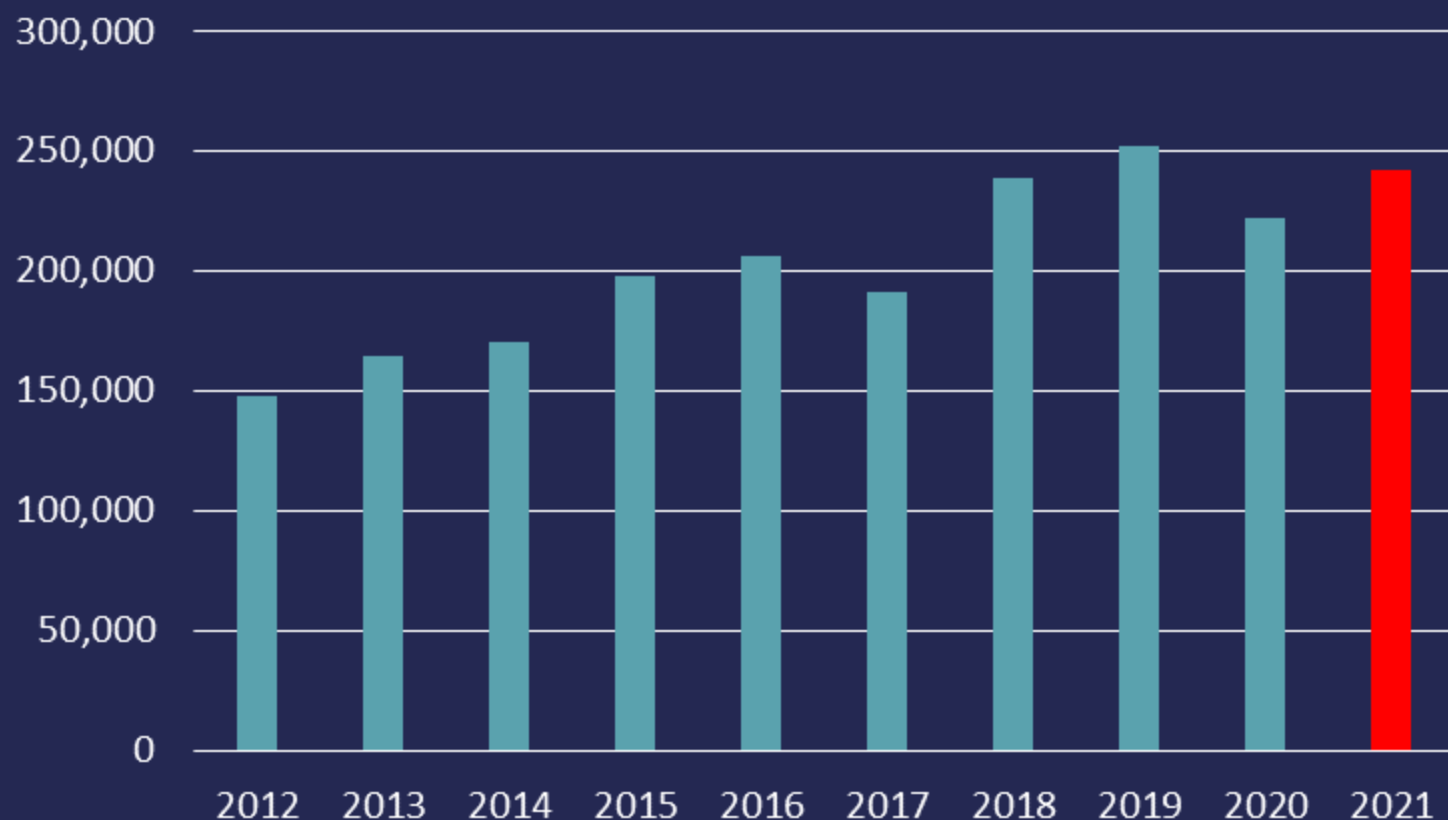
64%

Growth in New Apprentices Since 2012

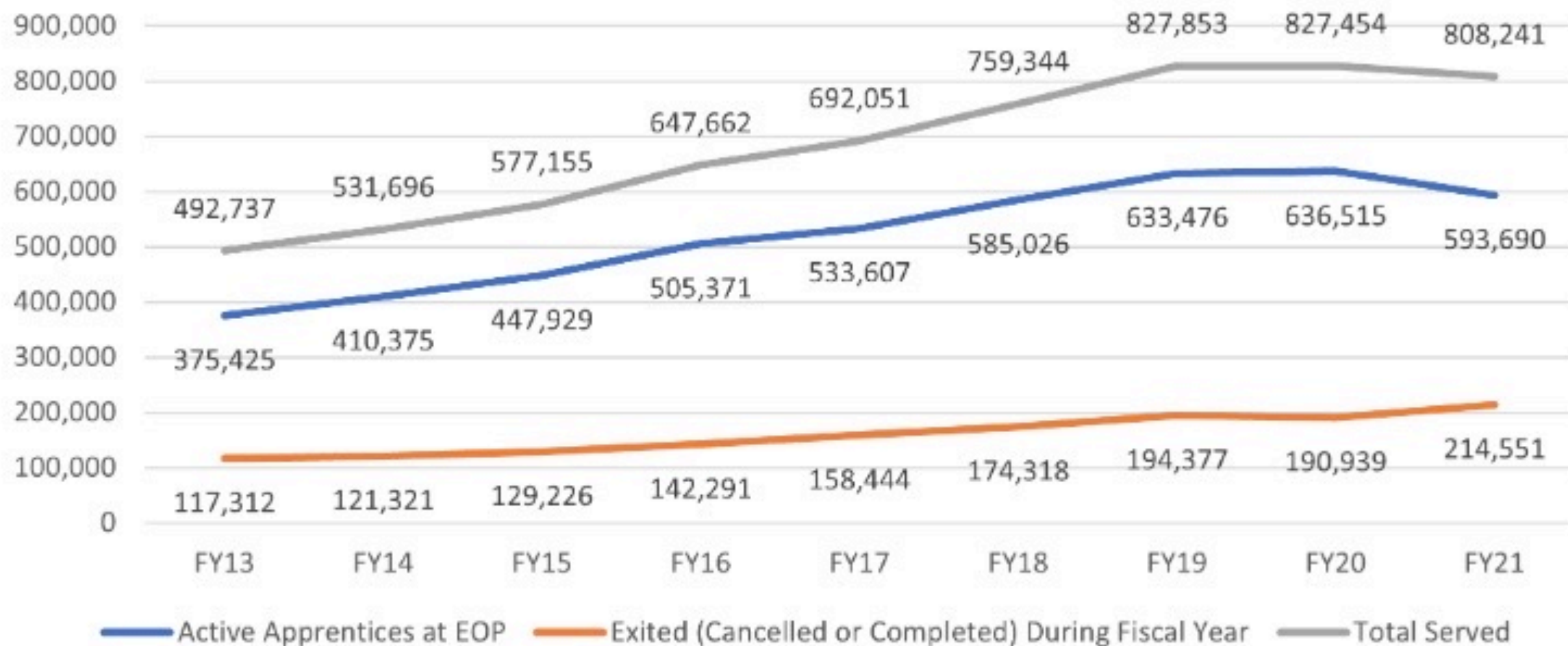
Key Facts

- 2 million+ new apprentices since FY12
- 22% more active apprentices than the previous 10-year average (593,000 vs. 484,000)
- 396,000+ participants completed an apprenticeship in the last five years
- 14,700+ new apprenticeship programs created in last five years

Annual New Apprentices



Total Apprentices Served, FY13-FY21



APPRENTICESHIP TRENDS

Nearly 27,000 registered apprenticeship programs active in the US in FY 21

2,879 new programs created in FY 21

Covid-19 caused a 12% dip in new apprentices in 2020, but there was a 9% increase in 2021

In FY 2021, more than 241,000 new apprentices entered the national apprenticeship system.

Nationwide, there were over 593,000 apprentices obtaining the skills they need to succeed while earning the wages they need to build financial security.

96,000 apprentices graduated from the apprenticeship system in FY 2021.



APPRENTICESHIP TRENDS

Rise apprenticeship opportunities in high-growth industries including IT, health care, transportation, agriculture, and the green/climate resiliency sector

Increase in union and non-union employer engage

Expansion of RA intermediaries and stakeholders

Use innovative approaches to RA

- State expansion efforts and recognition of pre-apprenticeship
- Increased participation from community colleges and community-based organizations
- Human centered designs focused on DEIA
- ServeCO and Trailhead Institute Community Health Worker RA



TRENDS IN APPRENTICESHIP FUNDING

Recent awards

\$121M in Apprenticeship Building America Grants

\$31M to establish Registered Apprenticeship TA Centers of Excellence

\$13M focused on diversity, equity, inclusion, and accessibility

\$8M for RA expansion in pandemic impacted industries

\$99M for state expansion efforts focused on equity and innovation

\$40M for rural health care RAs

Upcoming Opportunities

[Growth Opportunities Grants](#) – help youth identify career interests and attain skills and work-experience

Award ceiling: \$4M

Due date: 10/5/22

[Strengthening Community Colleges Training Grants](#) – to increase capacity to address equity gaps and meet skills needs

Award ceiling: \$5M

Due date: 10/14/2022



TRENDS IN APPRENTICESHIP-FUNDING

Proposed FY2023 Budget

- \$303M to expand pre-apprenticeship and Registered Apprenticeship
- \$3.1B in WIOA state grants

Funding includes special attention and emphasis on

- **DEIA** efforts to increase access for unrepresented groups including equal compensation and provision of wrap around services
- Development of programs for **youth, individuals impacted by the criminal justice system, veterans, and dislocated workers**
- Expansion in **high-growth sectors** and development of **industry and sector partnerships** to support work-based learning and RA opportunities
- **Clean energy** apprenticeship programs including water management
- Engagement with **business and labor**
- Partnerships to build **RAs for creative workers**, including National Endowment for the Humanities and National Endowment for the Arts



TRENDS IN APPRENTICESHIP-POLICY

Legislation

- National Apprenticeship Act (HR 477)
 - Pre-apprenticeship
- Workforce Investment Opportunity Act reauthorization

Administrative commitments

- Focus on pre-apprenticeship and DEIA
- Continued investment in youth and young adults
- Deepened commitment to rural communities and Native Nations
- Investments to engage diverse stakeholders in developing RAPs

Individual states leveraging Civilian Climate Corps models to make connections to apprenticeship and increase access to training and jobs in the green and climate resiliency sector



THE CURRENT STATE OF DIVERSITY AND EQUITY IN U.S. APPRENTICESHIP FOR YOUNG PEOPLE

Understanding Registered Apprenticeship today

BACKGROUND

JFF analyzed Registered Apprenticeship Partners Information Data System (RAPIDS) to document and explore youth participation (16-24) in apprenticeships between 2010 and 2020.

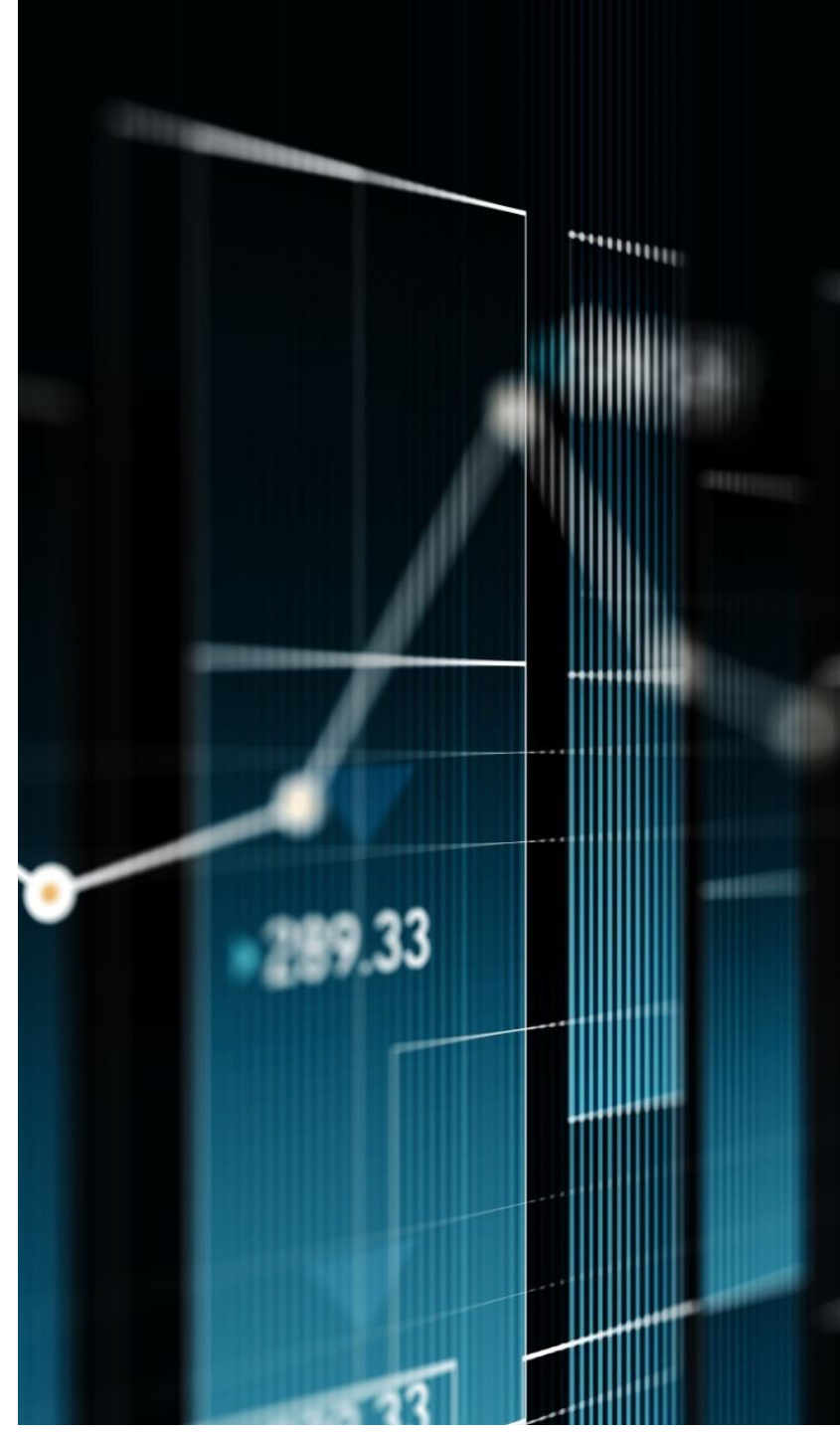
We focused on:

- Trends in participation for the system's youngest apprentices
- Racial and gender differences in participation including occupations, completion rates, and post-apprenticeship earnings
- Participation in STEM apprenticeships



ABOUT THE DATA

- RAPIDS FY21-Q2 collected in June 2021.
- Apprentices between the ages of 16-24 (RAPIDS variable = age at start).
- Start dates between Fiscal Year (FY) 2010- 2020 (RAPIDS variable = start date).
- RAPIDS does not differentiate between young adults that are engaged in education and those that are disconnected from work and school, nor does it differentiate between youth-focused programs and adult programs.



Key Findings

The number of young people between ages 16 and 24 participating in apprenticeship grew 113% between 2010 and 2020.

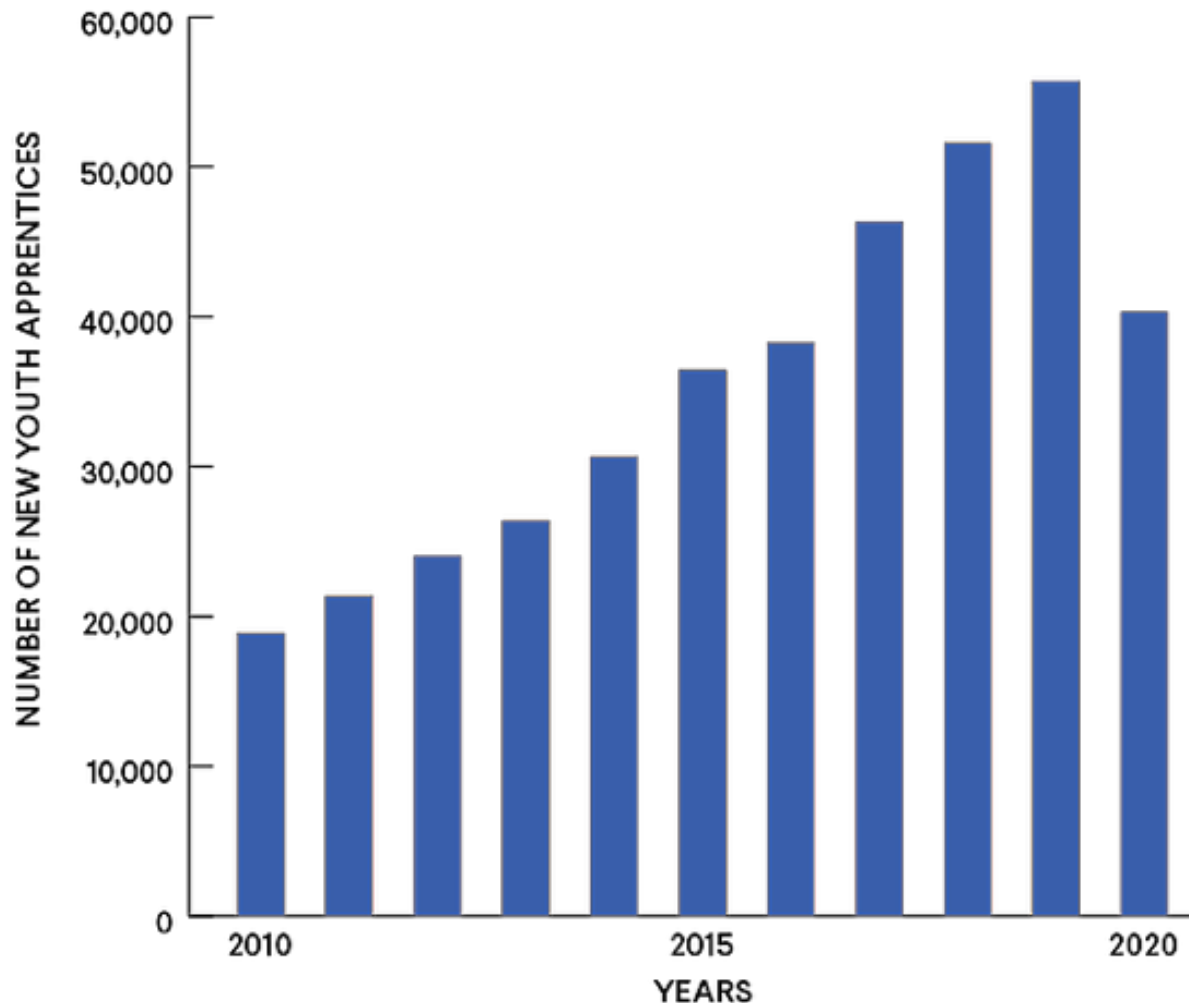
There was a slight drop in new apprentices in 2020 marking the onset of the COVID-19 pandemic.

Largest number of young apprentices are in construction for men and pharmacy tech for women closely followed by nursing assistants.

From FY2010-17, majority of young women were in childcare.

Young women and Black youth have the lowest hourly exit wages. Young Hispanic/Latinx apprentices have the highest hourly exit wages.

Gender and racial gaps in exit wages are due to occupational segregation.



INCREASED YOUTH ENGAGEMENT

- 113% increase in youth participation between 2010 and 2020
- \$31 average wage upon completion
- Influenced by growing investments by USDOL
- Racial and gender inequities persist
- The story of youth apprentices is incomplete

Source: Myriam Sullivan, Lois Joy, Dristi Adhikari, and Vicki Ritterbrand. "The Current State of Diversity and Equity in U.S. Apprenticeships for Young People: What the Data Tells Us About Representation, Equity Gaps, and Opportunity Along gender and Race/Ethnicity Lines". (JFF, 2022) available at <https://info.jff.org/apprenticeshipdeia-youth-apprenticeship-rapids>



REGISTERED APPRENTICESHIP IN ACTION

Examples of local and state ecosystems that support youth apprenticeship

RESOURCES AND EXAMPLES

[Planning Guide for Aligning CTE and Registered Apprenticeship \(2017\)](#)

[The Hartford Claims Apprenticeship Program](#)

[Kentucky TRACK](#)

[Apprenticeship Regulations and Guidance](#)

[Opportunities for Connecting CTE and RAP](#)

[Department of Labor Apprenticeship Statistics 2021](#)

[Current State of Diversity and Equity in U.S. Apprenticeships for Young People](#)

[Apprenticeship and CTE Alignment](#)

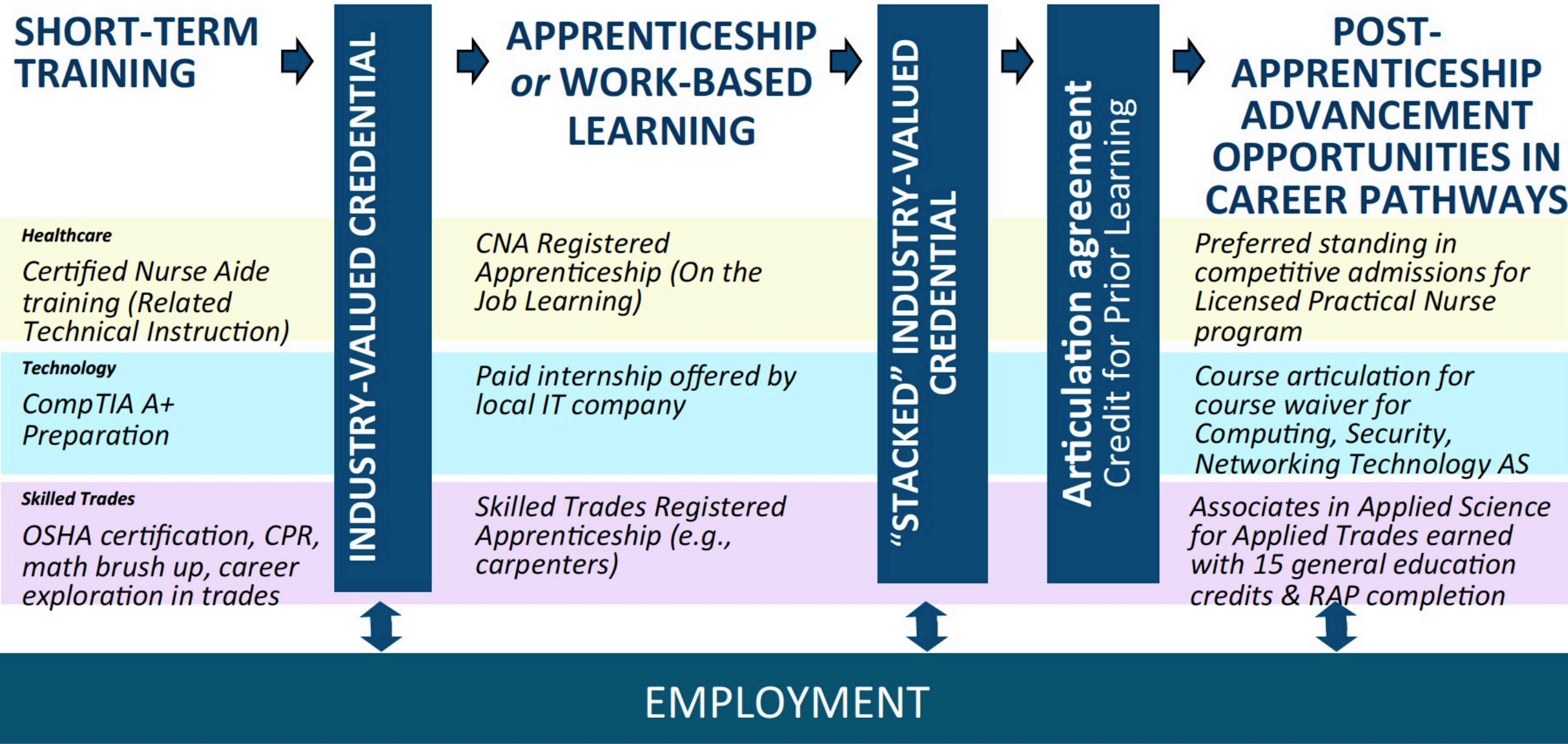
[Ensuring greater access to career pathways via registered apprenticeship](#)

SHASTA COMMUNITY COLLEGE:

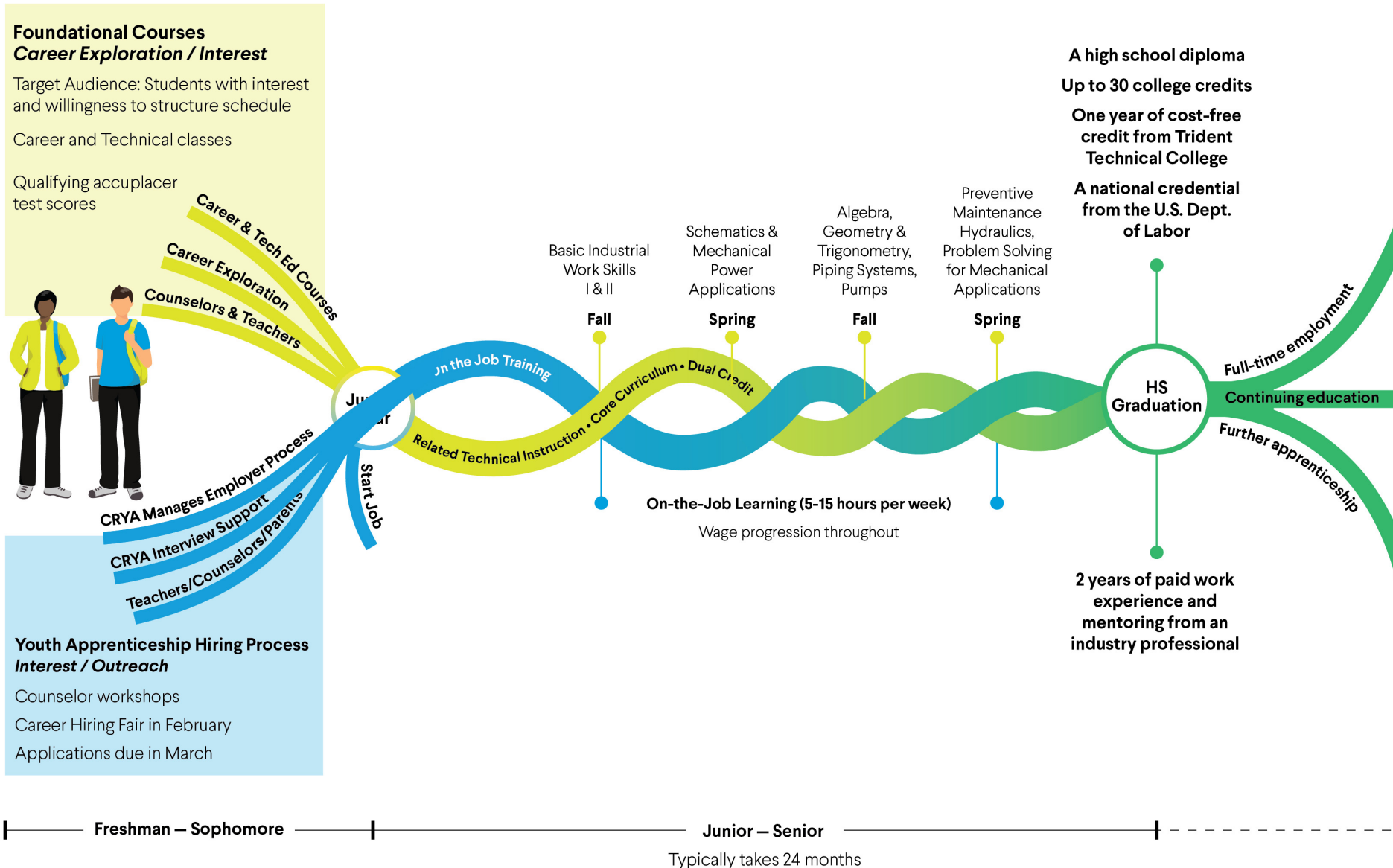
PRE-APPRENTICESHIP – REGISTERED APPRENTICESHIP PATHWAY



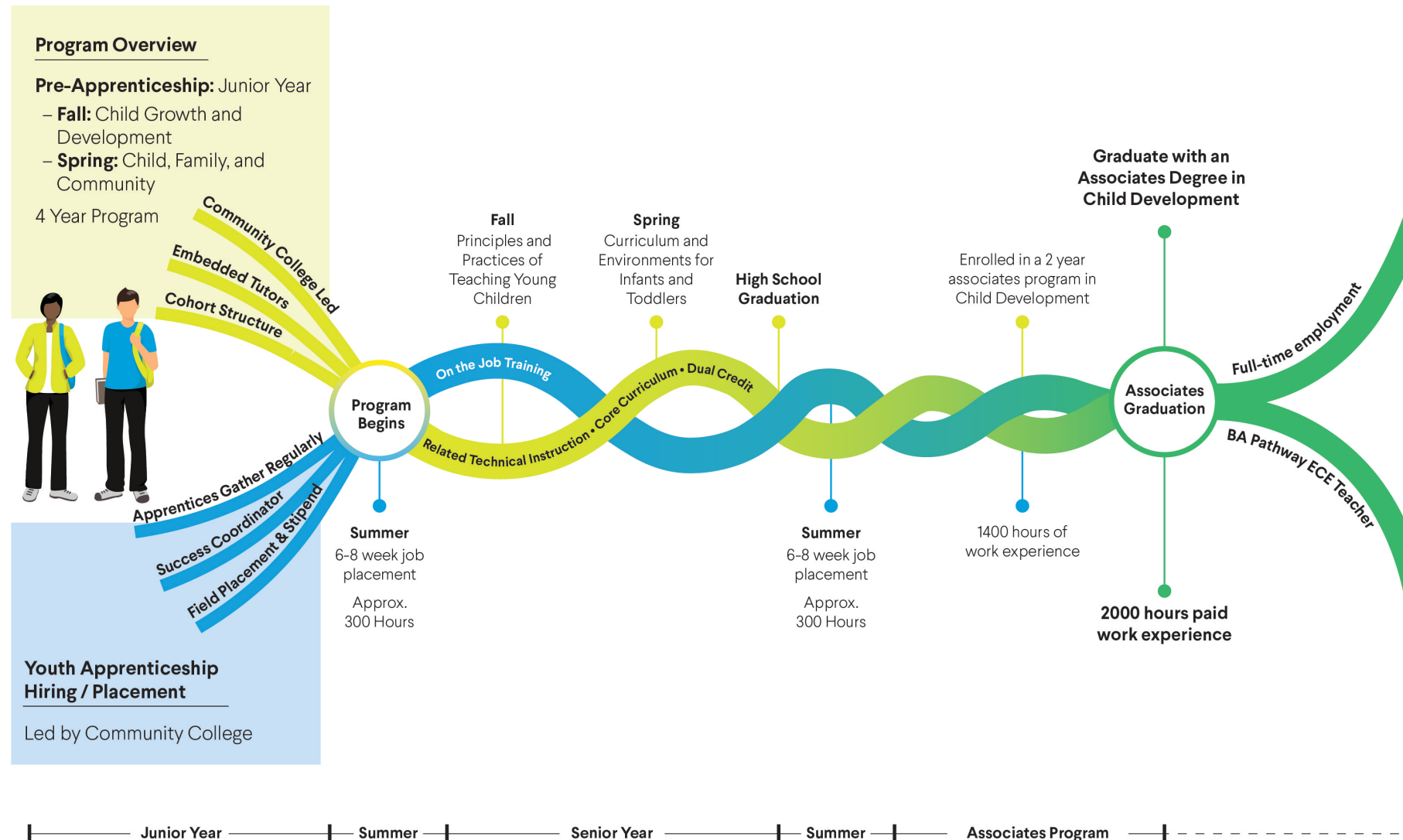
- **Industry Focus:** Forestry and Logging Maintenance and Operations
- Addresses workforce needs of small and micro employers
- Continuum of training aligned with industry standards
- **Role of Shasta College**
 - Program host and administrator
 - Related technical instruction provider
 - Support services provider
- Leverages state and federal funding
- Includes advisory committee of diverse stakeholders



Charleston Regional Youth Apprenticeship: Industrial Mechanic



Early Care & Education Pathways to Success: Early Childhood Educator





EXAMPLES OF ENABLING PRACTICES/POLICIES

Renewal of South Carolina's 2005 [Education and Economic Development Act](#), now called Personal Pathways to Success, each high school has an embedded career development facilitator and requires that each secondary student have an Individual Graduation Plan (IGP), starting in the eighth grade

Solving data issues: Delaware Department of Education assumed a coordinating role, leveraging its scale as a statewide agency to convene partners, reach consensus on important decisions, and establish data sharing agreements.

Government Youth Apprenticeship Program Stipends in Colorado HB19-1293

AMP: Maryland House Bill 1207 (established a Youth Apprenticeship Advisory Committee); Maryland House Bill 942 established a youth apprenticeship pilot program in which two Maryland public school districts, one rural and one urban, which began in the summer of 2016.



KEY CONSIDERATIONS

Apprenticeship is a job. While it is an important part of the work-based learning journey, apprentices are employees first.

Apprenticeship is a learning experience. Apprentices must be supported to combine work and learning in a way that takes them to occupational competency and supports their growth.

Training is an essential part of apprenticeship employment and is not free. Distributing these costs makes programs more sustainable.

Apprenticeship requires the active participation, understanding, and collaboration of employers, apprentices, education providers, community partners, workforce partners, state agencies



TAKE NOTE

GUIDING QUESTIONS

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What barriers (i.e. policy, institutional, internal dynamics, funding, lack of understanding/interest) do you face in incorporating apprenticeship into your program offerings?

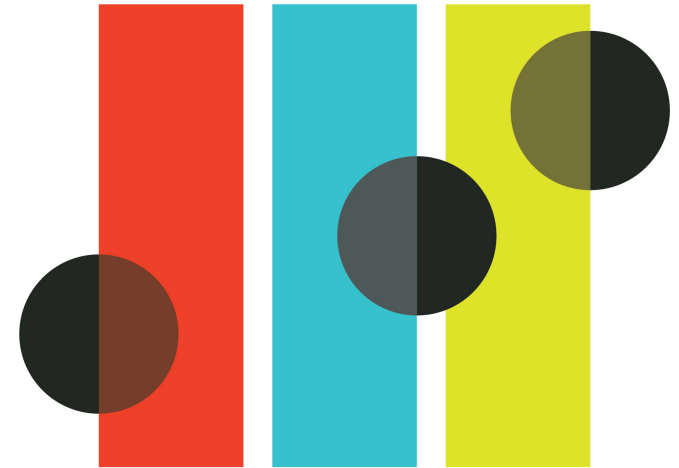
What do you still need to understand about Registered Apprenticeship as a postsecondary option?



THANK YOU

amessingmathie@jff.org

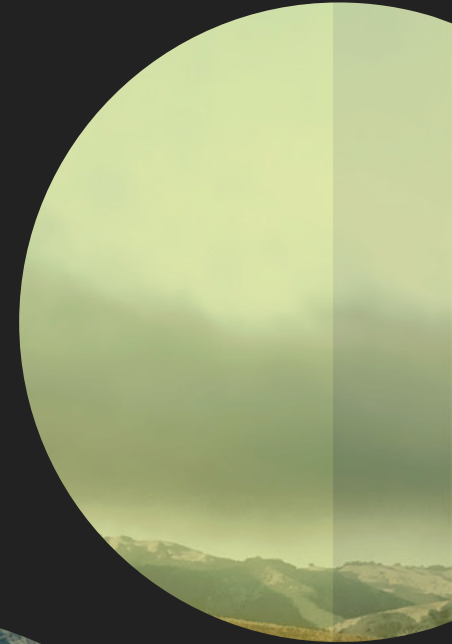
Andrea Messing-Mathie



JFF

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RESOURCE SLIDES



WHY YOUTH APPRENTICESHIP AND WHY NOW?

RECOVERY AND RESILIENCE

Employers **were already** struggling to find workers with the skills they need.

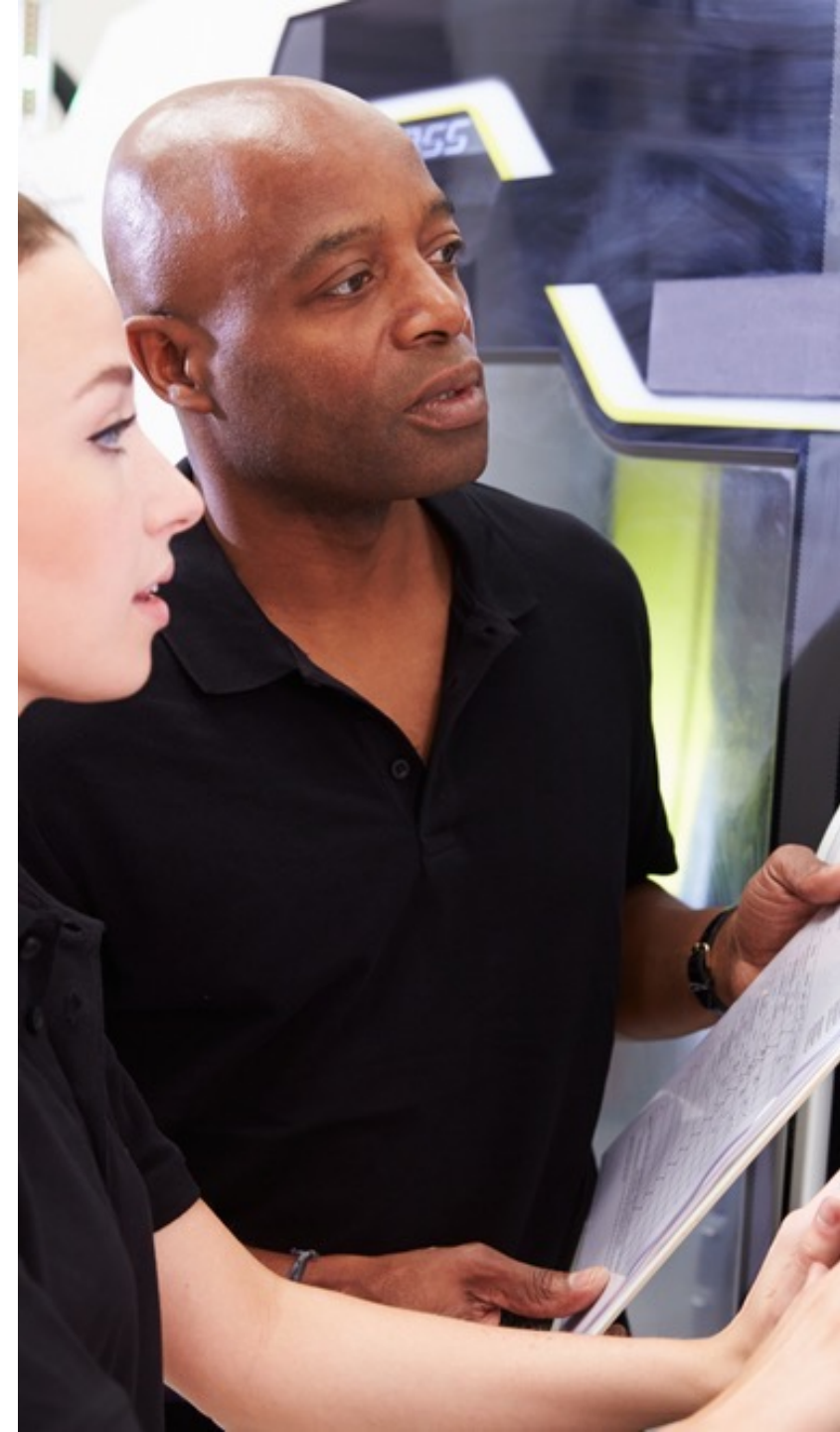
Employers need to hire differently but are apprehensive to hire new talent as they struggle to maintain their existing workforce.

Young people & adult workers **cannot always afford the costs of post-secondary education.**

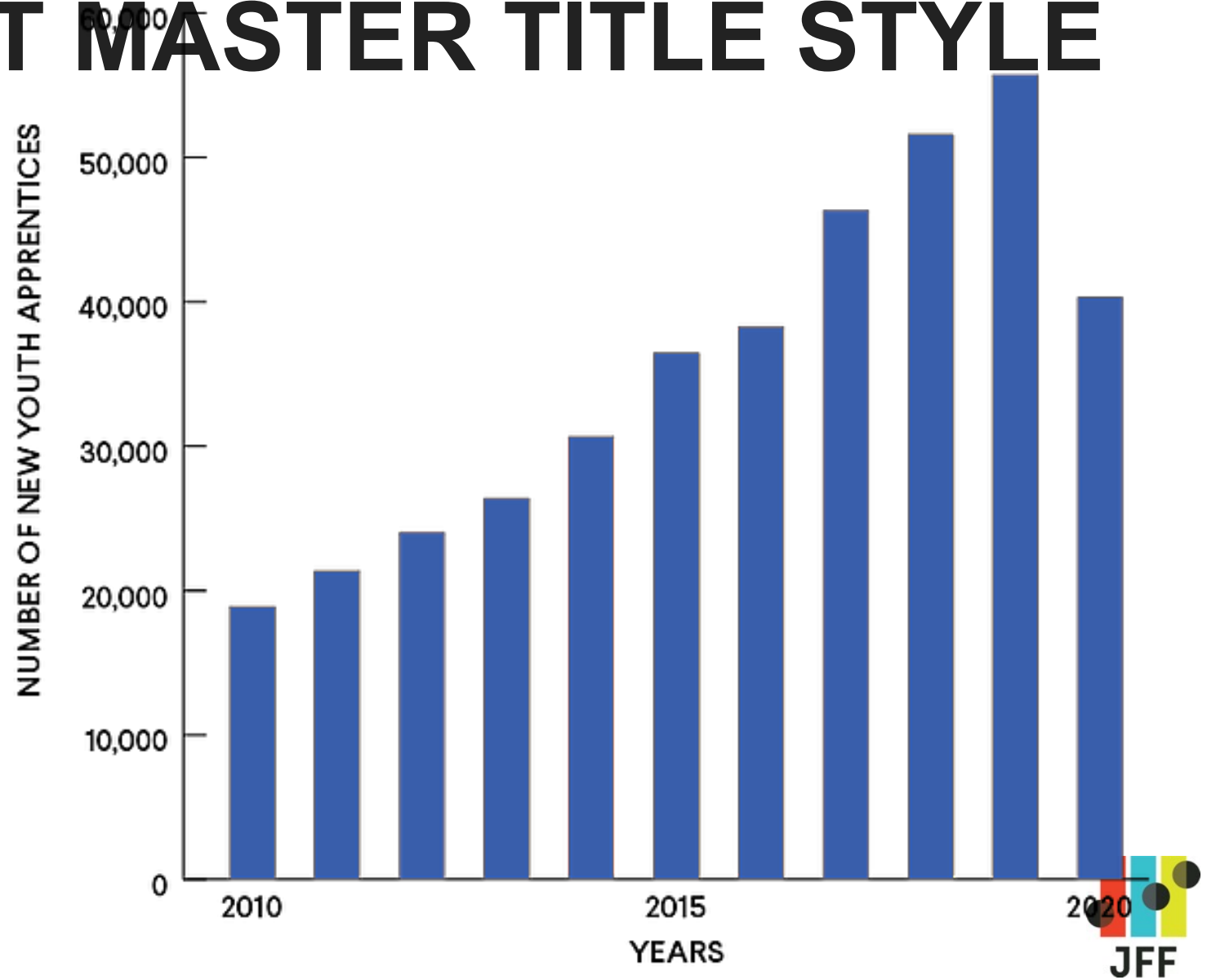
The **digital divide** disproportionately impacts rural and indigenous communities and students from lower-socioeconomic backgrounds. However, the past year has opened new opportunities for engaging with new employers and enabling young people as [digital natives](#) to positively shape workplaces.

There is a **deep misalignment** between what the workforce needs and how young people are prepared for careers.

Apprenticeship and WBL are **effective COVID response strategies**

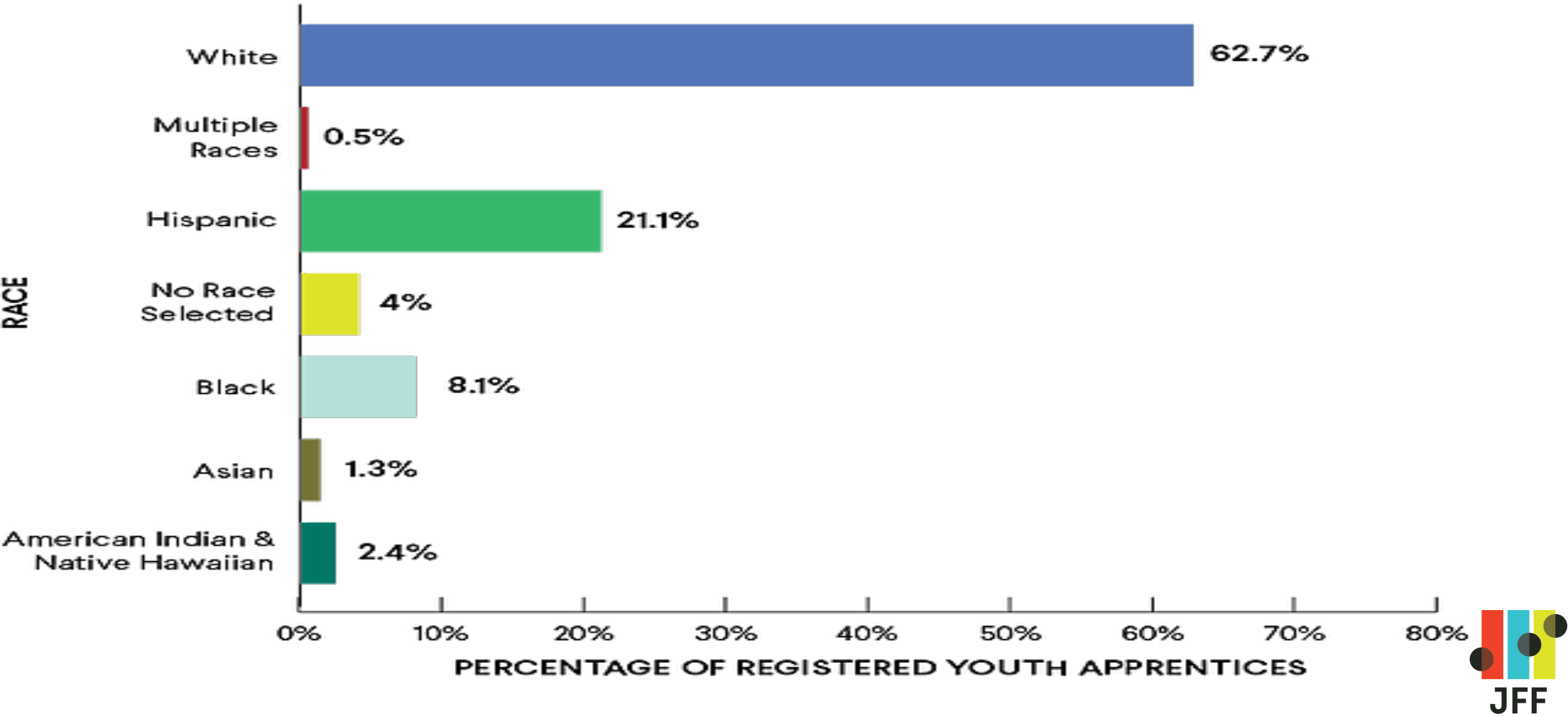


CLICK TO EDIT MASTER TITLE STYLE



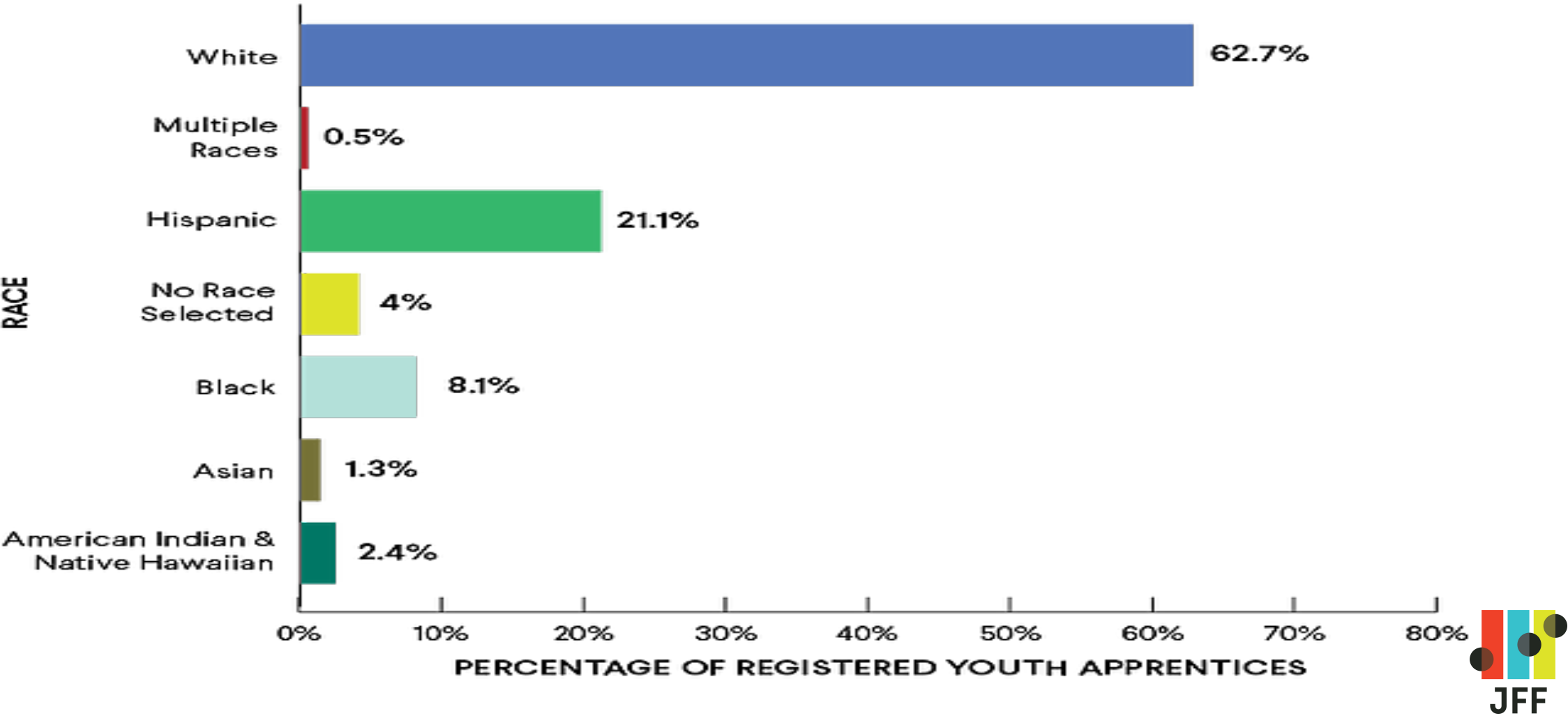
Total Youth Participants in Apprenticeships by Race/Ethnicity

Fiscal Years 2010 To 2020

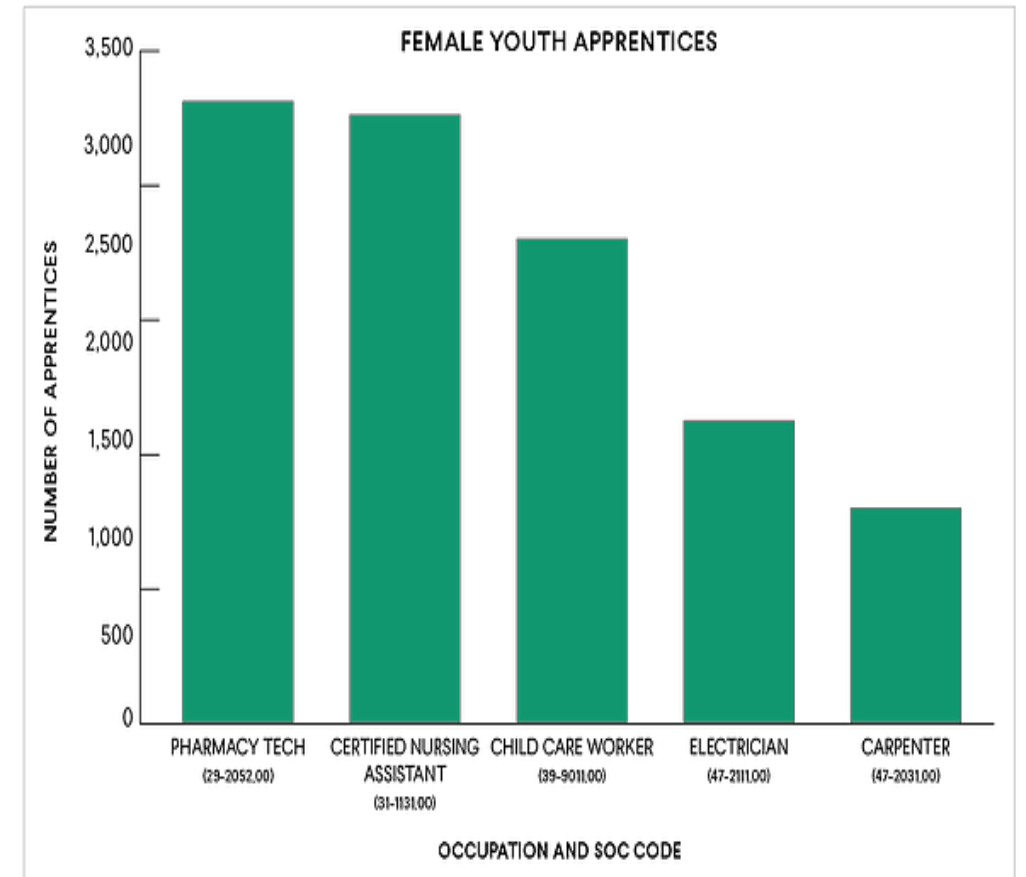
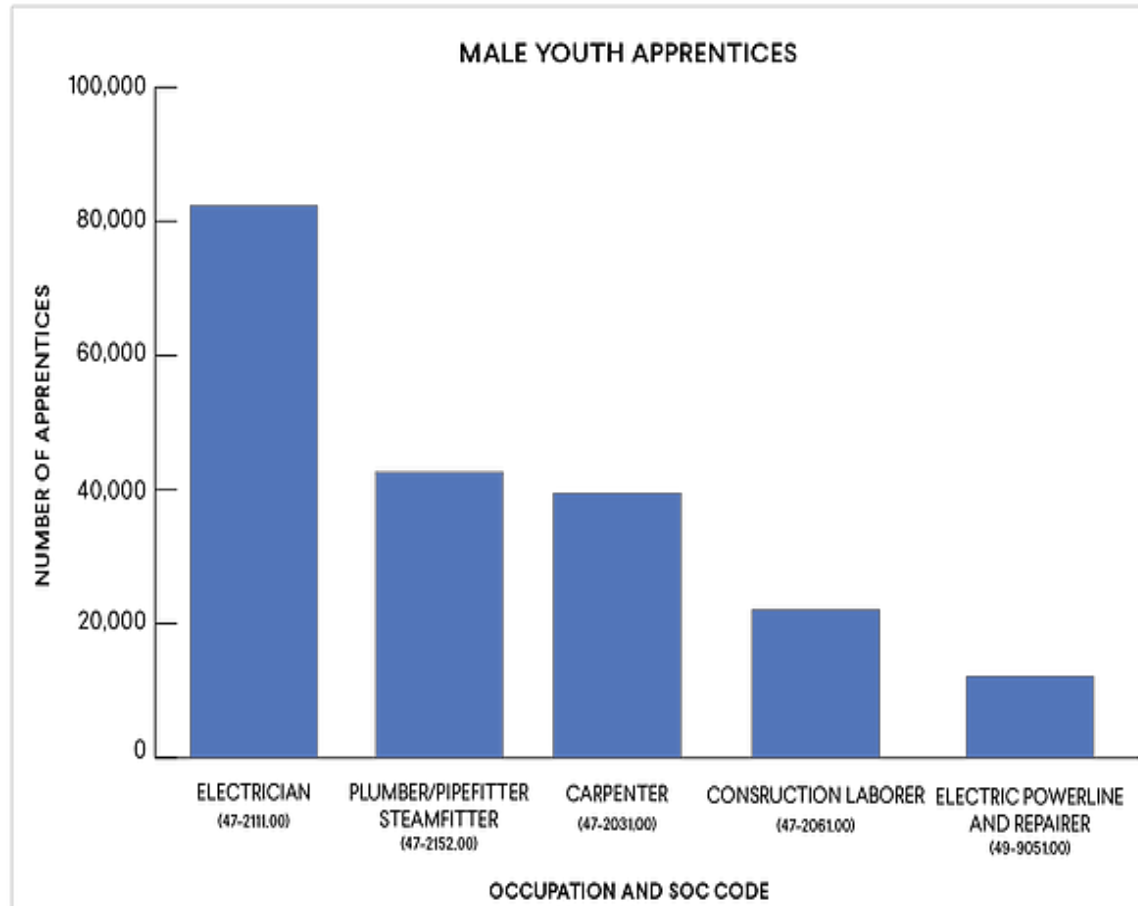


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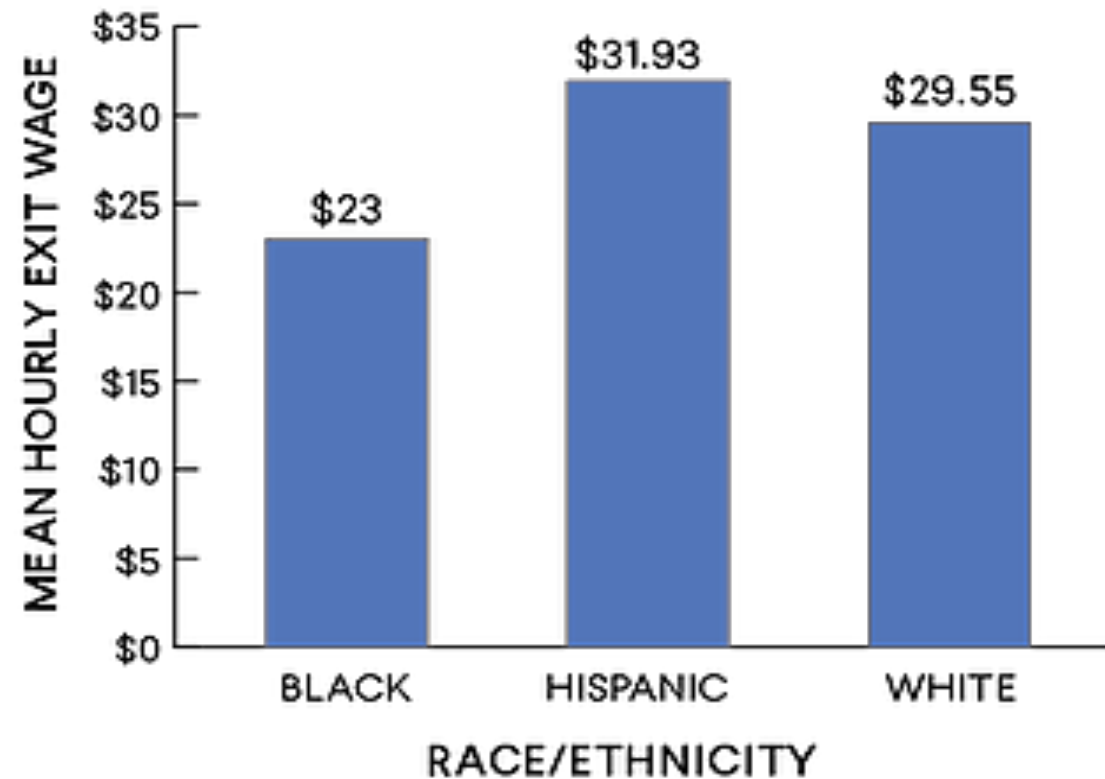
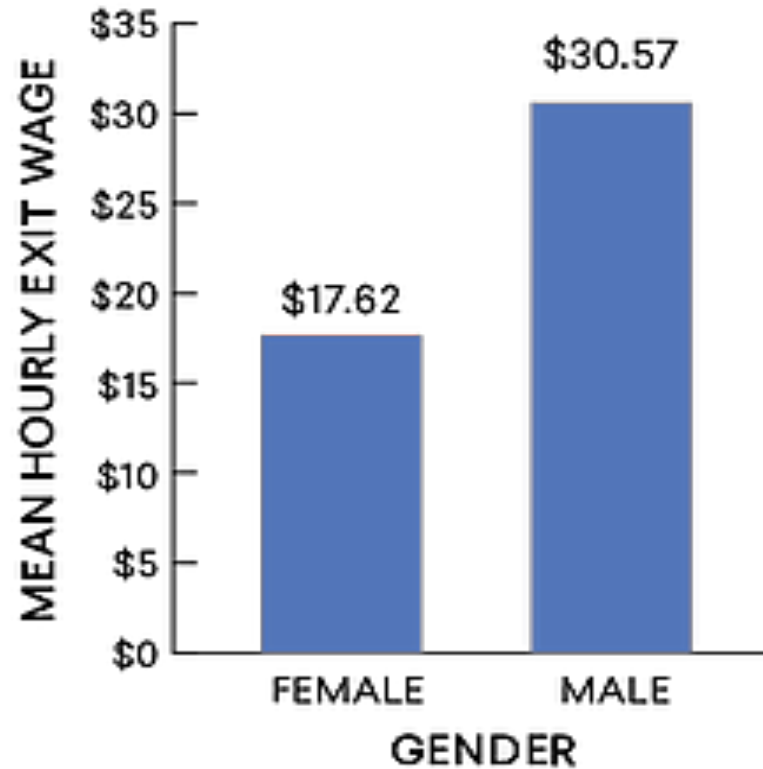
Fiscal Years 2010 To 2020



TOP OCCUPATIONS FOR AGGREGATE TOTALS OF MALE AND FEMALE YOUTH APPRENTICES, FISCAL YEARS 2010 TO 2020



Average Hourly Exit Wages by Gender and Race/Ethnicity for all Youth Participants in Apprenticeships Fiscal Years 2010 to 2020



SUMMARY

Number of young people participating in RA grew dramatically and at a higher rate than overall youth employment.

Average exit wage of \$30 per hour is much higher than median wages among all young people.

Women and people of color lag in representation and opportunity.

Occupational segregation exists when comparing male and female apprentices.

Need for more robust and actionable data.

Need to make apprenticeships more accessible and equitable for young people.



The Value of Apprenticeship for Employers

- Apprenticeship is a proven industry-driven career pathway where employers can develop their future workforce and workers can get critical experience through paid and credentialed programs.
- 97% of employer sponsors recommend apprenticeship programs.

Source: <https://blog.dol.gov/2021/11/03/equity-snapshot-apprenticeships-in-america>

Employers get an average of \$1.47 back in increased productivity for every dollar spent on apprenticeship.

3.2 million jobs could be filled by increasing apprenticeship occupations

Lower turnover and Higher Productivity - Over 80% of apprentices stay at the job where they received training

Highly Skilled employees trained to the specifications of the business or industry



#CAPCON22



The Value of Apprenticeship for Apprentices

- Helps individuals build and expand their skills and competencies through on-the-job training.
- Facilitates access to career and economic advancement and foster connections to postsecondary education pathways.
- Supports new and dislocated workers, and those looking to make career changes

Retention – 92% of apprentices stay in the industry for which they received training

Average salaries of \$72,000 with regular wage increases

Apprentices earn almost \$250,000 more over the course of their career than their peers

Mentorship, career exploration, supportive services and access to credentials and degree pathways

Source: <https://blog.dol.gov/2021/11/03/equity-snapshot-apprenticeships-in-america>



#CAPCON22

