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Licensure and Apprenticeships: Commonalities and Differences

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Let's Start with a Clear Definition of Apprenticeship

An apprenticeship is a job with structured work-based learning under a qualified mentor/trainer; requires written agreements between employers and apprentices;

Apprentices contribute to production and earn wages

1-5 years, completion yields an occupational certification

Work-based and related classroom instruction guided by well-defined occupational frameworks

May be time- or competency-based

Registered apprenticeships (RA) programs are those sanctioned by state or federal apprenticeship offices

An RA program is a sponsor-occupation combination

Apprenticeship & Licensure: Common Goals, Different Means

Goal: to stimulate and document high level skills and competencies in a profession

Licensure limits entry into a profession to workers who pass assessments; workers pursuing a license find their own way of upskilling

Apprenticeship is a model for achieving skills in a profession and culminates in a certification; but usually apprenticeship does not limit entry into the profession

Licensure does more to restrict interstate mobility, but apprenticeships can sometimes do so

Complementarities with Apprenticeship and Licensure

Apprenticeships lead to learning that allows workers to pass license requirements; often licenses require apprentice-like work-based learning and experience

The occupational categories with high numbers of US apprenticeships are where state licensure is common

States typically require that licenses for electrician, plumber, and carpenter require an apprenticeship or similar work-based learning

But health care & other professional licenses can interfere with learning through apprenticeships

Both licensed and apprentice occupations often face conflicts within occupational fields (health, construction)

Can Apprenticeships Substitute for Licensure?

Both apprenticeships and licensure focus on occupations

Both apprenticeship certification and licensure provide a signal to consumers/employers of competence

Licensing restricts entry while certification through an apprenticeship does not; value is based on learning

Rules may vary between what qualifies a worker for a license or for an apprenticeship certification; licenses may require a BA degree; apprenticeships require experience

US apprenticeships often lack third-party assessments

Benefits of Apprenticeships Over Licensure

Apprenticeship certifications offer a good signal to consumers without using monopoly power

Apprenticeships can home in on necessary content of skills and education, as viewed by the employers and consumers hiring qualified workers

Apprenticeships diversify the occupation by including those learning best by doing and limited resources. *BA requirements are often too large an entry barrier*

Apprenticeships offer flexibility in skill standards; *licensing is too often captured by existing professional organizations that simply add academic requirements*

Limits of US Apprenticeships Compared to Licensing

Most US apprenticeships lack third-part, end-point assessments, limits credibility, while licensing requires third party assessments

Licensing may be required if the potential losses of unlicensed individuals practice the profession

Some apprenticeships may lack sufficient skill requirements to assure high competency levels

Licensing and the Academic Drift in Health Professions

Many health professions that allowed for certification through work experience now require BA's and more

Allied health groups eliminate the nonacademic pathway, even for such professions as medical assistant, radiology technician, physical therapy assistant

Accrediting agencies limit programs and slots

Hard to see why health professionals cannot become qualified through a high-quality apprenticeship program

Degree requirements especially harmful for minorities

Top researcher Morris Kleiner finds little or no increase in quality and increases in price

Wide Ranging Credible Apprenticeships Are Feasible

Third party, end point assessments are common in other apprenticeship systems

Germany requires a six-person panel to review the apprentice's capabilities before certification

In five years, Britain created a whole industry of third party, end point assessment organizations for apprenticeships

Equally important are well documented skill standards for hundreds of occupations that all apprentices must reach

Apprenticeships Can Cover Most Occupations

The British apprenticeship system relies on a public-private body, Institute for Apprenticeships and Technical Education, to publish standards

Occupational fields with Institute standards now number over 600; they include diverse fields ranging from project manager, cyber security technician, archivist, to accountant or auditor

German, Swiss, and Australian apprentices can be found in an equally wide array of occupations

On Apprenticeship Skill Standards

Many skill requirements in the US system of registered apprenticeships are employer-specific

This approach requires a registration process that is often slow, can yield varying standards for the same occupation and reduces portability

Recent funding from US Labor Department have aimed to create competency-based skill standards

My colleagues and I at Urban Institute have built several standards and will build many more

What are National Occupational Frameworks?

They specify training for on-the-job learning and supplemental instruction. They are non-proprietary, high-quality, and consensus-based with input from employers, educators, and other workforce experts.

Overview

- Occupational Purpose and Context
- Potential Job Titles
- Apprenticeship Prerequisites
- Recommended Length of Apprenticeship (Time/Hybrid Programs Only)

Work Process Schedule

- Job Functions
- Competencies
- Core/Optional

Example of Job Functions of Cloud Technician

	Job Functions
1	Effectively communicates, plans, and engages internally in the workplace and externally in clients
2	Explores, identifies, and presents cloud software offerings to clients
3	Plans and configures cloud servers and cloud storage network offerings
4	Implements and deploys cloud servers and cloud storage network offerings
5	Manages and maintains cloud servers and cloud storage network offerings
6	Provides ongoing customer service and user support
7	Support ticket management and documentation

Job Function 1: Effectively communicates, plans, and engages internally in the workplace and externally in clients

A. Fosters open communication through active listening to improve shared understanding across internal teams and with external partners
B. Collaborates well and builds relationships with coworkers and clients by offering and accepting feedback respectfully
C. Maintains clear and updated documentation of user needs and changes
D. Participates in planning activities such as managing work flow and prioritizing tasks
E. Shows cultural understanding when working with coworkers and clients of all backgrounds
F. Presents ideas clearly and effectively to others
G. Estimates and reports timelines and outcomes, including tracking and coordinating with other service units

Example of Marine Pilot from UK Institute

Skills Knowledge and Behaviors Skills – The ability to

Plan an Act of Pilotage

Embark and Disembark a vessel whilst underway and whilst alongside

Assess standards on the piloted vessel

Work effectively with the bridge team

Liaise and communicate within the port jurisdiction, including correct use of the vessels communication and navigational equipment.

Safely transit the pilotage district

Manoeuvre vessels in harbours and their approaches

Respond to problems and emergency situations

Manage personal & professional conduct & development

Marine pilot knowledge and understanding of

Navigation, bridge equipment and navigational aids

Weather, and the effects of wind and current on the vessel

Vessel handling and hydrodynamics including towage where required

Bridge resource management

Local, national and international legislation, codes of practice and guidance; for example knowing how and when to report deficiencies of the pilotage vessel.

Vessels systems, including stability, strength, and construction

Emergency response and personal safety

Correct communications (e.g. vessel to vessel, vessel to shore) using standard marine vocabulary in relation to completing an act of pilotage safely.

Health, Safety and survival techniques

Marine environmental protection including responsibility to the vessel and port jurisdiction.

Different types and designs of vessel

Constraints and limitations of other craft on the water

Planning an act of pilotage from boarding to disembarkation. Including but not limited to:

- weather conditions, vessel draft, proposed use of tug, proposed use of mooring boats and time the berth is available.

Assessment Principles In UK Example

Demonstrating competence through workplace performance

Meet specified employer standards of performance

Demonstrate the requisite knowledge skills and behaviours that support workplace performance

Marine Pilot End Point Assessment three parts:

- Written Examination
- Professional discussion
- Practical Assessment

The practical Assessment can only be completed after passing the first two assessments.

Evolution of US Apprenticeship

Fitzgerald Act is a page, still the authorizing legislation, though regulations have been issued over the years.

Apprenticeship numbers have increased from 200,000 in 1948 to 514,000 civilian and 122,000 military in 2020

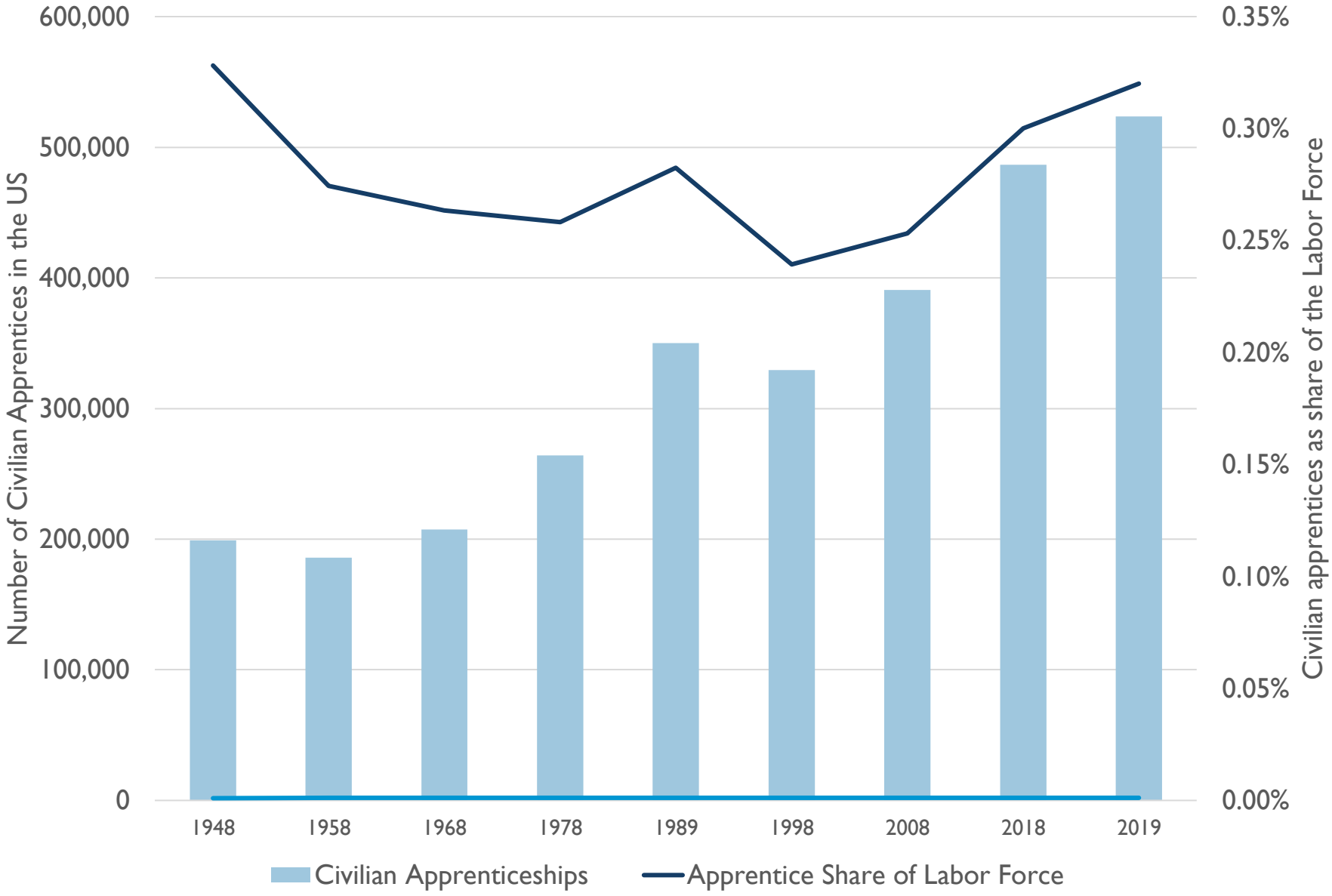
But the percentage remained about the same, about 0.3%

There may be as many *unregistered apprenticeships*

70% of civilian registered apprenticeships are in construction

Building Trade Unions have 1,600 training centers, funded privately with dues, employer contributions, $1.3 billion

Figure 1: US Civilian Apprentices and As % of the Labor Force



But Now May Be a Big Moment

"Academic only" approach is expensive, fails many students

Skill mismatches, high demand for skilled workers

Recognition that much learning can take place best outside the school environment; increases student engagement

Knowledge of other countries; 95% of Swiss 25-year-olds have apprenticeship/BA w/ lower BA rate than the US

Widens opportunities, status, and earnings for those who learn best by doing

New evidence of gains for workers, employers, government

Attracting bipartisan political support

Urban Institute and Related Initiatives

Urban Institute, together with Abt Associates, has been evaluating the American Apprenticeship Initiative; results will be out later this year, including new ROI findings

Urban Institute has been developing competency-based occupational standards for Registered Apprenticeship; now part of new Center of Excellence

Urban Institute has served as an intermediary in creating about 3,000 youth and tech apprenticeships, including in Missouri. Two more years we'll provide TA and incentives for employers

Start-up called Apprenticeships for America to advocate for apprenticeship at scale, to produce relevant research, and to create a network of intermediaries and group sponsors

What Success Can Mean

A society with increased wages and economic mobility,

A society with lower income inequality and less need for government social transfers

A country with more workers achieving occupational mastery, pride, and occupational identity

Reductions in the government costs of skill development

Increases in productivity and improved business morale

More innovation and ability to adapt to the future of work

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