

TECHNICAL ASSISTANCE GUIDE

# Starting a Registered Apprenticeship Program

**A Guide for Employers or Sponsors**

*Diane Auer Jones*

SENIOR FELLOW

*Robert Lerman, Ph.D.*

INSTITUTE FELLOW

*June 2017*



## ABOUT THE URBAN INSTITUTE

The nonprofit Urban Institute is dedicated to elevating the debate on social and economic policy. For nearly five decades, Urban scholars have conducted research and offered evidence-based solutions that improve lives and strengthen communities across a rapidly urbanizing world. Their objective research helps expand opportunities for all, reduce hardship among the most vulnerable, and strengthen the effectiveness of the public sector.

# Contents

<b>Acknowledgments</b>	<b>iv</b>
<b>Purpose</b>	<b>v</b>
<b>PART I: THE BASICS</b>	<b>6</b>
BENEFITS OF REGISTERED APPRENTICESHIP	6
TYPES OF APPRENTICESHIP	7
REGISTRATION REQUIREMENTS	8
HOW MANY REGISTERED APPRENTICESHIP PROGRAMS EXIST?	9
WHAT IS INVOLVED IN APPLYING FOR REGISTRATION?	9
NATIONAL PROGRAMS and NATIONAL GUIDELINES	10
WHERE CAN I FIND EXAMPLES OF THE WORK PROCESS SCHEDULES SUBMITTED BY OTHER SPONSORS?	11
<b>PART II: GETTING STARTED</b>	<b>12</b>
MAKING THE BUSINESS CASE INTERNALLY	12
EVALUATING THE ORGANIZATION'S READINESS	15
CONCERNS ABOUT POACHING	16
SUPPORTING AN APPRENTICE	16
<b>PART III: REGISTRATION</b>	<b>18</b>
INTERMEDIARIES	18
EMPLOYER ACCEPTANCE AGREEMENT	18
CREATING THE WORK PROCESS SCHEDULE	19
NATIONAL OCCUPATIONAL FRAMEWORKS	19
SAMPLE WORK PROCESS SCHEDULES	21
DEVELOPING A PROGRAM	22
INTERMEDIARIES AND TRAINING PROVIDERS	23
GENERAL QUESTIONS FOR POTENTIAL INTERMEDIARIES	25
<b>PART IV: RESOURCES</b>	<b>27</b>
SOURCES OF STATE OR FEDERAL FUNDING FOR REGISTERED APPRENTICESHIP	27
RESOURCES FOR VETERANS PURSUING REGISTERED APPRENTICESHIP	27
WORKFORCE INVESTMENT OPPORTUNITY ACT	29
FEDERAL STUDENT AID	30
TAX CREDITS	31
<b>About the Authors</b>	<b>32</b>
<b>Statement of Independence</b>	<b>33</b>

# Acknowledgments

This report was funded, either wholly or in part, with Federal funds from the Department of Labor, Employment and Training Administration under Contract Number DOL-ETA-15-C-0087. The contents of this publication do not necessarily reflect the views or policies of the Department of Labor, nor does mention of trade names, commercial products, or organizations imply endorsement of the same by the U.S. Government.

We are grateful to them and to all our funders, who make it possible for Urban to advance its mission.

The views expressed are those of the authors and should not be attributed to the Urban Institute, its trustees, or its funders. Funders do not determine research findings or the insights and recommendations of Urban experts. Further information on the Urban Institute’s funding principles is available at [www.urban.org/support](http://www.urban.org/support).

We are indebted to Keith Rolland, Community Development Advisor to the Federal Reserve Bank of Philadelphia, and Andrew Karas, formerly of the Urban Institute, for their writing assistance and editorial review. Without them, this Guide would not have been possible.

# Purpose

The purpose of this guide is to help employers or other apprenticeship sponsors consider whether or not an apprenticeship program would be a good way to meet their talent acquisition, business development and employee satisfaction and retention goals. Part I of the guide provides an overview of registered apprenticeship to help employers understand the opportunities and obligations associated with offering these programs. Part II provides information about how to get started in planning a program and preparing for registration. Part III of the guide provides more detailed instructions about how to register an apprenticeship program. Part IV provides a summary of financial resources that are available to apprentices and sponsors to help reduce the cost of training or provide support services to employers and apprentices.

Questions regarding the content of the guide and available resources may be directed to Diane Jones ([djones@urban.org](mailto:djones@urban.org)) or Dr. Robert Lerman ([blerman@urban.org](mailto:blerman@urban.org)) at the Urban Institute in Washington, DC, or by sending an email to [info@urban.org](mailto:info@urban.org) or by completing a [request for assistance](#) on the [American Institute for Innovative Apprenticeship](#) website.

# PART I: THE BASICS

Registered Apprenticeship (RA) is a structured education and training program that takes place in the workplace and includes formal on-the-job (OTJ) training and classroom-based, related technical instruction (RTI). An apprentice is a full-time, paid employee of the sponsoring organization from the start of the program. An apprenticeship must include at least 2,000 hours of OJT and a recommended 144 hours of RTI, but many programs last for four or more years.

An apprenticeship is not an internship, nor is it a short-term training program. Apprentices work full-time and are paid a wage that is subject to minimum wage regulations, but may begin below that of incumbent worker. As the apprentice hits milestones such as completing a certain number of program hours or demonstrating job competencies, his or her wages increase according to the agreement signed by the employer and the apprentice at the beginning of the program.

To summarize, key elements of a registered apprenticeship program are:

- The apprentice is a full-time, benefit-receiving, paid employee of the sponsoring organization.
- The apprenticeship program includes at least 2,000 hours of On-the-Job (OTJ) training and 144 hours of Related Technical Instruction (RTI), which can take place in a classroom at the workplace or at a local college or education provider.
- The apprentice must be paid at least the minimum wage, with wages progressing as the apprentice moves through the program.
- On-the-job training must be structured, planned and coordinated and cannot simply be a job shadowing experience or a short term employee induction program.

## BENEFITS OF REGISTERED APPRENTICESHIP

Registered Apprenticeship is an effective way for businesses to ensure an ample supply of well-qualified, highly trained workers by engaging directly in their preparation, education and training. Unlike traditional postsecondary education programs that are designed to prepare students for any number of careers and generally focus more on theory than practice, apprenticeship is designed by and for the employer and is highly specialized to meet the unique needs of a specific job.

Because apprentices learn primarily in the workplace, they are trained using the same state-of-the-art equipment that they will use on the job. Moreover, they will be instructed and mentored by skilled workers

who have done the job the apprentice is training to do and who will ensure that apprentices are acculturated to workplace norms and expectations. Those who complete a registered apprenticeship receive a credential that is nationally recognized as a mark of distinction.

Employers that support apprenticeship training within their organization generally report the following benefits from their apprenticeship programs:

- Filling vacancies that otherwise couldn't be filled due to skills gaps among available workers
- Attracting a broader range of candidates and diversifying the workforce
- Improving employee morale and loyalty—thus reducing turnover
- Ensuring that workers are trained to the employer's standards using the employer's equipment and protocols
- Shortening the amount of time before new employees are productive
- Decreasing error and accident rates
- Ensuring that the knowledge and experience of aging workers is transferred to the next generation of workers

## TYPES OF APPRENTICESHIP

There are three different kinds of apprenticeship – time-based, competency-based and hybrid - which are defined by the way in which an apprentice's progress is measured and qualifications are awarded.

- A **time-based** program measures progress based on the number of hours an apprentice has spent in on-the-job training (OJT) and related instruction (RTI).
- A **competency-based** program measures progress based on the apprentice's demonstrated ability to perform the duties associated with the occupation.
- A **hybrid** program includes both time-based and competency-based requirements.

Although competency-based apprenticeship is a relatively new form of apprenticeship, it has several advantages over the more traditional time-based programs. First, in a competency-based program, individuals who have developed knowledge and skills through prior educational and work experience can get credit for their demonstrated abilities, thus reducing the time it takes to complete a program or enabling the apprentice to spend their time in the program developing more advanced skills. Second, apprentices can move at different paces through the program and even learn knowledge and skills in different order, depending upon their own learning style. Third, with the program organized around job functions and

competencies, apprentices can quickly become competent in at least one relevant job function, thus reducing the time to productivity. Fourth, because a competency-based program includes a detailed evaluation of apprentice performance, it is clear to both the apprentice and the employer exactly what competencies the individual has demonstrated and where additional learning is required, thus the apprenticeship evaluation can form the basis of a continuing employee development plan. The competency evaluation can also be used to evaluate incumbent workers and experienced workers joining from other organizations, thus assisting in the development of short-term professional development plans to enable those workers to succeed.

Although an apprentice can be awarded credit for prior learning and demonstrated competencies, **no more than 1000 hours per year can be awarded in advance, and under no circumstances can the apprentice complete the program in less than one-half of the time of the regular program or less than six months.** An employee who requires less than six months of apprenticeship training might be better served by a shorter-term orientation program.

## REGISTRATION REQUIREMENTS

The Registered Apprenticeship program is a federal program that in some states is [administered by](#) a representative of the U.S. Department of Labor’s (USDOL) Office of Apprenticeship (OA) and in others is administered by a State Apprenticeship Agency (SAA) that acts on behalf of the USDOL. To determine whether you are located in a “state” state or a “federal” state, consult the [interactive map](#) provided by DOL, which also provides the name and contact information for each state representative.

Federally Approved States include: Arkansas, Alabama, Arkansas, California, Georgia, Iowa, Idaho, Illinois, Indiana, Michigan, Missouri, Mississippi, North Dakota, Nebraska, New Hampshire, New Jersey, Oklahoma, Puerto Rico, South Carolina, South Dakota, Tennessee, Texas, Utah, Virgin Islands, West Virginia, Wyoming.

State Approved States include: Arizona, Connecticut, Washington DC, Delaware, Florida, Guam, Hawaii, Kansas, Kentucky, Louisiana, Massachusetts, Maryland, Maine, Minnesota, Montana, North Carolina, New Mexico, Nevada, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Virginia, Vermont, Washington, Wisconsin.

While there is no federal law or regulation that requires any employer or sponsor to register the apprenticeship programs they administer, there are some advantages to registering the program. First, registered apprenticeship leads to a nationally recognized credential issued by the USDOL, which has advantages for both employers and apprentices. Second, only registered apprenticeships have access to certain federal and state funding programs, such as the GI Bill (which provides supplemental support to veterans engaged in apprenticeship), the Workforce Investment and Opportunity Act (which may provide wage reimbursements to the employers of wrap around services for apprentices) and state workforce development grants. Third, validation by an external agency such as USDOL or an SAA ensures that the program is well designed and meets established quality criteria.

## HOW MANY REGISTERED APPRENTICESHIP PROGRAMS EXIST?

In 2016 there were just over 400,000 apprentices enrolled in 500 active, USDOL registered apprenticeship programs. There are roughly 1,000 additional federally approved programs that remain on the list of approved programs, but are not currently active. The top 50 fields account for 80 percent of the current apprentices, with a large majority of them in construction-related fields. USDOL maintains a list of [currently registered apprenticeships](#) which does not include all of the programs registered by various states.

USDOL is investing significant funding to expand registered apprenticeships into new fields including **Information Technology, Advanced Manufacturing, Allied Health, Transportation, Energy, Finance, Consumer Services** and **Business**. An employer or sponsor who wishes to establish a registered apprenticeship in a new occupation should [contact](#) their USDOL or SAA representative to initiate an apprenticeability determination, which generally involves a review of the request and program plan by a group of six to nine employers.

## WHAT IS INVOLVED IN APPLYING FOR REGISTRATION?

While Part III of this guide covers the process of applying for registration in more detail, in general, an employer interested in apprenticeship should take the following steps:

1. [Contact](#) your state USDOL or SAA representative to initiate the registration process. Approval can take anywhere from a few weeks to several months, so engaging your representative early is the best way to speed up the process.

2. Determine how the OJT and RTI will be structured, including the length of the program, its format (time-based, competency-based or hybrid), and whether RTI will be provided on site or in partnership with an external education provider.
3. Create the Work Process Schedule, which outlines the content and/or competencies that the program will cover.
4. Establish a wage progression plan and employee benefit plan for apprentices.
5. Complete the application for registration, called the Standards, using the application provided by your SAA or USDOL's online Standards Builder form.

## **NATIONAL PROGRAMS and NATIONAL GUIDELINES**

Companies developing programs that will be offered in several states may submit a single application to the USDOL for approval as a **National Program**. This alleviates the need to complete an application form in each state, although a national program may not be eligible for certain state funds if it isn't also approved by the SAA.

Large organizations, such as labor unions, credentialing organizations and trade associations, often times do not wish to serve as the direct sponsor for all apprenticeship programs, but do wish to set policy and guidance for those in the sector that do wish to become apprenticeship sponsors. These organizations can apply to USDOL for approval of **National Guidelines** to establish such policy and guidance.

## **THE WORK PROCESS SCHEDULE**

Every apprenticeship sponsor must submit for review and approval, as part of the registration application process, the Work Process Schedule (WPS) that outlines the content of OJT and RTI. In a time-based program, the WPS generally identifies the number of hours that will be spent learning specific knowledge and skills, whereas in a competency-based program, the WPS identifies the job functions and competencies that an apprentice must demonstrate to progress through the program. Hybrid programs include both time elements and competencies. Although many countries establish government endorsed or commissioned national apprenticeship standards that dictate program content, program duration or assessment requirements, there are no such national standards in the U.S. Instead, employers and sponsors may develop a program to meet their unique training needs, although the USDOL or SAA is likely to seek external review and comment from other employers to ensure that one employer's program aligns with the general expectations of others in the field.

## SAMPLE WORK PROCESS SCHEDULES

In an effort to assist sponsors in starting new programs, and to improve consistency among programs, the USDOL has contracted with the Urban Institute to develop consensus-based, voluntary, [National Occupational Frameworks](#) (NOFs) that can be used by any employer to facilitate the development of the program and Work Process Schedule. The NOFs were developed with the input of numerous employers, trade associations, professional societies, subject matter experts, expert workers, academics and international experts in order to ensure that they reflect the consensus opinion of the relevant job functions and competencies associated with a given occupation. A company or sponsor that elects to use an NOF in developing the program and submitting the Work Process Schedule may customize the program to meet their unique needs, but at least 80% of the job functions and competencies must align with those included in the NOF and 20% can be unique to the sponsor's own needs. While NOFs are approved by USDOL for use in developing federally-approved programs, there are efforts under way to encourage SAAs to similarly recognize the value of NOFs.

Examples of individual Work Process Schedules, national standards and national guidelines that have been approved by USDOL, the US Military, or certain states are publicly available on the American Institute for Innovative Apprenticeship (AIIA) [website \(https://innovativeapprenticeship.org/approved-us-apprenticeships/\)](https://innovativeapprenticeship.org/approved-us-apprenticeships/). In addition, a selection of program standards approved at the national level in Canada, Australia, the United Kingdom and Germany are also available on the AIIA [website](#).

# PART II: GETTING STARTED

## MAKING THE BUSINESS CASE INTERNALLY

In order to gain support within a company or organization for apprenticeship programs, sponsors will likely need to convince senior leaders and front line managers of the likely return on this investment. There have been various efforts to calculate the financial Return On Investment of registered apprenticeship. While the magnitude of the rate of return varies, based on the length of the program, the investment in training facilities and equipment, reliance on incumbent workers to provide training and mentorship, and access to government funding, each as concluded that the return is positive.

A financial ROI determination must take into account the potential productivity losses on the part of mentors, the direct cost of hiring instructors (or diverting incumbent workers from other tasks to take on the responsibility of teaching), and the cost of providing related technical instruction, either on site or in partnership with an external education provider. In addition, while sponsors are encouraged to provide OJT in the actual workplace, some sponsors elect to construct separate training facilities, which also add to the cost of apprenticeship. Apprentice wages and benefits also contribute to the cost of the program, but since apprentices are generally paid less than an incumbent worker, there are savings on the wage side to offset initial productivity gaps.

On the return side, employees who complete an apprenticeship tend to be more productive workers more quickly than other new workers, tend to have lower error or accident rates, and typically have greater loyalty to their sponsoring companies, thus they remain with the employer for longer periods of time. This leads to increased revenue potential for employers as well as reduced human resources costs associated with employee turn over.

There are other benefits of apprenticeship that may not be easily captured in the calculation of a financial ROI. For example, apprenticeship may enable employers to tap into previously unrecognized talent and engage underserved populations, thus diversifying the workforce and expanding the available talent pool. Apprenticeship also enables employers to attract individuals who may be active learners and who thrive in a hands-on learning environment, but may have been underserved by traditional classroom opportunities. For companies challenged to fill vacancies as a result of generalized skills gaps, apprenticeship provides a more stable and reliable pipeline of future workers to meet the organization's workforce needs.

In addition, companies with an aging workforce be able to improve knowledge transfer to new employees by engaging retirees or near-retirees as mentors and instructors. For some workers, the transition to a teaching role may make it possible for them to work for additional years, and for others, part-time teaching and mentoring opportunities provide a great way to remain connected to the organization even when full-time work is no longer desired.

In general, apprenticeship programs improve employee morale, especially if incumbent workers are given the opportunity to participate in apprenticeship to move up the career ladder. And when vacancies are filled, over-taxed workers can return to normal work schedules, potentially improving their accuracy and safety record, increasing their productivity and improving their retention rates.

In developing a business case, remember that registered apprenticeship is a long-term investment and not a short-term fix. Ideally, registered apprenticeship training will fit within existing staffing and workforce development strategies, but in many cases, the registered apprenticeship program forms the foundation of a new approach to talent acquisition, upskilling of incumbent workers and improving employee morale and retention.

The main benefits of registered apprenticeship include:

- Filling vacancies in areas where skills gaps have made hiring difficult and ensuring a future talent pipeline to sustain workforce needs.
- Improving product or service quality, accuracy and reliability; decreasing error and injury rates.
- Attracting new talent, including among those who are transitioning to new careers, thereby bringing other skills to the workplace.
- Retaining the institutional knowledge of retiring workers by engaging them as part-time mentors and trainers.
- Increasing employee morale, including among incumbent workers whose strong performance can be recognized by engaging them in mentoring or trainer roles.
- Improving employee retention, thus reducing the high cost of employee turnover.
- Allowing incumbent employees to concentrate on higher-level tasks by assigning lower-level tasks to apprentices.
- Reducing employee burn-out by filling long-standing vacancies.
- Creating opportunities to observe workers over an extended period of time before offering permanent employment.

In developing the business case, it may be helpful to consider the following questions:

- What are the current challenges and opportunities facing the organization? Can these challenges be met or opportunities leveraged through an effective workplace learning program like registered apprenticeship?
- What are the key drivers for the development of skills among employees?
  - These may include knowledge gaps due to changing processes or technologies, due to a change in the markets for buying or selling products, or due to an absence of quality vocational education programs offered by traditional postsecondary providers.
  - Is the organization's workforce aging?
  - Is workforce diversity a goal?
- Are there skills gaps in the industry or sector?
  - What strategies are being used by others in the same sector to meet these gaps?
  - Is there a centralized organization, such as a labor organization, trade association or postsecondary institution, that is working with multiple employers in the sector to solve skills gap challenges?
- What is the sponsoring organization's current workforce development strategy and budget?
  - Does the organization currently allocate workforce development funds for new employee training or incumbent worker development? If so, how are those funds currently spent? Is the company seeing positive results from those expenditures?
  - How is the talent pipeline currently managed? What advancement opportunities are provided to incumbent workers?
  - Are current on-boarding programs effective in improving productivity, product or service quality, customer satisfaction and employee retention?
- Are entry-level positions difficult to staff?
  - How are individuals currently preparing for entry-level jobs in the organization? Are those programs or mechanisms effective?
  - Does the organization operate formal programs to help recent high school or college graduates transition to work?
  - Are there employees working in declining industries whose skills could be leveraged, with some additional training, to meet the could organization's needs?
  - Could registered apprenticeship serve as an alternative to traditional college degree requirements when posting job openings, screening applications, or formulating professional development plans for incumbent workers?
- Is the organization's workforce development program a means of differentiating the company from its competitors?
  - Is it a key to the organization's value proposition?

- Is the existing program part of a corporate social responsibility program?
- Is it part of the brand marketing strategy?
- Do actions taken by the sponsoring organization influence the quality of skills in franchise locations, vendors or procurement contractors? Does the organization wish to engage supply chain partners in this effort?
- Would the cost of a registered apprenticeship program be offset by increases in productivity, decreases in errors or accidents, reductions in staff turnover rate and increases in employee loyalty and morale? For example, some employers have said that they have been able to charge higher rates on performance-based contracts since registered apprenticeship training has reduced error rates and improved product quality.

## EVALUATING THE ORGANIZATION'S READINESS

Once an organization has made the decision to proceed with a registered apprenticeship program, it needs to evaluate its readiness to do so. The key points to consider are:

- Is the business prepared to host an apprentice?
  - How will the employer get support from front-line managers who will likely carry the burden of training and mentoring apprentices? It is recommended that front-line managers be engaged early in the process of planning and developing the registered apprenticeship program.
  - How will incumbent workers be served by registered apprenticeship? In order to garner support for apprenticeship among the incumbent workforce, some companies provide competitive opportunities for those workers to serve as mentors or trainers, often times for additional pay or other perks. Other employers include incumbent workers in the registered apprenticeship program, or design higher-level apprenticeship programs to help current workers move into management roles. Employees who have student loan debt are likely to be resentful of colleagues who qualify for the same job by completing a debt-free, wage-paying registered apprenticeship program. For this reason, some employers have provided partial student loan relief to employees who prepared through traditional post-secondary programs and who the company wishes to retain for a longer period of time.
  - Are there current employees who can serve as mentors or trainers, and if so, how can the organization prepare them for this role? Will they receive additional compensation for taking on this responsibility?
- What roles will apprentices play within the organization? Which particular occupations will they fill, and what will their job titles be?
- Are there others in the sector engaged in apprenticeship training? This could be other companies, trade associations, labor organizations, or certification bodies.

- Will the organization work with an intermediary to develop the program and identify related instruction providers, or will the organization manage that in house?
- Which related instruction providers will the company work with to develop and deliver related instruction, either at the job site or at another location? Related instruction providers include career colleges, community colleges, trade associations, labor organizations, certifying bodies and others.
- How will the organization recruit and screen potential apprentices? It is important to work with human resources staff to design an effective recruiting strategy that complies with relevant laws and regulations and adheres to the mission of the company.

## CONCERNS ABOUT POACHING

While some policy makers and employers have expressed concerns about the cost of training employees who might than be “poached” by other company, those currently engaged in U.S. apprenticeship report that poaching is actually quite limited. In part, this is because apprentices tend to feel a strong sense of loyalty to the employer who provided them with such a valuable training opportunity and saved them from the set-back of student loan debt. Also, since workers trained through apprenticeship tend to perform well once in permanent employment, they also tend to have advancement opportunities within the organization that provided the apprenticeship opportunity.

That said, employers can include contractual requirements that an apprentice remain with the company for a certain period of time after completing the program. Some union organizations require an employee to reimburse the organization for their training if they do not take a union job or become a union member after the training is complete. These sorts of arrangements can be hard to enforce, but another option is to require apprentices to take an apprenticeship loan (offered by some private lenders) to pay for the related technical instruction portion of the program, with the agreement that the employer will repay the loan for an apprentice who remains with the employer for a certain period of time. If the apprentice fails to fulfill the employment obligation, then he or she is also responsible for repaying the loan.

## SUPPORTING AN APPRENTICE

Since an apprentice is an employee of the company, he or she should be treated like any other employee. As such, apprentices may benefit from the following staff management practices:

- Having a knowledgeable and positive mentor who is skilled in their job and understands the organization's culture and mission
- Including apprenticeship as part of comprehensive succession planning
- Providing regular feedback and communication to the apprentice
- Ensuring that the apprentice feels that he or she is an important part of the team/ workforce
- Encouraging and challenging the apprentice with "stretch projects" while supporting his or her learning and development
- Setting realistic targets and motivating the apprentice with real work
- Rewarding apprentices and engaging them in increasingly challenging projects

## PART III: REGISTRATION

The first step in starting any new registered apprenticeship program is to contact the appropriate federal or state apprenticeship approving [representative](#). The apprenticeship representative will help the employer or sponsoring organization determine whether or not an occupation is already designated as an apprenticeable occupation, whether similar programs have been previously registered and may be able to direct the sponsor to other resources that can be helpful in planning and managing the program.

In order to register an apprenticeship program, the organization or company must submit an application to USDOL or the SAA using the form and format designated by that body. Companies or organizations with locations in multiple states may pursue approval by the State Apprenticeship Agency in each of those states, or the company or organization can seek national program approval by USDOL, thereby ameliorating the need to seek and gain approval in each state where the program will be administered. However, in some instances national approval may preclude a company or organization from qualifying for state or local workforce training grant funds or tax benefits.

### INTERMEDIARIES

In some instances, intermediaries, such as community colleges, labor organizations, trade associations and private non-profit or for-profit organizations will seek approval to become apprenticeship sponsors themselves in order to manage the program's development and application process on behalf of employer partners. These arrangements are particularly helpful to small companies that may wish to support a small number of apprentices, but don't have the available resources or expertise to establish an entire program.

### EMPLOYER ACCEPTANCE AGREEMENT

When an organization becomes the sponsor for an apprenticeship program, an individual employer can participate in that program simply by completing a short **Employer Acceptance Agreement**, which serves as an addendum to the full registration application submitted by and approved for the sponsoring organization. Employer agreements ensure that participating employer will abide by the terms of the Standards in providing

the established wage, agreeing to the wage progression plan (or amending it appropriately) and providing the necessary OJT experiences to align with the program goals. However, these agreements alleviate the need for the employer to prepare a full application.

## CREATING THE WORK PROCESS SCHEDULE

The WPS is the part of the apprenticeship registration application that outlines the key elements of the on-the-job training and related technical instruction. For a time-based program, the WPS will delineate the number of hours spent on various topics and activities in the program. For a competency-based program, the work process schedule will list the competencies an apprentice must demonstrate to progress through the program and the related instruction resources that will be available to help the apprentice gain each competency. For hybrid programs, some aspects of the program will be defined by the competencies the apprentice must demonstrate while others will be measured in hours.

## NATIONAL OCCUPATIONAL FRAMEWORKS



In 2015, USDOL contracted with the Urban Institute in Washington, D.C. to develop consensus-based, voluntary, **National Occupational Frameworks (NOF)** to facilitate the development and review process and improve consistency among apprenticeship programs. These frameworks were developed in partnership with employers, skilled

workers, trade associations, international intermediaries, certification bodies, academic institutions and professional societies. They list the job functions and competencies that were collectively deemed critical to a given occupation, as well as optional elements that some but not all employers might include.

To access NOFs, go to the [innovativeapprenticeship.org](http://innovativeapprenticeship.org) website, click on the US Apprenticeships tab, and then scroll down to the section on National Occupational Frameworks. Click

- National Occupational Frameworks approved by DOL:
- Community Health Worker
  - Medical Records and Health Information
  - Cyber Security Support Technician
  - Information Technology Generalist
  - Medical Assistant

### National Occupational Frameworks (NOF)

For those reasons, the U.S. Department of Labor has contracted with the Urban Institute to develop voluntary, consensus-based **National Occupational Frameworks (NOFs)** to help employers and sponsors develop, and apprenticeship officials evaluate, new apprenticeship programs. These NOFs were developed in partnership with employers, sponsors, expert workers, educators, subject matter experts, trade associations, labor organizations and licensing bodies to ensure that they meet the needs of a broad range of companies and organizations and enable industry-wide acceptance of apprenticeship training.

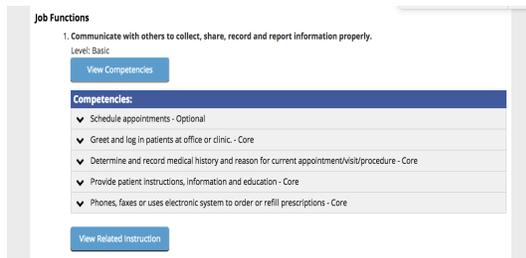
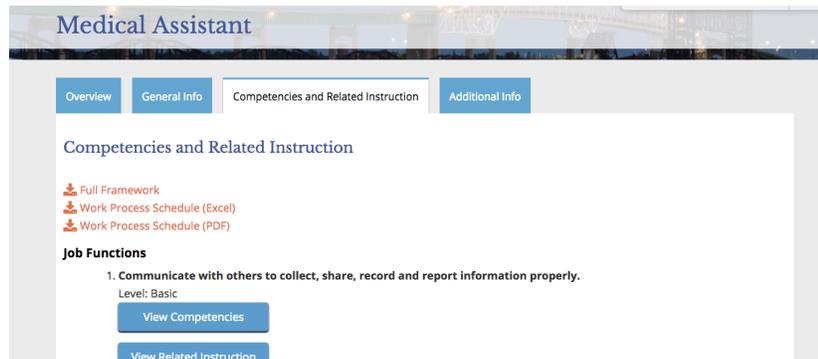
Employers or sponsors who want to register a new apprenticeship program can use the NOFs as a starting point. Although you're not required to use the NOFs, your program could get a more rapid review if you do use the frameworks, since they've already received support from the employer community. Employers or sponsors may customize their apprenticeship program to meet their unique needs, but at least 80% of the program must align with the NOF in order to qualify for facilitated review. Job functions or competencies identified in the NOFs as advanced or optional need not be included in the sponsor's individual program and do not count against the allowable 20 percent customization.

on the occupation of interest.

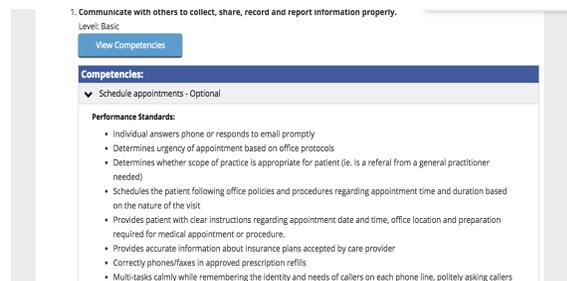
On each occupation page, there are links to excel and pdf versions of both the full NOF and the WPS, which can be downloaded, modified and submitted as part of the registration process. In

addition, a series of

expandable menus allows the viewer to view on the occupational site a list of relevant job functions, competencies, performance criteria, and RTI recommendations. Under each job function is a View Competencies button that when clicked, takes the viewer to the competencies associated with that job function.



Then, by clicking on the arrow next to each competency, the viewer can see the performance criteria that could be used to assess the level of performance of each apprenticeship. Note that in some instances employers indicated that performance criteria would be highly variable based upon the size of the organization or the application of the skills. In those cases, recommended performance criteria are not provided.



For those engaged in developing the OJT and RTI for their program, the NOF provides additional assistance by outlining the knowledge, skills, tools and technologies that would likely be included in the RTI associated with each job function. By clicking on the View Related Instruction button, the viewer can see the recommended RTI elements that would support development of competencies associated with that job function.

1. Communicate with others to collect, share, record and report information properly.

Level: Basic

[View Competencies](#)

[View Related Instruction](#)

Skills:	Knowledge:	Tools & Technology:
<ul style="list-style-type: none"> <li>Scheduling</li> <li>Speaks clearly</li> <li>Listens actively</li> </ul>	<ul style="list-style-type: none"> <li>Basic understanding of medical symptoms and diagnoses</li> <li>Medical terminology, anatomical terms, abbreviations and acronyms</li> <li>Names of pharmaceuticals and terminology used to communicate dosage and strength of medications</li> <li>Routine treatment regimes, diagnostic tests, medical procedures</li> <li>HIPAA rules and regulations regarding patient privacy</li> <li>Rules for working with minors -</li> </ul>	<ul style="list-style-type: none"> <li>Telephone systems (including computer based systems), electronic mail, scheduling software</li> <li>Electronic medical records</li> </ul>

Apprenticeship sponsors are not required to follow the recommended RTI and performance criteria recommendations - this information is merely intended to be of assistance in helping sponsors understand what others in their field deemed important and appropriate for this sort of training program.

### SAMPLE WORK PROCESS SCHEDULES

In the event that there is not a National Occupational Framework available for the occupation of interest, or if the employer or sponsor wishes to view examples of work process already approved by USDOL, those can be

**Approved US Apprenticeships**

For occupations that don't yet have an approved NOF, it may be helpful to consult apprenticeship standards used by state-based youth apprenticeship programs, the U.S. military or sponsors whose programs were previously registered by the U.S. Department of Labor (U.S. Civilian Work Process Schedules) or their State Apprenticeship Agencies.

\* NOFs may get a more rapid review from the Department of Labor, but not necessarily from State Apprenticeship Agencies.

**Approved US Apprenticeships**

See [approved US apprenticeships](#) for:

- Wisconsin Youth
- US Civilian
- US Armed Forces

found on the [innovativeapprenticeship.org](http://innovativeapprenticeship.org) website. However, it is important to note that if a WPS has been approved for a time-based program and the sponsor wishes to design a competency-based program,

then additional development work will be required. Also, since the existing WPS are of highly variable detail and quality, a WPS approved in the past may no longer meet contemporary requirements for new program approval. It is important to consult your federal or state apprenticeship representative before adopting an existing WPS for use in a new program.

Examples of WPS approved by USDOL can be found on [innovativeapprenticeship.org](http://innovativeapprenticeship.org) under US Apprenticeships by scrolling to the bottom of the page and clicking on US Civilian Apprenticeships. Similarly, sample WPS approved the US Military, state Youth Apprenticeship programs and SAAs can also be accessed from this web page by clicking on the appropriate link.

## Approved US Apprenticeships



**Agriculture, Horticulture and Animal Care**

Wisconsin Youth  
United States Civilian  
United States Armed Forces



**Arts, Media and Publishing**

Wisconsin Youth  
United States Civilian  
United States Armed Forces



**Business, Administration and Law**

Wisconsin Youth  
United States Civilian  
United States Armed Forces

In addition, international standards from the UK, Germany, Canada and Australia can be viewed by selecting from the menu that appears when hovering over the desired country's flag.

	<b>Agriculture, Horticulture and Animal Care</b>	   
	<b>Arts, Media and Publishing</b>	   
	<b>Business, Administration and Law</b>	   
	<b>Construction, Planning and the Built Environment</b>	   
	<b>Education and Training</b>	   

## DEVELOPING A PROGRAM

In developing a program, sponsors may elect to use internal resources or may turn to an intermediary or educational provider for assistance. It is recommended that 144 hours of RTI is included for each year of an apprenticeship program, although when and how that instruction is provided can differ from one program to

the next. Some sponsors elect to concentrate classroom instruction at the beginning of the program to ensure that apprentices have the theoretical and procedural knowledge to operate on the job in a safe and effective manner. However, it is important to consider that individuals choosing to engage in apprenticeship may have done so because they want a hands-on learning opportunity, so front-loading classroom instruction could reduce the appeal of the program as well as apprentice retention and completion rates.

Since apprenticeship programs must combine theory and practice, most sponsors find it helpful to include RTI throughout the program, such as by including classroom time in the weekly schedule or by providing intensive short courses at various times throughout the program. Still other programs require apprentices to complete online learning assignments as their schedule permits. And while some sponsors rely on external education providers to provide RTI, other sponsors offer RTI on site. Regardless of how classroom learning is scheduled, it is critically important to coordinate it with the hands-on learning that takes place in the workplace so that RTI and OJT are mutually reinforcing.

Developing the OJT portion of the program can seem overwhelming to sponsors, especially if their organization has never before engaged in this sort of training. This is where an intermediary might be particularly helpful since intermediaries have experience developing programs and can provide helpful guidance. Keep in mind that OJT, like RTI, must be a structured program with clear learning objectives, assessments, milestones and expectations. **Simply placing an apprentice into the workplace to shadow another employee or putting the apprentice to work hoping that he or she will have the opportunity to practice everything learned in the classroom does not fulfill the requirements of apprenticeship.**

## INTERMEDIARIES AND TRAINING PROVIDERS

While less prevalent in the U.S. than in Europe and Australia, there are organizations that serve as apprenticeship intermediaries to help employers or other sponsors establish and/or manage their apprenticeship program. An apprenticeship intermediary can facilitate or support many of the necessary relationships required for a successful program. These relationships include:

- employer to apprentice relationships – intermediaries can assist in recruiting, screening, counseling and supporting apprentices, although traditional employment agencies cannot serve as intermediaries;

- employer to the USDOL or SAA – intermediaries can help the employer design, develop and gain approval for the program, including completion of the registration application and working with DOL or SAA staff to gain approval;
- employer to related instruction providers - by identifying and working with qualified third-party educators to develop the related instruction program, or by developing “in-house” related instruction programs to be offered on the job site; and
- employer to funding resources – intermediaries are often times experienced in navigating GI Bill benefits, Federal Student Aid programs, grant programs, workforce training funds and may also provide information about tax or other benefits available to the employer or apprentice.

Sponsoring organizations that decide to use an intermediary to help develop or manage a registered apprenticeship program should choose one that is experienced in delivering registered apprenticeship programs. The intermediary should give clear information about the level of service they can provide as well as about which responsibilities remain those of the employer or sponsoring organization. Details of financial arrangements will also need to be clearly explained.

In the U.S., the following types of organizations serve as apprenticeship intermediaries. We provide examples of each type of intermediary, although by no means is this list intended to be comprehensive, all-inclusive list.

#### ***PRIVATE AND NON-PROFIT ORGANIZATIONS***

- Vermont HITEC,
- HCAP Inc.,
- FASTPORT (connects military personnel and veterans to employers)
- Jobs for the Future
- Franklin Apprenticeships

#### ***LABOR ORGANIZATIONS***

- AFL-CIO (<http://www.aflcio.org/Learn-About-Unions/Training-and-Apprenticeships/Registered-Apprenticeships>)
  - Construction
  - Manufacturing
- North America’s building Trades Unions (Construction)
- United Autoworker’s Union (automobile industry)
  - UAW Chrysler (<http://www.uaw-chrysler.com/training/apprentice.cfm>)
  - UAW Ford (<http://uawford.org/apprentice/>)
- International Union of Operating Engineers (<https://www.iuoe.org/training>)
- International Brotherhood of Electrical Workers (<http://www.electricianapprenticehq.com/how-to-join-ibew-apprenticeship>)

- Sheet Metal and Air Conditioning Contractors National Association
- Electrical Training Alliance (<http://www.electricaltrainingalliance.org>)
- United Association of Plumbers, Pipefitters, Welders & Service Techs (<http://www.ua.org/apprenticeship>)
- Independent Electrical Contractors (<http://www.ieci.org>)

#### ***TRADE, INDUSTRY, CERTIFICATION AND PROFESSIONAL ORGANIZATIONS***

- Transportation Learning Center,
- AHIMA Foundation (healthcare and healthcare IT),
- National Institute for Metalworking Skills (advanced manufacturing),
- National Restaurant Association (restaurant and hospitality), and
- Washington Technology Industry Association (information and communications technology).
- Search for additional registered labor union apprenticeship programs by state, either using an Internet search engine or referring to the state’s or U.S. Department of Labor’s list of registered apprenticeship opportunities)

#### ***CAREER COLLEGES AND COMMUNITY COLLEGES***

- Washington Technology Industry Association (Information and Communications Technology)
- Registered Apprenticeship Community Colleges (<https://www.doleta.gov/oa/racc.cfm>) – these institutions have committed to offering college credit for some or all of the on-the-job learning and related instruction completed as part of a registered apprenticeship program
- Trade Adjustment Assistance Community College Career Training (TAACCCT) Grantees (<https://www.careeronestop.org/taaccct/taaccct.aspx>)– these institutions develop curriculum to improve postsecondary vocational education programs in a variety of high demand fields. Syllabi and curricula developed by TAACCCT grantees are publicly available and can be located by going to <http://www.skillscommons.org>
- American Apprenticeship Initiative grantees– these institutions and organizations received grants from the U.S. Department of Labor to develop registered apprenticeship programs to meet local and national workforce needs.

#### **GENERAL QUESTIONS FOR POTENTIAL INTERMEDIARIES**

- What experience does the intermediary have in this business sector?
- What qualifications and experience does the intermediary’s staff have?
- Does the intermediary currently work with any similar businesses? Do they have client testimonials?
- Does the intermediary offer recruitment support such as writing job descriptions, screening applicants etc.?

- Does the intermediary offer to arrange regular feedback meetings?
- What contribution will the sponsoring organization need to make towards training costs?
- Are any other costs involved, such as registration fees and travel costs?
- What facilities and equipment can the intermediary leverage to support training? Will the sponsoring organization be expected to contribute to this?
- How, where, and when will registered apprenticeship training be delivered?
- Are any grants available, and can the intermediary help access them?
- Which registered apprenticeships can the intermediary deliver itself or through its training partners?
- How are individual training needs assessed to make sure the apprentices are receiving the appropriate training?
- What support can be given to review the apprentices' progress? How will the sponsoring organization be informed about apprentice progress?
- Can an apprentice start at any time of year, or are there restrictions on entry points?
- How much extra work will the apprentice need to do each week in addition to their main job and the off-the-job training?
- How will the intermediary keep the sponsoring organization informed about apprentices' progress?
- What support does the intermediary provide for apprentices who are having difficulty with basic skills, personality or attitudinal challenges, or meeting the requirements of the registered apprenticeship program?

## PART IV: RESOURCES

A range of resources are available to help sponsoring organizations offset some, but generally not all of the costs of apprentice wages and related instruction. In addition, apprentices may be eligible for funds from federal and state education and employment programs. Veterans enrolled in a registered apprenticeship are likely able to tap into their GI Bill benefits to pay for related instruction, books, supplies and housing and even to augment their wages.

### SOURCES OF STATE OR FEDERAL FUNDING FOR REGISTERED APPRENTICESHIP

In some states, workforce training dollars, such as those provided through the Workforce Innovation and Opportunity Act (WIOA) program, or other state programs, can be obtained to offset some of the costs of registered apprenticeship training. In addition, some states, such as South Carolina, offer tax incentives to companies engaged in registered apprenticeship training. Finally, as stated above, the apprentice may be able to use G.I. Bill benefits to pay for some of the related instruction costs.

### RESOURCES FOR VETERANS PURSUING REGISTERED APPRENTICESHIP

In order for an apprentice to access his or her G.I. Bill education and training benefits, the sponsoring organization must apply to the U.S. Department of Veterans Affairs (VA) [State Approving Agency \(SAA\)](#) to be included in the list of eligible providers. Note that the VA SAA is not the same person or agency as the apprenticeship SAA. The VA SAA is generally situated with a state's department of education whereas the apprenticeship SAA is generally situated within the state's department of labor and employment. If there are challenges working with the SAA or the veteran needs direct assistance in navigating apprenticeship, he or she can contact the designated VA [Education Liaison Representative](#) who can, in turn, work with the veteran and the SAA.

Applying to be an eligible provider is relatively simple and is well worth the investment of time for both the sponsor and the apprentice. G.I. Bill benefits could deliver an apprentice up to \$16,000 in addition to their

apprenticeship wages (this stipend decreases after the first year based on the assumption that apprenticeship wages also increase). The G.I. Bill also provides access to funding for related instruction, books, supplies, and part or all of the monthly housing allowance. For more information about Veterans/GI Bill benefits or to find the State Approving Agency, go to <http://www.nasaa-vetseducation.com/contacts/> or call 1-800-GIBILL1 (800-442-4551)

If the eligible provider is not a federal, state or local government agency, the beginning wage must be at least 50 percent of the journey worker wage and must increase such that by the last month of the program, the apprentice is earning 85 percent of the journey worker wage.

Veterans eligible for Post-9/11 GI Bill benefits who are participating in an eligible program may receive the Monthly Housing Allowance based on the Department of Defense's Basic Allowance for Housing (BAH) for an E-5 with dependents, which is paid in addition to wages. For the first six months of training, the veteran is eligible for 100 percent of the Monthly Housing Allowance, with that amount reduced by 20 percent every six months but is never less than 20 percent.

To become approved as an eligible program, the following conditions must be met:

- Qualified journey workers must be available to provide close supervision to trainees throughout the training period
- Organization must be able to maintain records for each trainee that includes information about the job assignment, promotion/demotions, layoffs/terminations, rates of pay, progress in training as outlined in the work process schedule, hours of training given monthly in each process, results of progress evaluations made every three months. The VA requires employers or sponsors to provide monthly time allocations even if the program is a competency-based program.
- Credit must be given for previous training and experience and the length of the program reduced proportionately, with the apprentice placed into the appropriate step of the wage progression scale based on the amount of credit given.
- A training agreement must be in place and signed by both the sponsor and the veteran; a copy of the approved training agreement must be provided to the trainee and the VA.
- Wages paid to VA apprentices cannot be less than wages paid to trainees who are not eligible for GI Bill benefits.
- The beginning wage is at least 50 percent the journey worker wage and there are periodic wage increases that ensure by the last month of training, the apprentice is earning at least 85% of the journey worker wage (except in the case of government sponsors).
- There is a reasonable certainty that the job for which the training is provided will be available to the trainee after training has been completed.

To apply for approval as a program that enables eligible veterans to receive GI Bill benefits (approval generally takes 30 days), there are three documents that the employer must prepare and submit:

1. Employer’s Application to Provide Job Training – [VA Form 22-8865](#)
2. Designation of Certifying Official(s) – VA Form 22-8794 (this form is obtained from the State Approving Agency representative)
3. Registered Apprenticeship Program Standards – these must be prepared as directed by the [Office of Apprenticeship or the State Apprenticeship Agency](#), depending upon the state in which the sponsor is located or the type of program being offered (local program or national program).

Once approved by the State Approving Agency, apprenticeship sponsors may advertise their positions as being “Approved for the GI Bill®” in order to inform Veterans about their potential eligibility for accessing benefits as an apprenticeship with the organization.

Employers enrolling Veterans in a program approved for the GI Bill must adhere to the following recordkeeping requirements:

- The sponsoring employer or organization must designate a Certifying Official who is responsible for maintaining and submitting required documentation, including files to verify that hours submitted to VA reflect hours worked,
- The initial and monthly Enrollment Certifications (VA Form 22-1999 and VA Form 22-6553d-1) and a copy of the signed training agreement must be forwarded to the VA Regional Processing Office.
- The sponsor must record apprentice evaluations of prior education and training, verify credit granted for that prior education and experience and notify the Veteran of changes in training requirements as a result of that evaluation (with copies of those documents in the Veteran’s employment file).
- Forwarding to the VA copies of all training agreements and notifying VA if: a trainee withdraws from a program, there is a change in Certifying Officials, there are changes in requirements for approved programs or there are name or address changes for the organization of the primary Certifying Official.

## WORKFORCE INVESTMENT OPPORTUNITY ACT

The Workforce Investment Opportunity Act (WIOA) provides a number of programs that can be used by states to support apprentices and the employers who sponsor them. Because the use of WIOA funds is guided by a State Workforce Development Board, apprenticeship sponsors should reach out to their local Board to discuss opportunities and engage in the strategic planning process. It is possible to receive the following benefits or resources through state-based, federally funded WIOA programs, including:

- Support for work experience and job shadowing experiences

- Financial literacy instruction
- Math remediation
- Mentorship and Job Coaching
- Transportation assistance
- Stipends, incentive payments or wage reimbursements to employers
- Workforce preparation activities
- Technical assistance to employers, especially when enrolling apprentices with disabilities

## FEDERAL STUDENT AID

Apprentices who are enrolled in a certificate or degree program that is approved for participation in the Federal Student Aid programs offered by an accredited institution of higher education may be eligible to receive a Pell grant to pay some or all of the costs of related technical instruction or to receive Federal Work Study support for a portion of their wages. However, an institution of higher education must agree to include the sponsor in their Federal Work Study program and the employer and the institution must meet a variety of program requirements and regulations.

Keep in mind that an employer cannot require its Pell eligible apprentices to pay for their own related technical instruction, thus access their Pell grant benefits, if the employer doesn't require all its apprentices, including those not eligible for Pell grants, to pay their own RTI expenses. Also, once a student completes the Free Application for Federal Student Aid (FAFSA), which is required to receive a Pell grant, the student is also eligible to take out thousands of dollars in federal student loans and the institution of higher education cannot interfere with the student's right to borrow. Since students under the age of 25 are considered to be dependents of their parents, even if their parents provide little to no support for their education, the parents' income tax information must be made available to the apprentice for the purpose of completing the FAFSA and the parents' earnings are the primary determinant of the apprentice's eligibility for federal student aid. Since the student's wages are also included in the calculation of financial need, it is likely that apprentice wages will exceed the income protection allowance established by the program, and their earnings will significantly reduce their Pell eligibility. When the apprentice is over 25 and financially independent, only the apprentice and his or her spouse's wages are included in the calculation of financial need. While the student income protection allowance is higher for financially independent students, it is still likely that apprentice wages will significantly reduce Pell grant eligibility.

The average Pell grant for non-apprentice students is around \$3000 per year, and that amount is likely to be reduced for an apprentice since his or her wages are generally higher than a typical student's employment wages. In addition, since the Pell grant is prorated for enrollment less than 12 credits per semester, an apprentice that is a part-time student will have their Pell eligibility further reduced.

If the sponsor is interested in exploring the use of Pell grants or Federal Work Study funds to support the related technical instruction portion of the apprenticeship program, he or she should meet with the director of financial aid at the partnering institution to explore the requirements for using Federal Student Aid funds and the likely eligibility of the apprentices in the program. In general, these programs are most beneficial for adult learners who are not working while enrolled full-time in college, so apprentices earning full-time wages are unlikely to receive significant support from these programs.

## TAX CREDITS

In some states, employers sponsoring registered apprenticeship programs may be eligible for tax credits. For more information about tax credits, go to <https://www.doleta.gov/oa/taxcredits.cfm>

# About the Authors



**Diane Auer Jones** is a senior fellow in the Center on Labor, Human Services, and Population at the Urban Institute, where her work focuses on expanding postsecondary education and training opportunities, including registered apprenticeship programs. Jones is a recognized expert on higher education access and accountability, federal student aid programs and policies and innovation in educational delivery. She was assistant secretary for postsecondary education at the US Department of Education and held positions on the faculty or in senior administration at the Community College of Baltimore County, Princeton University, and Career Education Corporation.

A molecular biologist by training, Jones taught biology for over a decade before transitioning to a career in science and education policy. Her science policy work included senior roles at the National Science Foundation; the Research Subcommittee of the US House of Representatives Committee on Science, Space, and Technology; and the White House Office of Science and Technology Policy.

Jones has published on the future of university research, improving STEM education, and the power of apprenticeship in improving postsecondary completion rates. She began her career as a nursing assistant through a youth apprenticeship-style cooperative education program. She holds a bachelor's degree in biology, a master's degree in applied molecular biology, and completed doctoral coursework in cellular and molecular biology.



**Robert Lerman** is an Institute fellow in the Center on Labor, Human Services, and Population at the Urban Institute as well as professor of economics at American University and a research fellow at IZA in Bonn, Germany. A leading expert on apprenticeship, he recently established the American Institute for Innovative Apprenticeship. His current research focus is on skills, employer training, apprenticeship programs in the United States and abroad, and housing policies.

Lerman's published research covers employment issues, earnings and income inequality, family structure, income support, and youth development, especially as they affect low-income populations. In the 1970s, he worked as staff economist for both the Congressional Joint Economic Committee and the US Department of Labor. He was one of the first scholars to examine the patterns and economic determinants of unwed fatherhood, and to propose a youth apprenticeship strategy in the United States.

He served on the National Academy of Sciences panel on the US postsecondary education and training system, and on the Maryland Task Force on Economic Development and Apprenticeship. Lerman has testified before congressional committees on youth apprenticeship, child support policies, and the information technology labor market.

Lerman earned his AB at Brandeis University and his PhD in economics at the Massachusetts Institute of Technology.

## STATEMENT OF INDEPENDENCE

The Urban Institute strives to meet the highest standards of integrity and quality in its research and analyses and in the evidence-based policy recommendations offered by its researchers and experts. We believe that operating consistent with the values of independence, rigor, and transparency is essential to maintaining those standards. As an organization, the Urban Institute does not take positions on issues, but it does empower and support its experts in sharing their own evidence-based views and policy recommendations that have been shaped by scholarship. Funders do not determine our research findings or the insights and recommendations of our experts. Urban scholars and experts are expected to be objective and follow the evidence wherever it may lead.



2100 M Street NW  
Washington, DC 20037

[www.urban.org](http://www.urban.org)