Comment from Wassmer, Christophe

Christophe Wassmer from Washington University in St. Louis hereby submits comments on the appropriate duration of employment for apprentices in construction, alteration, or repair work to meet the tax credit requirement. To understand fully, see the attached file.

RESET: Renewable Energy and Decarbonizing the Grid

Policy Brief

October 2022
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Registered Apprenticeship Program Monitoring

Regulating Tax Credits in the IRA

Executive Summary

The Inflation Reduction Act (IRA), signed into law in August 2022, includes tax credits for the construction of new clean energy projects. Parties interested in qualifying for these tax credits must meet wage and apprenticeship requirements outlined in Sections 30, 45, & 48 of the IRA. Research has shown that state-level tax credits for apprenticeships are associated with a significant increase in the share of apprentices in the state's labor force. The IRA's tax credits are important because apprenticeship programs are a proven path to increasing the skilled labor market and improving mobility for workers without a college degree. 92% of apprentices retain employment after completion and earn an average starting salary of $72,000 (Ecuadillo). Unfortunately, in the United States, registered apprenticeship programs are underutilized; apprentices represent only 0.2% of the U.S. labor force (Herk). With the current adoption of incentives for apprenticeships, there is a need for monitoring the completion rates of apprenticeship programs, which currently hovers at 33%, as shown in Figure 1 (Department of Labor). The requirements outlined in Sections 30, 45, & 48 of the IRA are under review for the rules and regulations that will enforce and monitor this aspect of the Act (IRS). In order to optimize the impact of these tax credits, the IRA must include a rule that requires an employment duration of two years for at least 50% of apprentices working on a clean energy project in order to meet the apprenticeship requirement.

The Problem

Transitioning fully to renewables will require significant improvements to the grid. Much like the grid, the energy workforce is aging, with retirement rates outpacing new hires (Office of Apprenticeship). According to a 2016 report from the U.S. Senate Committee on Energy & Natural Resources, 77% of energy companies report that it is difficult to hire qualified employees (U.S. Senate). To be considered "qualified," an individual must complete some form of postsecondary education and receive official certificates. Forms of postsecondary education include trade school, registered apprenticeship

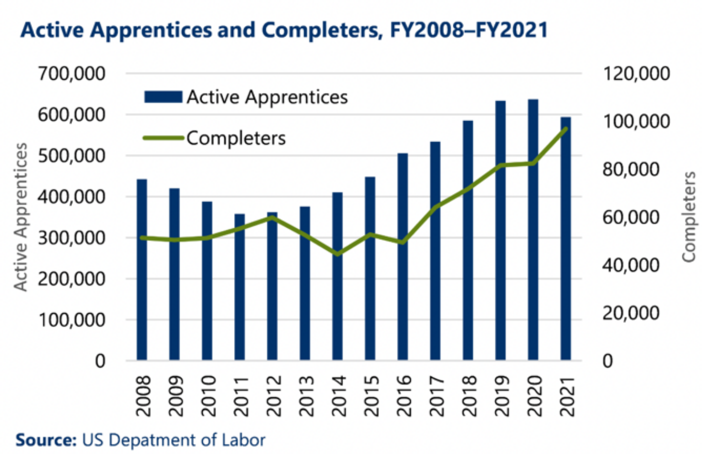
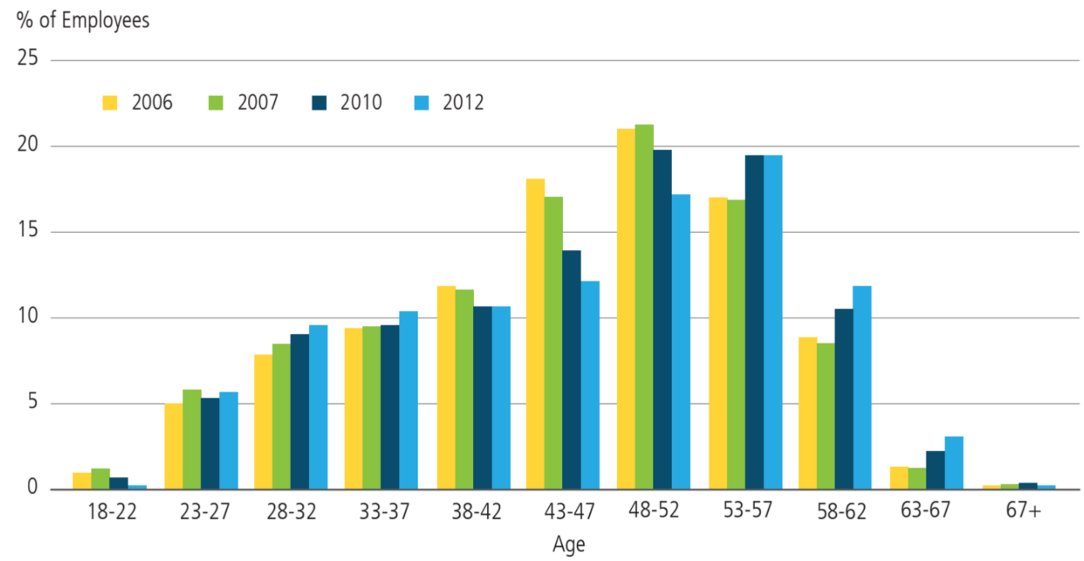


Figure 1: U.S. Active Apprentices and Completers (Downen).

programs, an associate degree, or a bachelor's degree (CEWD). Apprenticeship programs are unique in that they offer hands-on experience while also paying the student for their labor. However, the completion rates for apprenticeship programs remain low. Last year there were 96,915 completers compared to 241,849 new apprentices and 593,690 active apprentices (Department of Labor). For the energy industry, the dropout rate of apprentices represents a serious challenge, as young skilled laborers will be invaluable in capitalizing on federal incentivizes for new clean energy projects.

Figure 8-1. Workforce Age Distribution in the Electric and Natural Gas Utilities by Percentage of Total Employees[8]



The largest percentages of utility employees are in the 48–52 and 53–57 age groups; 38 percent of electric and natural gas employees will be eligible to retire in the next decade.

Figure 2: Workforce Age Distribution in Utility Companies (QER)

Policy Content

The current approaches to increasing the skilled labor market for the energy sector in the U.S. are competency-based occupational frameworks and tax incentives, like those used in the IRA. The Office of Apprenticeship (OA) within the Department of Labor (DOL) worked in collaboration with the Urban Institute, employers, educators, and workforce training experts to create these competency frameworks (Office of Apprenticeship). These frameworks will establish competency standards that have been lacking in the past. Historically, one of the critiques of American apprenticeship programs is that have no "real standards" (Fadulu).

Compared to the apprenticeship programs in other developed countries, such as Switzerland, our programs are quite underdeveloped. In other developed economies, apprenticeship programs are embedded in the educational system and social fabric; in Switzerland, 2/3 of students between the ages of 16 and 18 choose the vocational and education training (VET) model over going to college (Elliott & Katz). In the VET model, employers invest heavily in apprentice training to ensure that classroom instruction matches workplace needs. In fact, "most Swiss employers recoup their investments *during* the apprenticeship" (Elliott & Katz).

The tax incentives for apprenticeships included in the IRA are based off of state level tax credits currently in use. There are 29 states that offer tax credits to businesses hiring apprentices and tuition support for their registered apprentices (State Tax Credits). Research by Colin Becht shows that the existence of an apprenticeship tax credit is associated with a statistically significant increase in the share of apprentices in a state's labor force — between 28.72% and 37.60% (Becht). Building off this study, as shown in Figure 1, the increase in apprentices will correspond with an increase in the number of completers. However, it will not improve apprenticeship completion rates.

Sections 30, 45, & 48 of the IRA outline the apprentice-related requirements for taxpayers interested in qualifying for the tax breaks. These sections outline three different requirements and two exceptions. First, apprentices must be part of a registered apprenticeship program. Second, apprentices must complete an "applicable percentage of the total labor hours" on the project (IRS). The applicable percentages of total labor hours are:

- 10% if construction begins before Jan 1, 2023.
- 12.5% if construction begins between Jan 1, 2023, and Jan 1, 2024.
- 15% if construction begins after Jan 1, 2024.

Third, the number of apprentices on site must meet the required ratio of apprentice-journey workers outlined by the Department of Labor or the applicable State apprenticeship agency.

The IRA tax credits will offer two exemptions to taxpayers that show a good faith effort. Taxpayers can demonstrate a good faith effort by:

- Providing proof that their apprenticeship request was denied by a registered apprenticeship program.
- The registered apprenticeship program fails to respond within five days of receiving the request.

Recommendation

The Internal Revenue Service (IRS) requested comments on the requirements for tax credits by November 4, 2022. One of their prompts is regarded as "the appropriate duration of employment" (IRS). The rule outlined below answers this question, incentivizes the completion of apprenticeship programs, and prevents bad actors that will use apprentices solely for tax breaks.

This rule requires that 50% of registered apprentices are employed for a duration of two years or until the completion of their apprenticeship. Additionally, to incentivize and reward strong apprenticeship programs, companies that achieve 75% completion rates will receive additional tax credits on future construction projects.

A guarantee of 50% apprenticeship completion will greatly improve the skilled labor force in the U.S. The Department of Labor statistics shows that the construction industry accounts for 197,421 active apprentices (Department of Labor). If half of the construction apprentices complete their program, that would be 98,711 completers, a number that single-handedly surpasses the number of completers last year, 96,915. According to the 2015 Quadrennial Energy Review (QER), the energy sector is expected to employ an additional 1.5 million new workers by 2030. Most of these jobs will be in construction, installation and maintenance, and transportation (QER).

Policy Adoption
The likelihood of this rule being included in the revisions of the IRA is relatively high. Considering that the IRS was asking for input on the required employment duration for apprentices suggests that there is concern for apprenticeship retention.

The stakeholders interested in this rule would be:

- IRS: tasked with monitoring and enforcing that taxpayers are meeting the requirements of the tax credits.
- Department of Labor: interest in improving the completion rate of apprenticeships.
- Department of Energy: interested in the resilience of the grid and improving the energy workforce.
- Utilities: the parties funding the construction of new clean energy projects will be interested in tax credits reducing the cost of construction.
- Construction contractors
- Registered Apprenticeship Programs
- High school graduates
- Former energy sector workers: coal workers
- Local government
- State governments: vested interest in the job security and wages of the state workforce.
- Certificate organizations: crucially important in certifying apprentices and the validation of skilled laborers.

Policy Implementation
This rule will circumvent legislative bodies because it will be included in a bill, the IRA, which has already passed. Therefore, any political backlash will not prevent this rule from taking place. This is important because there is already opposition to the tax credit requirements included in the IRA. Non-union contractors, 87% of the U.S. construction workforce, have expressed concern about the cost associated with these tax credit requirements (Baskin). Depending on the employer, an apprentice can cost anywhere from 25,000–260,000. Apprenticeship compensation is the major factor in the cost differential listed above (U.S. Department of Commerce). The non-union contractors are concerned that these tax credits, specifically the wage requirements, will affect their bottom line. While their concern does not pertain to the apprenticeship requirements, the apprenticeship tax credits are bundled together with wage requirements.

Conclusion
Transitioning to renewable energies will require a fundamental shift to our grid; in how it is constructed to how it is operated. The current energy sector workforce has not shown that it can make this transition without new skilled labor. Apprenticeships are a proven solution to this issue, but the completion rates of apprentices are holding it back. Rules requiring companies retain apprentices to

completion will greatly improve the success rate of apprenticeship programs. This has the potential impact of improving public perception of apprentices further improving the growth of apprenticeship programs in the United States.

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