

Developing a Competency Based Registered Apprenticeship for Military Veterans

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Introduction

Almost 80 years after the Servicemen's Readjustment act of 1944 created the first GI Bill, which included agricultural training programs (Petty, 2008), many of today's military veterans continue to be interested in pursuing farming as a second career (Donoughue et al., 2014). While North Carolina has the 8th highest population of military veterans in the nation, there is a lack of targeted long-term, hands-on agricultural training programs to prepare them to own and manage farms.

Developing a registered agricultural apprenticeship program addresses this training need while also allowing veterans to utilize their GI Bill benefits for additional income. Host farm employers also benefit from gaining a committed employee who is eager to learn. This apprenticeship is

North Carolina's first registered apprenticeship program for military veterans that pairs Agriculture and the Defense sector, two of North Carolina's top industries. The apprenticeship program is being piloted by the Center for Environmental Farming Systems (CEFS) a partnership of North Carolina State University, North Carolina Agricultural and Technical State University, and the North Carolina Department of Agriculture and Consumer Services

How it works

Registered apprenticeship programs help recruit and develop a diverse highly skilled workforce, increase productivity, allow employers to participate in training, and increase job retention. The five main components of a registered agricultural apprenticeship program are below:

1. *Business involvement*: The farms that employ apprentices are the foundation of the program. The host farms are chosen through an application and interview process. The host farms oversee and mentor the apprentices on a day-to-day basis.
2. *Structured on the Job training*: Apprentices are paid employees of the host farms so they "earn while they learn" by working 30-40 hours each week throughout the apprenticeship. Each apprentice receives hands-on-training from an experienced mentor at their host farm.
3. *Relevant Related Instruction*: Apprentices develop a customized related instruction plan based on courses, conferences, workshops, and webinars delivered by institutions on a list of approved related instruction providers. The Project Coordinator organizes and communicates upcoming apprentice training opportunities each month.
4. *Rewards for Skill Gains*: The apprentices receive pay increases after each 6-month period or when they meet certain benchmarks for skill competencies.
5. *Recognized Credentials*: Upon completion, apprentices will have earned an industry recognized credential.

Development of a competency based curriculum

Registered apprenticeships are classified as time based, competency based, or a hybrid of the two. Due to the educational focus of this program, a competency based approach was selected.

Apprentices receive technical and academic training around the nine core competencies identified in the curriculum. The curriculum has a checklist of twenty eight basic farm management skills within the nine competency areas. Apprentices must become at least "competent" on the modified competency rating scale that was adapted from the Maine Cooperative Extension New Farmer Typology and the Dreyfus Model of Skill Acquisition (novice, advanced beginner, competent, proficient, and expert). The competency based curriculum has been approved by ApprenticeshipNC, the state coordinating agency for registered apprenticeships, making it one of the first registered agricultural manager apprenticeship programs in North Carolina. During the

program, apprentices complete a skills assessment at the beginning, mid-point, and end of the apprenticeship to track their competency progression. Additionally there is a baseline survey that collects demographic information as well as information on apprentices' military service, farming goals, and agricultural background.

Results to date & Implications

With the pilot cohort of apprentices finishing the apprenticeship mid to late 2023 and another cohort of apprentices beginning early in 2023, it is too early to determine long term results of the program. However, anecdotal evidence points to positive results to date. Further research will explore barriers veterans face to participation in long term training programs, how farmers and apprentices determine competency in skills acquisition, and what benefits can be gained from an apprenticeship program versus informal modes of on-the-job training.

Future plans

In the future the registered apprenticeship program will continue with plans to amplify the program evaluation and expand. To determine long term results and implications of the apprenticeship program, apprentices will be surveyed at 2 and 5 years post completion. Additionally, apprentices and host farm employers will be participating in focus group interviews to provide feedback on the program. A strategic development of the apprenticeship would be to create a pre-apprenticeship program that would be Department of Defense Skillbridge approved. This would allow active duty service members to gain the required experience to begin the full apprenticeship while continuing to receive their military pay and benefits during their last 180 days of service. To determine long term results and implications of the apprenticeship program, apprentices will be surveyed at 2 and 5 years post completion.

Advice to Others

There are three main points of advice to others considering the benefits of registered apprenticeships. First, it has been important to recruit host farms that understand the required mentoring commitments and have spent time reviewing the job book and skills list before an apprentice starts. Well prepared host farms provide enthusiastic mentorship for their apprentices making the experience more positive for all parties. Second, and equally important is recruiting apprentices who have had some previous experience in agriculture and are ready to make the commitment to a long-term training program. Finally, it is extremely important to establish clear program guidelines and procedures including streamlining the enrollment and onboarding processes to reduce the paperwork and time burden on apprentices and host farm employers.

Costs & Resources Needed

The two pilot cohorts are currently funded by a USDA Beginning Farmer and Rancher Development grant. Program costs are predominantly in staff support and providing educational stipends to veterans for their time spent in their related instruction courses (144 hours total). Additional funding is used for travel support to check-in with apprentices and host farms across the state. Federal funding for registered apprenticeships in "high-demand" occupations may offset employers' wages and educational costs. Although agriculture is considered one of North Carolina's top industries, agricultural jobs will require "high-demand" classification to realize this funding opportunity.

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