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Youth Leadership in Agriculture: Lessons for Educators and Practitioners - Part II

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Article History:

Received: 26 February 2025; Accepted: 29 April 2025; Published: 5 May 2025

Abstract This paper is a follow-up to the pilot study published in 2021 (Omotoye, 2021) that spotlighted transformational and generational trends in the agriculture industry and investigated youth-associated perceptions concerning the industry. Efforts in this follow-up investigation focus on comparing the baseline study with similar studies investigating the same issue to determine evidence of coherence. The benchmarking inquiry suggests resounding evidence of coherence between the pilot study and similar studies on factors attracting and retaining youth to agriculture. The study also spotlights broad consensus among scholars on the agriculture industry's shifting trends and evolving tendencies and examines emergent roles and responsibilities for stakeholders, consequent to observed trends.

Keywords USDA, youth agriculture leadership, benchmarking, generational trends.

Volume 12, 2025

Publisher: The Brooklyn Research and Publishing Institute, 442 Lorimer St, Brooklyn, NY 11206, United States.

DOI: 10.30845/jals.vol12p1

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Citation: Omotoye, R. O. (2025). Youth Leadership in Agriculture: Lessons for Educators and Practitioners - Part II. *Journal of Agriculture and Life Sciences*, 12, 1-9. <https://doi.org/10.30845/jals.vol12p1>

1. Introduction

1.1. Overview

The current initiative represents an attempt to suggest pragmatic steps for reversing the trend of declining youth interest in pursuing agriculture-related educational and professional career opportunities in the United States. It is a follow-up to the 2021 pilot study¹ that spotlighted transformational and generational trends in the agriculture sector and investigated youth-associated perceptions concerning the sector and related careers. In addition to highlighting the shifting trends in the agriculture industry, the study also examined the emerging roles and responsibilities of agriculture industry stakeholders—researchers, educators, farm producers, farm credit institutions, and policymakers—resulting from the observed trends.

While the pilot study served as a baseline for evaluating youth-oriented agriculture training programs in the United States, perhaps its most valuable lesson is the recognition of observed tendencies as essential elements that must be incorporated into future youth agriculture leadership and workforce development training programs—including the following: First, modern technology has revolutionized agriculture and transformed it from a conventional, labor-intensive industry into a technology-driven, knowledge-based sector in which educational and professional career requirements have become more youth-compatible than ever before. Second, contemporary youths are far more technologically proficient and handy than their predecessors and, therefore, better positioned to exploit and harvest today's revolutionary ag technologies for self-serving educational and career advancement opportunities. Third, to fully leverage the newly created generational opportunities, agricultural industry stakeholders must commit to supporting programs that strategically prepare young Americans for agriculture industry workforce readiness and leadership. This is particularly important considering the increasing average age of U.S. farm operators and their imminent retirement from the farm workforce. Although awareness of educational and career opportunities in agriculture among the youth is increasing, many young Americans still perceive a disconnect between agriculture and their cultural lifestyles and preferences. As a result, they have yet to fully exploit or position themselves to exploit the newly created generational opportunities. Fifth and perhaps the most important is that all the essential components needed for sensitizing American youths to agriculture are already in place and more complete now than at any other time in history. Perhaps, the remaining crucial step is to align the pieces we already have into targeted youth-oriented messaging that impactfully resonates with youth audiences.

1.2. Congruence and Significance

An important question from the pilot study remains to be answered. To what extent do the study's results agree with findings from parallel studies? An important step in the inquiry is to cross-reference the pilot study with other similar studies and benchmark their results to establish evidence of coherence—if there is. In this regard, a cross-study benchmarking investigation comparing parallel studies would be appropriate. First, the inquiry has the potential to unearth industrywide trends and telltale signals concerning youth's interest in agriculture, enlighten ag researchers on industry-underlying dynamics, and equip knowledge for reversing adverse trends. Second, the investigation could assist agriculture researchers in connecting youths to agriculture by raising awareness of youth-centered lifestyle habits that routinely draw young people to agriculture. Along these lines, today's technology-driven and culturally influenced lifestyle choices are already prevalent among young Americans and could be instrumentally tapped as valuable pathways to careers in agriculture. Examples include early technical proficiency made possible by the American youth's early access to educational technologies such as laptops, tablets, and smartphones; early exposure to innovative e-learning software systems that prepare young professionals for rewarding careers in farm business entrepreneurship decision-making and reporting systems; and other evolving youth-centered lifestyle habits and opportunities that seamlessly prepare youths for early entry into agriculture. Third, the investigation could help outline a clear policy roadmap for establishing U.S. leadership training for the twenty-first-century agriculture industry.

¹ Omotoye, Richard O, A Sample Program Review in Youth Agriculture Leadership: Lessons for Agriculture Educators and Practitioners, Journal of Agriculture and Life Sciences, Vol. 8, No. 1, June 2021.

2. Benchmarking Framework

In Table 1 below, we compare the VSU pilot study with findings from six other similar studies² published between 1987 and 2021 that analogously researched agriculture learning activities, considered by ag scholars to be instrumental in attracting youth³ to agriculture. Although the studies' authors and methodologies vary, they consistently support the instrumentality of listed learning activities or occupational pursuits for attracting and engaging the American youth in agriculture, justifying their inclusion by the author in the current cross-study benchmarking investigation.

In the first column, we list agricultural learning activities considered most effective by ag scholars in sensitizing and engaging youths in agriculture. In adjacent columns, we match these learning activities against studies that researched them, using plus and minus symbols. A “+” denotes that substantial research was done by the author(s) of the corresponding study, attesting that the referenced learning activity is impactful in attracting youths to agriculture, and a “-” means that the learning activity was not investigated in the study. In the last column, we track the frequency and percentages of each learning activity researched across the seven studies by aggregating the frequency values of the “+” symbols and calculating the corresponding percentages. The more frequently an agricultural learning activity is acknowledged across the studies (i.e. checked with a plus sign), the stronger the consensus among authors regarding its effectiveness in attracting youths to agriculture. The frequency values range from 1 to 6, where “1” denotes that only one study considers the learning activity an impactful youth agriculture sensitizer, and “6” means that as many as six studies view it as impactful in sensitizing youth to agriculture.

Table 1: Learning Activities Most Commonly Viewed as Impactful in Sensitizing Youths to Agriculture

| Learning Activities or Tools Viewed by Scholars as the Most Critical in Attracting Youth to Agriculture | | Sample Studies Identifying Learning Activities Considered Most Impactful in Attracting Youths to Agriculture | | | | | | | Number of Times/Percent age Learning Activity is Investigated Across Studies | |
|---|--|--|----------------|-------------------------|-----------------------|--------------------------|--------------------|-----------------------|--|-------|
| | | Omotoye, R.O. 2021 | Brand, N. 2018 | Brooks, K. et. al. 2013 | Cochran, et. al. 2010 | Campbell, D. et al. 2008 | Russell, E.B. 1993 | Riesenberg, L.E. 1987 | | |
| 1 | Pre-college Ag Leadership, Vocational & Generational Pathway Opportunities | + | - | + | + | + | + | + | 6 | 85.7% |
| 2 | Youth-oriented Agriculture & Farm Extension Programming | + | + | - | + | + | + | + | 6 | 85.7% |
| 3 | Partnership with Food Industry Stakeholders and Agriculture Community | + | + | + | + | + | + | - | 6 | 85.7% |
| 4 | Adult-Youth Mentoring Activities | + | + | - | + | + | + | + | 6 | 85.7% |
| 5 | Revolutionary Farm Technologies | + | + | + | + | + | - | - | 5 | 71.4% |
| 6 | Early Childhood Agricultural Education Literacy Awareness | + | - | + | - | + | + | + | 5 | 71.4% |
| 7 | Youth-centered Messaging Concerning Agriculture | + | + | + | - | - | + | - | 4 | 42.8% |
| 8 | Partnership with Pre-College Ag Educators and Voc. Instructors | + | - | - | - | + | + | + | 4 | 42.8% |
| 9 | Early Exposure to Food Value Chain & Distribution Hubs | - | - | + | + | + | + | - | 4 | 42.8% |
| 10 | Recruitment Strategies Targeting Diverse Audiences | + | - | + | - | - | + | + | 4 | 42.8% |

Annotation: “+” denotes learning activity cited in the referenced publication; “-” denotes learning activity not listed in the referenced publication.

Source: The data in the table is a benchmarking analysis compiled by the author of the current paper, investigating learning activities that are considered most effective in sensitizing youths to agriculture.

² The selected studies by no means represent an exhaustive list of studies investigating factors that attract youth to agriculture, but they meet the criteria established by the current paper’s author (stated above in the current page) for inclusion in this cross-study benchmarking inquiry.

³ The youth audience in this paper refers to high school students generally between ninth and twelfth grades (ages 14 to 18 years). They generally participate in summer camp youth leadership training programs, mentoring, and community workforce development activities and desire to pursue college-degree programs but many are still open-minded about their intended field of study or specialization in college.

The current paper's author does not claim that Table 1 is an exhaustive listing of all youth agriculture sensitization activities and that all research studies investigating youth agriculture recruitment and engagement factors are included. We acknowledge that other youth-agriculture-sensitizing activities and inquiring studies may be omitted from the investigation; however, the purpose of the cross-study benchmarking inquiry is not to investigate all agriculture learning activities that are known to sensitize the American youth to agriculture but rather to investigate the extent to which analogous studies do agree or disagree with the findings of the pilot study regarding the effectiveness of listed learning activities in attracting youths to agriculture. Findings from the selected studies are largely consistent with the pilot study—justifying their inclusion in the current cross-study benchmarking investigation. Also, the intent of the inquiry is not to probe the methodology or research steps individually taken in referenced studies to validate the listed variables as youth-agriculture-sensitization factors; these aspects are addressed in the individual studies that examined each corresponding variable. Each entry highlights specific outcomes and impacts of the selected activities on youth interest in agricultural learning and professional careers. By showcasing the selected studies and learning activities, we hope to illustrate successful strategies for fostering a connection between youths and agriculture—ultimately encouraging a new generation of agriculture workforce and leadership to explore educational learning and professional careers in this vital sector. The details of the cross-study findings and prospects for youth agriculture engagement are discussed in the next section of the paper below.

3. Cross-Study Findings

Considering that the median age of the American farmer is 58.1 years,⁴ there is an urgent need for bold, strategic initiatives to replace the retiring U.S. farm workforce with a younger, trained farm workforce, equipped with requisite leadership skills. However, to successfully prepare for the workforce replacement and leadership transfer, we must first understand the priorities and preferences of the youth workforce expected to replace the retiring farm workforce. Particularly, we need to understand the factors driving their decision-making concerning educational and professional career interests in agriculture (i.e. learning habits, work ethics, technology preferences, social-media-messaging habits, etc.). The agriculture learning activities and tools identified in the current cross-study investigation as effective in engaging youth in agriculture are essential components that should be included in the decision-making process for developing twenty-first-century U.S. agriculture leadership training. Below, we evaluate the line of reasoning stated in the referenced studies justifying consideration of listed variables as consequential youth agriculture sensitizers.

i) Pre-college Ag Leadership, Vocational, and Generational Pathway Opportunities

This broad category refers to pre-college agriculture leadership training programs that prepare young adults for agriculture orientation and lifelong learning opportunities and skills, and eventually influence youth career decision-making concerning agriculture. Typical programs are 4-H, Future Farmers of America (FFA), Agriculture Future of America (AFA), etc. As many as six of the seven studies included in this cross-study investigation strongly agree on the importance of youth involvement in these stated programs. They argue that U.S. colleges of agriculture should prioritize the admission of young individuals with vocational experiences from pre-college vocational and leadership training programs that prepare young Americans for careers in the agricultural workforce and industry leadership. According to them, pre-college agriculture leadership and vocational training programs provide young people with lifelong benefits, including engagement in community development activities at early stages. The involvement helps the youths develop essential occupational habits, leadership skills, and vocational competencies needed for a successful career in agriculture.

ii) Youth-oriented Agriculture and Farm Extension Programming

Six of the studies agree that to encourage greater youth involvement in farm extension programs, programming activities should be designed to align more closely with the interests of young people rather than primarily addressing the priorities of funding agencies. This is particularly important because funding agencies' priorities often contradict young adults' training interests, particularly when the social benefits and overall community impacts are delayed and not obvious in the short term. Besides, the priorities of funding agencies do not necessarily reflect the motivations that attract young people to agriculture. Moreover, it is important to recognize that youth programming interests in agriculture often differ noticeably from adult or corporate programming interests, highlighting unique generational differences in perspectives and passion among different population groups. For instance, while farm businesses typically aim to learn conventional accounting and financial methods to enhance productivity and profitability, young

⁴ USDA NASS, 2022 Census of Agriculture.

people, in contrast, are more interested in using social media platforms as a preferred marketing tool for promoting agricultural trade and engaging with the community. Also, the youths view agriculture-oriented technology-based virtual learning as a pragmatic alternative to traditional classroom learning and long for a shift in the academic credentialing process.

iii) Partnership with Food Industry Stakeholders and Agriculture Community

Six of the studies view the robust partnership base and cohesive network within the U.S. food and agriculture industry community—consisting of food and fiber allies' network, USDA agencies, farm credit/banking institutions, community farm producers, farm producers marketing and commodities associations, and other similar allies—an indispensable platform for advancing youth agriculture education and leadership development efforts. According to them, agriculture-based partnership networks are instrumental in strengthening youth agriculture programs in several ways. First, networking and mobilization of resources from a broadened partnership base increases the pool of resources available for youth programming activities. Second, youths have better chances to experience diverse programming activities with different partners and, with that, the opportunity to discover and explore their passion for agriculture. Third, opportunities are created for future agriculture leaders to learn hands-on agriculture in multiple settings, including the public sector, private sector, the farm community, and cross-breed settings that combine integrated farming experiences. Fourth, community-driven agricultural partnerships are vital in bolstering farm communities and creating mutually beneficial rewards for partners: They create pipeline connections that enhance farm marketing and job opportunities for community farmers and residents; participating farm credit and banking institutions increase their pool of future clientele and employable workforce; community farm producers and marketing agencies are better positioned to strategize food production and marketing along community-specific needs; students benefit with experiential learning that nourishes their desire to explore agricultural disciplines at higher educational levels; etc.

iv) Adult-Youth Mentoring Activities

Six studies underscore the importance of cross-training mentoring platforms that facilitate the transfer of generational farm skills and vocational habits from veteran farmers to younger generations. They advocate that American agriculture colleges embrace 4-H youth leadership centers' training models that pair youths with beginning and veteran farmers through hands-on farm exercises and experiential learning drills. The studies cite the numerous benefits and opportunities of cross-training young adults with veteran farmers. First, agriculture students can apply concepts from agricultural sciences to real-life farming scenarios. Second, the cross-training is nurturing for the youth's acquisition of generational farm knowledge, skills, and habits. Third, new-generation farmers will gain hands-on experience with farm technologies essential for integrating into modern agriculture, creating a technology-driven, youth-friendly career path. Fourth, the initiative will help change the negative perception among young people that agriculture is a career exclusively for older farmers. Fifth, an opportunity is created to equip young adults with the technical competencies and learning skills needed for competing in the contemporary agriculture industry setting.

v) Revolutionary Farm Technologies

Five studies recognize the transformational impact of revolutionary farm technologies and biological sciences on farm productivity, costs, and output as pivotal elements that will strategically impact youth agriculture recruitment. They state that the impacts of biological sciences and revolutionary technologies on agriculture, farming practices, and youth involvement are already all-encompassing and will continue to intensify. Specific examples include GIS/GPS-enabled precision data analytics, real-time weather-monitoring capabilities, improved market pricing efficiency, crop health monitoring capabilities, elevated farm management guided by mobile apps and online portals, accelerated greenhouse technologies, technology-assisted soil management and crop yield techniques, climate pattern-censoring data systems, ecosystem balancing mechanisms, and many other technology-induced benefits. It is particularly refreshing to observe that, unlike the older farming adults who are generally more hesitant about revolutionary farm technologies, contemporary American youth fondly embrace farm technologies and are far more hands-on with them. They view revolutionary farm technologies as a rejuvenating assurance that the farming occupation is within their enclave and a reminder that the agriculture industry is compatible with their professional lifestyles, cultural preferences, and offers opportunities for them. Therefore, many scholars, including the author of the current paper, consider farm technologies to be an underutilized tool with significant potential for attracting youth to agriculture; hence argue that they should be aggressively incorporated into farm programming activities. Specific farm technology demonstrations that attract enthusiastic youth involvement in farm programming include GIS, aerial drones, precision farming techniques, collaborative greenhouse projects, robotics, and other youth-sensitizing farm technologies.

vi) Early Childhood Agricultural Education Literacy Awareness

Five studies agree that youth agriculture education awareness programs would yield better results if introduced in early childhood agriculture-oriented education. By the time students reach middle and high school, they often hold biased views about agriculture due to their lack of foundational knowledge in agriculture and related subjects from their early years. The studies argue that early childhood learning programs in agriculture could help equip children with foundational knowledge, vocational skills, and habits needed to attract them to the field and sustain their lifelong career interests. Early exposure and foundational knowledge in agriculture are also helpful for confronting the cultural stigma associated with educational and career interests in agriculture, which are formed at early life stages. The studies suggest that the future of the U.S. agriculture industry and agriculture colleges is dependent on creating educational partnerships that extend beyond middle school and high school agriculture programs. The partnerships should integrate fundamental agriculture learning and hands-on activities into STEM disciplines, beginning from early childhood and elementary education.

vii) Youth-centered Messaging Concerning Agriculture

Four studies underscore the importance of youth-targeted agriculture-oriented messaging that inspires and positively resonates with the youth. They claim several reasons. First, positive messaging is needed to communicate the abundant opportunities in contemporary agriculture for young adults and rectify the flawed mainstream stigma positioning agriculture as an adult-only professional enclave with limited growth and career opportunities for youths. Second, correct messaging is needed to enlighten the youth on the structural changes that have transformed the agricultural landscape, the underlying factors driving the transformation, and the pathways for positioning themselves to maximize the newly created opportunities. Third, positive, youth-centered messaging is essential for engaging young Americans with innovative agricultural technologies that are vital for their growth and career opportunities in agriculture. Fourth, effective youth-centered messaging about agriculture could improve understanding of the generational differences between young and adult farmers, particularly their contrasting work ethics and attitudes to farm technologies. The key point is that a compelling message highlighting technology as a crucial link between young people and the agriculture industry offers a unique opportunity to advocate for agriculture and rebrand it among learners of all ages.

viii) Partnerships with Pre-College Ag Educators and Vocational Instructors

Four studies highlighted an engaging, synergetic working relationship with secondary schools' ag educators and vocational instructors as the anchor of sustainable partnerships between U.S. colleges of agriculture and pre-college agriculture educational institutions. They pointed out the typical coordinating tasks and responsibilities played by ag teachers and vocational instructors, affirming their anchor role in the working relationship between pre-college ag programs and colleges of agriculture. They include program administration at participating secondary schools; ensuring congruence of curricular content between pre-college and college-level agriculture programs; providing mentoring support to students from participating pre-college programs; coordinating programming and vocational training activities with colleges of agriculture; and other tasks. According to the studies, the future success of student recruitment and attrition at U.S. colleges of agriculture fundamentally rests on strengthening partnership linkages and working relationships with pre-college agriculture educational establishments. They observed that American students enrolled in premier college-level agriculture programs are primarily recruited from secondary schools with which the colleges have existing, longstanding partnerships—with student recruitment success reflecting the strength of incoming students' experiences from past programming or working relationships with the partnering pre-college institutions (i.e. summer training camps, mentoring relationships, etc.).

ix) Early Exposure to Food Value Chain and Distribution Hubs

Four studies emphasize the importance of exposing youths early on in life to virtually all agriculture-based activities connected to the food value chain, including farming and non-farming endeavors. While farming activities involve cultivating farmland to produce food (including growing crops and raising livestock), non-farming activities, on the other hand, encompass all economic activities within the food value chain that support food production. Specifically, the broad spectrum of activities in the food value chain includes crop planting, livestock breeding, community garden projects, food processing, record-keeping, inventory management, farm business management and marketing, wholesaling, distribution and transportation, hospitality management, retailing, food recycling and waste management, and other support activities. The studies advocate that young people's exposure and early life involvement in an integrated, all-inclusive food value chain platform and associated vocational practices are crucial for experiential learning and professional growth. The foundation is critical for cultivating the vocational habits and

occupational skills needed for youths to make informed decisions concerning food value chain practices and choices that will prospectively impact their future career paths in agriculture.

x) Recruitment Strategies Targeting Diverse Audiences

Four studies advocate that colleges broaden their recruitment and marketing strategies to include traditional and non-traditional learner audiences. They point to the shifting demographics, compositional, and other contemporaneous factors propelling agriculture learning audiences and the recent entry into the agriculture occupation of emergent groups without career goals or personal interests necessarily tied to academic pursuit. While the conventional population served by colleges of agriculture has traditionally comprised college-bound high-schoolers and college-age students, in recent times, the ag learning audience has expanded to include non-conventional population groups. The groups include elementary and secondary school students integrated into the agricultural discipline through government-mandated STEM curriculum requirements. They also consist of part-time working adults, ethnically diverse populations, retired military veterans, retired civilians, and others who pursue knowledge in agriculture for various personal reasons unrelated to academic qualifications or professional certification goals. Their fascination with agriculture typically includes diet and health improvement goals, part-time income opportunities, a desire to contribute to a sustainable ecosystem, and other self-gratifying desires. According to the studies, embracing educational outreach to non-traditional student population groups will help U.S. college-degree agriculture programs overcome the attrition cycle they face in student recruitment and retention.

4. Strengths and Limitations of Study

Like any other investigation, the current cross-study benchmarking inquiry has its strengths and weaknesses. Among its unique strengths, we did not find a sizeable literature in agriculture research dedicated to the cross-study investigation of declining youth interest in agriculture. While numerous studies have explored the issue, these investigations are generally limited to narrow scopes consisting of single-study inquiries that lack comprehensive cross-study benchmarking analysis of multiple studies. To validate our findings, we compared the results from the pilot study with those from six parallel studies examining the same issue. The benchmarking endeavor is instrumental in affirming the validity of our findings and generally speaks to the uniqueness of our investigation. Second, the cross-study inquiry stretches thirty-four years from 1987 to 2021, selectively including studies that researched the same problem. Investigating the studies and dynamics driving youth interest and engagement in agriculture over thirty-four years has enabled us to observe trends and patterns in youth agriculture across three decades, offering valuable insights to improve future youth agriculture workforce development programs. Third, considering the extensive nature of the investigation, the key learning activities and tools identified in the paper for attracting youth to agriculture include a mix of traditional and non-traditional factors deemed critical by agricultural scholars to meet the current and future demands of the agriculture industry. The paper, therefore, addresses the current and future needs of the agriculture industry and its workforce, effectively justifying its validity and soundness.

Similarly, the paper has some limitations, suggesting prospective findings for future research by agricultural scholars in youth agriculture studies. While the findings from various studies are largely comparable, the benchmarking results rely on methodologies derived from multiple studies, each validated individually in the corresponding cited research. The lack of a uniform benchmarking methodology, however, does not diminish the value of the paper in comparing parallel studies that investigate the same problem. The investigation primarily aims to identify key factors influencing youth interest in agriculture, rather than benchmarking the methodological contexts of viewpoints on youth agriculture or comparing numerical values and quantitative results from analogous studies. Furthermore, the paper serves as a follow-up to the baseline study, specifically evaluating whether parallel studies examining the decline of youth interest in agriculture align with the pilot study's findings. The aim is to investigate consensus among agricultural scholars on the factors that attract and engage youth in agriculture, rather than investigating contrasting concepts, data points, or biases in the literature on youth agriculture. We have accomplished the inquiry through a benchmarking investigation that confirmed parallel studies broadly align with the trends identified in the pilot study. To the extent that we took steps in cross-referencing the pilot study with parallel research through a cross-study benchmarking inquiry that establishes evidence of coherence between the current study's baseline findings and those from other studies, we have answered the unanswered research question from the pilot study regarding coherence between the pilot study and parallel research on the factors contributing to the declining youth interest in agriculture, and therefore believe that the study's strengths outweigh its shortcomings. Finally, research into factors affecting youth engagement in agriculture is fertile and holds promising rewards for agriculture scholars interested in researching the problem further.

5. Concluding Remarks

The current paper represents an effort to investigate factors driving American youth's educational and professional career interests in agriculture. The study was done in two sequential stages. The first step was a 2021 pilot study investigating youth-associated perceptions concerning educational and professional career opportunities in agriculture. The current inquiry—a follow-up study—represents an attempt to cross-reference the pilot study with analogous studies investigating the same problem, and benchmark the results to establish evidence of coherence or divergence. The follow-up benchmarking inquiry suggests resounding evidence of coherence between findings from the pilot study and those from similar studies on factors attracting and retaining the youth to agriculture. With consistent evidence spanning over three decades, the study has created a unique opportunity to educate, engage, and promote agriculture to youth audiences across the U.S. and the world, positioning the sector as a youth-friendly, premier field of study that offers abundant career advancement opportunities for motivated young professionals. The task facing agriculture professionals is to recognize and embrace the historical opportunity created and leverage it to strategize and develop training programs that equip the youth for a competitive workforce and leadership positioning across the entire food and fiber landscape. With this in mind, agriculture-oriented youth leadership programs must be strategically guided by the factors investigated in this study's benchmarking inquiry. According to agriculture scholars, these factors are crucial for effectively engaging American and international youth audiences in agriculture and helping them connect with transformative trends in the food and fiber sector.

Conflict of Interest: None declared.

Ethical Approval: Not applicable.

Funding: None.

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