The Roles of Family Farming Traditions and Farm Assignments across Agricultural Internship

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Abstract

We investigate the possible impacts of two factors that vary across an agricultural skills-training program: family farming traditions and farm assignments. Every year, farming students come to Israel to participate in agricultural internships, a government supported program that emphasizes reinforcing technical knowledge with practical experience on modern commercial farms. Using sets of linear probability models, we find that a student's intended agricultural productivity is strongly associated with both the products their family historically cultivated and the products on the farms to which they were assigned. Students, however, are more likely to revert back to their family's agricultural products rather than adopt the types of modern farming products grown in Israel. Furthermore, we find that students whose job assignments do not align with their family farming traditions are both less likely feel prepared for their careers and less likely engage in any post-program cultivation whatsoever. These results highlight the importance of understanding the underlying mechanics of agriculture education when designing similar public policy education interventions.

1 Introduction

In many low-income contexts, rural farming families are often the poorest subset of any given population, making them likely to be unhealthy, undereducated, and vulnerable to disaster. This agricultural productivity gap is well documented, even when differences in costs of living or hours-worked are considered (Gollin et al., 2014). The root of the problem is classically considered twofold. First, rural populations are slow to migrate toward non-rural sectors of economic activity. Second, those who remain in farming are not productive enough when compared to the modern farming households typically found in higher-income communities. To address these shortcomings, public policy practitioners have introduced a wide variety of interventions. Some are financial, such as paying travel expenses for off-season migrant workers or establishing subsidy programs for seeds, water, fertilizer, and other inputs. Another proposed approach is education.

Transforming the economic lives of farmers through education is built on the assumption that some key lack of knowledge is the critical barrier to success. However, what that knowledge entails is seldom specified within agricultural extension, the general term used for modern farming education. It could be business knowledge, and otherwise very proficient farmers are having difficulties timing, marketing, or selling their productivity (Bandara, 2010). It could be technical, such as when farmers use too much or too little fertilizer (Rahman and Connor, 2022). Or, it could be a matter of mindset, and young farmers need to overcome their self-imposed limitations (Golan, 2024). Regardless of diagnosis, localized agriculture training programs are a common prescription of choice, becoming a ubiquitous part of the economic development landscape.

Despite this popularity, there is little academic consensus so far that these education programs are actually effective and economically efficient. Critics especially highlight the high costs to treat even small groups of participants (Blattman and Ralston, 2015).

Furthermore, empirical support of education intervention is often vulnerable to both internal and external validity complications. Agriculture education programs, in general, are not only considered poorly implemented. They are also small, with both low and inconsistent attendance. The small sample sizes and short time horizons often mean that results, if any, are statistically shaky (McKenzie and Woodruff, 2013). These programs can also be very narrow in scope, often applied to a specific geography or even a specific population. Still, despite these criticisms, supporters of agricultural extension are adamant of the process' potential to instigate meaningful change, if done correctly.

One candidate example of successful education in agriculture is the yearly internship program in Israel. Starting in the 1990s, Israel has been importing thousands of farming students. These interns typically come from low-income or lower-middle-income nations, and they spend their time in Israel "learning by doing" on various farms throughout the country. When they are not on their assigned farms, students attend classes at local agricultural training centers.

Unlike other comparative education interventions, this particular program is already financially self-sustaining. It also has a very strictly defined operational structure. Many advocates attest to its success, citing the program's use of mechanisms such as as employer signal theory and non-cognitive skill formation.

As currently designed, the program is quite innovative, but there is a possibility that it is not leveraging all available mechanisms to impart the best outcomes for students. We particularly seek to evaluate the potential roles family farming tradition and farm assignment can have on a student's socioeconomic development. So far, the variation in a student's family farming background plays little to no role in the overall education treatment they receive across the program. Nearly all students complete a generalized modern farming curriculum. Interns can also have very little choice in the types of farms to which they are assigned, instead fulfilling roles as available like packing fruits or growing flowers (Villacillo, 2020 and Abrigo, 2022). These potential shortcomings

are not intentional aspects of the program's design. Rather, they are the result of the multiple constraints that bind how agricultural internship generally operates, especially in Israel.

We first empirically investigate the roles family farming traditions and farm assignments have on student product intentions. Using student testimonials, we categorize students by the types of products they plan to grow upon returning home, a pivotal choice with socioeconomic ramifications. Then we compare these outcomes with the types of products their family traditionally grew and the products to which they were assigned while in Israel.

Second, we also investigate how farm assignments can supplement family farming traditions. This is done by grouping students conditionally on if the products they cultivated in Israel were similar to those traditionally grown at home. We then regress measurements of post-program momentum, like psychological inventory scores, preparedness ratings, or job preferences, on these groupings to check for any association.

In both empirical investigations, we find that family farming tradition and farm assignment play significant roles in the socioeconomic development of an agricultural intern, roles that should be leveraged across the program. When it comes to product intentions, a student's choice of productivity is strongly associated with both proposed explanatory factors. These effects are independent and additive; a student is likely to take up a certain product if their family traditionally farmed it or if they worked it while in Israel. We also find that students with unaligned job assignments are more likely to not enter direct agricultural production, and they are also more likely to feel unprepared upon completion of the program.

2 Agricultural Internship in Israel

The International Agricultural Internship Project (IAIP) is an agriculture entrepreneurship training program supported by the Government of Israel. Through the program, international students are allotted special student status to study and work in Israel for about a year. The wages they earn support living expenses, transportation costs, and tuition, with the remainder to be saved or spent at their own discretion ("Terms and Conditions", 2023). Upon flying home, students bring with them their newfound skills and financial capital to share with their local community (Levy and Levy, 2020).

The physical design of this near year-long experience for the students is centered around five independent training centers: Agrostudies, Arava International Center for Agricultural Training (AICAT), Kinneret Academic College, Sedot Negev Training Center, and Ramat Negev Training Center. When they arrive at the centers, students are assigned to neighboring farmer-hosts with whom they spend the year studying, working and living. Students then follow a strictly enforced standardized schedule of five days of work and one reserved day of study at the training center. Occasionally, the various centers arrange excursions for the students to experience other aspects of Israel, such as visiting the Western Wall or traveling up to Mt. Hermon in the Golan Heights.

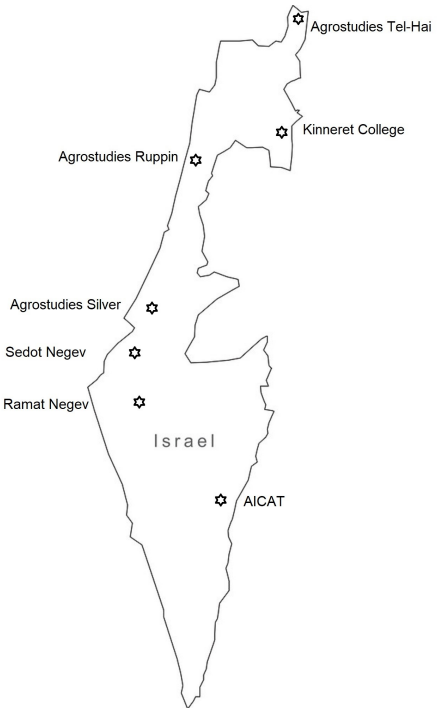

Figure 1: Training Centers in Israel

For the State of Israel, the program generates localized benefits at minimized costs. Its functions are mostly self-sustaining, thanks in part to student labor subsidizing in-

ternship expenses. Meanwhile, Israeli agriculture gains an expanded labor pool, having already long depended upon imported Palestinian labor (Bartram, 1998). Students can also eventually bring home Israeli agricultural practices, meaning that there is a long run possibility of having export markets for Israeli agritech companies.

3 Acknowledged Mechanisms of Agricultural Internship

There are several explanations for how an agricultural internship can positively influence the lives of students. Some sources emphasize the formation of entrepreneurial human capital, and students leave with valuable skills, knowledge, and transformations of character. Other authorities on the matter are perhaps a bit less romantic in tone, citing how internships facilitate avenues of opportunity by generating liquidity and forming networks between students, mentors, and employers.

When asked in a survey, more than half of the 2023 intern population in Israel highlighted ideals like "learning time management" or "learning the value of hard work" as pivotal to their educational experience. Being adaptable, self-motivated, focused, and independent are all valuable skills in commercially oriented modern farming. Instilling these types of non-cognitive and managerial skills can have long run socioeconomic impacts (Sonti et al., 2016). Farmers who score higher on non-cognitive tests are able to more quickly adapt to adverse farming conditions brought about by climate change (Wuepper et al., 2019). Entrepreneurial intent, the readiness to undertake risks in pursuit of profit, is also strongly dependent on individualistic tendencies for self-improvement and adaptability (Liñán et al., 2016).

As stated by instructors within the program in Israel, the primary educational challenge faced by the program is how to successfully get the students to open their minds to new ideas (Tal, 2019). Part of achieving this objective emphasizes students developing strong intern-mentor relationships with their host farmers, many of whom are local en-

trepreneurial leaders and business trailblazers (Agrostudies, 2014). By seeing firsthand how Israeli farmers innovate, plan, and eventually succeed in surmounting an inputs-deficient environment, students are thereby enriched and inspired by the opportunity (Farmers, 2022).

One aspect that separates internship from other agricultural extension efforts is the extent to which personal finance is a part of the learning experience. Under normal savings circumstances, some young farmers can take an average of 10 years or more to gather enough resources to start their own farm (Filloux et al., 2019). Students of internship programs however earn significant wages, at least relative to the levels found in their countries of origin. With that funding, students may have enough liquidity to start their own farms or businesses immediately upon returning home. They can get a head start at the minimum. Interns in Israel also often purchase smartphones or personal computers, and these tools are usually of a much better quality than found elsewhere. Finally, the money can be sent home during the internship, where it can also be used to pay for immediate family expenses like a sibling's tuition or healthcare.

Participation in agricultural internships may also be used as a sort of signal to employers, otherwise understood as signal theory. Skilled students who show commitment towards a career in agriculture are less risky to hire. This is especially true in the case of the IAIP, given that the students not only travel to a foreign country but also dedicate themselves solely to advanced training for an entire year. However, it should be noted that this type of logic can unfortunately work against the student as well. While agricultural students become more attractive to those hiring within agriculture, they can become less attractive to other types of employers (Zuo et al., 2019). Agricultural internships are not necessarily beneficial for everyone.

Employment and hiring opportunities also appear thanks to the networks established by students and alumni, often coordinated through group-forming apps like Whatsapp or Facebook. One recent example was the formation of AICAT Trust Kenya in 2021,

whose mission is to place graduates from AICAT with vetted employers all throughout Kenya (Kenya, 2024). Thanks to these avenues of networking, students can also enter into direct partnerships with fellow interns, meaning that they can pool together both technical and financial resources.

4 Literature Review

Academic discourse directly related to the IAI Project is still new and somewhat scant. One observational study at the Laguna State Polytechnic University found that, for the 36 internship alumni interviewed, the majority found their experiences in Israel to have a positive influence on their ability to find quality employment. These students particularly highlighted the program's reputable transference of knowledge, skills, and general competency as key to their success (Ganibo and Olayta, 2020). A similar result was found at Kalinga State University, wherein the majority of the 190 students stated that the "on the job training" also led to general attainments in skills and knowledge (Bayangan et al., 2020). However, students also drew attention to problems encountered in their experiences, particularly the difference in climates, the overall lack of English-speaking support, and the assignment of animal specialists to horticultural farms and courses.

At Tel Aviv University, researchers took advantage of Nepal's intern selection process to conduct a natural experiment. Nepal uses a lottery system to determine who can take the country's slots for the internship program. Participation in this lottery is competitive, and students must meet certain prerequisites before applying. The result is a candidate population which is homogeneous on average and whose attendance to the internship, or treatment, is determined at random. For the 921 students sampled, the TAU team found that winning the lottery is positively associated with engaging in agriculture for income and investing in agricultural inputs (Fishman et al., 2021).

Researchers however did not see dramatic shifts to modern farming methods. It is also important to note that these average treatment effects will not capture the effects of factors that vary across agricultural internship in Israel.

We do not find significant literature focused specifically on the roles family farming traditions and farm assignments may play across an agricultural internship. Academic discourses that cover comparative agricultural internships tend to evaluate those interventions as whole.

5 Considering Factors That Vary across Internship

Certain details can appear when sifting through student testimonials. Take for example three former interns featured in a 2016 Ramat Negev Training Center newsletter (Nguyen Thi Huyen et al., 2016).

Nguyen Thi Huyen was a student from The Vietnam National University of Agriculture. She worked on Kibbutz Ein-Habesor during her time in Israel, mainly with passion fruits, pineapples and tomatoes. Once done with the program, she planned to enroll in another agricultural training program in The United States.

Shain Htet Naing was an intern from Myanmar. He graduated from university with a degree in veterinary science. In Israel, he worked with cherry tomatoes at Ziman farm, but when he returned home, he planned to build a poultry farm.

Then there is Sarita Lamichhane from Nepal. She came from a farming family, and she had already achieved a bachelor's in agriculture. That is why she felt some of the classes in the program were too basic. Her job in Israel was at the Shorashim Nursery, where she grew cucumbers, tomatoes, watermelons, and medicinal herbs. When she finished out her year, she continued her education at Ben Gurion University.

In all three instances, students stated their country, their place of work, their educational/farming background, the specific products they work with, and what they want

to do with their careers after completion of the program. These were the details that they chose to define their internship experience. Variations like these across the program may result in variation of outcomes for the students, and they possibly highlight new causal factors previously underestimated.

In this paper we investigate family farming traditions and farm assignments. We do this not only because of how prominently they feature in the verbalized intern experience but also because of how inconspicuously they feature in the education treatments of most centers. Students often have little power over the types of classes they take or the types of farms to which they are assigned.

Even when there are centers that do try to leverage these factors, they do so in a limited and informal fashion. At Agrostudies, those on the animal track take animal classes and are assigned to animal farms. Others on the horticulture track take horticulture classes and are assigned to horticulture farms. Any further distinction is not strenuously taken though, so the differences between fruits and vegetables or cows and chickens are less important.

Even in centers that attempt to account for these factors, the approach remains limited and informal. At Agrostudies, interns on the animal track take animal-related classes and are assigned to animal farms, while those on the horticulture track follow a similar pattern. Furthermore, as noted by the researchers from Kalinga University, the agricultural training centers may not consistently adhere to their own track distinctions. While intern backgrounds and farm placements are acknowledged to some extent, they are not prioritized over the overall structure of the program.

5.1 Variations in Traditional Agriculture

Students of the program come from different familial backgrounds. The majority come from families who farm, often with a strong agricultural tradition that spans generations. These cultural norms are powerful, and such societal values are often indicative of youth

motivations to continue farming (Abdullah and Abu Samah, 2013). For many students, the family farm was the first experience, and whatever comes after will be built upon that particular stage in life. A student likely chose to attend university and to come to Israel in part because of their agricultural past. It is foolhardy to assume that simply studying modern farming for a year will automatically supplant decades of tradition, especially if that modern farming is categorically different in product or technique.

Furthermore, there are agronomic reasons why a student may look toward traditional agriculture as a basis for their future, even after completing a modern farming internship. Climates may be too different to grow certain products. Retooling costs can be too high, meaning that it is not financially feasible to switch from established farming methods. Or maybe the local markets are not yet ready to absorb the variety and production increases associated with modern farming. Establishing a vineyard and making expensive artisanal wines may be a stroke of genius in Israel, but this strategy may not work in nations with lower rates of general consumption. Even if consumption levels rise, there is no guarantee that demand for such products will ever increase. The overall risk is still too high and the potential associated rewards are not high enough.

5.2 Variations in Farm Assignments

On the farms where they are assigned, students not only witness Israeli commercial farming but also accumulate specific farming skills. They become absolute experts in the regular operations of those farms, and it is common to see interns working unsupervised the entire day (Thai, 2016). What is uncertain though is whether these types of achievements help the students accomplish their own ambitions. In the era of modern farming, commercial farms often specialize to take advantage of economies of scale. Take for example the interns who spent their year at Marina Galilee Mushrooms. Growing mushrooms requires shelves of mycelium all stacked in large climate-controlled warehouses. Students, in cleanroom suits, use specialized lifts to navigate the various rooms

(C. Santos, 2020). When the students graduate, they may be very aware of mushroom operations, but they may not be aware of how to operate in other sectors of agriculture, ultimately limiting their career options.

Farm placements may also impact a student's general well-being, depending on how expectations are managed and met on those farms. For many students, being in Israel is supposed to be a special experience where they are expanding upon what agriculture means to them. If a farm assignment is not amenable to the student's goals, then the entire experience is at risk. Maybe the assigned job in Israel is not compatible with the type of farming their family practices, or maybe it emphasizes the wrong skills students want. It is also possible that the intern-supervisor relationship was incompatible (Henderson et al., 2023). In those cases, the result is that students may feel uncertain of their post-program options, which is antithetical to both the goals of the program and the reasons why students come to Israel in the first place.

6 Empirical Design

In order to evaluate the various potential roles family farming traditions and farm assignments can play for an agricultural intern's development and well-being, we set up two types of empirical investigations. The first investigation treats the two factors as independent of each other. The second investigation treats farm assignment as complementary to traditional farming.

We suspect that a student's intended choice of career productivity is dependent on both of the two factors. Such a choice is very important to a student's future, given that different categories of productivity are associated with their own risks and rewards. To test this, we take student testimonies and categorize them based upon the types of the agricultural products they intend to cultivate upon returning home from Israel. We then regress these categorical variables on categories of products their family historically

cultivated and categories of products on the farms to which they were assigned.

We also suspect that student outcomes of post-program momentum can vary contingent upon whether farm assignment complements family farming history. To test this, we group students based upon the relationship between their farm assignments and their agricultural backgrounds. They are therefore classified as matched, unmatched, or impossible to be matched. We then take the three groups and compare their average performances over various measurements of directional readiness, such as psychological inventories, career preferences, and feelings of preparedness.

6.1 Survey Design and Administration

To collect the initial data, we built and administered a digital survey using Qualtrics. The participating campuses for the 2023 round of data collection were Kinneret College, Agrostudies Ruppin, Agrostudies Silver, and Agrostudies Tel-Hai. We also supplemented this data with another round of data collection in 2024, only with Kinneret College that time however. For uniformity, data collection entailed research team representatives visiting these locations about two to three months before intern departure, meaning that the interns had already gone through most of the program.

The visits themselves coincided with when the students would normally be on campus, and reservation of a special 90 minute time slot allowed the survey representatives uninterrupted access to the interns. Students would then use their own personal devices to access the survey via QR code or shortened

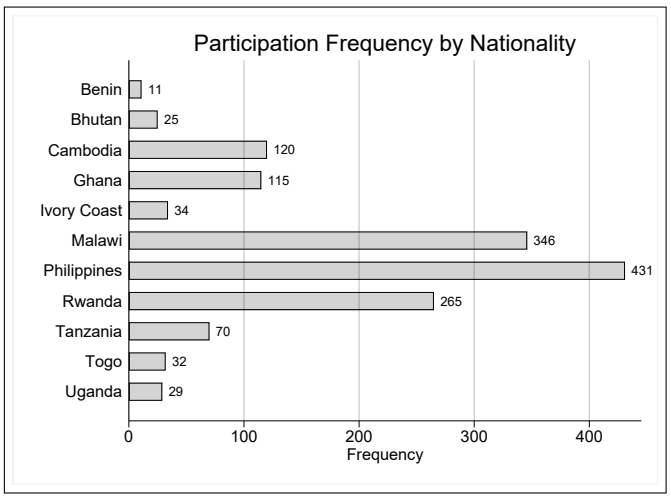

Figure 2: Survey Participation by Nationality

URL link. Survey participation was voluntary but encouraged via a tablet lottery contingent upon completion of the survey.

In total, some 1,478 students representing 11 partner-countries completed the survey to satisfaction. The majority of observations were male, at 84% of the sampled population. Students were also all mostly adults in their mid-20s who have already completed or are completing tertiary education. Many of the interns come from rural villages. Although there are instances of students coming from more urbanized settings.

It is important to note that some variation in student population characteristics is possibly due to the variation in the candidature process from nation to nation. For example, Malawian students at Lilongwe Natural Resources College are funneled directly to the Kinneret program following a successful oral interview process (Luanar, 2023). Conversely, candidature in Rwanda is handled nationally through the Ministry of Agriculture, and those applicants were even asked to voice their preference of center assignment (Kamana, 2023).

Table 1: Summary Statistics

Variable	Frequency	Percent
Sex		
Male	1247	84%
Female	223	15%
Age		
<21	6	0.4%
21-25	606	41%
26-30	702	47%
>30	51	3%
Education Years		
<7	122	8%
7-12	62	4%
13-15	456	31%
>15	838	57%
Community Size		
<3,000	462	31%
3,000-15,000	430	29%
15,000-100,000	278	19%
100,000-1,000,000	170	12%
>1,000,000	138	9%

We use seven indicators within the questionnaire to form the basis of our empirical investigations: three multiple-response questions, two imported likert scale psychological inventories, one sliding-scale question, and one free-response question. For all multiple-response questions, answer options were randomly scrambled, and students were also provided an "other" option, which they could use for elaboration. Those particular responses were then merged with the other categories at the discretion of the researcher. With the psychology inventories, only one out of the two was randomly assigned to each student. This was done both in the interest of time and to avoid student collaboration.

The results of these questions are all presented in appendix of the paper. With the psychology inventories, we include the factor loadings and the reliability coefficients for further validation. For the multiple-response questions, we tabulate the different categories of productivity not just across the entire sample but also across regions of geographic origin and across participating training centers. A supplementary report containing all student testimonials is also available upon request of the author.

6.2 Investigating Product Intentions

We investigate the relationships between traditional farming, farm placement, and post-program product intention through four testable hypotheses.

A1: Post-Internship product intention is positively associated with family farming production.

A2: Post-Internship product intention is positively associated with work assignment production.

A3: Post-Internship product intention is more strongly associated with work assignment production than family farming production.

A4: Post-Internship product intention is strongly stratified by product groupings.

Hypotheses A1 and A2 are statements of absolute association, that what a student did in Israel and what their families traditionally practiced are, or are not, significant to

their intentions after graduation. Hypothesis A3 is a statement of relative association, where one factor has greater impact than the other. In this case, we started from the natural assumption that farm assignments are more meaningful than family agriculture on account of being better commercially. This distinction is ultimately irrelevant given that reversing the statement has no impact on the results, one factor will be prevalent over the other either way. Finally, hypothesis A4 is a statement about resolution, that from the perspective of the students, pursuing one group of production is fundamentally distinct from pursuing other product groups. We then expect that they are unlikely to pursue product groups that go beyond either what their family cultivates or what their assigned farm produces; students will not perceive their internship education as universal farming.

For all four hypotheses, the outcome variable of interest is the likelihood that a student will adopt a category of product for their post-program career. The two explanatory variables are then the corresponding farm placement and family farming, and they act independent of each other. Expressed mathematically, the estimator would be something like the following equation, where beta and gamma are the coefficients indicating change on product intention probability.

$$Likelihood\_of\_Product_i = \beta Work\_Product_i + \gamma Family\_Product_i + \epsilon_i$$

However, it must be noted that all explanatory terms in the estimator are categorical variables. If we use the raw student responses, *Family_Product* would really be a summation of 15 binary variables, and *Work_Product* would be a summation of 16. Combined, that makes 31 terms before even fixed effects are considered. Leaving the variables as-is risks overfitting due to the sheer amount of predictors. It therefore makes sense to group the variables into more manageable ones before estimating a linear probability model.

We take the original responses of students and collapse their selections of family

	Family Farm Produces...	Family Farm Groupings
"Which of the following crops and livestock does your family farm produce? (please choose <u>up to the three</u> most important ones)"	Cereals Legumes	Family w/Grains
	Vegetables	Family w/Vegetables
	Fruits	Family w/Fruits
	Flowers Oilseeds Spices	Family w/CashCrops
	Chickens & Eggs Pigs Goats/Sheep Cows/Buffalo	Family w/Livestock
	Fish Bees Niche (Other)	Family w/Specialties
	Nothing	Family w/Nothing

Figure 3: Grouping Family Farming Products

farming into seven categorical groups: grains, vegetables, fruits, cash crops, animals, specialties, and nothing. We use these seven for the following three reasons. One, we want a resolution specifically higher than that of just animals and horticulture, which is the upper extent to which students are sorted and distinguished at some of the training centers. The program structure does not easily allow for student intentions to be causal to farm assignment at that level of sorting. Causality then would go from our explanatory variables to student intentions rather than vice versa. Two, each of these categories have their own economic spaces at market, since they cannot really be substituted for one another in consumption. In this way student intentions can still be used to comment on overall socioeconomic outcomes. Three, the selections in each category share certain skill sets. While certainly not the same, raising cows and raising ruminants for dairy both involve managing pregnancy cycles and maintaining milking machinery. Those skills are not applicable to other types of cultivation.

Vegetables, fruits, and nothing get their own categories because there is nothing else really comparable to them. For cereals in the grains category, we also include legumes mainly because they are grown in the same manner and feature similarly in diets and

	Intern Works...	Work Groupings
"In which agricultural field do you work in Israel?(please choose up to the three in which you spent the most time)"	Cereals Legumes	Works w/Grains
	Vegetables	Works w/Vegetables
	Fruits	Works w/Fruits
	Flowers Oilseeds Spices	Works w/CashCrops
	Chicken & Eggs Goats/Sheep Cows/Buffalo	Works w/Livestock
	Fish Bees Niche (Other)	Works w/Specialties
	Packing & Storage Irrigation Crop Protection	Works w/Support

Figure 4: Grouping Work Assignment Products

markets. Flowers, oilseeds, and spices are grouped into cash crops because they are grown typically with the sole purpose of commercial consumption. Technologically, however, their cultivation is not dependent on exclusive equipment or skills. All animal categories were sorted into livestock because it is impossible to differentiate between cultivation for meat and cultivation for by-products with the collected data. Finally, fish, bees, and niche (other) categories are specialties. These particular agricultural activities can require specific knowledge and equipment, or they address a very specific market.

We do the same grouping process for student farm placements in Israel. Given that all students were assigned to some sort of agricultural job, there were no selections of nothing. Instead, for a seventh grouping, we add the "support" category to include job descriptions centered around irrigation, crop protection, or packaging. These are ancillary categories of agriculture, but they are indispensable to the high-tech commercial farming ecosystem. It should be noted that, for farm assignments in Israel, Mushroom cultivation was by far the most popular write-in activity, notably falling under the specialties category.

For the outcome variable, student intentions, we do not have a similarly formatted

" In 3-4 sentences, describe your **future plans** in your own words. Make sure to mention what specific products you want to work with if you plan to continue in agriculture. (e.g. exporting dates, growing tomatoes, or importing seeds)"

Examples of Described Future Plans	Intention Group Tags
"My future plans is growing **pineapple** for making different types of produce from pineapple such as **pineapple juice pineapple jam , syrup or wine** also." -Cambodian Student	Intent w/Fruits Intent w/Specialties
"My plan is to be leading farmer in Africa and across by grow more crops to have zero hunger in our country, Africa and across Africa and to generate foreign currency through export." -Malawian Student	Intent w/Nothing
"My future plan is to expand the **rice** field my family has started. I'll focus on breeding the **pigs** we have and maybe try buying new breeds that would help in the profitability of my parents farm. I will also continue to work as an agricultural teacher." -Filipino Student	Intent w/Grains Intent w/Livestock
"Was already into **cabbage** and **lettuce** production before coming here, therefore I want to expand it after returning home and also add value to it by **packaging.**" -Ghanaian Student	Intent w/Vegetables Intent w/Support
"I planned to do the agricultural of the **flowers** where I will planted then after export it in the difference markets. I will teach some youth how to decorate it in order to providing them the jobs." -Rwandan Student	Intent w/CashCrops
"I would like to export vegetables majorly **tomatoes** and **pepper**. Also extensively grow **bananas cereals** and **legumes** all using **drip irrigation** technology which is not pronounced in Uganda." -Ugandan Student	Intent w/Vegetables Intent w/Fruits Intent w/Grains Intent w/Support

Figure 5: Tagging Career Product Intentions

question from which to directly draw the product data. We instead use student testimonials wherein they were also asked to elaborate their intended agricultural products if possible. We took these responses and tagged each using the same descriptors as those in family farming and farm placement. If a student stated that they want to work on durian cultivation, that response is then tagged as a fruit. A student who said they wanted to make wine on their vineyard would be tagged with both fruit and specialty, because the generation of a secondary product requires extra skill and equipment.

Furthermore, to earn a certain tag out of eight possible options, the students must explicitly mention the product, and they must also indicate that they intend to create

the product themselves. For example, a student explaining that they intend to open a store to sell fruits, vegetables, cattle feed, seeds and fertilizer would only be tagged as support, given that they are providing service and technical expertise rather than producing the items themselves.

For this particular investigation, all tagging was done by hand rather than using machine-learning tools to automate the process. While there is a risk of inconsistency, we also considered the possibility that currently available low-cost tools would be insufficiently trained to distinguish and tokenize specific product intentions by the established criteria. Furthermore, it would need to do so while also navigating entry errors written in multiple languages. We still hope to eventually automate the process as sampling increases and as our personal understanding of machine-learning increases.

The results of grouping these three variables are tabulated below, and they will be used later to generate the sets of linear probability models that predict student product intention. Upon cursory attention, the kinds of cultivation students perform in Israel are quite different from that of their parents, with a predilection toward fruits especially. It is also more specialized, because students made fewer selections overall, at 1,984 total selections as opposed to 2,649. Similarly, student intentions are likewise more focused at 2,208 selections, but the types of products seem to more closely align with family farming.

Table 2: Table of Collapsed Variables (N=1478)

	Count	Percent
Family w/Livestock	837	56.6%
Family w/Grains	802	54.3%
Family w/Vegetables	536	36.3%
Family w/Fruits	196	13.3%
Family w/Nothing	153	10.4%
Family w/Specialties	88	6.0%
Family w/CashCrops	37	2.5%

	Count	Percent
Works w/Fruits	625	42.3%
Works w/Support	477	32.3%
Works w/Vegetables	310	21.0%
Works w/Livestock	281	19.0%
Works w/Specialties	147	10.0%
Works w/CashCrops	100	6.8%
Works w/Grains	44	3.0%

	Count	Percent
Intent w/Livestock	546	36.9%
Intent w/Vegetables	482	32.6%
Intent w/Grains	356	24.1%
Intent w/Fruits	211	14.3%
Intent w/Support	203	13.7%
Intent w/Nothing	189	12.8%
Intent w/Specialties	156	10.6%
Intent w/CashCrops	65	4.4%

6.3 Investigating Post-Program Momentum

We also investigate the potential combined effects of farm placement and traditional agriculture through two testable hypotheses.

B1: Students with work placements dissimilar to their family farming are less likely to continue in direct commercial agricultural production.

B2: Students with work placements dissimilar to their family farming feel less prepared in moving forward with their careers.

In a manner similar to the previous investigation, we had students select up to three of 10 possible career paths. We suspect that those whose farm placements do not match their family background are less likely to pick career paths directly related to farming. Conversely, they may be more inclined to take up other occupations, ones that probably benefit less from an entrepreneurial on-the-job education.

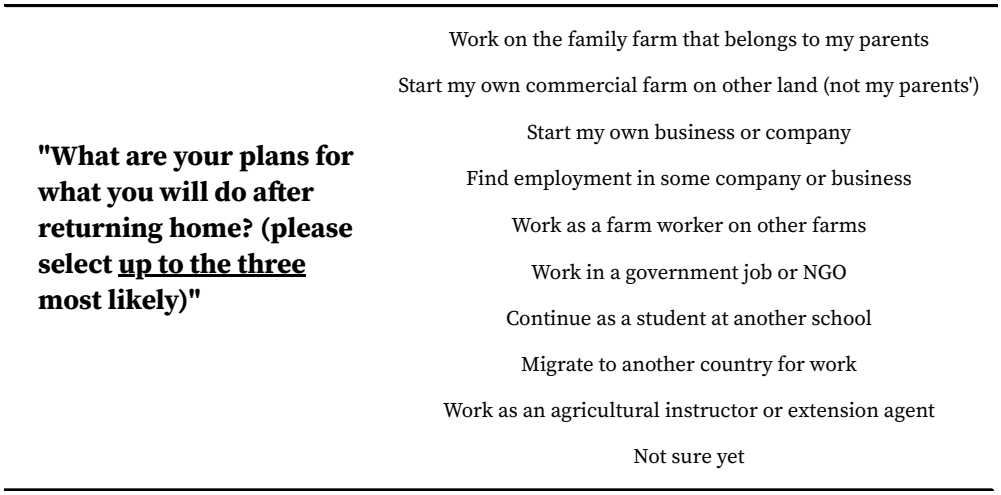

Figure 6: Asking About Careers

The second hypothesis builds upon this theme by stating that those types of students will also be measurably less ready to move on in their own careers after the program; the program, as it currently is, may not affect these unmatched students as much as others. We test this through two psychology inventories plus a simple sliding scale preparedness question, which are further detailed in the appendix.

The Adult Hope Scale is an 8-likert scale indicator of Snyder's cognitive model of hope. By that definition, hope is a combined sense of pathway and agency (Snyder, 1991). Those with more hope can feel that they know how to attain a goal or they can feel more empowered to act toward those goals. The inventory itself consists of 12 items, of which 4 are discarded. The remaining 8 items then can either be summed for a total score of 64 or split evenly into two 32-point subscores, agency and pathway.

"There are lots of ways around any problem."

-Adult Hope Scale Item

The Individual Entrepreneurial Orientation Inventory is a 7-likert scale measurement of entrepreneurial proclivity. Students who score higher on the IEO are more likely to see themselves as either capable or prepared to overcome the challenges associated with entrepreneurship (G. Santos et al., 2020). This readiness encompasses character traits like proactivity, risk-taking, innovation, and persistence. The inventory consists of 12 items summed for a total total score of 84. There are no subscores.

"I like to venture into the unknown and make risky decisions."

-Individual Entrepreneurship Item

We also provided all students the opportunity to rate their feelings of preparedness between on a scale between 1 and 5. This particular question was placed immediately after students detailed their career plans in written form. By doing so, we gave students the opportunity to reflect how the program interacts with their own personal goals.

"On a scale of 1 to 5, how prepared do you feel to implement your plans once you return home?"

-Preparedness Question

For this investigation, we choose to define dissimilarity based upon distinctions between animal studies and horticultural studies. We do this for four reasons. From a policy perspective, it is currently impractical to implement measures that attempt to sort students on the level of discerning between fruits and vegetables or chickens and cows. Secondly, if the sorting regimen was made any stricter, then the majority of the student population would be characterized as dissimilar. This leads to the third rea-

son. The distinction between studying animals and studying horticulture is more stark, and grouping those types of extremely unmatched students with others may make it difficult to isolate certain effects. Finally, it is still important to note that we are only working with approximations of whether or not a student was improperly matched for the internship program. There is no guarantee that a student will want to study what their family cultivates. By loosening the matching criteria, we reduce the possibility of improperly labeling certain students as unmatched when they could actually be satisfied by the assignment.

That being said, in the interest of rigorous investigation, we also run the same empirical procedure using two additional sets of matching criteria. One of which does follow the categorizations laid out in the first empirical procedure. These groupings and their resultant regressions can be found in part 3 of the appendix.

Both hypotheses use unmatched as the explanatory variable. However, some students are impossible to match because they have no family tradition of cultivation whatsoever. We therefore choose to separate these students into their own group.

Table 3: Grouping Students (N=1478)

	Works w/Animals	Works w/Horticulture	Works w/Both
Family w/Animals	28	87	9
Family w/Horticulture	56	418	14
Family w/Both	107	565	41
No Family Farming	17	127	9

	Count	Percent
Matched	1182	79.97%
No Tradition	153	10.35%
Not Matched	143	9.68%

Expressed mathematically, the estimator would be something like the form below. Where beta and gamma are coefficients representing the change in outcome due to their respective factors.

$$Outcome_i = \beta No\_Tradition_i + \gamma Not\_Matched_i + \epsilon_i$$

7 Results: Effects on Product Intention

The complete form of the estimator to predict student product intentions is shown below in matrix form. When presented in its entirety, the estimator is really a set of eight linear probability models. Each model predicts the likelihood of a student adopting a certain product, our outcome of interest.

$$\begin{bmatrix} Int\_Grains_i \\ Int\_Vegetables_i \\ Int\_Fruits_i \\ Int\_CashCrops_i \\ Int\_Livestock_i \\ Int\_Specialties_i \\ Int\_Support_i \\ Int\_Nothing_i \end{bmatrix} = \begin{bmatrix} \beta_{1a} & \beta_{1b} & \beta_{1c} & \beta_{1d} & \beta_{1e} & \beta_{1f} & \beta_{1g} \\ \beta_{2a} & \beta_{2b} & \beta_{2c} & \beta_{2d} & \beta_{2e} & \beta_{2f} & \beta_{2g} \\ \beta_{3a} & \beta_{3b} & \beta_{3c} & \beta_{3d} & \beta_{3e} & \beta_{3f} & \beta_{3g} \\ \beta_{4a} & \beta_{4b} & \beta_{4c} & \beta_{4d} & \beta_{4e} & \beta_{4f} & \beta_{4g} \\ \beta_{5a} & \beta_{5b} & \beta_{5c} & \beta_{5d} & \beta_{5e} & \beta_{5f} & \beta_{5g} \\ \beta_{6a} & \beta_{6b} & \beta_{6c} & \beta_{6d} & \beta_{6e} & \beta_{6f} & \beta_{6g} \\ \beta_{7a} & \beta_{7b} & \beta_{7c} & \beta_{7d} & \beta_{7e} & \beta_{7f} & \beta_{7g} \\ \beta_{8a} & \beta_{8b} & \beta_{8c} & \beta_{8d} & \beta_{8e} & \beta_{8f} & \beta_{8g} \end{bmatrix} \bullet \begin{bmatrix} Wrk\_Grains_i \\ Wrk\_Vegetables_i \\ Wrk\_Fruits_i \\ Wrk\_CashCrops_i \\ Wrk\_Livestock_i \\ Wrk\_Specialties_i \\ Wrk\_Support_i \end{bmatrix} + \begin{bmatrix} \gamma_{1a} & \gamma_{1b} & \gamma_{1c} & \gamma_{1d} & \gamma_{1e} & \gamma_{1f} & \gamma_{1g} \\ \gamma_{2a} & \gamma_{2b} & \gamma_{2c} & \gamma_{2d} & \gamma_{2e} & \gamma_{2f} & \gamma_{2g} \\ \gamma_{3a} & \gamma_{3b} & \gamma_{3c} & \gamma_{3d} & \gamma_{3e} & \gamma_{3f} & \gamma_{3g} \\ \gamma_{4a} & \gamma_{4b} & \gamma_{4c} & \gamma_{4d} & \gamma_{4e} & \gamma_{4f} & \gamma_{4g} \\ \gamma_{5a} & \gamma_{5b} & \gamma_{5c} & \gamma_{5d} & \gamma_{5e} & \gamma_{5f} & \gamma_{5g} \\ \gamma_{6a} & \gamma_{6b} & \gamma_{6c} & \gamma_{6d} & \gamma_{6e} & \gamma_{6f} & \gamma_{6g} \\ \gamma_{7a} & \gamma_{7b} & \gamma_{7c} & \gamma_{7d} & \gamma_{7e} & \gamma_{7f} & \gamma_{7g} \\ \gamma_{8a} & \gamma_{8b} & \gamma_{8c} & \gamma_{8d} & \gamma_{8e} & \gamma_{8f} & \gamma_{8g} \end{bmatrix} \bullet \begin{bmatrix} Fam\_Grains_i \\ Fam\_Vegetables_i \\ Fam\_Fruits_i \\ Fam\_CashCrops_i \\ Fam\_Livestock_i \\ Fam\_Specialties_i \\ Fam\_Nothing_i \end{bmatrix} + \begin{bmatrix} \epsilon_{1i} \\ \epsilon_{2i} \\ \epsilon_{3i} \\ \epsilon_{4i} \\ \epsilon_{5i} \\ \epsilon_{6i} \\ \epsilon_{7i} \\ \epsilon_{8i} \end{bmatrix}$$

For demonstration, the likelihood a student will pursue grains would be a summation of seven work terms, seven family terms, and the error term. We also have the option* of including fixed effects (δ_i).

$$\begin{aligned} Int\_Grains_i = {} & \beta_{1a} Wrk\_Grains_i + \beta_{1b} Wrk\_Vegetables_i + \beta_{1c} Wrk\_Fruits_i \\ & + \beta_{1d} Wrk\_CashCrops_i + \beta_{1e} Wrk\_Livestock_i + \beta_{1f} Wrk\_Specialties_i \\ & + \beta_{1g} Wrk\_Support_i + \gamma_{1a} Fam\_Grains_i + \gamma_{1b} Fam\_Vegetables_i \\ & + \gamma_{1c} Fam\_Fruits_i + \gamma_{1d} Fam\_CashCrops_i + \gamma_{1e} Fam\_Livestock_i \\ & + \gamma_{1f} Fam\_Specialties_i + \gamma_{1g} Fam\_Nothing_i + \delta_{1i}{}^* + \epsilon_{1i} \end{aligned}$$

Where each beta and gamma coefficient represents the change in cereal intention likelihood for their respective binary variable. The results of these ordinary least squares regressions are presented on the next page. We also include two additional versions for comparison. One version controls for nationality. The second controls for both nationality and training centers. We also made sure to split centers and nationalities by year, so students from Malawi in 2023 are distinct from those in 2024. In either case, the results remain robust, with a clearly defined diagonal pattern forming.

Table 4: Product Intentions Linear Probability Model

	(1) Intent with Grains	(2) Intent with Vegetables	(3) Intent with Fruits	(4) Intent with CashCrops	(5) Intent with Livestock	(6) Intent with Specialties	(7) Intent with Support	(8) Intent with Nothing
Family w/Grains	**0.234*****	0.0667*	0.0342	-0.00971	-0.0382	0.0280	0.0678**	-0.0688***
	(0.0252)	(0.0282)	(0.0215)	(0.0127)	(0.0283)	(0.0188)	(0.0214)	(0.0205)
Works w/Grains	**0.00793**	0.111	0.0678	0.0296	-0.0707	0.000872	-0.0594	0.0724
	(0.0622)	(0.0698)	(0.0531)	(0.0313)	(0.0699)	(0.0465)	(0.0530)	(0.0507)
Family w/Vegetables	-0.0731**	**0.152*****	0.000402	-0.0297*	-0.0527*	0.0548**	0.0321	-0.00895
	(0.0237)	**(0.0266)**	(0.0202)	(0.0119)	(0.0266)	(0.0177)	(0.0202)	(0.0193)
Works w/Vegetables	-0.0316	**0.103****	-0.0197	-0.0129	-0.0910**	0.0108	0.0112	0.0266
	(0.0284)	**(0.0318)**	(0.0242)	(0.0143)	(0.0319)	(0.0212)	(0.0242)	(0.0231)
Family w/Fruits	-0.0368	0.108**	**0.194*****	0.00307	-0.116**	0.00156	0.0385	-0.0314
	(0.0333)	(0.0374)	**(0.0284)**	(0.0168)	(0.0374)	(0.0249)	(0.0284)	(0.0271)
Works w/Fruits	0.0319	0.000892	**0.0707****	0.00219	-0.0491	0.0118	-0.0292	0.0389
	(0.0277)	(0.0311)	**(0.0236)**	(0.0139)	(0.0311)	(0.0207)	(0.0236)	(0.0226)
Family w/CashCrops	-0.0991	-0.0240	0.0247	**0.161*****	-0.0398	0.0681	-0.0135	-0.0562
	(0.0678)	(0.0761)	(0.0578)	**(0.0341)**	(0.0762)	(0.0507)	(0.0578)	(0.0552)
Works w/CashCrops	-0.0123	-0.122*	0.0146	**0.0864*****	0.0137	0.0406	-0.0683	0.0527
	(0.0464)	(0.0521)	(0.0396)	**(0.0234)**	(0.0522)	(0.0348)	(0.0396)	(0.0378)
Family w/Livestock	0.0252	0.000774	-0.0156	-0.0286*	**0.231*****	-0.0136	0.0109	-0.0427*
	(0.0241)	(0.0270)	(0.0206)	(0.0121)	**(0.0271)**	(0.0180)	(0.0205)	(0.0196)
Works w/Livestock	-0.0420	-0.168***	0.00792	-0.00474	**0.212*****	0.0319	-0.0565*	0.00642
	(0.0332)	(0.0373)	(0.0284)	(0.0167)	**(0.0373)**	(0.0249)	(0.0283)	(0.0271)
Family w/Specialties	-0.0475	-0.0450	-0.0277	-0.0352	-0.124*	**0.232*****	-0.0158	0.0662
	(0.0458)	(0.0513)	(0.0390)	(0.0230)	(0.0514)	**(0.0342)**	(0.0390)	(0.0373)
Works w/Specialties	0.0522	-0.0356	-0.0139	0.00357	0.0360	**0.111*****	-0.0647	0.0195
	(0.0403)	(0.0452)	(0.0344)	(0.0203)	(0.0452)	**(0.0301)**	(0.0343)	(0.0328)
Family w/Nothing	-0.102*	0.00866	0.0210	-0.0429	-0.00503	0.0790*	0.0483	**0.113****
	(0.0458)	(0.0514)	(0.0391)	(0.0230)	(0.0515)	(0.0343)	(0.0390)	**(0.0373)**
Works w/Support	0.0457	0.0631*	0.0493*	0.0172	-0.0311	0.0271	**0.0289**	-0.0221
	(0.0247)	(0.0278)	(0.0211)	(0.0124)	(0.0278)	(0.0185)	**(0.0211)**	(0.0202)
_cons	0.129***	0.220***	0.0613	0.0684***	0.310***	0.0184	0.0981**	0.159***
	(0.0390)	(0.0438)	(0.0333)	(0.0196)	(0.0438)	(0.0292)	(0.0332)	(0.0318)
N	1478	1478	1478	1478	1478	1478	1478	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5: Product Intentions with Nationality FE

	(1) Intent with Grains	(2) Intent with Vegetables	(3) Intent with Fruits	(4) Intent with CashCrops	(5) Intent with Livestock	(6) Intent with Specialties	(7) Intent with Support	(8) Intent with Nothing
Family w/Grains	**0.181*****	0.0541	0.0234	-0.0111	-0.0252	0.0268	0.0505*	-0.0405
	(0.0252)	(0.0294)	(0.0224)	(0.0133)	(0.0293)	(0.0198)	(0.0224)	(0.0214)
Works w/Grains	**0.0649**	0.126	0.0761	0.0295	-0.0582	0.00675	-0.0539	0.0392
	(0.0598)	(0.0698)	(0.0531)	(0.0315)	(0.0694)	(0.0470)	(0.0532)	(0.0507)
Family w/Vegetables	-0.0420	**0.150*****	-0.00543	-0.0275*	-0.0496	0.0569**	0.0305	-0.00912
	(0.0230)	**(0.0268)**	(0.0204)	(0.0121)	(0.0266)	(0.0180)	(0.0204)	(0.0195)
Works w/Vegetables	-0.00318	**0.109*****	-0.0244	-0.0139	-0.0796*	0.0165	0.00357	0.0204
	(0.0276)	**(0.0322)**	(0.0245)	(0.0145)	(0.0320)	(0.0216)	(0.0245)	(0.0234)
Family w/Fruits	0.00217	0.110**	**0.189*****	0.00387	-0.110**	0.00225	0.0378	-0.0360
	(0.0322)	(0.0376)	**(0.0286)**	(0.0170)	(0.0374)	(0.0253)	(0.0287)	(0.0274)
Works w/Fruits	0.0319	0.00639	**0.0701****	0.00101	-0.0359	0.0152	-0.0370	0.0340
	(0.0268)	(0.0312)	**(0.0237)**	(0.0141)	(0.0310)	(0.0210)	(0.0238)	(0.0227)
Family w/CashCrops	-0.126	-0.0759	0.0510	**0.178*****	-0.0306	0.0690	-0.00917	-0.0415
	(0.0658)	(0.0768)	(0.0584)	**(0.0347)**	(0.0764)	(0.0517)	(0.0585)	(0.0558)
Works w/CashCrops	0.0128	-0.0972	0.0480	**0.0876*****	-0.0476	0.0430	-0.0497	0.0158
	(0.0460)	(0.0536)	(0.0408)	**(0.0242)**	(0.0533)	(0.0361)	(0.0409)	(0.0390)
Family w/Livestock	-0.00181	-0.00147	-0.0132	-0.0300*	**0.234*****	-0.0147	0.00764	-0.0356
	(0.0231)	(0.0270)	(0.0205)	(0.0122)	**(0.0269)**	(0.0182)	(0.0206)	(0.0196)
Works w/Livestock	-0.0141	-0.146***	-0.00988	-0.00675	**0.199*****	0.0343	-0.0562	0.00241
	(0.0323)	(0.0377)	(0.0287)	(0.0170)	**(0.0375)**	(0.0254)	(0.0287)	(0.0274)
Family w/Specialties	-0.0158	-0.0371	-0.0256	-0.0377	-0.129*	**0.230*****	-0.00318	0.0473
	(0.0439)	(0.0512)	(0.0390)	(0.0231)	(0.0509)	**(0.0345)**	(0.0390)	(0.0372)
Works w/Specialties	0.0704	-0.0693	0.00332	0.00144	0.0363	**0.0972****	-0.0569	0.0158
	(0.0398)	(0.0465)	(0.0354)	(0.0210)	(0.0462)	**(0.0313)**	(0.0354)	(0.0338)
Family w/Nothing	-0.0709	0.0299	0.0212	-0.0440	-0.00854	0.0838*	0.0609	**0.0886***
	(0.0441)	(0.0515)	(0.0391)	(0.0232)	(0.0512)	(0.0346)	(0.0392)	**(0.0374)**
Works w/Support	0.0428	0.0647*	0.0492*	0.0146	-0.0313	0.0241	**0.0334**	-0.0253
	(0.0238)	(0.0278)	(0.0211)	(0.0126)	(0.0276)	(0.0187)	**(0.0212)**	(0.0202)
_cons	0.275*	0.143	0.0418	-0.00157	0.451**	-0.00850	-0.0394	0.199
	(0.124)	(0.144)	(0.110)	(0.0651)	(0.143)	(0.0970)	(0.110)	(0.105)
N	1478	1478	1478	1478	1478	1478	1478	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 6: Product Intentions with Nationality & Training Center FE

	(1) Intent with Grains	(2) Intent with Vegetables	(3) Intent with Fruits	(4) Intent with CashCrops	(5) Intent with Livestock	(6) Intent with Specialties	(7) Intent with Support	(8) Intent with Nothing
Family w/Grains	**0.183*****	0.0520	0.0224	-0.0117	-0.0273	0.0262	0.0500*	-0.0369
	(0.0253)	(0.0295)	(0.0225)	(0.0133)	(0.0294)	(0.0199)	(0.0225)	(0.0214)
Works w/Grains	**0.0632**	0.124	0.0771	0.0284	-0.0598	0.00563	-0.0544	0.0426
	(0.0598)	(0.0698)	(0.0531)	(0.0315)	(0.0694)	(0.0470)	(0.0532)	(0.0506)
Family w/Vegetables	-0.0429	**0.149*****	-0.00492	-0.0279*	-0.0502	0.0565**	0.0304	-0.00797
	(0.0230)	**(0.0268)**	(0.0204)	(0.0121)	(0.0267)	(0.0180)	(0.0204)	(0.0194)
Works w/Vegetables	0.00690	**0.110*****	-0.0294	-0.0118	-0.0793*	0.0189	0.00395	0.0170
	(0.0281)	**(0.0328)**	(0.0250)	(0.0148)	(0.0326)	(0.0221)	(0.0250)	(0.0238)
Family w/Fruits	0.00140	0.111**	**0.190*****	0.00409	-0.110**	0.00244	0.0381	-0.0374
	(0.0322)	(0.0376)	**(0.0286)**	(0.0170)	(0.0374)	(0.0253)	(0.0287)	(0.0273)
Works w/Fruits	0.0292	0.00263	**0.0702****	0.00181	-0.0321	0.0165	-0.0391	0.0310
	(0.0273)	(0.0319)	**(0.0243)**	(0.0144)	(0.0317)	(0.0215)	(0.0243)	(0.0231)
Family w/CashCrops	-0.126	-0.0852	0.0502	**0.175*****	-0.0350	0.0671	-0.0124	-0.0311
	(0.0659)	(0.0769)	(0.0586)	**(0.0348)**	(0.0766)	(0.0518)	(0.0587)	(0.0557)
Works w/CashCrops	0.0147	-0.126*	0.0461	**0.0793****	-0.0651	0.0353	-0.0589	0.0532
	(0.0479)	(0.0558)	(0.0425)	**(0.0252)**	(0.0556)	(0.0376)	(0.0426)	(0.0405)
Family w/Livestock	-0.000577	-0.00383	-0.0140	-0.0302*	**0.233*****	-0.0148	0.00678	-0.0337
	(0.0232)	(0.0270)	(0.0206)	(0.0122)	**(0.0269)**	(0.0182)	(0.0206)	(0.0196)
Works w/Livestock	-0.0160	-0.155***	-0.00962	-0.00888	**0.196*****	0.0325	-0.0593*	0.0114
	(0.0326)	(0.0380)	(0.0290)	(0.0172)	**(0.0379)**	(0.0256)	(0.0290)	(0.0276)
Family w/Specialties	-0.0163	-0.0383	-0.0255	-0.0379	-0.129*	**0.230*****	-0.00366	0.0478
	(0.0439)	(0.0512)	(0.0390)	(0.0231)	(0.0510)	**(0.0345)**	(0.0391)	(0.0371)
Works w/Specialties	0.0663	-0.0671	0.00442	0.00354	0.0432	**0.0995****	-0.0570	0.00597
	(0.0402)	(0.0469)	(0.0357)	(0.0212)	(0.0467)	**(0.0316)**	(0.0358)	(0.0340)
Family w/Nothing	-0.0707	0.0261	0.0213	-0.0460*	-0.0130	0.0818*	0.0600	**0.0967****
	(0.0442)	(0.0516)	(0.0392)	(0.0233)	(0.0513)	(0.0347)	(0.0393)	**(0.0374)**
Works w/Support	0.0433	0.0684*	0.0491*	0.0157	-0.0293	0.0251	**0.0346**	-0.0301
	(0.0239)	(0.0279)	(0.0212)	(0.0126)	(0.0277)	(0.0188)	**(0.0213)**	(0.0202)
_cons	0.392**	0.121	-0.0261	0.0290	0.474**	0.0289	-0.0524	0.147
	(0.140)	(0.164)	(0.125)	(0.0740)	(0.163)	(0.110)	(0.125)	(0.119)
N	1478	1478	1478	1478	1478	1478	1478	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

For the primary purpose of this investigation, we reorganize the two explanatory factors by collapsed product groups. Then when we bold the corresponding explanatory groups to their respective outcome variable, the diagonal pattern becomes clearer. For example, starting from the top left, we bold the intersections of grains intention, family grains, and work grains. These particular two coefficients are of greater interest than the rest in the column because they directly test our established hypotheses, namely that work and family product types are reflected in product intentions.

We confirm hypothesis A1 because, for the majority of intention outcomes, the corresponding family farming productivity coefficients are statistically significant. Students very clearly use their family's past agricultural activities to inform their product choices. And these effects are not small either. In the case of grains farming, coming from a family that farms grains is associated with an 23.4% increase in likelihood of taking up grains post-program. Similar relationships can be found between the intentions and traditions of vegetables, fruits, cash crops, livestock, and specialty products.

We confirm hypothesis A2 through a similar manner. The majority of corresponding coefficients are statistically significant, which means that a student's specific assigned place of work influences the choices they make once graduating from the program. Working fruits in Israel will result in an additional 7% increase in likelihood. Translated further, if a student worked fruits and their family farmed fruits, the total change in post-program fruit likelihood is 26% or 19%+7%.

We reject hypothesis A3 because the coefficients for farm placements are all less than or equal to the coefficients of family farming. In other words, students are more likely to refer to their family's agricultural history more than their farm education in Israel when deciding what they do when returning home. This runs contrary to initial expectations but is overall not unexpected for reasons previously mentioned.

We also confirm hypothesis A4. The diagonal pattern is very strong even when the resolution is higher than just distinguishing between animal studies and horticultural

studies. For the horticultural related intentions in particular, there are clear distinctions to be made between pretty much every subcategory. Fruits are not vegetables, and vegetables are not grains.

8 Results: Effects on Post-Program Momentum

To predict student choice of career we present the linear probability model below along with its results. Additionally, we include versions that control for nationality fixed effects and training center fixed effects*.

$$Likelihood\_Career\_Choice_i = \beta No\_Tradition_i + \gamma Not\_Matched_i + \delta_i* + \epsilon_i$$

Table 7: Career Paths Linear Probability Model

	(1) Return to Family Farm	(2) Establish Own Farm	(3) Start A Business	(4) Find A Job	(5) Work as Farm Labor	(6) Work for NGO or Gov.	(7) Cont. Studies	(8) Migrate for Work	(9) Work as Ext. Agent	(10) Not Sure Yet
No Tradition	-0.181***	-0.310***	-0.122**	0.0804**	0.0177	0.150***	0.0102	0.170***	-0.0450	0.0950***
	(0.0339)	(0.0420)	(0.0426)	(0.0277)	(0.0197)	(0.0302)	(0.0330)	(0.0323)	(0.0345)	(0.0137)
Not Matched	-0.101**	-0.0811	-0.0631	0.00974	-0.00519	0.00873	-0.00453	0.0662*	-0.0820*	0.0119
	(0.0349)	(0.0433)	(0.0440)	(0.0286)	(0.0203)	(0.0312)	(0.0340)	(0.0333)	(0.0355)	(0.0142)
_cons	0.227***	0.585***	0.469***	0.109***	0.0541***	0.131***	0.179***	0.151***	0.215***	0.0161***
	(0.0115)	(0.0142)	(0.0144)	(0.00938)	(0.00666)	(0.0102)	(0.0112)	(0.0109)	(0.0117)	(0.00465)
N	1478	1478	1478	1478	1478	1478	1478	1478	1478	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 8: Career Paths with Nationality FE

	(1) Return to Family Farm	(2) Establish Own Farm	(3) Start A Business	(4) Find A Job	(5) Work as Farm Labor	(6) Work for NGO or Gov.	(7) Cont. Studies	(8) Migrate for Work	(9) Work as Ext. Agent	(10) Not Sure Yet
No Tradition	-0.212***	-0.115**	-0.0756	0.0436	-0.0158	0.0985**	0.0347	0.0719*	-0.00337	0.0713***
	(0.0348)	(0.0394)	(0.0440)	(0.0281)	(0.0203)	(0.0311)	(0.0325)	(0.0309)	(0.0358)	(0.0142)
Not Matched	-0.104**	-0.0269	-0.0534	-0.00182	-0.0136	-0.00537	-0.0209	0.0307	-0.0756*	0.00431
	(0.0349)	(0.0394)	(0.0441)	(0.0282)	(0.0204)	(0.0311)	(0.0325)	(0.0309)	(0.0358)	(0.0142)
_cons	0.402***	0.748***	0.105	0.174	0.0938	-0.0179	0.176	0.169	0.0915	-0.0130
	(0.117)	(0.133)	(0.148)	(0.0946)	(0.0685)	(0.105)	(0.109)	(0.104)	(0.120)	(0.0478)
N	1478	1478	1478	1478	1478	1478	1478	1478	1478	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 9: Career Paths with Nationality & Training Center FE

	(1) Return to Family Farm	(2) Establish Own Farm	(3) Start A Business	(4) Find A Job	(5) Work as Farm Labor	(6) Work for NGO or Gov.	(7) Cont. Studies	(8) Migrate for Work	(9) Work as Ext. Agent	(10) Not Sure Yet
No Tradition	-0.211***	-0.115**	-0.0724	0.0422	-0.0142	0.0999**	0.0364	0.0709*	-0.00343	0.0713***
	(0.0349)	(0.0394)	(0.0440)	(0.0280)	(0.0204)	(0.0311)	(0.0324)	(0.0309)	(0.0358)	(0.0142)
Not Matched	-0.107**	-0.0247	-0.0541	-0.00287	-0.0151	-0.00744	-0.0244	0.0304	-0.0756*	0.00369
	(0.0349)	(0.0395)	(0.0441)	(0.0281)	(0.0204)	(0.0312)	(0.0325)	(0.0309)	(0.0359)	(0.0142)
_cons	0.451***	0.743***	-0.0424	0.369***	0.0719	0.0296	0.0888	0.137	0.165	-0.0379
	(0.136)	(0.153)	(0.171)	(0.109)	(0.0793)	(0.121)	(0.126)	(0.120)	(0.139)	(0.0553)
N	1478	1478	1478	1478	1478	1478	1478	1478	1478	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

According to the set of 10 linear probability models, we confirm hypothesis B1. Students without any family history of agriculture are significantly less likely to enter direct commercial agriculture, at least for themselves. Coming from a family with no family farming traditions is associated with a decrease of 31% in the likelihood of starting a farm . Meanwhile, the likelihoods for seeking careers with the government or migrating to other countries change by 15% and 17% respectively. There is also a significant increase in probability that these students will feel uncertain about their next careers in general.

Similar observations can be made about students who were categorized as unmatched by the program. While the effects are not as strong as those seen for those without family tradition agriculture, it is still apparent that unmatched students are less likely to return to the family farm and are more likely to migrate. Furthermore, unmatched students are more disinclined to teach others about agriculture.

We also considered the possibility of collapsing career path outcomes into more concentrated categories, such as by employment type or by direct cultivation. These regression models are presented in part four of the appendix. Results are same apart from an increase in coefficients due to the group consolidation. Students with missing or mismatched family backgrounds are significantly less likely to become self-employed or engage in direct agricultural cultivation.

We present the tests for hypothesis B2 below along with their results, also with nationality and training center fixed effects*. Results are somewhat similar across the three versions, but introducing fixed effects reduced statistical significance for various coefficients associated with students without family farming backgrounds. It is possible that controlling for fixed effects meant that only variation within countries or within centers is considered, and there probably is not yet enough to draw statistical significance.

$$Inventory\_Score_i = \beta No\_Tradition_i + \gamma Not\_Matched_i + \delta_i * + \epsilon_i$$

Table 10: Preparedness Measurements

	(1) Hope Score	(2) Agency Subscore	(3) Pathway Subscore	(4) Entrepreneurial Orientation Score	(5) Preparedness For Plans
No Tradition	-2.331*	-1.037*	-1.294*	-5.416***	-0.744***
	(0.958)	(0.515)	(0.558)	(1.234)	(0.0999)
Not Matched	-2.929**	-1.004*	-1.925***	-3.479**	-0.172
	(0.947)	(0.509)	(0.551)	(1.331)	(0.103)
_cons	54.65***	26.76***	27.89***	69.57***	3.123***
	(0.324)	(0.174)	(0.189)	(0.418)	(0.0338)
N	743	743	743	735	1478

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 11: Preparedness Measurements w/Nationality FE

	(1) Hope Score	(2) Agency Subscore	(3) Pathway Subscore	(4) Entrepreneurial Orientation Score	(5) Preparedness For Plans
No Tradition	-0.203	-0.231	0.0281	-2.129	-0.423***
	(0.960)	(0.531)	(0.552)	(1.207)	(0.0994)
Not Matched	-2.434**	-0.811	-1.624**	-2.736*	-0.114
	(0.922)	(0.510)	(0.530)	(1.270)	(0.0996)
_cons	49.60***	23.62***	25.99***	62.79***	3.259***
	(5.332)	(2.949)	(3.064)	(3.187)	(0.335)
N	743	743	743	735	1478

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 12: Preparedness Measurements w/Nationality & Training Centers FE

	(1) Hope Score	(2) Agency Subscore	(3) Pathway Subscore	(4) Entrepreneurial Orientation Score	(5) Preparedness For Plans
No Tradition	-0.157	-0.216	0.0597	-2.053	-0.409***
	(0.963)	(0.533)	(0.554)	(1.210)	(0.0993)
Not Matched	-2.461**	-0.821	-1.640**	-2.706*	-0.125
	(0.924)	(0.511)	(0.531)	(1.271)	(0.0995)
_cons	46.99***	22.40***	24.59***	63.77***	3.145***
	(5.695)	(3.149)	(3.274)	(3.932)	(0.387)
N	743	743	743	735	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

We confirm hypothesis B2. Either being unmatched or being from a family with no traditional agriculture is associated with reduced scores across multiple measurements of post-program readiness. According to the model, these students have less measured hope, and they are particularly uncertain of the pathways available to them once they finish the program. These interns are also less oriented toward becoming entrepreneurs in comparison to others within the program. Finally, for the students without family farming traditions, there is an overall strong consensus that they are not as prepared for their careers in comparison to their peers within the program: being in the group of no family farming history is associated with a drop of .744, and that is on a 5-point scale.

It is however necessary to point out that most of the coefficients, aside from general student preparedness, are relatively small. Students who were matched scored an average 55/64 on the Hope Inventory. Unmatched students averaged a 52/64, which is about half a standard deviation below the the matched group ($\sigma = 7.923$). For the Entrepreneurial Orientation Inventory, unmatched students are only associated with a drop of three points on an 84 point scale ($\sigma = 10.338$). Despite being statistically significant, these small point drops in the inventories may not be worth considering when designing policy.

9 Constraints on Agricultural Internship

By the end of these investigations, we find that family farming traditions and farm assignments do have meaningful roles to play across agricultural internship, and programs should be taking advantage of these roles where possible. As currently designed though, agricultural internship in Israel is limited by a series of economic, political, logistical, and philosophical constraints. The result is a program that struggles to leverage the two explanatory variables within its overall treatment.

If presented with two students of different farming backgrounds and career objectives, it is doubtful that the current program will be able to accommodate for these differences. What is instead more likely is that these students are assigned to the same intern group, working on the same fruit farms and attending the same required classes. With the noted exception of Agrostudies' not-so-concrete distinction between animal studies and horticulture studies, there is no discernible methodology for assigning students to farms apart from contemporary farmer demand. This was further demonstrated by the sudden additional influx of students brought in to replace fleeing migrant workers during the 2023 Swords of Iron Conflict (Aradi and Sippy, 2023).

That being said, even if the centers wanted to spend the effort to strategically assign students to certain farms, they have no real influence on the demand for farm labor. Agriculture in Israel is unique relative to the farming profiles of the origin countries. Students will not necessarily find jobs in products similar to those found at home, and the centers themselves explicitly make no such guarantees ("Agricultural Education Program Terms and Conditions", 2023). There are few cereal farms, and there are no pig farms for example. Instead, the farm industry of Israel is dominated by fruits, vegetables, and the services that support these two types of products. Farmers need reliable laborers to fulfill these roles.

Nor do the centers fully control the supply of labor. The internship program is

not the only way foreign farm labor enters Israel. In fact, it is one of the smaller channels despite enrolling thousands of students each year. Israel has in place multiple bilateral agreements to import labor from places like Thailand (Kaminer, 2022). These agreements generally allow migrant workers to legally stay in Israel for periods of a few years. Centers can have difficulties placing students if farmers view agricultural interns and this larger pool of workers as interchangeable.

But it is even possible that interns are actually at a disadvantage to other migrant workers in the labor market. Hosting interns comes with the expectation of actively mentoring new students every year whereas hiring other types of migrant workers means holding on to their labor for years at a time. And those other migrant workers do not even need a day off to attend classes, unlike interns of the program.

Politically, attendance to an agricultural training center is managed bilaterally by an origin country and a specific center. Because students are assigned to training centers by countries of origin, only parts of Israeli agriculture remain accessible to certain nationalities. For example, students from Azerbaijan only participated in agricultural training at AICAT (Gin, 2023). The only basket of placements available to them were Arava Desert farms, with crops maintained under hectares of tents and greenhouses. This contrasts with the students from Malawi at Kinneret College who only found work in the more temperate regions of Northern Israel.

According to the World Bank database, Malawian climate is characterized by relative variation in precipitation, with summers especially being very dry and winters being very wet (Bank, 2024). Azerbaijan's climate is less varied in comparison. It actually may be more beneficial if the students were able to switch geographic locations, but they cannot due to political constraints.

Logistically, centers are expected to educate, assign, and manage thousands of students while simultaneously holding to a rigid just one-day-a-week learning schedule. Furthermore, these centers must make do with limited classroom spacing, translators,

and guest lecturers. Specializations for students are not possible when the centers have to juggle groups of students and rotate them in on their arbitrary day off from farm training. That is why the curriculum is designed to be as general as possible. The resulting issue, though, is that a program that seeks to teach everything about farming may end up teaching nothing of worth to the students themselves.

All this said, it must be pointed out that there are also bewildering constraints of educational philosophy that bind the program; for some reason, there is an overall complacent adherence to the current design and operation of the program. We cannot understand why such a longstanding program has relied solely on marginal mechanisms that fail under the simplest investigations.

For example, on-the-farm mentor relationships may be inspiring, but it is doubtful that the students working in packaging factories, a fifth of the sampled intern population, have any sort of meaningful relationships with agriculture entrepreneurs. It is also doubtful that the relatively meager savings from just one year of work is supposed to allow students to emulate the obviously well-funded farms of Israel upon which they were trained. Believing and declaring that such shortcuts exist trivializes how much effort and time is likely needed to train successful farming students.

10 Policy Considerations

There are some policy considerations that administrators can implement in the hope of taking advantage of unleveraged factors. The ones we propose here are meant to be undisruptive to the unique structure of the program, as we do not recommend initiating any rash change without more research. Just because students without family farming history are unlikely to go into farming does not mean program designs should then exclude them outright.

Program administrators may want to consider extending the length of the program

from one year to two years. There is precedent for this, since students during the 2020 global pandemic also had their stay extended for another year. Extending the program will bring many benefits to both the students and the host farms. Extra time means that students will be able to save more while further offsetting singular expenses like smartphones and plane tickets. It also means that they can attend more classes. For the host farmers, hiring students is made more attractive because the farmers can spend less time training replacements. The centers themselves can also benefit due to the extra prestige for students associated with the now more selective program.

Another option is to start video career counseling for accepted students before their arrival in Israel. Many of these centers already have a process where exceptional graduates stay for another year to serve as new student leaders. These individuals will have greater rapport with potential students, and their inclusion as program counselors/ambassadors is easy and affordable to implement.

It is important to note that these types of counseling mechanisms are already at play. They are just not under the purview of the centers, nor are they accessible to all students. Radical Nomad TV is a YouTube channel that follows a Filipino student interning with Agrostudies (Nomad, 2023). Besides featuring her many adventures, the student also provides useful information for prospective Filipino students, detailing visa processes and even her personal finances. Utilizing similar social media avenues will allow centers to manage expectations in a transparent manner, and this in turn allows self-selecting students to confirm that the program meets their own needs.

11 Recommendations for Further Research

But the most immediate need is further research. Israel's International Agricultural Internship Program provides significant opportunities for further empirical investigation. The vast but specialized structure of the program is especially helpful. Thousands of

students from select lower-income and lower-middle-income countries come to Israel on a yearly basis to solely participate in this program. These students, in turn, bring the transformative experience of the program with them to whatever is the next step of their career. If one were to continue looking at variation across the program, as this paper has done, further research should be directed toward four internal aspects: the refinement of the research design, the long-term impacts of the program on student outcomes, the effects of further variation within farm assignment, and the roles gender play within the agricultural internship experience.

If given the opportunity, more data should be collected across the various centers. For our first round of collection, several countries were relatively underrepresented. Although this is no doubt due to the complex political relationships associated with the program, the inevitable outcome is that most of our sample size included students from certain countries. This is especially relevant considering the distribution of students with no family history of agriculture. About 20% of 431 Filipino students come from families with no agricultural history. This contrasts heavily with the 2% of 115 Ghanaian students with no family agriculture. Thus, when we include national fixed effects when evaluating the effects of no family agriculture, it is no surprise that we lose statistical significance.

The process followed in this paper can be repeated for greater statistical significance and time-dimensionality, but it can also be further detailed to allow greater precision. Of particular note are the selections available in the multiple response questions. When created, the survey utilized previous surveys to establish the list of products students may farm in and out of Israel. After collection however, we found that certain options like mushrooms, machinery, and seedlings probably should have had their own groups rather than students typing these options out. Additionally, subsequent repeats of the experimental procedure may warrant introducing machine-learning to better group products rather than rely on hand-sorting. Finally, in addition to using linear probability models, followup research should consider the inclusion of other probability models, like

logit or probit.

Within this paper, student outcomes were evaluated based upon stated career intentions rather than actual career development. It is one thing for a student whilst in Israel to state intentions like installing drip irrigation systems on their farms or opening a specialized agrotourism restaurant. It is entirely another for them to successfully meet those goals when they leave to return home. Interns may run into unforeseen barriers, whether they be physical, technical, or financial. Knowledge of occurrences such as these may help accentuate the findings in this paper. More to the point though, appending this information further expands the overall student narrative, tracing and evaluating the complete program experience from home farm to productive career.

This paper also looked at variation in farm assignment, but only so far as to what is reflected in product differentiation. There other ways farm assignments can vary, like in physicality, ranging from constant high-intensity movements outdoors to repetitive actions within refrigerated warehouses. But going beyond just the differences in working conditions, farm assignments can also signify variation of interpersonal relationships. As sociologist Kathleen Wood points out, some host-intern relationships can be interpreted as one of temporary adoption, where interns closely share both intimate and professional space with the farmer's family (Wood, 2013). Other relationships can be more impersonal, such as when the host farmer instead acts as a supervisor to large groups of students and other migrant workers. These relationships and their impact on a student's development can possibly represent another significant mechanism within agricultural entrepreneurship training.

Only representing about 15% of the sample population, the number of women within agricultural internship is still quite low. This is par for the course given how patriarchal agriculture mostly works in lower and lower-middle income countries. However, the USAID manual for farmers emphasizes that farming units are stronger when women are empowered and mobilized to make business decisions; Encouraging female participation

within farming not only provides more productivity but also provides redundancy in times of crisis (Musitini, 2012). Within the context of internship then, it is paramount to understand the possibly unique challenges associated with being a female intern, whether they be physical, social, psychological, or anything else. Thus through better understanding, parts of the program can then be tailored to better ensure female participation and success in agriculture.

12 Conclusion

"Learning by doing" is the catchphrase of agricultural internship in Israel. Upon cursory scrutiny, it is innovative and unique while at the same time sounding very obvious for some reason. It eschews "learning by learning" in stuffy classrooms under teachers who teach agricultural theories and instead embraces getting hands dirty next to successful farming entrepreneurship mentors. Then successful all-agriculture specialists by the thousands are created on a budget that is practically free. While this educational philosophy may make sense up to a certain extent, it is foolhardy to assume that agriculture education has been perfected.

By asking "learning by doing what?", we evaluate the roles of two factors that are not fully leveraged due to constraints placed on the program. Family farming traditions, their characteristics or even their absences, are empirically associated with student socioeconomic outcomes. Farm assignments, detailed down to their types of agricultural productivity, are empirically associated with student socioeconomic outcomes. A successful agricultural internship should work to take advantage of these effects. To do otherwise risks becoming overly dependent upon mechanisms like educational osmosis to meet the main objective of empowering students in agriculture.

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A appendix

A.1 Inventories

Table 13: Adult Hope Scale Items with Rotated Principle Component Factor Loadings

		Factor Loading	
	Inventory Items (N=743)	1	2
[pathway]	I can think of many ways to get out of a jam.	0.79	0.01
[agency]	I energetically pursue my goals.	0.65	0.29
[discarded]	I feel tired most of the time.	-	-
[pathway]	There are lots of ways around any problem.	0.74	0.07
[discarded]	I am easily downed in an argument.	-	-
[pathway]	I can think of many ways to get things in life that are important to me.	0.61	0.42
[discarded]	I worry about my health.	-	-
[pathway]	Even when others get discouraged, I know I can find a way to solve the problem.	0.49	0.51
[agency]	My past experiences have prepared me well for my future.	0.49	0.51
[agency]	I've been pretty successful in life.	0.02	0.79
[discarded]	I usually find myself worrying about something.	-	-
[agency]	I meet the goals that I set for myself.	0.12	0.72
	Cronbach's α: .80		

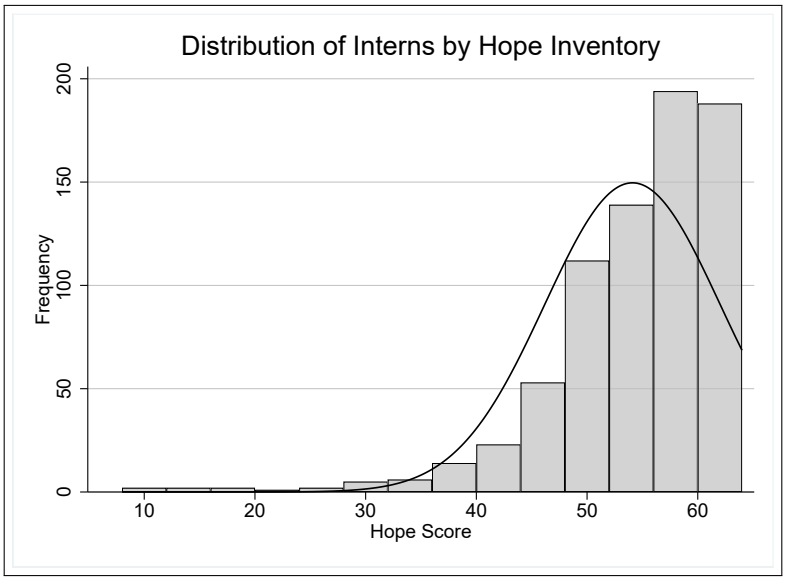


Figure 7: Hope Score Histogram

Table 14: Individual Entrepreneurial Orientation Items with Rotated PCF Loadings

	Factor Loading	
Inventory Items (N=735)	1	2
I like to venture into the unknown and make risky decisions.	0.005	0.82
I tend to act boldly in risk situations.	0.16	0.78
I often like to try new and unusual activities.	0.26	0.61
In general, I prefer a strong emphasis on innovative approaches rather.	0.49	0.41
I am in favor of trying out new approaches to problem solving rather than using methods that others often use.	0.55	0.26
I tend to plan projects in advance.	0.76	0.11
I would rather get up and put projects in motion than sit around waiting for someone else to do it.	0.57	0.17
I always finish what I start.	0.70	0.14
Setbacks do not discourage me.	0.64	0.16
In many complex situations, I persist in achieving my goals despite seeing others give up.	0.75	0.16
I am passionate about finding good business opportunities, developing new products or services, exploring business applications, or creating new solutions to existing problems and needs.	0.82	0.10
I have a passion for envisioning, growing, and expanding my business.	0.85	0.07
Cronbach's α: .85		

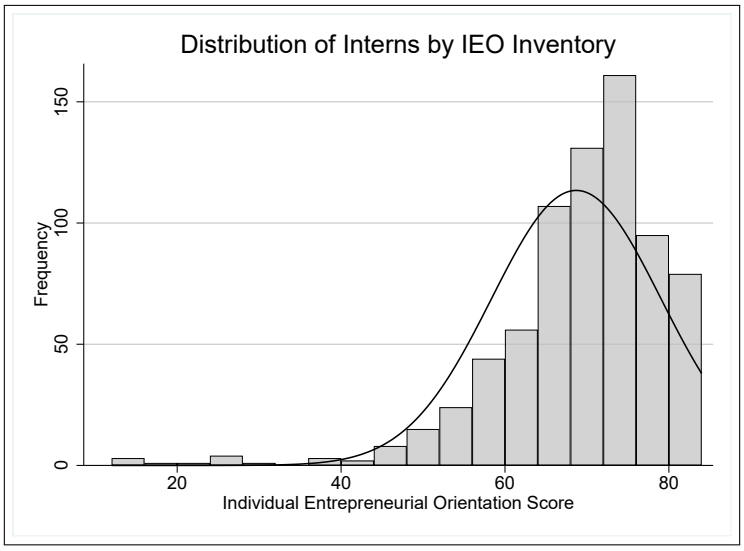


Figure 8: IEO Score Histogram

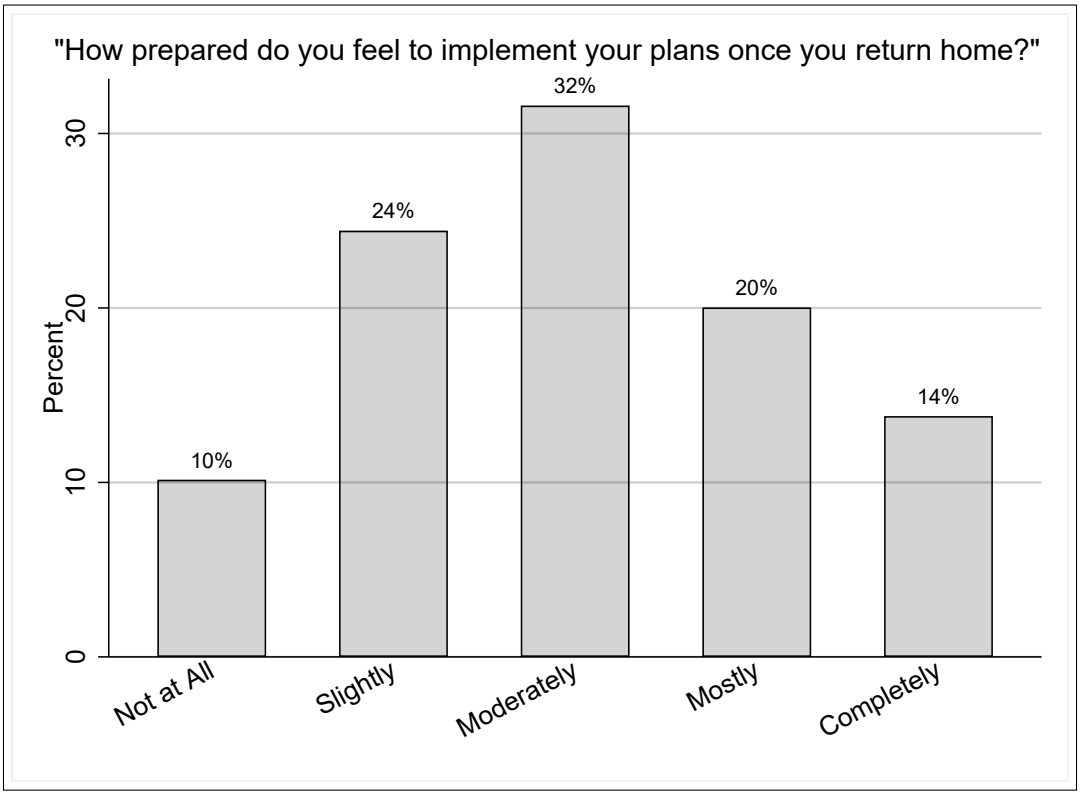


Figure 9: Student Feelings of Preparedness Histogram

A.2 Tabulations

Table 15: Family Farming Across Internship

	All Regions (1478)		Great Lakes (710)		SEA (576)		West Africa (192)	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Family w/Cereals	585	39.58%	356	50.14%	168	29.17%	61	31.77%
Family w/Vegetables	536	36.27%	229	32.25%	232	40.28%	75	39.06%
Family w/Legumes	458	30.99%	372	52.39%	31	5.38%	55	28.65%
Family w/Chickens	450	30.45%	253	35.63%	138	23.96%	59	30.73%
Family w/Pigs	328	22.19%	139	19.58%	158	27.43%	31	16.15%
Family w/Ruminants	205	13.87%	124	17.46%	34	5.90%	47	24.48%
Family w/Fruits	196	13.26%	55	7.75%	89	15.45%	52	27.08%
Family w/Cows	166	11.23%	99	13.94%	57	9.90%	10	5.21%
Family w/Nothing	153	10.35%	32	4.51%	114	19.79%	7	3.65%
Family w/Fish	71	4.80%	10	1.41%	47	8.16%	14	7.29%
Family w/Oilseeds	16	1.08%	10	1.41%	0	0.00%	6	3.13%
Family w/Bees	15	1.01%	6	0.85%	5	0.87%	4	2.08%
Family w/Spices	11	0.54%	4	0.56%	3	0.52%	4	2.08%
Family w/Flowers	10	0.68%	0	0.00%	8	1.39%	2	1.04%
Family w/Niche	5	0.33%	4	0.56%	0	0.00%	1	0.52%

Table 16: Work Assignments Across Internship

	All Centers (1478)		Tel-Hai (193)		Kinneret (525)		Ruppin (295)		Silver (465)	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Works w/Fruits	625	42.29%	112	58.03%	271	51.62%	118	40.00%	124	26.67%
Works w/Vegetables	310	20.97%	23	11.92%	65	12.38%	48	16.27%	174	37.42%
Works w/Packaging	281	19.01%	42	21.76%	110	20.95%	17	5.76%	112	24.09%
Works w/Cows	165	11.16%	4	2.07%	59	11.24%	47	15.93%	55	11.83%
Works w/CropProtection	158	10.69%	5	2.59%	56	10.67%	26	8.81%	71	15.27%
Works w/Irrigation	157	10.62%	33	17.10%	38	7.24%	27	9.15%	59	12.69%
Works w/Chickens	115	7.78%	21	10.88%	33	6.29%	38	12.88%	23	4.95%
Works w/Niche	98	6.63%	40	20.73%	20	3.81%	9	3.05%	29	6.24%
Works w/Flowers	81	5.48%	2	1.04%	0	0.00%	64	21.69%	15	3.23%
Works w/Fish	37	2.50%	4	2.07%	18	3.43%	6	2.03%	9	1.94%
Works w/Grains	25	1.69%	4	2.07%	6	1.14%	6	2.03%	9	1.94%
Works w/Ruminants	24	1.62%	2	1.04%	5	0.95%	9	3.05%	8	1.72%
Works w/Legumes	24	1.62%	2	1.04%	4	0.76%	6	2.03%	12	2.58%
Works w/Spices	17	1.15%	0	0.00%	2	0.38%	0	0.00%	15	3.23%
Works w/Bees	12	0.81%	1	0.52%	1	0.19%	6	2.03%	4	0.86%
Works w/Oilseeds	3	0.28%	0	0.00%	0	0.00%	1	0.34%	2	0.43%

Table 17: Career Paths Across Internship

	All Regions (1478)		Great Lakes (710)		SEA (576)		West Africa (192)	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Start Own Farm	805	54.47%	526	74.08%	153	26.56%	126	65.63%
Start Own Business	665	44.99%	370	52.11%	215	37.33%	80	41.67%
Work Ext. Agent	299	20.23%	170	23.94%	84	14.58%	45	23.44%
Work Family Farm	293	19.82%	111	15.63%	134	23.26%	48	25.00%
Continue Studies	266	18.00%	134	18.87%	66	11.46%	66	34.38%
Migrate for Work	258	17.46%	45	6.34%	192	33.33%	21	10.94%
Work for Gov. or NGO	218	14.75%	72	10.14%	129	22.40%	17	8.85%
Find Employment	175	8.17%	58	12.10%	102	17.71%	15	7.81%
Work Farm Labor	82	5.55%	16	2.25%	56	9.72%	10	5.21%
Not Sure Yet	40	2.71%	2	0.28%	37	6.42%	1	0.52%

Table 18: Product Intentions Across Internship

	All Regions (1478)		Great Lakes (710)		SEA (576)		West Africa (192)	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Intent w/Livestock	546	36.94%	253	35.63%	224	38.89%	69	35.94%
Intent w/Vegetables	482	32.61%	247	34.79%	165	28.65%	70	36.46%
Intent w/Grains	356	24.09%	243	34.23%	78	13.54%	35	18.23%
Intent w/Fruits	211	14.28%	117	16.48%	67	11.63%	27	14.06%
Intent w/Support	203	13.73%	126	17.75%	51	8.85%	26	13.54%
Intent w/Nothing	189	12.79%	50	7.04%	117	20.31%	23	11.98%
Intent w/Specialties	156	10.55%	49	6.90%	73	12.67%	25	13.02%
Intent w/CashCrops	65	4.40%	25	3.52%	30	5.21%	10	5.21%

A.3 Alternative Intersections, Sortings, and Regressions

There are varying levels of criteria that can be used when defining whether a student's work assignment matches their family farming history. Below are three different sets of categorization.Table 20 distinguishes between support work and horticultural work, and table 21 uses the level of grouping performed in the first empirical procedure.

Table 19: Product Intersections When Double Collapsed as in Paper

	Works w/Animals	Works w/Horticulture
Family w/Animals	185	702
Family w/Horticulture	218	1038
Family w/Nothing	26	136

	Count	Percent
Matched	1182	79.97%
No Tradition	153	10.35%
Not Matched	143	9.68%

Table 20: Product Intersections When Doubly Collapsed "Alternative A"

	Works w/Animals	Works w/Horticulture	Works w/Support
Family w/Animals	185	609	276
Family w/Horticulture	218	905	378
Family w/Nothing	26	111	59

	Count	Percent
Matched.A	1054	71.31%
No Tradition.A	153	10.35%
Not Matched.A	271	18.34%

Table 21: Product Intersections When Only Singly Collapsed "Alternative B"

	Works w/Grains	Works w/Vegetables	Works w/Fruits	Works w/CashCrops	Works w/Livestock	Works w/Specialties	Works w/Support
Fam. w/Grains	32	372	162	36	142	75	249
Fam. w/Veg	3	83	54	24	41	17	62
Family w/Fruits	15	219	138	52	89	51	193
Family w/CashCrops	2	15	8	3	7	3	12
Family w/Livestock	23	378	153	47	185	80	276
Family w/Specialties	3	37	20	9	17	14	25
Family w/Nothing	4	53	36	16	26	18	59

	Count	Percent
Matched.B	418	28.28%
No Tradition.B	153	10.35%
Not Matched.B	907	61.37%

Table 22: Career Paths Regressing on Alternative A

	(1) Return to Family Farm	(2) Establish Own Farm	(3) Start A Business	(4) Find A Job	(5) Work as Farm Labor	(6) Work for NGO or Gov.	(7) Cont. Studies	(8) Migrate for Work	(9) Work as Ext. Agent	(10) Not Sure Yet
No Tradition.A	-0.183***	-0.312***	-0.129**	0.0757**	0.0188	0.146***	0.00548	0.174***	-0.0454	0.0978***
	(0.0342)	(0.0424)	(0.0429)	(0.0279)	(0.0198)	(0.0305)	(0.0333)	(0.0325)	(0.0347)	(0.0138)
Not Matched.A	-0.0626*	-0.0513	-0.0657	-0.0179	0.00222	-0.0130	-0.0254	0.0568*	-0.0456	0.0199
	(0.0269)	(0.0333)	(0.0338)	(0.0220)	(0.0156)	(0.0240)	(0.0262)	(0.0256)	(0.0274)	(0.0109)
_cons	0.229***	0.586***	0.475***	0.114***	0.0531***	0.135***	0.184***	0.146***	0.215***	0.0133**
	(0.0122)	(0.0151)	(0.0153)	(0.00993)	(0.00706)	(0.0108)	(0.0118)	(0.0116)	(0.0124)	(0.00492)
N	1478	1478	1478	1478	1478	1478	1478	1478	1478	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 23: Career Paths Regressing on Alternative A Nationality FE

	(1) Return to Family Farm	(2) Establish Own Farm	(3) Start A Business	(4) Find A Job	(5) Work as Farm Labor	(6) Work for NGO or Gov.	(7) Cont. Studies	(8) Migrate for Work	(9) Work as Ext. Agent	(10) Not Sure Yet
No Tradition.A	-0.214***	-0.118**	-0.0837	0.0396	-0.0145	0.0947**	0.0349	0.0764*	-0.00352	0.0742***
	(0.0351)	(0.0396)	(0.0442)	(0.0283)	(0.0205)	(0.0313)	(0.0327)	(0.0311)	(0.0360)	(0.0143)
Not Matched.A	-0.0647*	-0.0310	-0.0665*	-0.0190	-0.00195	-0.0196	-0.0107	0.0377	-0.0433	0.0158
	(0.0268)	(0.0302)	(0.0338)	(0.0216)	(0.0156)	(0.0239)	(0.0250)	(0.0237)	(0.0275)	(0.0109)
_cons	0.402***	0.749***	0.106	0.175	0.0935	-0.0172	0.175	0.168	0.0915	-0.0135
	(0.117)	(0.133)	(0.148)	(0.0946)	(0.0685)	(0.105)	(0.109)	(0.104)	(0.120)	(0.0478)
N	1478	1478	1478	1478	1478	1478	1478	1478	1478	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 24: Career Paths Regressing on Alternative A Nationality & Center FE

	(1) Return to Family Farm	(2) Establish Own Farm	(3) Start A Business	(4) Find A Job	(5) Work as Farm Labor	(6) Work for NGO or Gov.	(7) Cont. Studies	(8) Migrate for Work	(9) Work as Ext. Agent	(10) Not Sure Yet
No Tradition.A	-0.213***	-0.118**	-0.0801	0.0384	-0.0125	0.0969**	0.0356	0.0744*	-0.00331	0.0739***
	(0.0352)	(0.0397)	(0.0443)	(0.0282)	(0.0205)	(0.0313)	(0.0327)	(0.0311)	(0.0361)	(0.0143)
Not Matched.A	-0.0658*	-0.0260	-0.0634	-0.0183	-0.000785	-0.0173	-0.0168	0.0323	-0.0407	0.0134
	(0.0269)	(0.0304)	(0.0339)	(0.0216)	(0.0157)	(0.0240)	(0.0250)	(0.0238)	(0.0277)	(0.0110)
_cons	0.455***	0.744***	-0.0385	0.370***	0.0718	0.0307	0.0897	0.135	0.167	-0.0388
	(0.136)	(0.153)	(0.171)	(0.109)	(0.0793)	(0.121)	(0.126)	(0.120)	(0.140)	(0.0553)
N	1478	1478	1478	1478	1478	1478	1478	1478	1478	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 25: Inventories Regressing on Alternative A

	(1) Hope Score	(2) Agency Subscore	(3) Pathway Subscore	(4) Entrepreneurial Orientation Score	(5) Preparedness For Plans
No Tradition.A	-2.264*	-1.050*	-1.214*	-5.647***	-0.760***
	(0.970)	(0.519)	(0.566)	(1.239)	(0.101)
Not Matched.A	-1.227	-0.580	-0.647	-3.125**	-0.173*
	(0.732)	(0.392)	(0.427)	(1.023)	(0.0792)
_cons	54.58***	26.77***	27.81***	69.80***	3.139***
	(0.347)	(0.186)	(0.203)	(0.439)	(0.0358)
N	743	743	743	735	1478

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 26: Inventories Regressing on Alternative A Nationality FE

	(1) Hope Score	(2) Agency Subscore	(3) Pathway Subscore	(4) Entrepreneurial Orientation Score	(5) Preparedness For Plans
No Tradition.A	-0.138	-0.248	0.110	-2.348	-0.433***
	(0.972)	(0.536)	(0.560)	(1.211)	(0.100)
Not Matched.A	-0.987	-0.484	-0.503	-2.721**	-0.105
	(0.708)	(0.390)	(0.408)	(0.974)	(0.0764)
_cons	49.57***	23.62***	25.94***	62.82***	3.260***
	(5.351)	(2.951)	(3.081)	(3.180)	(0.335)
N	743	743	743	735	1478

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 27: Inventories Regressing on Alternative A Nationality & Center FE

	(1) Hope Score	(2) Agency Subscore	(3) Pathway Subscore	(4) Entrepreneurial Orientation Score	(5) Preparedness For Plans
No Tradition.A	-0.0887	-0.226	0.138	-2.278	-0.414***
	(0.976)	(0.538)	(0.562)	(1.216)	(0.100)
Not Matched.A	-0.960	-0.454	-0.507	-2.622**	-0.0880
	(0.713)	(0.393)	(0.411)	(0.978)	(0.0766)
_cons	47.10***	22.45***	24.65***	63.83***	3.150***
	(5.716)	(3.152)	(3.293)	(3.925)	(0.387)
N	743	743	743	735	1478

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 28: Career Paths Regressing on Alternative B

	(1) Return to Family Farm	(2) Establish Own Farm	(3) Start A Business	(4) Find A Job	(5) Work as Farm Labor	(6) Work for NGO or Gov.	(7) Cont. Studies	(8) Migrate for Work	(9) Work as Ext. Agent	(10) Not Sure Yet
No Tradition.B	-0.213***	-0.283***	-0.122**	0.0819**	0.00730	0.159***	-0.0377	0.186***	-0.0573	0.0968***
	(0.0373)	(0.0463)	(0.0469)	(0.0305)	(0.0216)	(0.0333)	(0.0362)	(0.0356)	(0.0380)	(0.0151)
Not Matched.B	-0.0621**	0.0269	-0.0102	0.00370	-0.0161	0.0147	-0.0707**	0.0347	-0.0310	0.00439
	(0.0233)	(0.0290)	(0.0294)	(0.0191)	(0.0135)	(0.0208)	(0.0227)	(0.0223)	(0.0237)	(0.00945)
_cons	0.258***	0.557***	0.469***	0.108***	0.0646***	0.122***	0.227***	0.134***	0.227***	0.0144
	(0.0193)	(0.0240)	(0.0243)	(0.0158)	(0.0112)	(0.0172)	(0.0187)	(0.0184)	(0.0196)	(0.00782)
N	1478	1478	1478	1478	1478	1478	1478	1478	1478	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 29: Career Paths Regressing on Alternative B Nationality FE

	(1) Return to Family Farm	(2) Establish Own Farm	(3) Start A Business	(4) Find A Job	(5) Work as Farm Labor	(6) Work for NGO or Gov.	(7) Cont. Studies	(8) Migrate for Work	(9) Work as Ext. Agent	(10) Not Sure Yet
No Tradition.B	-0.241***	-0.115**	-0.0738	0.0579	-0.0224	0.118***	0.0142	0.0920**	-0.0122	0.0750***
	(0.0381)	(0.0430)	(0.0481)	(0.0307)	(0.0222)	(0.0340)	(0.0355)	(0.0337)	(0.0391)	(0.0155)
Not Matched.B	-0.0621**	-0.00446	-0.00728	0.0207	-0.0123	0.0285	-0.0342	0.0355	-0.0271	0.00631
	(0.0237)	(0.0268)	(0.0299)	(0.0191)	(0.0138)	(0.0211)	(0.0221)	(0.0210)	(0.0243)	(0.00965)
_cons	0.447***	0.751***	0.109	0.158	0.103	-0.0397	0.201	0.142	0.110	-0.0177
	(0.119)	(0.134)	(0.150)	(0.0957)	(0.0693)	(0.106)	(0.111)	(0.105)	(0.122)	(0.0484)
N	1478	1478	1478	1478	1478	1478	1478	1478	1478	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 30: Career Paths Regressing on Alternative B Nationality & Center FE

	(1) Return to Family Farm	(2) Establish Own Farm	(3) Start A Business	(4) Find A Job	(5) Work as Farm Labor	(6) Work for NGO or Gov.	(7) Cont. Studies	(8) Migrate for Work	(9) Work as Ext. Agent	(10) Not Sure Yet
No Tradition.B	-0.241***	-0.115**	-0.0702	0.0556	-0.0209	0.119***	0.0162	0.0914**	-0.0128	0.0752***
	(0.0382)	(0.0431)	(0.0481)	(0.0306)	(0.0223)	(0.0340)	(0.0354)	(0.0337)	(0.0392)	(0.0155)
Not Matched.B	-0.0631**	-0.00407	-0.00682	0.0193	-0.0126	0.0276	-0.0343	0.0359	-0.0277	0.00642
	(0.0237)	(0.0268)	(0.0299)	(0.0190)	(0.0138)	(0.0211)	(0.0220)	(0.0210)	(0.0244)	(0.00964)
_cons	0.501***	0.746***	-0.0374	0.353**	0.0818	0.00761	0.116	0.109	0.186	-0.0430
	(0.137)	(0.155)	(0.173)	(0.110)	(0.0800)	(0.122)	(0.127)	(0.121)	(0.141)	(0.0558)
N	1478	1478	1478	1478	1478	1478	1478	1478	1478	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 31: Inventories Regressing on Alternative B

	(1) Hope Score	(2) Agency Subscore	(3) Pathway Subscore	(4) Entrepreneurial Orientation Score	(5) Preparedness For Plans
No Tradition.B	-2.014	-1.187*	-0.828	-5.684***	-0.786***
	(1.058)	(0.565)	(0.616)	(1.366)	(0.110)
Not Matched.B	-0.0379	-0.392	0.354	-0.891	-0.0890
	(0.658)	(0.352)	(0.383)	(0.860)	(0.0688)
_cons	54.33***	26.91***	27.42***	69.84***	3.165***
	(0.543)	(0.290)	(0.317)	(0.713)	(0.0569)
N	743	743	743	735	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 32: Inventories Regressing on Alternative B Nationality FE

	(1) Hope Score	(2) Agency Subscore	(3) Pathway Subscore	(4) Entrepreneurial Orientation Score	(5) Preparedness For Plans
No Tradition.B	-0.390	-0.551	0.161	-2.255	-0.468***
	(1.047)	(0.576)	(0.603)	(1.333)	(0.109)
Not Matched.B	-0.758	-0.646	-0.112	-0.669	-0.0880
	(0.648)	(0.357)	(0.373)	(0.837)	(0.0676)
_cons	50.07***	24.10***	25.98***	63.25***	3.323***
	(5.379)	(2.962)	(3.099)	(3.256)	(0.339)
N	743	743	743	735	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 33: Inventories Regressing on Alternative B Nationality & Center FE

	(1) Hope Score	(2) Agency Subscore	(3) Pathway Subscore	(4) Entrepreneurial Orientation Score	(5) Preparedness For Plans
No Tradition.B	-0.331	-0.533	0.201	-2.159	-0.456***
	(1.052)	(0.579)	(0.606)	(1.336)	(0.109)
Not Matched.B	-0.723	-0.631	-0.0918	-0.631	-0.0916
	(0.649)	(0.357)	(0.374)	(0.838)	(0.0675)
_cons	47.71***	23.03***	24.68***	64.09***	3.217***
	(5.754)	(3.168)	(3.317)	(3.983)	(0.390)
N	743	743	743	735	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

A.4 Reconfigured Career Pathways

An alternative way to consider intended career paths for students is to instead collapsed them further into three separate groups. Below are the results when these group intentions are regressed on the success of matching their work assignments to their family farming histories. We also include the results when controlling for nationality or their training centers.

- **Direct Farming:** Return to Family Farm, Establish Own Farm, Work as Farm Labor
- **Indirect Farming:** Find a Job, Work for NGO or Gov., Work as Ext. Agent, Start a Business
- **No Farming:** Cont. Studies, Not Sure Yet, Migrate for Work

Table 34: Career Paths but Collapsed in Three

	(1) Direct Farming	(2) Indirect Farming	(3) No Farming	(4) Direct Farming	(5) Indirect Farming	(6) No Farming	(7) Direct Farming	(8) Indirect Farming	(9) No Farming
No Tradition	-0.378***	-0.0108	0.240***	-0.253***	-0.00191	0.149***	-0.250***	0.00297	0.151***
	(0.0384)	(0.0407)	(0.0406)	(0.0382)	(0.0423)	(0.0409)	(0.0383)	(0.0422)	(0.0407)
Not Matched	-0.128**	-0.0975*	0.0763	-0.0970*	-0.0995*	0.0247	-0.0987*	-0.103*	0.0200
	(0.0396)	(0.0419)	(0.0419)	(0.0383)	(0.0423)	(0.0409)	(0.0384)	(0.0423)	(0.0407)
Bhutan 2023				-0.318*	0.455**	-0.128	-0.327*	0.430*	-0.156
				(0.154)	(0.171)	(0.165)	(0.155)	(0.171)	(0.165)
Cambodia 2023				-0.537***	0.365*	0.222	-0.548***	0.346*	0.247
				(0.134)	(0.149)	(0.144)	(0.135)	(0.149)	(0.143)
Ghana 2023				-0.228	0.471**	0.227	-0.240	0.447**	0.230
				(0.135)	(0.149)	(0.144)	(0.135)	(0.149)	(0.143)
Ivory_Coast 2023				-0.202	0.262	0.185	-0.233	0.207	0.242
				(0.148)	(0.164)	(0.158)	(0.149)	(0.165)	(0.158)
Malawi 2023				-0.142	0.402**	-0.0229	-0.0739	0.428*	0.112
				(0.138)	(0.152)	(0.147)	(0.157)	(0.173)	(0.167)
Malawi 2024				-0.144	0.359*	-0.0918	-0.0761	0.385*	0.0428
				(0.131)	(0.145)	(0.140)	(0.151)	(0.167)	(0.161)
Philippines 2023				-0.466***	0.391**	0.212	-0.478***	0.366*	0.220
				(0.130)	(0.144)	(0.139)	(0.131)	(0.144)	(0.139)
Rwanda 2023				-0.385**	0.431**	0.0907	-0.370**	0.421**	0.165
				(0.134)	(0.148)	(0.143)	(0.137)	(0.151)	(0.146)
Rwanda 2024				-0.256	0.487**	-0.0527	-0.189	0.513**	0.0817
				(0.134)	(0.148)	(0.143)	(0.154)	(0.170)	(0.163)
Tanzania 2023				-0.205	0.447**	-0.00844	-0.203	0.449**	-0.0104
				(0.138)	(0.153)	(0.148)	(0.138)	(0.153)	(0.147)
Togo 2023				-0.223	0.293	-0.0323	-0.247	0.244	-0.0111
				(0.149)	(0.165)	(0.159)	(0.150)	(0.166)	(0.159)
Uganda 2023				-0.245	0.382*	0.327*	-0.252	0.373*	0.356*
				(0.152)	(0.168)	(0.162)	(0.152)	(0.167)	(0.161)
Ruppin 2023							0.0981	0.0715	0.0201
							(0.0759)	(0.0837)	(0.0806)
Silver 2023							0.0554	0.00758	0.177*
							(0.0764)	(0.0843)	(0.0811)
Tel_Hai 2023							0.109	0.115	0.143
							(0.0797)	(0.0880)	(0.0847)
_cons	0.744***	0.671***	0.322***	1.046***	0.273	0.246	0.978***	0.247	0.111
	(0.0130)	(0.0138)	(0.0138)	(0.129)	(0.142)	(0.138)	(0.149)	(0.164)	(0.158)
N	1478	1478	1478	1478	1478	1478	1478	1478	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

- **Seeks Self Employment:** Return to Family Farm, Establish Own Farm, Start a Business
- **Seeks Employment:** Find a Job, Work as Farm Labor, Work for NGO or Gov., Migrate for Work, Work as Ext. Agent
- **Uncertain or More Studies:** Cont. Studies, Not Sure Yet

Table 35: Career Paths but Collapsed in Three Alternative

	(1) Seeks Self Employment	(2) Seeks Employment	(3) Uncertain or More Studies	(4) Seeks Self Employment	(5) Seeks Employment	(6) Uncertain or More Studies	(7) Seeks Self Employment	(8) Seeks Employment	(9) Uncertain or More Studies
No Tradition	-0.327***	0.147***	0.107**	-0.214***	0.0363	0.110**	-0.209***	0.0390	0.112**
	(0.0320)	(0.0427)	(0.0347)	(0.0315)	(0.0428)	(0.0343)	(0.0315)	(0.0428)	(0.0342)
Not Matched	-0.115***	-0.00874	0.00906	-0.0820**	-0.0509	-0.0142	-0.0842**	-0.0551	-0.0183
	(0.0330)	(0.0440)	(0.0357)	(0.0316)	(0.0429)	(0.0343)	(0.0315)	(0.0429)	(0.0342)
Bhutan 2023				-0.352**	0.196	-0.161	-0.365**	0.165	-0.186
				(0.127)	(0.173)	(0.138)	(0.127)	(0.174)	(0.138)
Cambodia 2023				-0.417***	0.149	0.279*	-0.433***	0.142	0.296*
				(0.111)	(0.151)	(0.121)	(0.111)	(0.151)	(0.120)
Ghana 2023				-0.128	0.106	0.256*	-0.146	0.0864	0.255*
				(0.111)	(0.151)	(0.121)	(0.111)	(0.151)	(0.121)
Ivory_Coast 2023				-0.139	0.0235	0.185	-0.186	-0.00436	0.222
				(0.122)	(0.166)	(0.133)	(0.123)	(0.167)	(0.133)
Malawi 2023				-0.0694	0.0356	0.0111	-0.0149	-0.00654	0.122
				(0.114)	(0.154)	(0.124)	(0.129)	(0.176)	(0.140)
Malawi 2024				-0.0390	-0.142	-0.0335	0.0155	-0.184	0.0770
				(0.108)	(0.147)	(0.118)	(0.124)	(0.169)	(0.135)
Philippines 2023				-0.327**	0.275	-0.0772	-0.345**	0.256	-0.0748
				(0.107)	(0.146)	(0.117)	(0.107)	(0.146)	(0.116)
Rwanda 2023				-0.182	0.0865	0.136	-0.178	0.0611	0.194
				(0.110)	(0.150)	(0.120)	(0.113)	(0.153)	(0.122)
Rwanda 2024				-0.0935	0.0649	-0.0104	-0.0393	0.0225	0.100
				(0.111)	(0.150)	(0.120)	(0.126)	(0.172)	(0.137)
Tanzania 2023				-0.0566	-0.0318	-0.0213	-0.0548	-0.0311	-0.0225
				(0.114)	(0.155)	(0.124)	(0.114)	(0.155)	(0.123)
Togo 2023				-0.0921	-0.0725	-0.00860	-0.130	-0.107	0.000841
				(0.123)	(0.167)	(0.134)	(0.123)	(0.168)	(0.134)
Uganda 2023				-0.107	0.155	0.356**	-0.117	0.156	0.378**
				(0.125)	(0.170)	(0.136)	(0.125)	(0.170)	(0.135)
Ruppin 2023							0.103	-0.0428	0.0285
							(0.0623)	(0.0849)	(0.0677)
Silver 2023							0.0352	-0.0430	0.140*
							(0.0628)	(0.0855)	(0.0682)
Tel_Hai 2023							0.116	0.0374	0.130
							(0.0655)	(0.0893)	(0.0712)
_cons	0.863***	0.526***	0.194***	1.039***	0.448**	0.162	0.984***	0.490**	0.0516
	(0.0108)	(0.0145)	(0.0117)	(0.106)	(0.144)	(0.115)	(0.122)	(0.167)	(0.133)
N	1478	1478	1478	1478	1478	1478	1478	1478	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

A.5 Agency Report Excerpt

In October 2024, we posed an additional single question to previous agriculture interns in order to confirm the informal nature of farm assignment. This survey was distributed by email, and the recipient students were chosen due to their previous participation, their willingness for further contact, and their proficiency in English. Of the 990 students contacted, we received responses from 346 of them, resulting in a response rate of 35%.

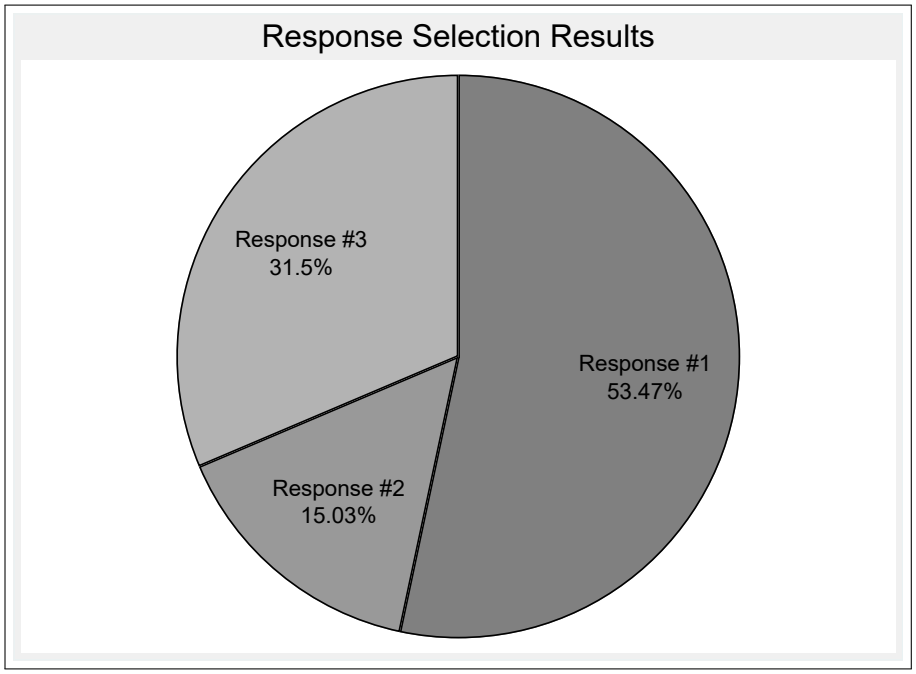
When you arrived in Israel, did the training centers ask you which type of specific farm you wanted to work on?

(For example working with cows, chickens, mushrooms, vegetables, cereals, fruits or something else)

Response #1 : No. They did not ask me. I had no choice.

Response #2 : Yes. They asked me, but they did not give me the specific job I wanted.

Response #3 : Yes. They asked me, and they gave me the specific job I wanted.



When viewed across training centers, we see that in particular, Kinneret academic college stands out more regarding the level of agency given to agricultural interns.

Table 36: Agency Response across Centers

	Response #1		Response #2		Response #3	
	Count	Percent	Count	Percent	Count	Percent
Kinneret (158)	114	72.15%	22	13.92%	22	13.92%
Ruppin (57)	24	42.11%	8	14.04%	25	43.86%
Silver (83)	30	36.14%	11	13.25%	42	50.60%
Tel Hai (48)	17	35.42%	11	22.92%	20	41.67%

Because students at Kinneret were provided less agency relative to the overall sample, we used this opportunity to compare the coefficients of the diagonal. In most categories, the coefficients were similar, supporting the statement that causality flows from farm assignment to intention rather than vice versa. Student intentions cannot influence work assignment when the majority were not even given their preferred assignments.

Table 37: Coefficients of Diagonal Comparison

	Kinneret Only		Agrostudies Only		Entire Sample	
	Coefficient	SE	Coefficient	SE	Coefficient	SE
Family w/Grains	0.27	0.056	0.17	0.027	0.23	0.025
Work w/Grains	-0.02	0.161	0.05	0.060	0.01	0.062
Family w/Vegetables	0.18	0.048	0.14	0.032	0.15	0.027
Work w/Vegetables	0.01	0.068	0.14	0.037	0.10	0.032
Family w/Fruits	0.23	0.069	0.19	0.032	0.19	0.028
Work w/Fruits	0.10	0.045	0.05	0.029	0.07	0.024
Family w/CashCrops	0.33	0.071	0.11	0.039	0.16	0.034
Work w/CashCrops	0.00	0.142	0.09	0.025	0.09	0.023
Family w/Livestock	0.29	0.046	0.20	0.034	0.23	0.027
Work w/Livestock	0.25	0.069	0.18	0.045	0.21	0.037
Family w/Specialty	0.60	0.090	0.19	0.038	0.23	0.034
Work w/Specialty	0.16	0.055	0.08	0.037	0.11	0.030
Fam w/Nothing	-0.02	0.061	0.13	0.048	0.11	0.037
Work w/Support	0.04	0.042	0.02	0.024	0.03	0.021

A.6 Career Paths and Inventories While Controlling Work or Family Categories

We were also interested in how the regressions involving career paths and inventories are affected when controlling for not only whether there was a match but also which category of work or tradition they have.

Table 38: Career Paths Regression but Controlling for Family Farming

	(1) Return to Family Farm	(2) Establish Own Farm	(3) Start A Business	(4) Find A Job	(5) Work as Farm Labor	(6) Work for NGO or Gov.	(7) Cont. Studies	(8) Migrate for Work	(9) Work as Ext. Agent	(10) Not Sure Yet
No Tradition	-0.0939*	-0.197***	0.0553	0.102**	0.0134	0.206***	0.0735	0.181***	0.0940*	0.0878***
	(0.0469)	(0.0579)	(0.0591)	(0.0386)	(0.0273)	(0.0421)	(0.0459)	(0.0450)	(0.0477)	(0.0192)
Not Matched	-0.0657	-0.0476	0.0118	0.0215	-0.0111	0.0348	0.0265	0.0799*	-0.0350	0.0106
	(0.0379)	(0.0467)	(0.0477)	(0.0312)	(0.0221)	(0.0340)	(0.0370)	(0.0363)	(0.0385)	(0.0155)
Family Grains	0.0118	0.120***	0.134***	-0.000442	-0.0258	0.0266	0.0760**	0.0145	0.0627*	-0.00698
	(0.0261)	(0.0322)	(0.0329)	(0.0215)	(0.0152)	(0.0235)	(0.0255)	(0.0251)	(0.0266)	(0.0107)
Family Vegetables	0.0857***	-0.0550	0.0513	0.0425*	0.0123	0.0381	-0.0179	0.0213	0.0579*	0.00652
	(0.0238)	(0.0293)	(0.0299)	(0.0196)	(0.0138)	(0.0213)	(0.0232)	(0.0228)	(0.0242)	(0.00970)
Family Fruits	0.107**	0.00672	0.0462	0.00838	-0.0306	0.0601*	0.0831**	0.0515	0.00501	0.0115
	(0.0325)	(0.0401)	(0.0410)	(0.0268)	(0.0190)	(0.0292)	(0.0318)	(0.0312)	(0.0331)	(0.0133)
Family CashCrops	-0.0768	0.0397	0.138	-0.0512	0.0567	0.0110	0.103	-0.0555	0.114	-0.0216
	(0.0662)	(0.0817)	(0.0835)	(0.0545)	(0.0386)	(0.0595)	(0.0648)	(0.0636)	(0.0674)	(0.0270)
Family Livestock	0.0403	0.0987***	0.0882**	0.00594	0.00992	0.0137	0.00854	-0.0260	0.105***	-0.00814
	(0.0233)	(0.0288)	(0.0294)	(0.0192)	(0.0136)	(0.0210)	(0.0228)	(0.0224)	(0.0238)	(0.00953)
Family Specialties	0.0362	-0.0859	0.0184	-0.00630	0.0548*	0.0556	0.0100	0.0438	0.0350	-0.0215
	(0.0447)	(0.0552)	(0.0564)	(0.0368)	(0.0261)	(0.0402)	(0.0437)	(0.0429)	(0.0455)	(0.0183)
_cons	0.140***	0.472***	0.291***	0.0878**	0.0585**	0.0753*	0.116***	0.139***	0.0759*	0.0233
	(0.0346)	(0.0427)	(0.0436)	(0.0285)	(0.0202)	(0.0311)	(0.0338)	(0.0332)	(0.0352)	(0.0141)
N	1478	1478	1478	1478	1478	1478	1478	1478	1478	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 39: Career Paths Regression but Controlling for Work Assignments

	(1) Return to Family Farm	(2) Establish Own Farm	(3) Start A Business	(4) Find A Job	(5) Work as Farm Labor	(6) Work for NGO or Gov.	(7) Cont. Studies	(8) Migrate for Work	(9) Work as Ext. Agent	(10) Not Sure Yet
No Tradition	-0.185***	-0.298***	-0.114**	0.0749**	0.0149	0.148***	0.00868	0.163***	-0.0489	0.0945***
	(0.0339)	(0.0420)	(0.0427)	(0.0278)	(0.0197)	(0.0302)	(0.0330)	(0.0323)	(0.0345)	(0.0138)
Not Matched	-0.0935**	-0.0901*	-0.0658	0.0165	-0.00906	0.0215	-0.0213	0.0822*	-0.0780*	0.00883
	(0.0356)	(0.0442)	(0.0449)	(0.0292)	(0.0207)	(0.0318)	(0.0348)	(0.0340)	(0.0363)	(0.0145)
Work Grains	-0.0622	-0.141	-0.0128	-0.00501	0.0595	0.136*	-0.00831	0.0204	0.0141	-0.0268
	(0.0607)	(0.0752)	(0.0765)	(0.0497)	(0.0353)	(0.0542)	(0.0592)	(0.0580)	(0.0618)	(0.0247)
Work Vegetables	0.0269	-0.0203	-0.0188	0.0249	-0.0150	0.0385	-0.0129	0.0231	0.0512	-0.0121
	(0.0276)	(0.0343)	(0.0349)	(0.0227)	(0.0161)	(0.0247)	(0.0270)	(0.0264)	(0.0281)	(0.0113)
Work Fruits	0.0824**	0.0600	0.0637	-0.00711	-0.00368	0.0351	-0.00117	-0.0104	0.0534	-0.0128
	(0.0269)	(0.0334)	(0.0339)	(0.0221)	(0.0157)	(0.0240)	(0.0263)	(0.0257)	(0.0274)	(0.0110)
Work CashCrops	0.0967*	-0.128*	-0.0770	0.0883*	0.0322	0.133***	-0.0193	0.125**	0.0467	-0.0311
	(0.0448)	(0.0555)	(0.0565)	(0.0367)	(0.0261)	(0.0400)	(0.0437)	(0.0428)	(0.0456)	(0.0182)
Work Livestock	0.0800*	0.0127	0.0227	0.00454	0.0259	0.0359	0.0691*	-0.0334	0.0925**	-0.00907
	(0.0322)	(0.0399)	(0.0406)	(0.0264)	(0.0188)	(0.0288)	(0.0314)	(0.0308)	(0.0328)	(0.0131)
Work Specialties	0.104**	-0.0618	-0.0528	0.0539	0.00436	0.0474	-0.0647	0.0179	0.121**	-0.00252
	(0.0393)	(0.0487)	(0.0495)	(0.0322)	(0.0229)	(0.0351)	(0.0383)	(0.0375)	(0.0400)	(0.0160)
Work Support	0.0900***	-0.0117	0.0239	0.00382	0.0279*	0.00620	0.0512*	0.00707	0.0749**	0.00664
	(0.0240)	(0.0298)	(0.0303)	(0.0197)	(0.0140)	(0.0214)	(0.0234)	(0.0229)	(0.0244)	(0.00977)
_cons	0.127***	0.583***	0.444***	0.0936***	0.0412*	0.0806**	0.163***	0.143***	0.124***	0.0271*
	(0.0283)	(0.0351)	(0.0357)	(0.0232)	(0.0165)	(0.0253)	(0.0276)	(0.0271)	(0.0288)	(0.0115)
N	1478	1478	1478	1478	1478	1478	1478	1478	1478	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 40: Career Paths Regression but Controlling for Family & Work

	(1) Return to Family Farm	(2) Establish Own Farm	(3) Start A Business	(4) Find A Job	(5) Work as Farm Labor	(6) Work for NGO or Gov.	(7) Cont. Studies	(8) Migrate for Work	(9) Work as Ext. Agent	(10) Not Sure Yet
No Tradition	-0.109*	-0.191***	0.0567	0.0984*	0.00712	0.199***	0.0618	0.178***	0.0799	0.0888***
	(0.0470)	(0.0580)	(0.0594)	(0.0388)	(0.0275)	(0.0422)	(0.0460)	(0.0452)	(0.0479)	(0.0193)
Not Matched	-0.0633	-0.0516	0.00904	0.0279	-0.0163	0.0444	0.00769	0.0944*	-0.0319	0.00766
	(0.0385)	(0.0475)	(0.0486)	(0.0317)	(0.0225)	(0.0346)	(0.0376)	(0.0370)	(0.0392)	(0.0158)
Family Grains	0.0106	0.116***	0.127***	0.00386	-0.0266	0.0262	0.0738**	0.0195	0.0626*	-0.00687
	(0.0261)	(0.0322)	(0.0330)	(0.0216)	(0.0153)	(0.0235)	(0.0256)	(0.0251)	(0.0266)	(0.0107)
Work Grains	-0.0491	-0.157*	-0.0252	-0.00164	0.0608	0.137*	-0.0172	0.0215	0.00907	-0.0240
	(0.0605)	(0.0746)	(0.0763)	(0.0499)	(0.0353)	(0.0543)	(0.0592)	(0.0581)	(0.0616)	(0.0248)
Family Vegetables	0.0802***	-0.0492	0.0552	0.0382	0.0103	0.0328	-0.0211	0.0145	0.0513*	0.00787
	(0.0239)	(0.0294)	(0.0301)	(0.0197)	(0.0139)	(0.0214)	(0.0233)	(0.0229)	(0.0243)	(0.00978)
Work Vegetables	0.0122	-0.00222	-0.0161	0.0215	-0.0159	0.0324	-0.0124	0.0173	0.0546	-0.0145
	(0.0277)	(0.0342)	(0.0350)	(0.0229)	(0.0162)	(0.0249)	(0.0271)	(0.0266)	(0.0282)	(0.0113)
Family Fruits	0.0982**	0.00693	0.0476	0.00419	-0.0316	0.0524	0.0794*	0.0473	-0.00329	0.0145
	(0.0327)	(0.0403)	(0.0413)	(0.0270)	(0.0191)	(0.0294)	(0.0320)	(0.0314)	(0.0333)	(0.0134)
Work Fruits	0.0737**	0.0523	0.0531	-0.00834	-0.00377	0.0302	-0.00462	-0.0118	0.0435	-0.0123
	(0.0270)	(0.0333)	(0.0340)	(0.0222)	(0.0158)	(0.0242)	(0.0264)	(0.0259)	(0.0275)	(0.0110)
Family CashCrops	-0.0768	0.0436	0.137	-0.0499	0.0531	0.00771	0.0982	-0.0551	0.114	-0.0212
	(0.0661)	(0.0815)	(0.0834)	(0.0545)	(0.0386)	(0.0594)	(0.0646)	(0.0635)	(0.0673)	(0.0271)
Work CashCrops	0.0641	-0.0918	-0.0734	0.0811*	0.0266	0.120**	-0.0141	0.116**	0.0461	-0.0353
	(0.0452)	(0.0557)	(0.0570)	(0.0373)	(0.0264)	(0.0406)	(0.0442)	(0.0434)	(0.0460)	(0.0185)
Family Livestock	0.0285	0.0932**	0.0813**	0.00876	0.00656	0.0136	-0.00117	-0.0202	0.0972***	-0.00830
	(0.0236)	(0.0291)	(0.0298)	(0.0195)	(0.0138)	(0.0212)	(0.0231)	(0.0227)	(0.0240)	(0.00967)
Work Livestock	0.0655*	0.00411	0.00899	0.00202	0.0244	0.0291	0.0674*	-0.0336	0.0765*	-0.00877
	(0.0325)	(0.0400)	(0.0410)	(0.0268)	(0.0190)	(0.0292)	(0.0317)	(0.0312)	(0.0330)	(0.0133)
Family Specialties	0.0285	-0.0800	0.0232	-0.0117	0.0537*	0.0468	0.0140	0.0406	0.0255	-0.0194
	(0.0447)	(0.0552)	(0.0565)	(0.0369)	(0.0261)	(0.0402)	(0.0437)	(0.0430)	(0.0455)	(0.0183)
Work Specialties	0.0943*	-0.0542	-0.0536	0.0526	0.000306	0.0427	-0.0623	0.0155	0.117**	-0.00220
	(0.0392)	(0.0483)	(0.0495)	(0.0323)	(0.0229)	(0.0352)	(0.0383)	(0.0377)	(0.0399)	(0.0160)
Work Support	0.0796***	-0.0114	0.0166	0.000192	0.0260	0.00231	0.0543*	0.00742	0.0649**	0.00623
	(0.0240)	(0.0297)	(0.0304)	(0.0198)	(0.0140)	(0.0216)	(0.0235)	(0.0231)	(0.0245)	(0.00985)
_cons	0.0678	0.472***	0.282***	0.0739*	0.0513*	0.0365	0.109**	0.131**	0.00519	0.0337*
	(0.0412)	(0.0509)	(0.0521)	(0.0340)	(0.0241)	(0.0370)	(0.0403)	(0.0396)	(0.0420)	(0.0169)
N	1478	1478	1478	1478	1478	1478	1478	1478	1478	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 41: Inventories but Controlling for Family Farming

	(1) Hope Score	(2) Agency Subscore	(3) Pathway Subscore	(4) Entrepreneurial Orientation Score	(5) Preparedness For Plans
No Tradition	0.264	0.197	0.0672	-2.150	-0.560***
	(1.324)	(0.715)	(0.769)	(1.705)	(0.139)
Not Matched	-1.460	-0.331	-1.129	-2.029	-0.109
	(1.036)	(0.559)	(0.601)	(1.427)	(0.112)
Family Grains	2.735***	1.073**	1.661***	3.206***	0.210**
	(0.732)	(0.395)	(0.425)	(0.958)	(0.0772)
Family Vegetables	0.946	0.661	0.286	0.493	-0.0930
	(0.675)	(0.364)	(0.392)	(0.858)	(0.0702)
Family Fruits	1.764	0.646	1.118*	-0.119	-0.0448
	(0.944)	(0.509)	(0.548)	(1.160)	(0.0961)
Family CashCrops	-0.421	0.374	-0.795	2.878	0.0744
	(1.800)	(0.972)	(1.045)	(2.509)	(0.196)
Family Livestock	0.232	0.211	0.0208	1.733*	0.123
	(0.661)	(0.357)	(0.384)	(0.850)	(0.0690)
Family Specialties	-0.164	0.0508	-0.215	-1.800	0.221
	(1.341)	(0.724)	(0.779)	(1.545)	(0.132)
_cons	52.05***	25.53***	26.52***	66.31***	2.939***
	(0.976)	(0.527)	(0.567)	(1.260)	(0.102)
N	743	743	743	735	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 42: Inventories but Controlling for Work Assignments

	(1) Hope Score	(2) Agency Subscore	(3) Pathway Subscore	(4) Entrepreneurial Orientation Score	(5) Preparedness For Plans
Sorted_Lvl3_NoTrad	-2.325*	-1.003	-1.323*	-5.368***	-0.720***
	(0.957)	(0.517)	(0.555)	(1.233)	(0.0998)
Sorted_Lvl3_NoPair	-2.766**	-0.861	-1.904***	-3.866**	-0.201
	(0.961)	(0.519)	(0.558)	(1.360)	(0.105)
Wrk_Lvl2_Grains	-4.429**	-0.919	-3.509***	-1.680	-0.164
	(1.569)	(0.847)	(0.910)	(2.458)	(0.179)
Wrk_Lvl2_Vegetables	0.639	0.423	0.215	0.636	-0.000776
	(0.766)	(0.414)	(0.445)	(1.030)	(0.0815)
Wrk_Lvl2_Fruits	0.339	0.279	0.0601	0.543	0.0680
	(0.733)	(0.396)	(0.425)	(1.023)	(0.0793)
Wrk_Lvl2_CashCrops	-2.061	-1.125	-0.936	-4.384**	-0.490***
	(1.250)	(0.675)	(0.725)	(1.652)	(0.132)
Wrk_Lvl2_Livestock	-0.487	-0.334	-0.153	1.486	0.0659
	(0.881)	(0.476)	(0.511)	(1.220)	(0.0950)
Wrk_Lvl2_Specialty	1.867	0.869	0.997	0.598	0.0476
	(1.085)	(0.586)	(0.630)	(1.467)	(0.116)
Wrk_Lvl2_Capital	1.072	0.355	0.717	0.254	-0.00996
	(0.670)	(0.362)	(0.389)	(0.884)	(0.0708)
_cons	54.20***	26.50***	27.70***	69.14***	3.118***
	(0.774)	(0.418)	(0.449)	(1.072)	(0.0835)
N	743	743	743	735	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 43: Inventories but Controlling for Family & Work

	(1) Hope Score	(2) Agency Subscore	(3) Pathway Subscore	(4) Entrepreneurial Orientation Score	(5) Preparedness For Plans
Sorted_Lvl3_NoTrad	0.0884	0.177	-0.0889	-2.051	-0.544***
	(1.325)	(0.720)	(0.766)	(1.711)	(0.139)
Sorted_Lvl3_NoPair	-1.329	-0.213	-1.117	-2.292	-0.131
	(1.043)	(0.567)	(0.603)	(1.457)	(0.114)
Fam_Lvl2_Grains	2.766***	1.049**	1.717***	3.141**	0.196*
	(0.728)	(0.395)	(0.421)	(0.961)	(0.0772)
Wrk_Lvl2_Grains	-4.717**	-0.975	-3.742***	-2.093	-0.200
	(1.567)	(0.852)	(0.906)	(2.451)	(0.179)
Fam_Lvl2_Vegetables	0.777	0.631	0.146	0.744	-0.0728
	(0.680)	(0.369)	(0.393)	(0.863)	(0.0706)
Wrk_Lvl2_Vegetables	0.649	0.363	0.286	0.927	0.0226
	(0.773)	(0.420)	(0.447)	(1.028)	(0.0819)
Fam_Lvl2_Fruits	1.787	0.691	1.096*	-0.0229	-0.0292
	(0.947)	(0.515)	(0.548)	(1.165)	(0.0966)
Wrk_Lvl2_Fruits	0.207	0.228	-0.0210	0.352	0.0540
	(0.735)	(0.399)	(0.425)	(1.021)	(0.0797)
Fam_Lvl2_CashCrops	-0.0408	0.475	-0.516	2.773	0.0819
	(1.787)	(0.971)	(1.033)	(2.511)	(0.195)
Wrk_Lvl2_CashCrops	-1.992	-1.169	-0.823	-3.862*	-0.444***
	(1.259)	(0.684)	(0.728)	(1.661)	(0.134)
Fam_Lvl2_Livestock	0.0485	0.159	-0.110	1.708*	0.111
	(0.662)	(0.360)	(0.383)	(0.870)	(0.0698)
Wrk_Lvl2_Livestock	-0.563	-0.390	-0.172	1.272	0.0546
	(0.886)	(0.482)	(0.513)	(1.227)	(0.0959)
Fam_Lvl2_Specialty	-0.367	-0.0241	-0.343	-1.640	0.230
	(1.338)	(0.727)	(0.774)	(1.553)	(0.132)
Wrk_Lvl2_Specialty	1.839	0.835	1.004	0.907	0.0434
	(1.083)	(0.589)	(0.627)	(1.458)	(0.116)
Wrk_Lvl2_Capital	1.095	0.331	0.765*	0.107	-0.00618
	(0.671)	(0.365)	(0.388)	(0.884)	(0.0711)
_cons	51.84***	25.39***	26.45***	65.84***	2.939***
	(1.142)	(0.620)	(0.660)	(1.538)	(0.122)
N	743	743	743	735	1478

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$