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Research
Brief #14

Impacts of the Apprenticeship Program: An Overview and Summary of the Alumni Survey

– Jan Perez¹ and Martha Brown¹

For the past 43 years, people from across the U.S. and around the world have come to UC Santa Cruz to learn organic farming and ecological horticulture skills and concepts. What began in 1967 as the UCSC Student Garden Project, an informal student apprenticeship with English gardener Alan Chadwick, has since grown into the internationally known Apprenticeship in Ecological Horticulture, offered each year through the Center for Agroecology and Sustainable Food Systems (CASFS).

The six-month, intensive program combines hands-on and classroom work, covering topics ranging from soil fertility management, crop selection and culture, pest and disease management, and greenhouse and irrigation skills, to business planning, marketing, and food system issues. Apprentices work alongside instructors, learning in an “I do, we do, you do” model at the 25-acre UCSC Farm and 3-acre Alan Chadwick Garden. Since its founding, more than 1,300 people have graduated from the Apprenticeship, and have gone on to a variety of careers in sustainable agriculture and food systems-related work.

Although CASFS staff members have informally tracked the activities of the Apprenticeship program’s graduates, there has never been a formal survey to find out how Apprenticeship alumni are applying their training and how the program has contributed to their work, volunteer, and personal activities.

In 2009 CASFS undertook a comprehensive survey of alumni both to document the impacts of the program and to get suggestions for ways to improve the Apprenticeship. The survey was designed to address two basic questions: Is the Apprenticeship contributing to a more sustainable food system? To what extent did the program contribute to alumni’s activities? A grant from the Foundation for Global Community provided support for the survey and analysis.

The survey found that program graduates are making a major contribution to creating a more sustainable food system. This is reflected in the significant number of alumni involved in a wide range of sustainable food and agriculture efforts, and particularly in teaching others about food production and sustainable food systems.

This brief summary provides an overview of the Apprenticeship alumni survey methods and results. A series of graphs detailing the results, with a focus on what all of the respondents have been doing since graduating from the program, is available online at the CASFS website.^a

A more in-depth analysis of the results and implications for education are presented in, “Achieving Program Outcomes? An Evaluation of Two Decades of Apprenticeship in Ecological Horticulture at the University of California, Santa Cruz Farm and Garden,” by CASFS researcher Jan Perez, UC Davis postdoctoral student Damian Parr, and UCSC graduate student Linnea Beckett, which appears in the inaugural issue of the *Journal of Agriculture, Food Systems and Community Development*.^b

SURVEY DESIGN AND AUDIENCE

The survey was designed collaboratively with CASFS staff and input from alumni. Overall, 23 alumni and others (who had done some type of apprenticeship elsewhere) pre-tested versions of the survey. The final survey included both quantitative and open-ended questions.

All past apprentices since the founding of the program in 1967 comprised the survey population for the project; this included an estimated 1,200 alumni as of the survey date. The survey was sent to the 648 alumni for whom there was a known email address, drawn from an alumni database that was



Orin Martin (center) teaches greenhouse skills to Apprentice course participants.

¹Center for Agroecology & Sustainable Food Systems, UC Santa Cruz

created in 1997 and updated recently for fundraising efforts and alumni activities. The survey was implemented between June 18 and July 20, 2009.

SURVEY FINDINGS

Demographics of respondents

The survey drew a response rate of 60% (366 respondents), which is considered high for a self-administered survey. Approximately 25% of graduates in each class since 1989 responded, with the most responses from those who had graduated in the past 10 years. Respondents were generally European-American, under 30 years of age during their Apprenticeship, from a middle-class or upper-middle-class background, and had a 4-year college degree (or beyond) when they started the program (see the online graphs referenced in the Footnotes for detailed characteristics of survey respondents).

Alumni activities

Since finishing the Apprenticeship, 87% of respondents are currently or have been involved in the field of sustainable agriculture and food systems work (either paid, self-employed, or startup^c jobs). Eighty percent volunteered for activities that contribute to sustainable food systems, and 99% used what they learned during the Apprenticeship in their personal lives. In addition, 48% of the alumni from

the past 20 years had initiated, created, or started the work or effort in which they were involved, which speaks to the leadership role that many have assumed since graduating (Perez, Parr and Beckett, 2010).^d

Of the 315 respondents who are or have been involved in sustainable food and agriculture work, 93% (294) reported doing some type of farming or gardening work since graduating. Primary job areas include food production (76%), education (40%), landscaping/gardening (29%), retail (18%), and work with non-governmental organizations (NGOs; 18%). People have worked in rural (62%), urban (58%), and peri-urban (47%) settings, with many alumni having worked in more than one place since graduating.

Two hundred of the respondents reported owning or operating a farm or garden at some point since graduating. Of those people, most (87%) grow a mix of vegetables and fruits; they also produce flowers (39%), fruit (27%), animal products (dairy, eggs, etc., 17%), and grain (5%), while 12% are involved in animal production.

Those who own or operate a farm or garden employ one or more distribution strategies. These include direct sales to stores or restaurants (65%), farmers' markets (59%), community supported agriculture (CSA) efforts (45%), wholesale (42%), farmstand (34%), and farm-to-institution (18%). In addition, 40% donated produce as part of their operation.

Incorporating education, social justice

Education plays a role in the work of a significant number of alumni: 64% of all survey respondents, and 74% of those working in sustainable food and agriculture, reported that they have had jobs that included education activities or programs—particularly around food production and food systems issues and



Apprenticeship graduate Darryl Wong manages Freewheelin' Farm north of Santa Cruz, along with program alumni Amy Courtney and Kirstin Yogg.

knowledge—as part of their formal goals.

In addition, 55% of those involved in education state they are training future teachers and trainers of sustainable food and agriculture-related topics. These “training the trainer” efforts increase the impacts of the Apprenticeship far beyond those who graduate each year.

In terms of influencing social justice, the survey asked alumni if they had attempted to implement various strategies into their sustainable food and agriculture system work, volunteer, or personal activities. Among the responses, 60% reported that they had attempted to increase access to healthy food for those with limited access; 56% had increased inclusion; 48% had addressed inequities in access to information; 45% had fostered sharing of power or ownership; and 41% had increased the income of small- and mid-scale growers.

Since these activities could range from buying fair trade coffee to starting a non-profit, we also explored this issue more specifically. We looked at work, volunteer, and personal activities people listed, and identified when they



Alumni Vanessa Campbell (left) and Alex Brown own Full Sun Farm, a 17-acre operation in the Big Sandy Mush Valley in Western North Carolina, near Asheville. They cultivate 5 acres for two growers' markets and a CSA project.



Apprenticeship graduate Cathrine Sneed launched The Garden Project to serve former offenders. Today the San Francisco-area program provides on-the-job training in gardening and tree care.

included addressing needs of people who were traditionally underserved, worked on hunger or food security issues, or used words such as just, fair, and diversity. At least 35% of the respondents met these criteria.

In addition to work endeavors, 80% of alumni have been involved in volunteer activities related to sustainable agriculture and food systems. Thirty-three percent report donating time or materials (e.g., food or plants) to gardens, farms, schools, and outreach

efforts; 28% have been involved in alternative agriculture organizations, as either founders, board or committee members, or as participants in activities; and 17% have led programs, classes and workshops, or served as a mentor. Other volunteer activities include community organizing (10%) and international community service (6.8%).

The Apprenticeship has also had an impact on alumni's personal activities. Fifty-two percent report that the Apprenticeship influenced their purchasing behaviors, including buying local, organic, fair trade, and seasonal foods, as well as supporting farmers' markets, CSAs, and local farms. Other personal activities include growing their own food (35%) or helping others grow food (34%), and educating others (30%).^c

The apprenticeship's contribution

When asked how the Apprenticeship contributed to their subsequent activities, the majority of respondents noted that the program provided knowledge (86% chose "a significant amount" on a scale of 1–5) and skills (82%). Survey respondents also reported that the program significantly helped them confirm their values (62%); provided confidence in their skills and ability (60%); helped shape their career goals (56%); and provided a network of people/contacts (55%).

Program components identified as most helpful for contributing to

alumni achievements are described in Perez, Parr and Beckett (2010).^f Based on responses from the last 20 years of graduates, 60% of alumni considered the "hands-on" emphasis to be important to helping them accomplish their post-graduation activities. The next most-cited important program components were the residential living aspect of the program (38%), working with peers (33%), course work (32%), and working with teachers (22%).^g

This survey confirms that many alumni are participating in creating more sustainable food systems in a variety of ways, including farming, gardening, and educating others. The survey results also indicate that the program contributed to the alumni's efforts by providing skills, knowledge, and confidence as well as confirming and shaping values and career goals. Blending hands-on and classroom education on a wide variety of food systems topics, combined with the Apprenticeship's residential structure, appears to play a major role in these outcomes. One alumnus's response illustrates the impact of this approach:

"The Apprenticeship Program contributed to ALL of the sustainable food and agriculture activities that I have done . . . it gave me both the theoretical and practical skills to grow good food, it gave me insight and perspective on community food systems, food justice, and the breadth and depth of this type of work, it exposed me to so many models that feed the formation of my own choices in work and personal life . . . literally everything that I have done professionally (and so much personally) since the Apprenticeship Program has been influenced by it and my time at CASFS."

We would like to thank everyone who participated in the development, completion, and analysis of the alumni survey. We are extremely grateful to all the Apprenticeship alumni who took part in the survey.

For more information on the Apprenticeship in Ecological Horticulture, see <http://casfs.ucsc.edu/apprentice-training>.



Apprenticeship alumni Jered Lawson and Nancy Vail (seated at right, wearing hats) founded Pie Ranch near Pescadero, California. The educational farm connects urban and rural high school students with the source of their food and provides training in farming skills.

FOOTNOTES

^a Graphs detailing the survey results are available in an online PowerPoint presentation, *Impacts of the Apprenticeship Program*, at: <http://casfs.ucsc.edu/research/social-issues/past-research> (see Apprenticeship Alumni Survey).

^{b, d, f} Perez, J., D. Parr, and L. Beckett. 2010. Achieving program outcomes? An evaluation of two decades of Apprenticeship in

Ecological Horticulture at the University of California, Santa Cruz Farm and Garden. *Journal of Agriculture, Food Systems and Community Development*, Volume 1, Issue 1, Summer. Available online at <http://www.agdevjournal.com/inaugural-issue.html>

^e We defined “start-up” as work that may not have been paid, but the intention was to get it funded eventually.

^e Alumni answered this question in an open-ended format. If it were a multiple choice questions, where people see options to choose from, these percentages would likely be higher.

^g Again, these percentages are based on respondents writing in an answer to the question, as compared to a multiple choice question, so the percentages reported here are likely to be artificially low.

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Center Research Briefs report on research by UC Santa Cruz Center for Agroecology & Sustainable Food Systems (CASFS) members and on projects supported by CASFS grants.

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