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## Survey to Evaluate Student Awareness of Local Gardens in Asheville, NC

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### Abstract

UNC Asheville is home to several campus gardens and is surrounded by local community gardens, yet seemingly few students know about these gardens, where they are or how to become involved. For this project, over 500 anonymous surveys were distributed to students in UNCA classrooms as a means of gauging UNCA student awareness of on and off campus gardens and to determine the most common barriers for student involvement in local gardens. The focus classes were humanities courses of all levels and general introductory classes across several departments. Students were asked to list the local gardens that they were aware of. While about half of surveyed students were aware of gardens near their school or home, and a majority stated that they were interested or able to participate in a garden, only a third of them knew how to get involved with a local garden. Nearly half of the surveyed students said that they could contribute one to two hours per week to a community garden; however, personal time constraints and not knowing how to get involved were the top two barriers for student participation. The top three needs identified by students in order to participate in a local garden were a schedule of garden workdays, contact information for a garden coordinator and access to tools. Students were also asked how close a garden would need to be in order for them to participate noting an average of ten miles as an acceptable distance. The results of this survey will inform future outreach strategies of UNCA's campus gardens and be used to plan a skill-building workshop series for students.

### 1. Why This Project?

In Asheville and the surrounding area there is a pronounced interest in local food and agriculture (1). Asheville is home to numerous community gardens with at least six public gardens within 1 mile of the campus. One on-campus garden, the Rhoades garden, was acquired by the University of North Carolina at Asheville in 2008, and is a relatively new project, serving "as a space for UNCA students and faculty and Asheville community members to learn and participate in sustainable agriculture practices. The intergenerational activities that are practiced in the garden are intended to make connections between the diverse communities and neighborhoods of Asheville, educational institutions, and various sectors of the food system." (2) According to interviews with student organizers, faculty and staff involved with the Rhoades garden, few students were aware of the gardening projects on and around campus. Given the accessibility of the Rhoades garden and other local gardens, the local enthusiasm for agriculture and UNC Asheville's stated intention to, "Match...regional collaborations with the needs of [the] community: wellness, craft and art, the environment, climate and technology" (3), a question arose, as to why more students were not involved in these garden projects. A survey was designed to better understand the interest of the campus community and the barriers to student involvement in nearby community gardens.

As part of the *Keeping the Value with the Farm* grant project, this survey was one of five summer fellowships focused on local food research at UNCA in 2013. This survey project grew from programming and outreach work connected to UNCA's own Rhoades garden. Other intentions of the study included evaluating the services that the Rhoades garden could offer to better meet the needs of the university community by reaching more students and by

offering new, interesting educational opportunities. The survey was also meant to determine how the UNCA students, faculty and staff learn about campus events, if they are aware of the local gardens, how to get involved with these gardens and how to increase participation in future Rhoades garden programming.

## 1.1 Research Questions Driving the Project

- 1) How can UNCA become a part of the greater local food culture of Asheville?
- 2) How can the Rhoades garden at UNCA serve as a fully functioning, visible, accessible garden to the UNCA community?
- 3) How can strategies utilized by UNCA also be utilized and by the greater community of Asheville?

## 2. Research Design and Method

After receiving approval from the Institutional Review Board (IRB), the survey was implemented on campus in order to reach as many students as possible; surveys were disseminated in classrooms with professor permission. Each took 5-7 minutes for students to complete. Targeted classes included Humanities 124, 214, 324, and 414; Introduction to Environmental Studies (ENVR 130); Nature of Mathematics (MATH 155); Microeconomics (ECON 101); Introduction to Sociology (SOC 100); Macroeconomics (ECON 102) and LSIC. Classes surveyed were determined by the willingness of individual professors to participate and the student surveyor's schedule allowance. Surveys were anonymous and optional for all students and overall a total of 607 surveys were collected during the fall semester of 2013. Data were entered by Google Form into a spreadsheet and analyzed via charts from a Google Data Summery.

### 2.1 Materials

The materials distributed included an IRB consent form and a twelve question anonymous survey comprised of multiple choice, yes or no and short answer questions.

#### 2.1.1 survey questions

- 1) Zip code
- 2) Class standing
- 3) Are you aware of a community garden(s) near your school or neighborhood? Yes or No
- 4) Optional: What garden(s) are you aware of?
- 5) Would you be interested or able to participate in a community garden? Yes or No
- 6) Do you know how to get involved with that garden or others in the community? Yes or No
- 7) What would you need to comfortably participate in a local garden? Check all that apply.
  - a) Contact information for the garden coordinator
  - b) A schedule of workdays
  - c) A workshop on gardening skills
  - d) Access to tools
  - e) Transportation
  - f) Other:
- 8) For you to participate in a local garden how close would it need to be to your school/ home? Check all that apply.
  - a) Within walking distance
  - b) Within biking distance
  - c) Within driving distance (How many miles?)
  - d) Handicap accessible
  - e) Other
- 9) Identify current barriers that might keep you from participating in a local garden. Check all that apply.
  - a) Not knowing how to get involved
  - b) Transportation
  - c) Gardening skills

- d) Access to tools
  - e) Time constraints
  - f) Personal discomfort (Explain)
  - g) Other:
- 10) How many hours per week could you commit to a community garden at this time?
- a) Less than 1
  - b) 1-2
  - c) 2-3
  - d) 3-4
  - e) 4-5
  - f) Greater than 5
  - g) Other:
- 11) Where do you usually find out about events and services in your community (campus or otherwise)? Check all that apply.
- a) Facebook
  - b) Mountain Xpress
  - c) Blue Banner
  - d) Radio
  - e) Emails
  - d) Other:
- 12) Which of the following services, if any, would you want to participate in if offered at or near UNCA?
- a) Farming and gardening workshops
  - b) Food preservation (canning and freezing food) and value-added product creation (processing: pies, jams, cheese, sauerkraut, pickles and yogurt creation)
  - c) Local food and vegetable pickup at or near UNCA
  - d) Life-skills workshop series: For example: home-making household products (toothpaste, soap, cleaning products), cooking workshops, plant care and identification, gardening workshops
  - e) Your own garden plot in a community garden
  - f) Other:

### 3. Results

Students surveyed were from 88 different zip codes and were 9% Freshman, 20% Sophomore, 33% Junior and 29% Senior with 8% choosing not to answer (Figure 1).

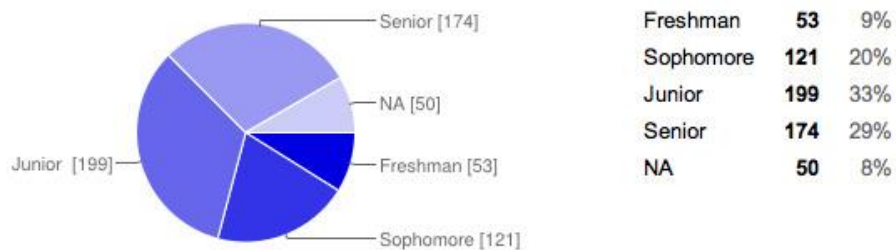


Figure 1. Class standing.

Of the students surveyed, 58% were aware of gardens near their school or home and 42% where not (Figure 2).

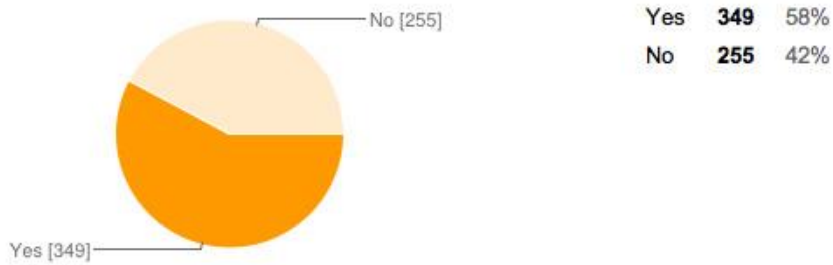


Figure 2. Awareness of local gardens.

Students were given the option to list the local gardens of which they were aware. Of the 312 answers, students listed a total of 24 different local gardens. The UNC Asheville community garden behind the dining hall was the most commonly identified (62 students), followed by The Rhoades garden (50 students), The Grace Covenant Presbyterian Church garden (22 students), the Edible Forest (20 students) and the Ancient Garden (13 students) (Figure 3).

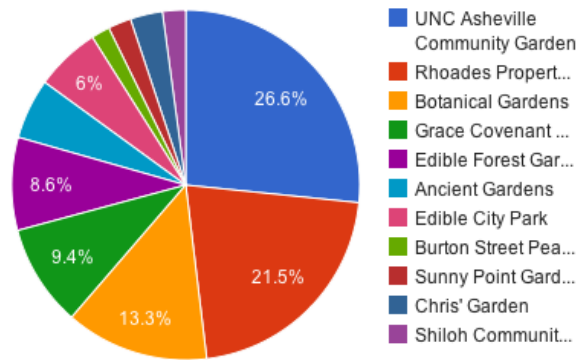


Figure 3. Gardens identified by students.

When asked “Are you interested or able to participate in a community garden?” 61% of surveyed students said yes, while 39% said no (Figure 4) but only 32% of students knew how to get involved with a garden in the community, while 68% did not (Figure 5).

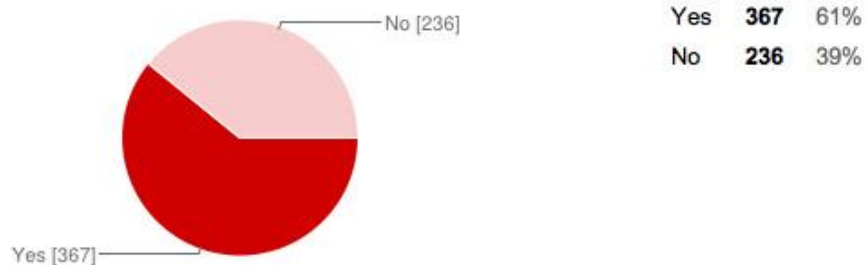


Figure 4. Interest and ability to participate in local gardens.

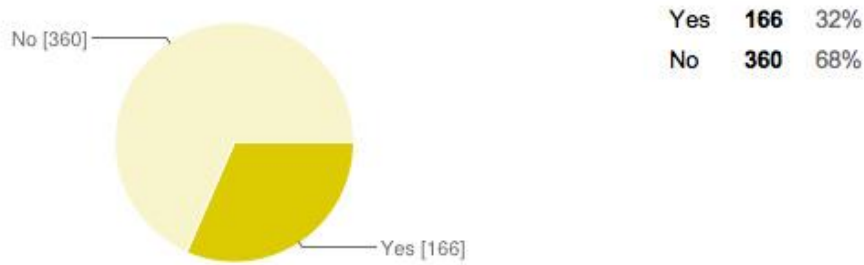


Figure 5. Knowledge of how to get involved.

In order to comfortably participate in garden projects, students identified the needs for a schedule of garden workdays (28%), contact information for the garden coordinator (23%), access to tools (23%), a workshop on gardening skills (17%) and transportation (7%). The most common response in the “other” category was a need for more free time to participate (Figure 6).

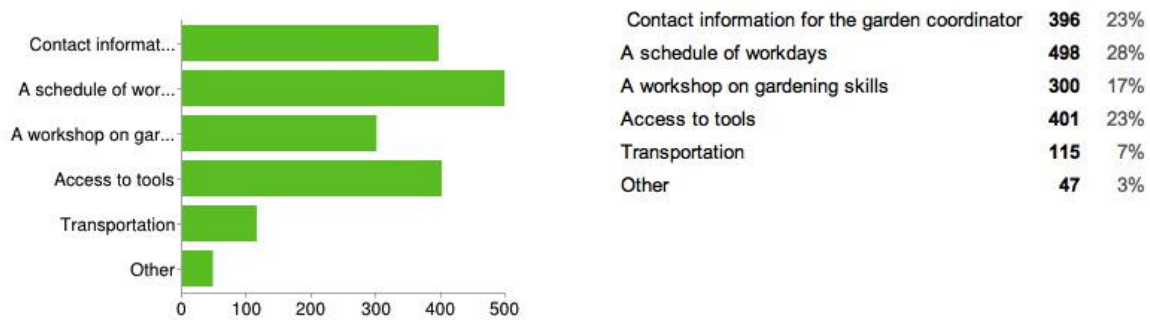


Figure 6. Student needs in order to comfortably participate in a local garden.

Students were also asked how close a garden would need to their school or home for them to participate and 41 % said that a garden would need to be within walking distance, 34% said within driving distance and 23% said within biking distance (Figure 7). Although these terms are relative, students also noted an average of 9.4 miles as an acceptable distance to travel to participate in a garden.

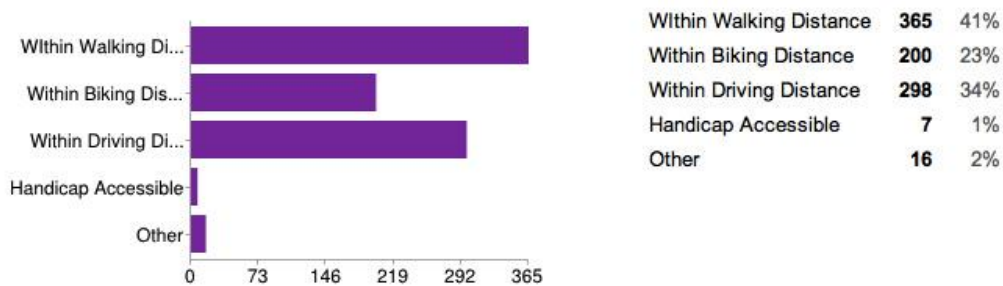


Figure 7. Student needs for garden proximity.

At 33%, time was noted by students as the most common barrier to involvement with local gardens, followed by not knowing how to get involved (24%), a lack of gardening skills and access to tools both 15%, with transportation, personal discomfort and lack of interest also identified as barriers by some students (Figure 8).

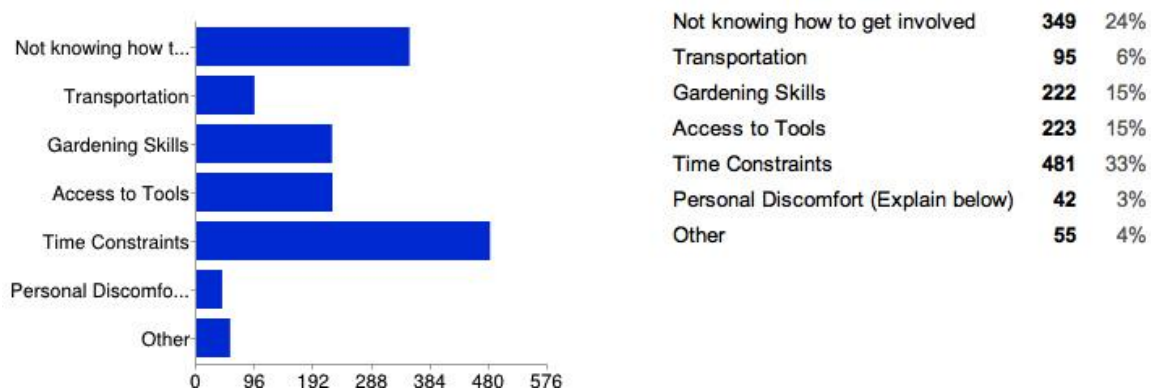


Figure 8. Current barriers to participating in a local garden.

Forty Seven percent of the surveyed students said that they could currently contribute 1 to 2 hours per week to a community garden, and 29% said that they had an hour or less of free time per week to contribute toward a garden project. 16% said that they had 2-3 hours per week and 5% said that they had as many as 3-4 hours per week (Figure 9).

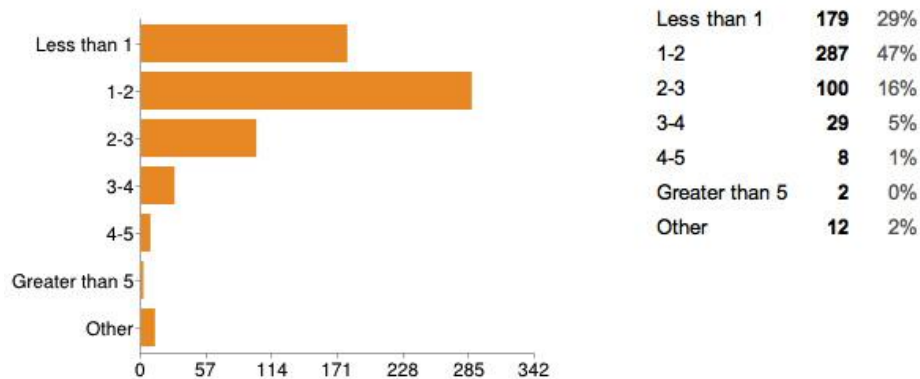


Figure 9. Hours per week students can commit to a community garden.

When asked how they usually find out about events and services in the community (campus or otherwise), 37% of students identified emails, 29% Facebook, 11% Mountain Xpress, 8% radio and 4% the Blue Banner. Eleven percent stated other sources, the most common of which were on-campus flyers and chalked announcements around campus (Figure 10).

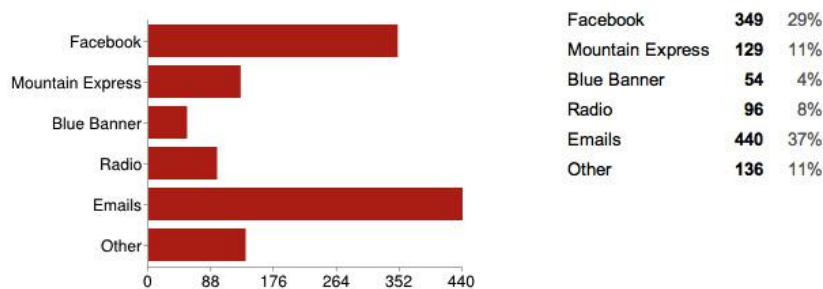


Figure 10. Sources of information.

A list of possible workshops and classes were included on the survey to gauge student interest in new garden programming at UNCA. Twenty Five percent said that they were interested in life skills workshops including home-making household products (toothpaste, soap, cleaning products), cooking workshops, plant care and identification, gardening workshops. Twenty Three percent were interested in food preservation and value-added product creation, 22% said that they were interested in local food and vegetable pickup at or near UNCA (even though UNCA is home to a large farmers market), 18% were interested in farming and gardening workshops and only 1% were interested in having their own plot at a community garden (Figure 11).

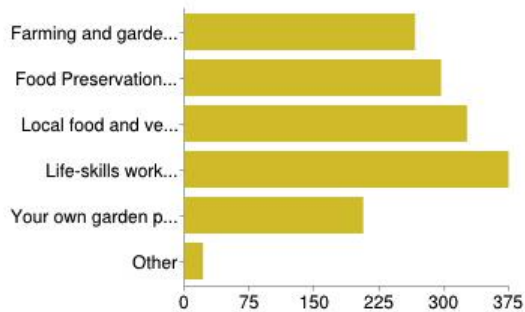


Figure 11. Potental workshops and services.

#### 4. Conclusion and Suggestions for Future Studies

Based on the results of the surveys, it seems that a majority of UNCA students are interested in or able to participate with a local garden but do not know how to get involved. Time constraints and a lack of interest are the greatest barriers to student involvement in community gardens, followed by not knowing how or where to get involved.

The original survey itself phrased questions in way that perhaps assumed a higher level student awareness and interest in gardening than the results showed. Future studies should not assume a student interest in gardening. A more specific introduction about the definition of community gardens would have been a helpful introduction for surveyed students. The survey asked if students were aware of garden projects and if they knew how to get involved, but did not ask if students were aware of the geographic location of the gardens that they could list. This would be a useful addition. Garden visibility often depends on the geographic locations of gardens and this survey showed that student awareness is closely linked to visibility.

Future surveys would be simplified by only surveying one type of class (i.e. Humanities of all levels) rather than multiple general education courses. Future surveys should specify “local” student zip codes and garden projects since this survey was intended for the Asheville area. Results showed that many students still identify as residents of areas outside of Asheville based on the zip codes that they supplied. Many of the students surveyed were not familiar with the term “class standing,” as a way of determining what year in school they were studying and future surveys should explain or use a different term.

A future survey could focus specifically on resident or nonresident students and ask students to disclose whether they live on or off campus. Surveying faculty and staff would also give greater insight about overall campus community awareness of nearby garden projects and help to identify if faculty and staff face different barriers to participation than students. Interviewing local community garden coordinators about their intended audiences, desired participants and methods of promotion could inform whether students should be expected to know about the gardens, if students are reached by the methods of outreach and if students are even the intended recipients of local garden services.

Improved public information available to the campus community would immediately address some of the needs identified by surveyed students. Student organizations that coordinate the campus gardens can create materials that include workday schedules, geographic location and contact information for on and off campus gardens. Local gardens can also utilize events and informational materials to increase awareness of the campus community.

Students identified interest in a workshop series about gardening skills and “Do It Yourself” life skills and the coordination of these workshops would be well received at UNCA. Since students are already busy, there are ways that garden participation could become part of current student’s campus experience and responsibility by being incorporated into classwork, assignments, internships and service learning courses; however, since not all students



are interested in gardening, it might be best that students are given the opportunity to choose how they prefer to incorporate community involvement into their educational paths at UNCA. Assessing any potential increase or decrease in attendance at local gardens after these strategies are implemented would offer a better picture of success and growth due to improved outreach and visibility.

## **5. Acknowledgements**

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## **6. References**

1. Charlie Jackson Ed. Appalachian Sustainable Agriculture Project, *Local Food Guide*. 2013.
2. The Student Environmental Center. "Rhoades Garden: What is the Rhoades Property Garden?" <http://sec.unca.edu/roots>.
3. "Our Public Responsibility: Asheville Region," *UNC Asheville Strategic Plan*, June 2008.