

Clean Energy Diversity and Inclusiveness Survey Report

A report written in partnership with North Carolina Sustainable Energy Association and NC Central University.



NC SUSTAINABLE
ENERGY ASSOCIATION



NC Central
UNIVERSITY

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1. Purpose of the Survey

The purpose of this survey is to establish a baseline understanding of the state of diversity and inclusiveness in the clean energy industry. Industry surveys are usually focused on economic indicators or the demographics of one subset of the industry. The data collected will help NCSEA work towards accomplishing the Research and Development goal of the Diversity and Inclusiveness Initiative Action Plan. Data collected will also help the industry better understand where diversity and inclusiveness currently stands, and what steps are needed to improve it going forward.

2. Survey Design

Team NCCU and NCSEA convened and decided what information to collect (demographic, certifications, education, etc.), and how to subdivide the industry based on NCSEA's Census categories. Both parties looked at how other surveys (ex. Solar Foundation's Solar Jobs Census, US Census) divided their categories, such as: income ranges, demographic groups, and genders. After the original survey design was complete, the NCSEA team consulted with an advisory board to ensure that the survey questions were asked the right way and would allow for follow up questions to get a deeper understanding of the respondent's answers.



3. Survey Implementation

Survey Monkey was chosen by team NCCU and NCSEA to design and host the survey and the survey link was sent out via email. The respondent pool consisted of about 3,600 people who had individual accounts in the NCSEA customer-relationship database with North Carolina addresses. Additionally, the survey link was sent to other organizations such as NC Economic Development Association, and NC Chamber Research Triangle Cleantech. The survey link was also posted on LinkedIn from NCSEA staff member accounts.

4. Survey Response

There were a few limitations to the survey that must be considered when interpreting the conclusions. After sending out 3,600 survey links during the summer of 2018, we received 167 responses Fall 2018. From the 167 responses we received, we could only use 118. NCCU presentation during spring 2018, NCCU board of visitors advised NCSEA to have more open-ended questions which was omitted at first just to save time. During the summer before NCSEA sent the survey out, they made some changes on it to include open ended question so as to get better opinion on what is causing lack of diversity and inclusiveness in clean energy sector. Lastly and most importantly, NCSEA did sent out a survey so close to the survey sent out during the summer, that might have affected the low response also because that may have confused some of the respondent thinking it's same survey. Reasons for low response rate include:

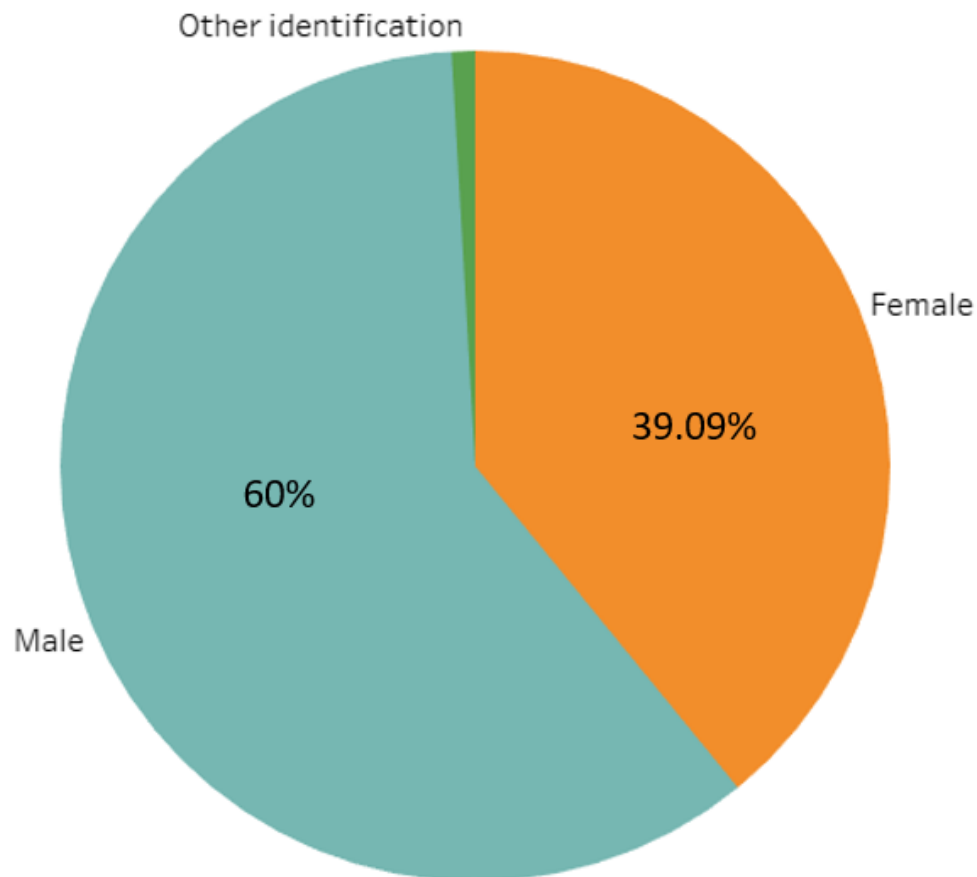
- i. The survey deals with a potentially uncomfortable topic.
- ii. NCSEA conducted this survey simultaneously with another survey which may have confused some respondents.
- iii. Survey may have been too long.
- iv. Survey may have contained too many open-ended questions.



5. Results

Figure A - Respondent Demographics

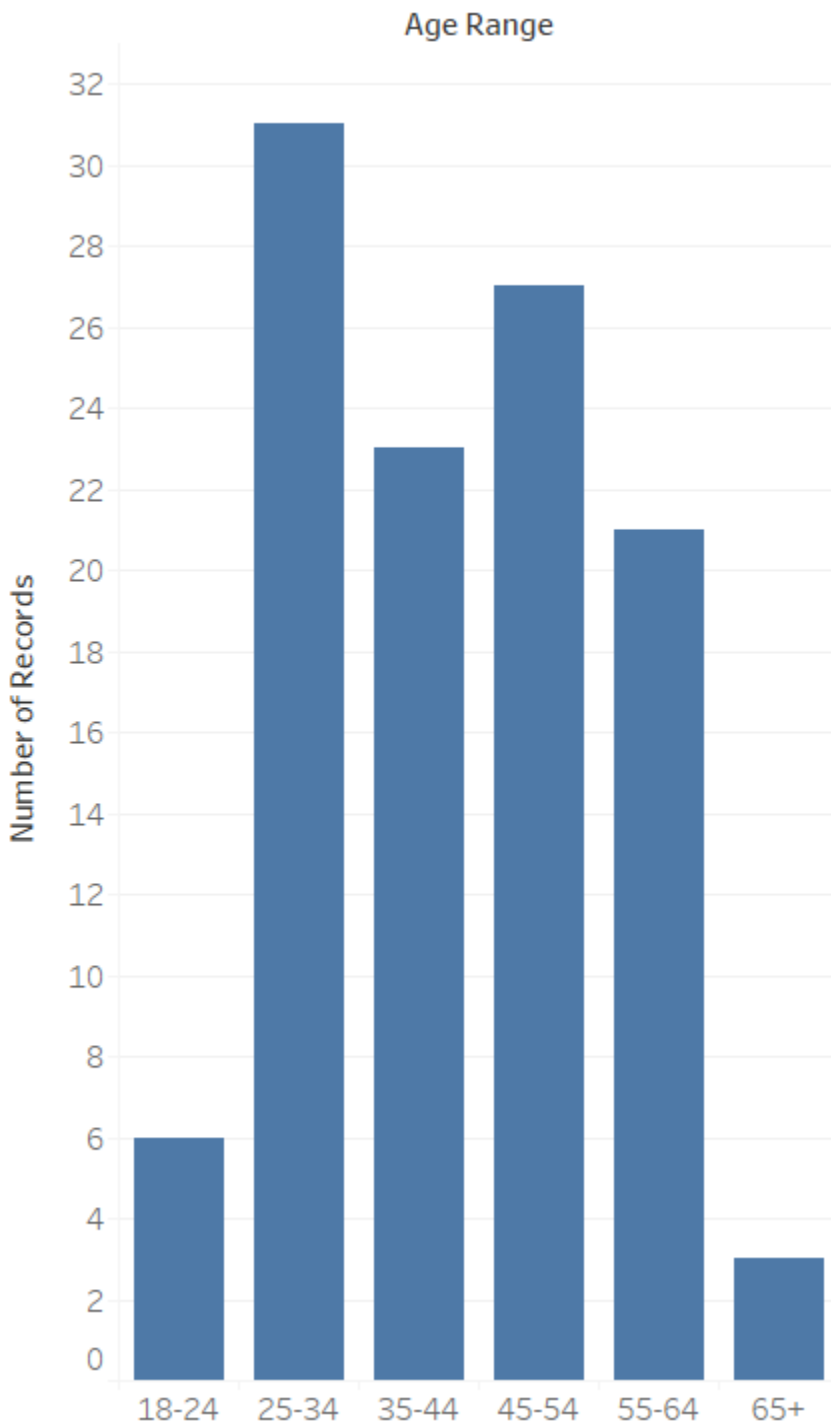
i. Gender Identification



The main gender of survey respondents were males, which accounted for 60 percent of respondents.



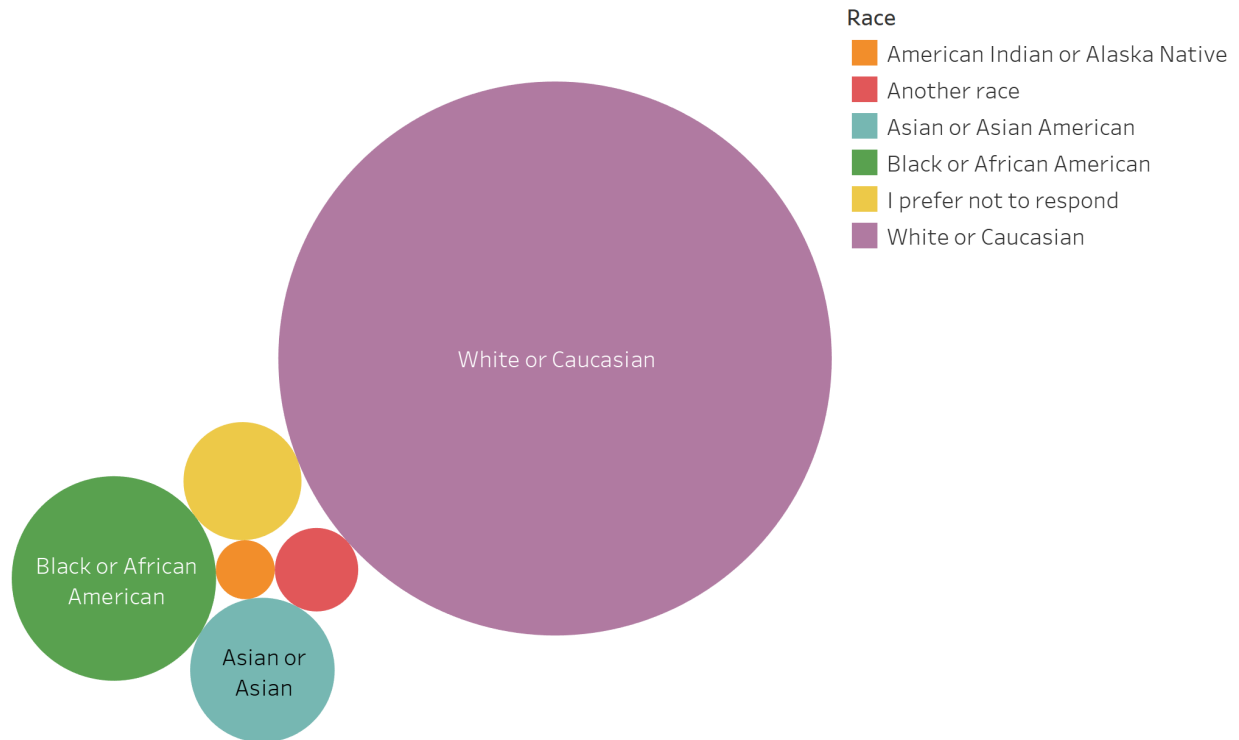
ii. Age Range



The age range of respondents follows a bell-shaped curve, with 86 percent of respondents falling between the ages of 25 and 64 years old.



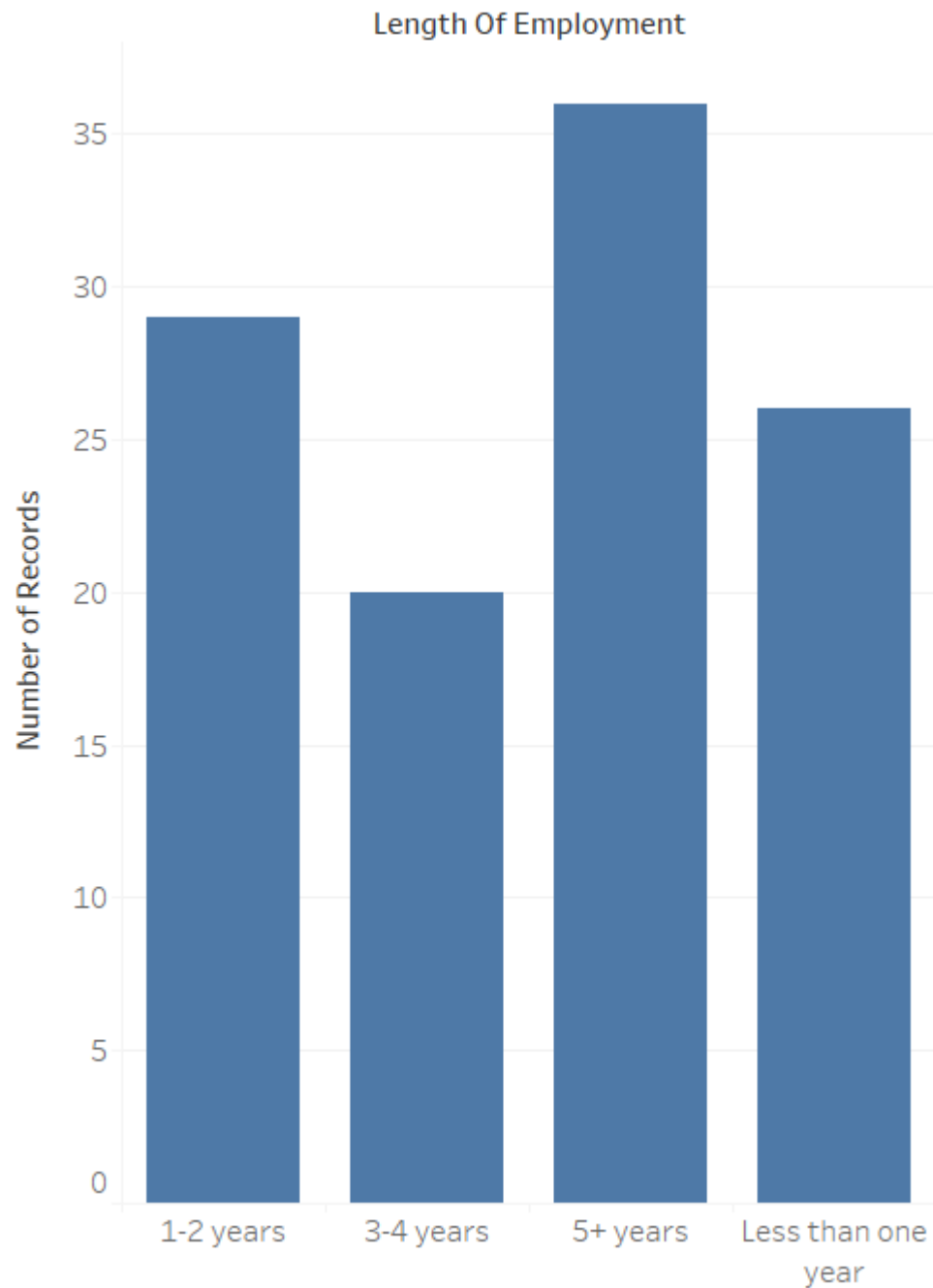
iii. Race



The main racial classification of survey respondents were white or Caucasian, with 88 of the 118 respondents identifying themselves as such.



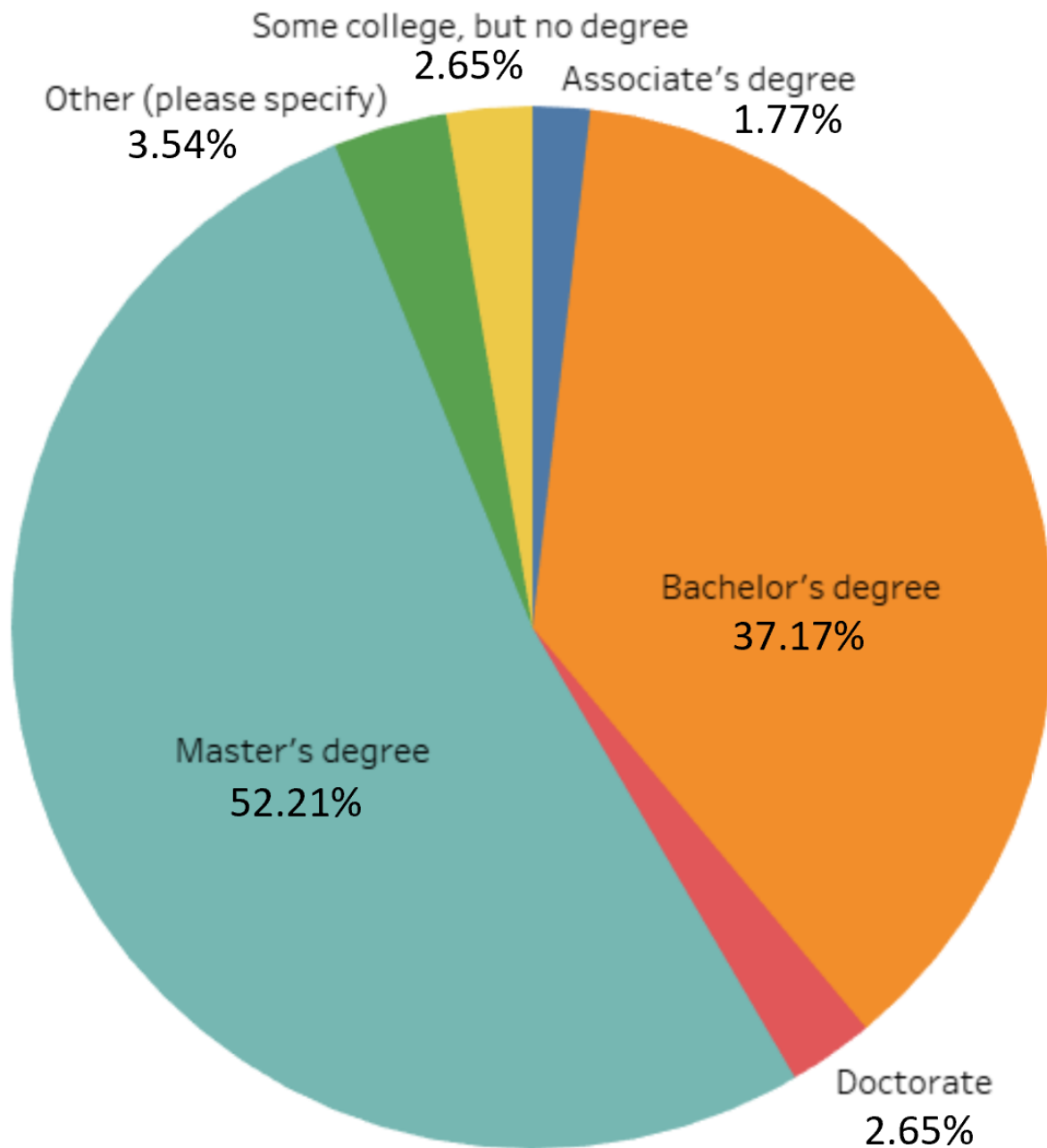
iv. Length of Current Employment



There is a rather even spread in terms of length of employment for survey respondents. The category with the highest mark belongs to 5+ years of employment, which accounts for 36 respondents.



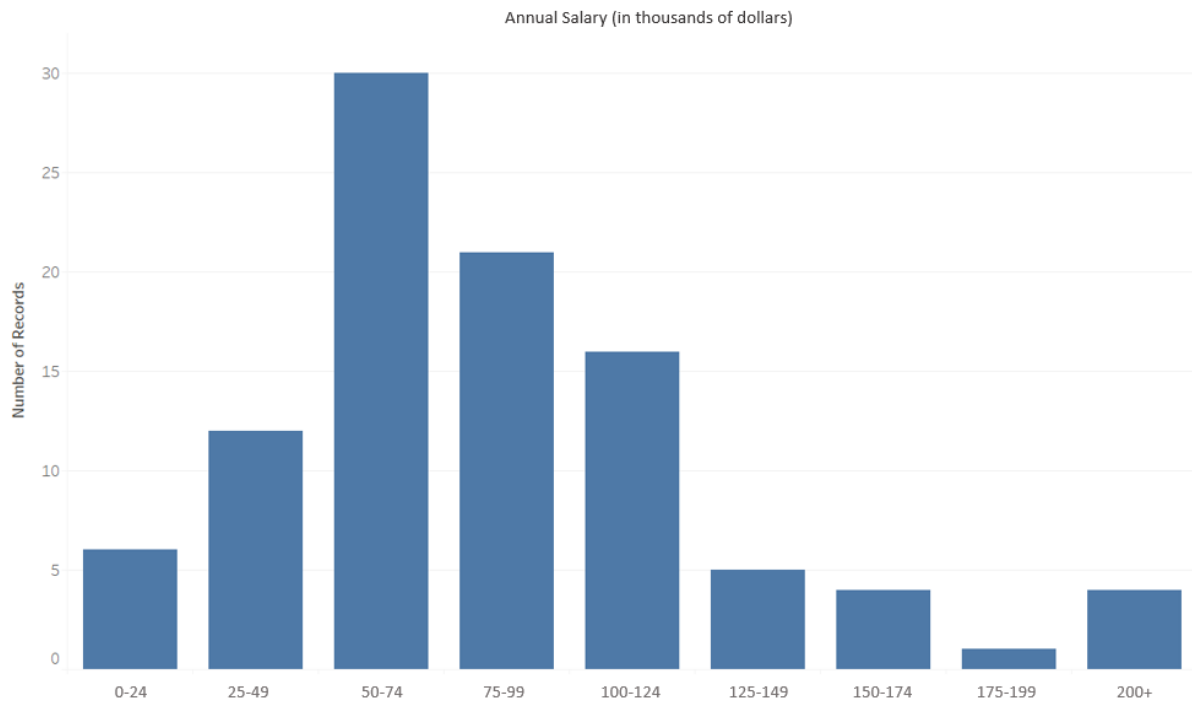
v. Highest Level of Education



92 percent of survey respondents have earned their Bachelor's degree or higher, and 55 percent of survey respondents have earned their Master's degree or higher.



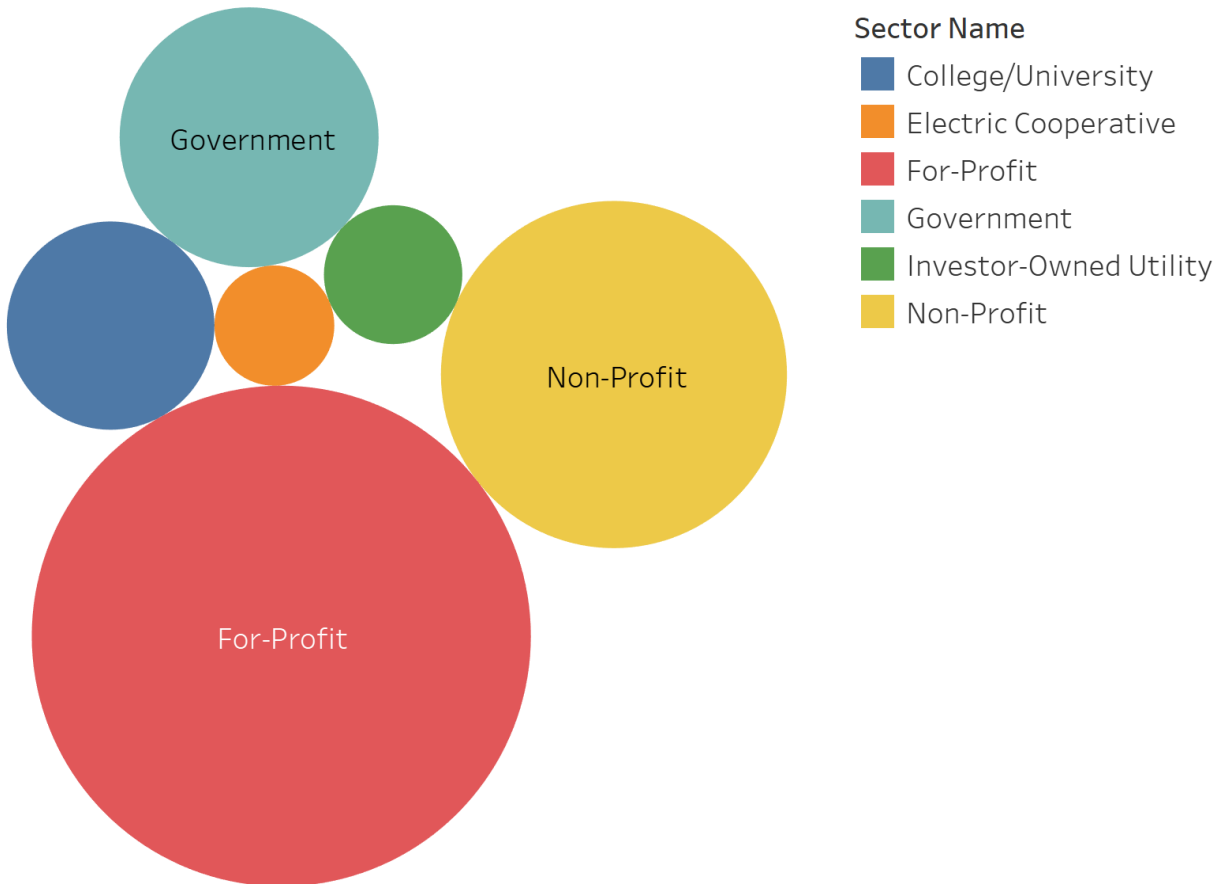
vi. Salary Range



About two-thirds of survey respondents stated that they make between \$25,000 and \$124,000 a year, with about 43 percent making between \$50,000 and \$99,000. Additionally, a fourth of respondents reported that they make between \$50,000 and \$74,000.

Figure B - Sector and Technology Breakdown

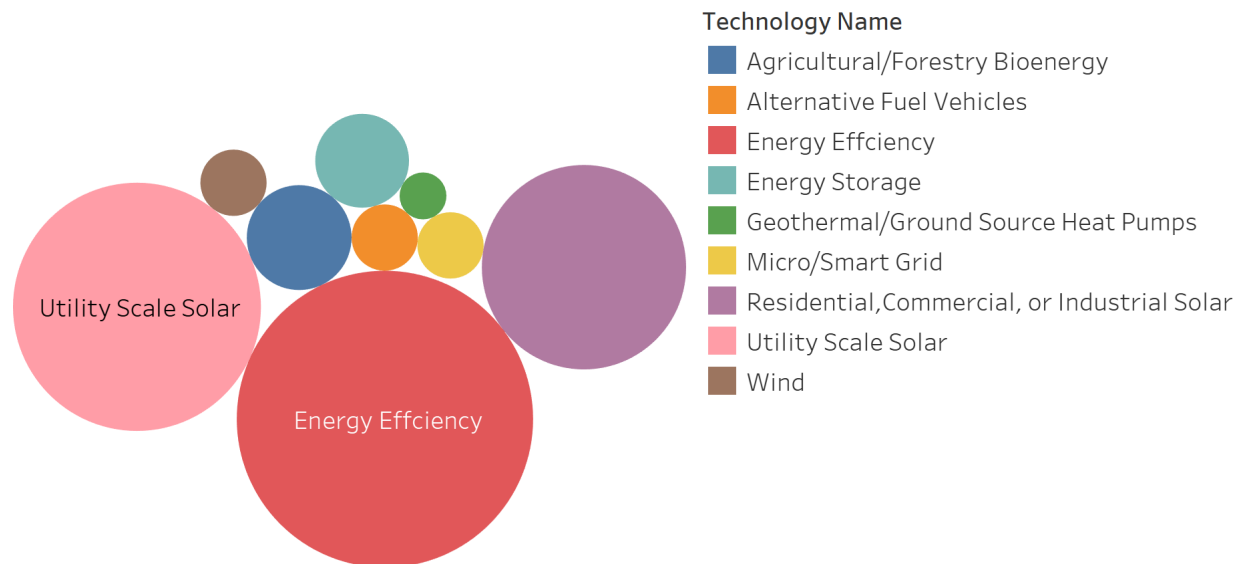
i. Sectors



Government, Nonprofit, and For-Profit are the 3 main sectors that survey respondents spend the majority of their time working in, with For-Profit cited by 44% of survey respondents.



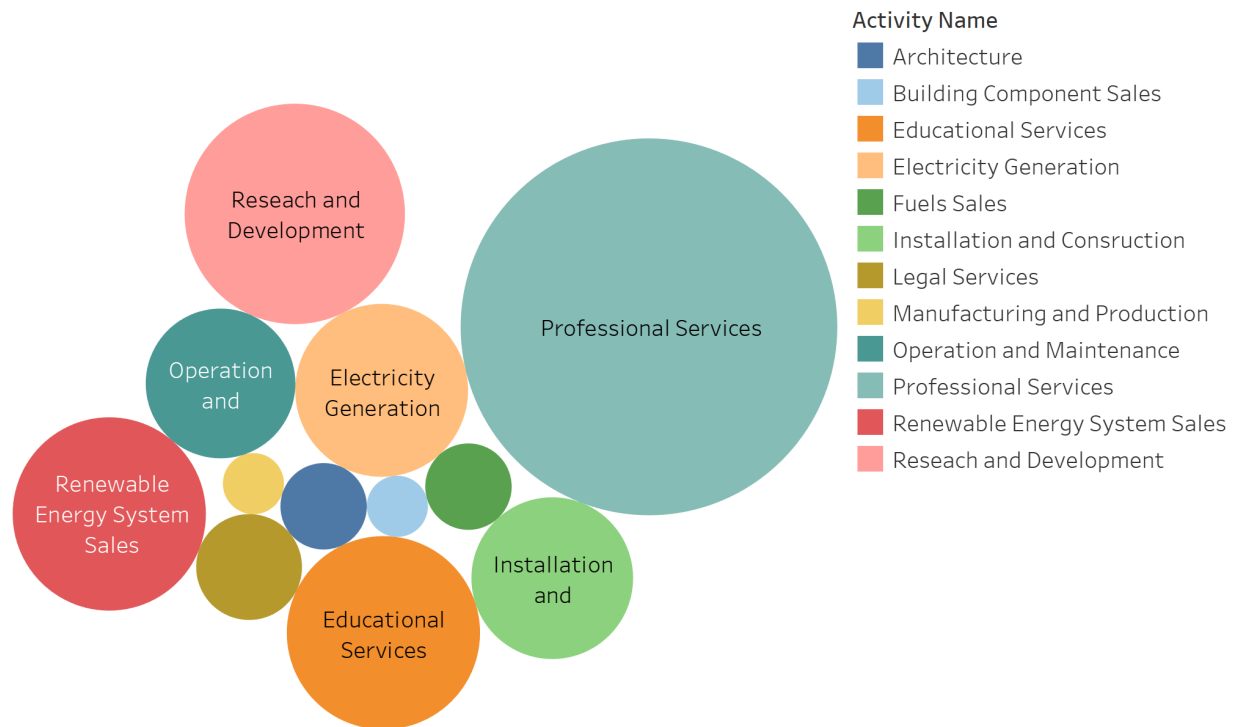
ii. Technologies



Utility Scale Solar, Energy Efficiency, and Residential, Commercial, or Industrial Solar are the 3 main technologies that survey respondents work with. These account for 73 percent of the 9 technology options.



iii. Activities

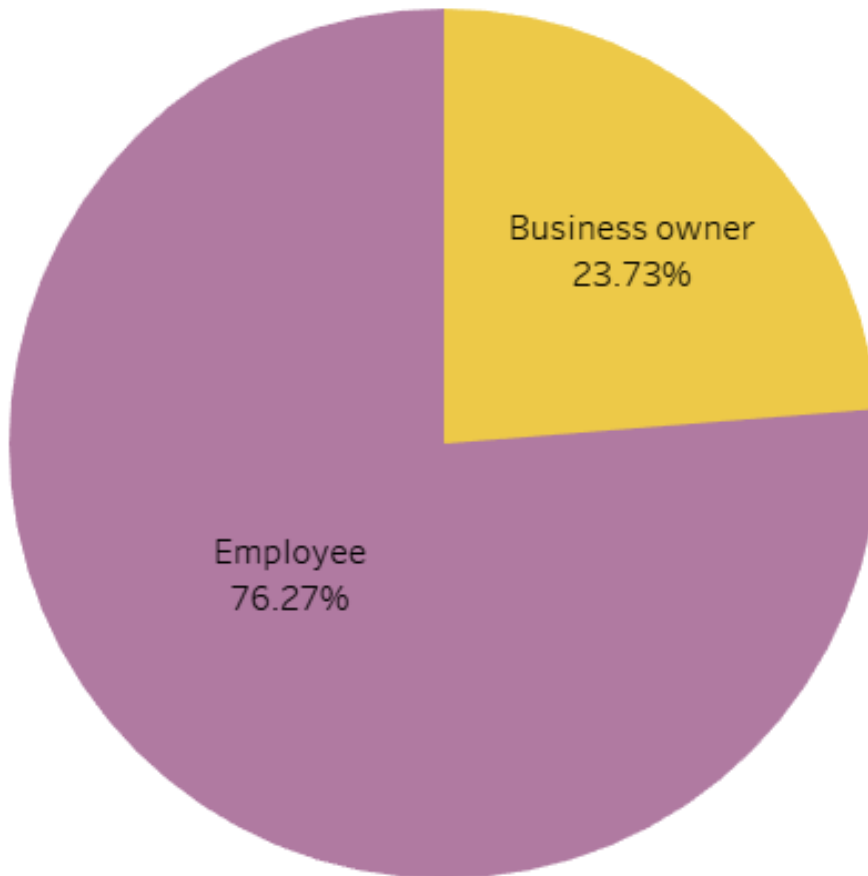


A third of survey respondents spend the majority of their time on Professional Services. Combined, Research and Development, Educational Services, and Renewable Energy System Sales make up another third of survey respondents.



Figure C - Diversity and Inclusiveness Analysis

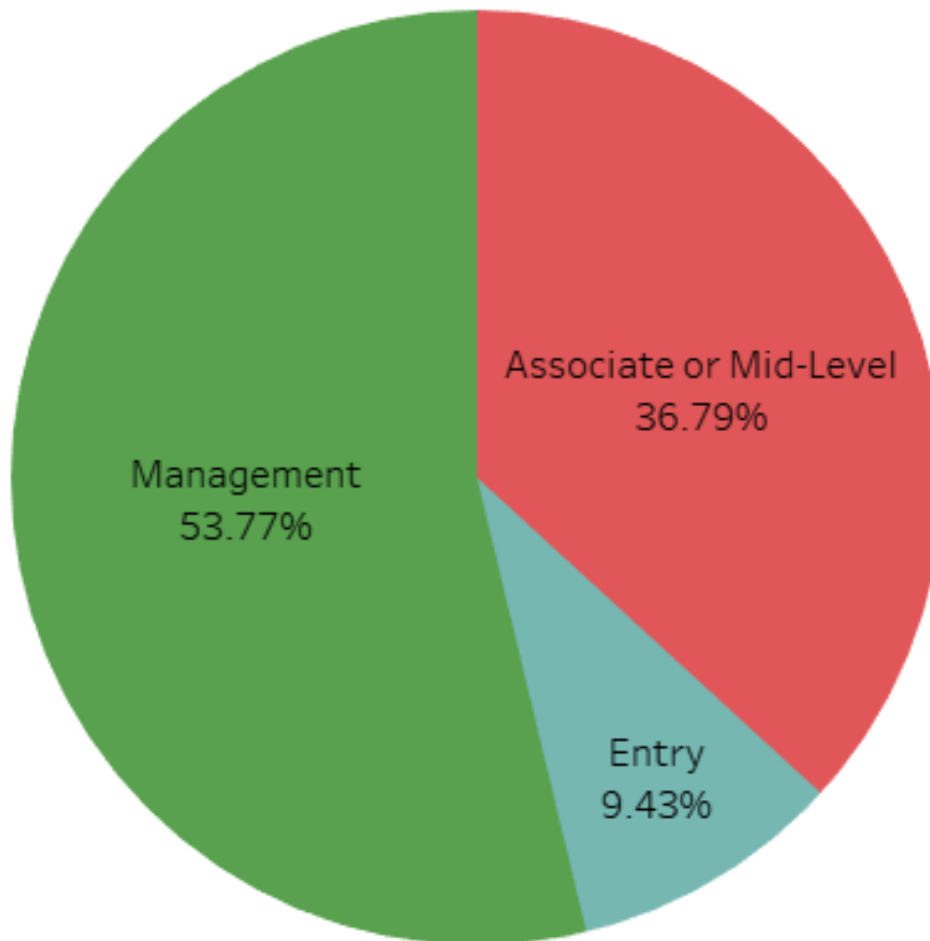
i. Business Owner or Employee



Of the respondents in this survey, around three-fourths of people who work in clean energy are employees rather than business owners. The next chart displays the breakdown of those who work as employees in the clean energy industry.



ii. Job Level



This breakdown of people who are employees in the clean energy industry shows the levels of employment of the respondents in the survey. The majority of employees who participated in the survey are in management positions at around 54%. The remainder comprised of Associate or mid-level and entry level. Only around 9% of respondents are in an entry level position, with the other 37% at associate or mid-level positions.



iii. Salary Satisfaction

Annual Salary	Not at all satisfied	Somewhat satisfied	Very satisfied
\$0-\$24,999		3	3
\$25,000-\$49,999	1	9	1
\$50,000-\$74,999		16	13
\$75,000-\$99,999		12	9
\$100,000-\$124,9..		8	7
\$125,000-\$149,9..		2	3
\$150,000-\$174,9..		1	3
\$175,000-\$199,9..		1	
\$200,000+			3

The chart above displays the annual salary of respondents and the level of satisfaction with that salary reported by respondents. The vast majority of respondents make between \$50,000-\$99,999 and people appear to be generally satisfied with pay in the clean energy industry. The real visible flip between “somewhat satisfied” and “very satisfied” is for those with salaries \$125,000 or greater. This is where the majority of respondents in that annual salary category reported being very satisfied.

iv. Job Responsibility Satisfaction

	Another Race	Asian or Asian American	Black or African American	White or Caucasian
Not at all satisfied			28.57%	3.70%
Somewhat satisfied		33.33%	14.29%	23.46%
Very satisfied	100.00%	66.67%	57.14%	72.84%

This chart shows the relationship between satisfaction with job responsibility and race of the respondents. This shows a big discrepancy between which race is satisfied with their responsibility and which doesn't seem satisfied. Around 4% the White or Caucasian respondents answered “not at all satisfied” to their responsibility, while about 29% of the Black or African American respondents made that selection.



v. Career Advancement

Gender Identification	No	Yes
Female	30.95%	69.05%
Male	12.70%	87.30%
Other identification		100.00%

The chart above shows how people of certain genders answered regarding their satisfaction with their career advancement. The results here show that regardless of gender, respondents are generally happy with career advancement in the clean energy industry. There is, however, a discrepancy in males vs females. There is almost a 20% difference in how males and females answered since many more females answered that they were not as satisfied with their career advancement.

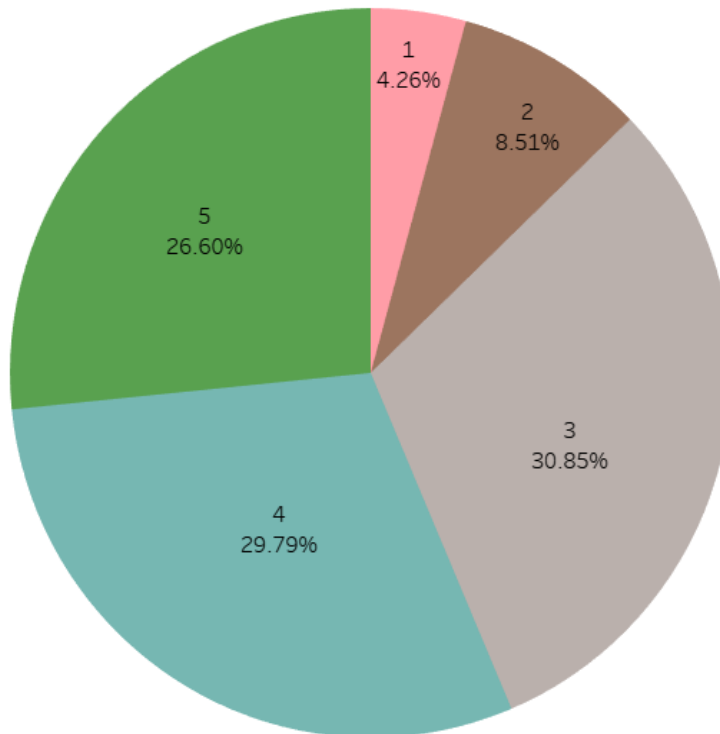
vi. Barriers to Diversity and Inclusiveness

Race	No	Yes
American Indian or Alaska Native	1	
Another race	1	1
Asian or Asian American	3	3
Black or African American	4	8
I prefer not to respond	1	3
White or Caucasian	51	37

The results above are to the question which asks if the respondents see any barriers to diversity and inclusiveness in the clean energy industry. This highlight table is grouped by race and shows that the majority of white or Caucasian respondents did not see any barriers to diversity and inclusiveness. Every other race had at least 50% or more of their respondents report that they saw barriers to diversity and inclusiveness. Twice as many respondents who identified themselves as Black or African American indicated that they had seen barriers in the industry.



vii. Support for Diversity and Inclusiveness



The above pie chart shows the distribution of the responses to the question which asked “On a scale of 1(low)-5(high), what level of support for diversity and inclusiveness have you experienced in your career”. In this distribution, around 87% of respondents indicated a 3 or above.

viii. Room for Improvement for Diversity and Inclusiveness

Gender Identification	No	Yes
Female	1	42
Male	7	59
Other identification	1	

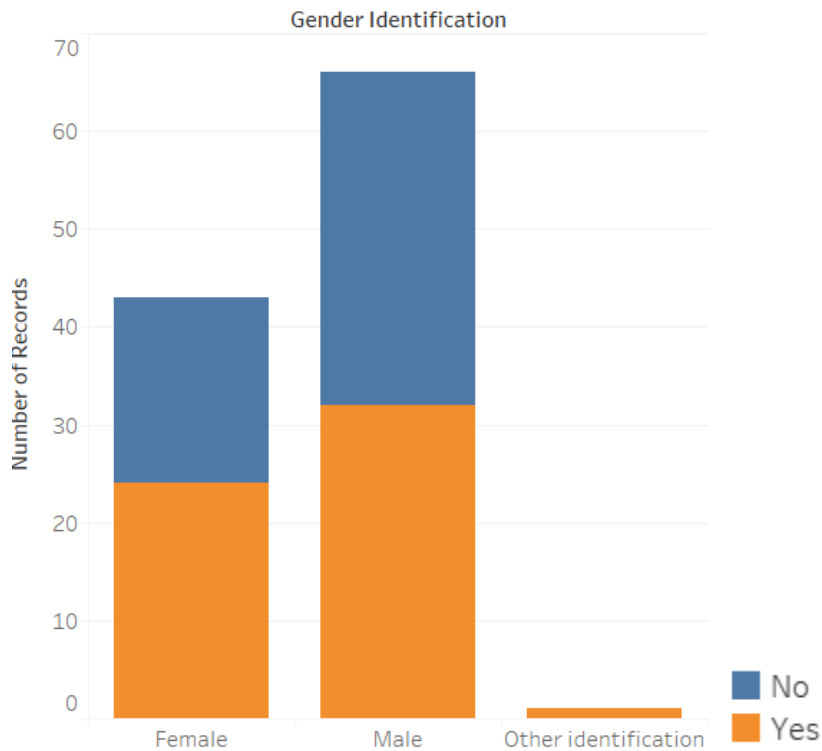
This highlight table displays the difference in how males and females answered when asked if there is room for improvement for diversity and inclusiveness in the clean energy industry. Again, there is a general consensus of how respondents answered: that most



respondents think there is room for diversity and inclusiveness.

Although there is a general consensus, 7 times as many males answered no to room for improvement.

ix. Diversity and Inclusiveness Training



This bar chart displays how the different gender identification groups answered whether they completed a diversity and inclusiveness training. While more males completed a training than females, a higher percentage of female respondents completed a training.



Table A - Themes

Theme	
Additional Benefits could be higher	2.00
Discrimination	85.00
Don't care about diversity/Don't see a problem	6.00
Lack of upward mobility	12.00
Never Satisfied	10.00
Not enough Industry activity	6.00
pay too low	32.00
Suggested strategies for improvement	67.00
Work Environment complaints	10.00
Work Environment Compliments	12.00

In order to group the responses to open ended questions that were included in the survey, NCSEA and the NCCU team grouped them by their general theme. The table above shows the number of times each theme was mentioned by respondents in the open-ended portions of the survey. The highest totals were discrimination and suggested strategies for improvement, which account for 63% of the themes mentioned by survey respondents. It should be noted that these numbers sum to a number higher than the total number of respondents because each respondent had the potential to relate to more than one theme.

Notable Responses

A couple of notable responses from the most prominent themes.

Discrimination:

- “Currently, opportunities are not announced, seems to be available in limited communities. Difficult to identify people of color in higher level positions across the industry.”



- “Women in my field are not given enough support. Their contributions are overlooked and they are not given enough credit and attribution.”

Lack of upward mobility:

- “Next steps aren't apparent. Many lateral moves available.”
- “There is not really any room to be promoted.”

Pay too low:

- “Compensation is not consistent with cost of living and level of work duties performed.”
- “My salary has been the same for a number of years, and my hours are being reduced.”

Suggested strategies for improvement:

- “More initiatives that reach out to young people who are a part of marginalized communities. This will get more of them interested and involved in this field in the future. Also going out into these communities and educating the people on what clean energy is and how we can improve our mission.”
- “Have more minorities on conference panels and in leadership positions. Give them a seat at the table to allow them to prove their competence.”

Work Environment Compliments:

- “We all work very well together in spite of our differences.”
- “Men & women of multiple races and various ages working together.”

6. Implications and Potential Areas of Improvement

Due to the low response rate, we cannot say that the responses represent the entire industry. According to the responses we did receive, we can deduce that there is much room for improvement within the industry. For future surveys, there needs to be a more purposeful outreach to generate better response rates in order to ensure that the perspectives of the entire industry are included. Until then, the North Carolina Sustainable Energy Association will continue to diligently process the current data, and plan for the future of this study into the state of diversity and inclusiveness within the clean energy industry.