THE EFFECTS OF DOG OWNERSHIP ON SELF-EFFICACY LEVELS

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S.D.G.—all glory goes to Jesus

Abstract

Multiple studies have been conducted and have concluded that dogs do have a positive impact on both physical and mental health. When it comes to mental health, researchers have found that dog-interaction has decreased stress levels. Stress levels have a negative relationship with self-efficacy levels (Khashbat, 2017). Research that has been conducted has shown both benefits, such as lower stress levels, and drawbacks, such as allergies, to incorporating dogs into places like colleges and the workplace. Can dog ownership create more productive and successful workers and students? The purpose of my research is to see if dog ownership has a positive relationship with self-efficacy and productivity levels. Self-efficacy and productivity are important because a student or employee who has high levels of these characteristics will generally stop at nothing to complete a task. The mediating factor between dog ownership and self-efficacy levels is stress levels. To test my hypothesis, I prepared an online survey that first asks for consent for both the survey and Cohen Stress Scale, and then questions for demographics, dog ownership questions, and self-reported self-efficacy ratings (GPA and determination-level). Then, participants had a choice of whether they would like to participate in an online Cohen Stress Scale, which they filled out and sent back through email. After data collection, I searched for relationship in dog owners' stress levels and self-efficacy levels. Results showed that dog ownership and self-efficacy levels have a positive relationship, and in dog owners, there is a negative relationship between stress levels and levels of self-efficacy.

Key Words: dog ownership, productivity, stress levels, self-efficacy

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Chapter 1

Introduction

Need for Study

Numerous studies have been conducted on the connection between dog-ownership and stress levels, but have inconclusive results (Picard, 2015; Allen et al., 2002; Peolheber & Matchock, 2014; Utz, 2014; Brown, 2006; Peacock, Chu-Hansen, & Winfield, 2012; Rujoiu & Rujoiu, 2014; Wells, 2017; Barker RT et al., 2012). The only thing researchers have discovered is that there is a causal relationship between human-animal interactions and an improvement in health, both mentally and physically, but there's no data on long-term impact. The goal of this research is to further previous studies in understanding the relationship between dog ownership and self-efficacy levels. The results of this research may have significant implications for university and workplace policies regarding pets. Universities and workplaces may be more apt to create policies of allowing dogs to produce happier, more productive students and employees. Perhaps, students will be allowed to bring a dog to their dorm to help with the stress of assignments and to motivate the student to complete their work.

Purpose

The purpose for this study was to see if there was a positive relationship between dog-ownership and self-efficacy levels with the mediating factor of stress levels. The goals are to compare stress, which is an decrease in overall happiness and increase in overall anxiety levels, and self-efficacy levels, "the belief in one's own abilities to deal with certain situations and plays an important role in overall self-esteem and all aspects of life" (Bandura, 1971), between those who own a dog and those who don't to then see if there is a correlation between the levels of

stress and self-efficacy. This comparison is to see if dog ownership reduces stress levels which increases self-efficacy levels. The literature review has shown that college students are considered to be one of the most stressed age-group through the multiple studies conducted on college students' stress (Lal, 2014; Hurst, Baranik, & Daniel, 2013; Leppink, Odlaug, Lust, Christenson, & Grant, 2016). If there is a way that people can get their stress down that can be part of everyday life, then it should be implemented. Perhaps, progressed studies may lead to dogs becoming implemented into college campuses and employee's work spaces. If stress is decreased, then it may occur that self-efficacy levels will increase, producing more motivation for work to be done and higher levels of success.

This paper specifically focusing on dogs because studies generally focus on dogs and not on pets in general is because research (Daltryl & Mehr, 2015; Addable, Riley, & Garison, 2009; Stewart, Dispenza, Parker, Chang, & Cunnien, 2014; Wisdom, Saedi, & Green, 2009; Allen KM, Blascovich J, & Mendes WB, 2002; Park K, Wilson MG, Lee MS, Cohen S, McKay G, 1984) tends to focus on dog-therapy in colleges and workplaces more than any other type of animal, and I wanted to explore that more. From my research, I have noticed that not many studies have been done on the topic of self-efficacy and pet ownership. Self-efficacy and productivity are important because a student or employee who has high levels of these characteristics will generally stop at nothing to complete a task. Studying factors that may have a relationship with these levels can help employers and universities figure out what policies to implement to motivate and to increase success of students and employees.

Summary

Research has placed so much focus on the relationship between dogs and human stress levels. Nevertheless, not much data has been found on the relationship between dogs and human self-efficacy levels. The goals were to compare stress, which is an decrease in overall happiness and increase in overall anxiety levels, and self-efficacy levels, which is a level of productivity and how people approach a challenge, between those who own a dog and those who don't to then see if there is a correlation between the levels of stress and self-efficacy.

Chapter 2

Literature Review

2.1 Dog Ownership Research

Since ancient times, humans and animals have always been in a dynamic relationship, from dogs hunting and guarding to becoming a family member (Serpell, 2013 as cited in Khashbat, 2017). The 18th century brought the idea that pet companionship can be useful in mental health, and two centuries later, the popularity of the benefits of owning a pet increased (Levinson, 1972 as cited in Khashbat, 2017). The interest in official research being conducted on the topic began with research on cardiac outpatients by Friedman et al. (1980) that concluded that "those with pets lived longer than those who did not have pets" (Siegel, 1996 as cited in Khasbat, 2017). Currently, the American Pet Products Association, Inc. (APPA, 2016) holds that 68% of United States households are pet owners, and that 48% of pet-owners have dogs. Pet-ownership has shown a "consistent upward trend" for over 20 years (APPA, 2016).

Saunders J, Parast L, Babey SH, Miles JV (2017) conducted a study on this using the 2003 California Health Interview Survey (CHIS 2003). The results showed higher chances of owning a dog if the owner has the characteristics of: "female, regardless of relationship status; married couples; white; older age; owning a home; better general health; higher household income; more rural location; living in a house; having current asthma; being in household where everyone works full time; working more hours per week; being full time employed; and having a spouse employed full time" (Saunders J, Parast L, Babey SH, Miles JV, 2017).

2.2 Dog Ownership Benefits and Drawbacks

Dog owners are more concerned with having a companion than about their health, but perhaps, companionship and health correlate together. Based on a survey of 521 dog owners given by the APPA in 2016 for the 2017-2018 year, one can study some benefits and drawbacks of owning a dog (APPA, 2016). The most-reported benefit in the survey is under the "companionship, love, company, affection" category at 81% of the dog-owners. Some of the other benefits reported are: dogs are "like a child/family member" (59%), "good for my health or my family's health" (53%), "security" (49%), and "walking/jogging/exercise" (48%). In a separate study, the APPA (2016) surveyed 8,701 dog owners to make personal attitude statements. The highest attitude was at 85% of dog-owners reporting that they find dogs as a "good source of affection." In a study about the specific health benefits from dog ownership, 8,701 people were surveyed. The top factor recorded was "stress relief" (67%), followed by "less anxiety/ depression" (57%) (APPA, 2016). Drawbacks from the APPA survey with 521 dog owners are reported with the highest being that 48% say that their dogs "die too easily." Some significant drawbacks following this are: "shedding" (32%), "maintenance costs" (31%), "finding care when away from home" (28%), and "noise" (26%).

2.3 Stress and College Students

When stress occurs, the body releases adrenaline (fight or flight) chemicals into the blood (Kalat, 2011 as cited by Khashbat, 2017). Prolonged stress can be caused by emotional problems, and attacks its own organs and mechanisms because there is nowhere for all of the extra energy to go (Khashbat, 2017). This in turn, causes "cognitive, physiological and behavior problems,

such as high blood pressure, heart failure, and depression" (Lazarus, 1991; 1998 as cited in Khashbat, 2017).

One of the top types of stresses is academic stress. The top frustrations from academia include fear of academic failure and facing demands from assignments, exams, attendance, trying to comprehend subject matter, and competing with other students (Lal, 2014 as cited by Khashbat, 2017). In addition to academics, college students stress about physical and mental health, family and other relationships, and goals (Hurst, Baranik, & Daniel, 2013 as cited by Wells, 2017). "Transitioning from late adolescence into emerging adulthood is a key developmental period marked by changing roles, new challenges, and increased responsibilities" (Conley, Kirsch, Dickinson, & Bryant, 2014 as cited in Picard, 2015). When college students have severe stress, they tend to have worse physical health and academic achievement, so the stress actually causes students to give into their fear of failure because they think there is nothing they can do (Leppink, Odlaug, Lust, Christenson, & Grant, 2016 as cited in Wells,2017).

D'Amico, Mechling, Kemppainen, Abhern, and Lee (2016) investigated what factors were keeping college students from seeking counseling (Adams et al., 2017). They found that those who were afraid of being judged by family and friends tended to opt out of counseling. In addition, those who did seek counseling also used yoga, exercise, and meditation (D'Amico, Mechling, Kemppainen, Abhern, and Lee, 2016 as cited in Adams et al., 2017). Other ways to cope with stress are through self-help, approach, accommodation, avoidance, and self-punishment (Brougham, Zail, Mendoza, and Miller, 2009 as cited in Picard, 2015). In Brougham et al.'s (2009) study, college-aged women reported higher stress levels, specifically from family, social relationships, finances, and daily hassles; and they use self-help and approach to deal with it (Pi-

card, 2015). Men reported using more "emotion-focused coping for a greater number of stressors" (Broughtman et al., 2009 as cited in Picard, 2015).

2.4 College Students, Stress, and Dog ownership

The research done by the State University of New York Buffalo indicated that "pets can be more supportive than friends, family or spouses at times of stress" (Allen et al., 2002 as cited by Khashbat, 2017). This is because humans know that dogs are non-judgmental, as opposed to a friend or family member (Peolheber & Matchock, 2014 as cited by Gerace, 2017). Barker et al. (2010) found that anxiety levels, which is related to stress, were decreased when a dog owner was interacting with their own dog, as opposed with one they are unfamiliar with (Picard, 2015). There is definitely a difference between owning a pet and visiting one (Picard, 2015). Research generally concludes that the primary caregiver will undergo the greatest stress relief (Utz, 2014 as cited by Wells, 2017). On the other hand, when the dog passes away, the owner will experience severe grief, and not every person enjoys the company of dogs (Brown, 2006; Peacock, Chu-Hansen, & Winefield, 2012; Rujoiu & Rujoiu, 2014 as cited by Wells, 2017).

Wells (2017) completed a study about the relationship between pet ownership and students' stress levels through the use of survey and the Cohen Perceived Stress scale. The results showed that "daily interaction with a dog did not have lower scores on the Cohen Perceived Stress Scale those who did not have daily interaction with a dog," and she suggests that further research be done (Wells, 2017). Polheber & Matchock (2014) also conducted a study on the relationship between dog-stress relationship, and sought to intermittently measure cortisol levels through human saliva (Gerace, 2017). The results of the study showed lower cortisol levels in those who were in the presence of dogs.

A study done by Picard (2015) specifically looks into the relationship between first-year college students and dog interaction to see if there is a positive effect on mood and anxiety. The study used the Pet Attitude Scale, Positive and Negative Affect Schedule-Expanded Form, State-Trait Anxiety Inventory, and the Perceived Stress Reactivity Scale. Results showed that those with direct interaction with dogs reported increased positivity, but those who didn't have the direct interaction did not. All participants left the experiment with a decrease in negativity levels and anxiety.

Animal-Assisted Therapy (AAT) has been becoming more common in college as an alternative form of counseling since 2005 (Stewart, Dispenza, Parker, Chang, & Cunnien, 2014 as cited in Adams et al., 2017). A study by Addable, Riley, & Carlson (2009) showed that 96% of college freshman were in favor of having a pet therapy program on campus (Adams et al., 2017). A reason for this may be because some adults find pets to fill that missing hole that is missing from lack of family support, or they may complement it (Wisdom, Saedi, and Green, 2009 as cited in Adams et al., 2017). Those missing their pets while at college found interacting with a therapy dog to be helpful, and researches have pointed out that these dogs have helped students get into a better, positive mindset to make new friends (Adamle, Riley, & Carlson, 2009 as cited in Adams et al., 2017). Two ways that dog therapy increases students who will not be ashamed to seek counseling is that as an alternative form of therapy, it may open students to more alternative forms of therapy; and students may find this type of therapy as acceptable among peers and family (Adams et al., 2017). Daltryl and Mehr (2015) found that 94% of students would not have stopped at a counseling center if they did not see that dogs were there (Adams et al., 2017).

2.5 The Workplace, Stress, and Dog Ownership

Companies such as Amazon, Etsy, and Google allow employees to bring their dogs to work, and provisions, such as dog-sized water fountains and dog parks, have been taken to make sure that the dogs will be taken care of (Pregulman R., 2015 as cited in Foreman AM, Glenn MK, Meade BJ, and Wirth O, 2017). Statistics show that the number of pets allowed in the workplace have increased since 2014, which was at eight percent (APPA, 2016).

"According to federal law, service dogs constitute a reasonable accommodation to an individual with a disability in employment settings under Title I of the Americans with Disabilities Act. An emotional support animal, a pet that is not specifically trained but provides emotional support to an individual with a disability, may also constitute a reasonable accommodation in the workplace under Title I" (U.S. Equal Employment Opportunity Commission, 2001 as cited in Foreman AM, Glenn MK, Meade BJ, and Wirth O, 2017). Employers must make "reasonable accommodations," which is defined as "a modification or an adjustment to a job or the work environment that allows an employee with a disability to perform essential job functions," for those with disabilities (U.S. Equal Employment Opportunity Commission, 2001 as cited in Foreman AM, Glenn MK, Meade BJ, and Wirth O, 2017). Employers may deny service dog access if he or she finds that the service dog's presence will negatively affect the company in anyway, and no accommodations or building access are required for visitation therapy dogs or pets (Foreman AM, Glenn MK, Meade BJ, and Wirth O, 2017).

Some observation studies have shown that dogs bring social support, performance improvement, and increase in socialization (Allen K.M., Blascovich J., and Mendes W.B., 2002; Park K., Wilson M.G., Lee M.S., 2004; Cohen S., McKay G., 1984 as cited in Foreman AM,

Glenn MK, Meade BJ, and Wirth O, 2017). Higher levels of social support has been correlated with decreased levels of depression and higher quality job performance, where as lower levels of social support correlate with higher levels of depression and anxiety (Allen K.M., Blascovich J., and Mendes W.B., 2002 as cited in Foreman AM, Glenn MK, Meade BJ, and Wirth O, 2017).

Foreman AM, Glenn MK, Meade BJ, and Wirth O (2017) discuss a study that has been conducted on the effects of dogs in the workplace and well-being. Employees who did and did not bring a dog to work self-reported stress levels through taking a survey several times throughout the work day (Barker R.T. et al., 2012 as cited in Foreman AM, Glenn MK, Meade BJ, and Wirth O, 2017). Results showed that employees who did not bring a dog to work experienced higher levels of stress than those who did bring a dog; and on day when employees did not being their dog, their stress levels would increase throughout the day, similar to those who never brought in their dog.

There are also some disadvantages of having dogs in the work place in the areas of health, safety, and interpersonal and cultural problems (Allen K.M., Blascovich J., and Mendes W.B., 2002 as cited in Foreman AM, Glenn MK, Meade BJ, and Wirth O, 2017). Another drawback is increased socialization among workers, which can distract them from a task and can decrease productivity levels (Foreman AM, Glenn MK, Meade BJ, and Wirth O, 2017). However, this problem can quickly dissipate as employees get used to the dog's presence enough that it is not a distraction (Foreman AM, Glenn MK, Meade BJ, and Wirth O, 2017). Foreman AM, Glenn MK, Meade BJ, and Wirth O (2017) discusses health, safety, and well-being issues from dogs in the work place as the following: allergies ranging in 15-30% of people; zoonoses, an infectious disease transmitted between animals and humans; slips, trips, and fall hazards; dog bites; fears

and phobias; cultural sensitivities; and animal welfare concerns, such as “freedom from hunger or thirst, freedom from discomfort, freedom from pain, freedom to express normal behavior and freedom from fear and distress (Asthma and Allergy Foundation of America, 1995; Plaut M., Zimmerman E.M., and Goldstein R.A., 1996; British Veterinary Association, 1992).

2.6 Self-Efficacy

Bandura’s definition of “self-efficacy” is “the belief in one’s own abilities to deal with certain situations and plays an important role in overall self-esteem and all aspects of life” (Bandura, 1971 as cited in Khashbat, 2017). The important aspect to focus on is the role self-efficacy plays in how “people approach their goals, challenges, and situations” (Khashbat, 2017).

Bandura (1977) gives four major sources that add to the development of self-efficacy: mastery experiences, social modeling, social persuasion, and psychological responses (Khashbat, 2017). Mastery experiences has to do with performing tasks correctly and effectively (Khashbat, 2017). Social Modeling is seeing others similar to oneself complete an act successfully; thus, the person believes that they can do so too (Khashbat, 2017). Social persuasion is the idea that people can be encouraged that they can complete a task and believe it (Khashbat, 2017). Psychological responses are the moods, emotions, physical state, and stress level someone is feeling during a situation (Khashbat, 2017).

Self-Efficacy is correlated with stress, self-esteem, and academic perfomance, so minimizing stress is key to increasing self-efficacy (Khashbat, 2017). Vaeze & Fallah (2011) found a negative relationship between self-efficacy and stress (Khashbat, 2017). Mustafa et al. (2012) showed that the relationship between self-efficacy and academic performance increased

achievement; and had to do with self-evaluation, self-regulation, and self-directing (Khashbat, 2017).

2.7 Self-Efficacy and Dog Ownership

Quan & Jin (2005) studied the relationship between pet ownership and self-efficacy (Khashbat, 2017). While there was no major difference between those who own dogs and those who don't, pet owners showed higher levels of self-efficacy than non pet owners (Khashbat, 2017). Khashbat also did his own research on this topic through the use of a survey, and the results showed no relationship between stress and self-esteem, no relationship between self-efficacy and self-esteem, and a relationship between stress and self-efficacy among college students (Khashbat, 2017).

In addition, Gerace (2017) studied whether college students who own domestic dogs as pets experience higher levels of academic productivity (self-efficacy). She used questionnaires, which asked about topics such as stress and academic performance, and the Pet Attitude Scale. Her results showed that overall academic performance, perceived stress, and involvement are higher for those who are dog owners, as opposed to those who are not (Gerace, 2017).

2.8 Dog Owners Versus Non-Dog Owners

McConnell AR et al. (2011) conducted a study on whether pet owners enjoy a better well-being than non-owners. The procedures for this study include: Center for Epide-miological Studies (1977) Depression Scale; UCLA Loneliness Scale; Rosenberg (1965) Self-Esteem Scale; Cohen and Hoberman (1983) symptom inventory; a happiness scale; exercise log; Goldberg's (1999) NEO Personality Inventory-Revised; Bartholomew and Horowitz (1991) at-tachment scale; Inclusion of Others in the Self Scale; and the Epley, Waytz, and Cacioppo (2007) Pet An-

thromophism Scale. Results showed that pet-owners do have a greater well-being, healthier personality traits, and greater attachment style toward self.

Hypothesis

I hypothesize that dog-ownership will have a negative relationship with stress levels. I also predict that dog-ownership will have a positive relationship with self-efficacy levels, and that in turn, stress levels and self-efficacy levels would have a negative relationship, connecting dog ownership and self-efficacy.

Chapter 3

Methodology

Participants

This study involved dog owners and non-dog owners across the United States. I sought participants through posting the link to my survey from Survey Monkey on the social media platforms Facebook, Instagram, and Snapchat. I also contacted my Professors and asked if I could share the link to the survey with my fellow classmates.

Materials and Design

Data collection was taken during September 2018. Participants were originally limited to only college students and working adults because the research is focused on how owning a dog affects the productivity/self-efficacy levels of college students and employees. However, one of the participants is retired, but this may be a good comparable variable for the overall hypothesis. The effects of dogs on self-efficacy levels were assessed through a survey (see Appendix B) created by the researcher. The questions were created based off the research for the literature review. After getting a better idea of the concept of self-efficacy, I focused in on the productivity and motivation aspect of it. I specifically asked about self-assessed motivation levels (Question 8) and work qualities (GPA) to see if owning a dog increased the levels of how motivated one is to complete work and if they see that work as successful. In addition, multiple studies (Cohen S, McKay G, 1984; Cohen, Hoberman, 1983; Wells, 2017) similar to mine have used the Cohen's Stress Scale to assess daily stress levels. This was my mediating link to see if there was a relationship between dog ownership and levels of self-efficacy through the level of stress. The survey consists of 10 multiple choice questions, and on average took about 2 minutes to complete.

The only required question was the first question, which was that of consent. Those who answered "no" were brought to the disqualification page. Conducting a survey was an efficient way to gather data to make a quantitative comparison regarding stress levels of owners and non-owners, though the sample has limited generalizability given the fact that it was a convenience sample. Other limitations are recorded in the "limitation" portion of the paper.

In addition to the survey, the only open-ended question was the last question, which requested an email if participants wanted to participate in the second half of the study. I would email the participants the online Cohen Stress Scale with specific instructions on how to complete it, and with a reminder of the consent agreement that was agreed to before taking the survey also applied to this (See Appendix C). In turn, the participants would email me the completed version back. The Cohen Stress Scale was one that I have downloaded from the official website, which gives permission for academic research use (see Appendix D). I have assumed that all participants who answered the survey, answered honestly and was able to completely comprehend what the question was asking. A pro of using this scale was that it has been used before, so it can be comparable to other studies (Cohen S, McKay G, 1984; Cohen, Hoberman, 1983; Wells, 2017). Cons to using this method were that the instructions may have been a little vague for being done over email, and this scale doesn't take into account stress-factors going on in the participant's life. Other limitations are recorded in the "limitation" portion in the paper.

Methods

Participants were given a link to access the survey on Survey Monkey. Data collection took place from September 11, 2018 to September 18, 2018. The survey took a maximum of four minutes to complete, and the Cohen's Stress Scale takes approximately five minutes. First, before anyone can take the survey, they are given a link to Survey Monkey's Private Policy to read and my own private policy (See Appendix A), which provided the ways that I would protect data. Then, they must answer "yes" to the consent question, the only required question in the survey, in order to take the survey; otherwise, participants are taken to the disqualification page. After all self-reported survey and Cohen Stress Scale data were collected, I, as the researcher, have analyzed it to test my hypothesis. To test overall self-efficacy levels, I combined responses to questions eight and nine of the survey. Self-reported GPA (Question 9) was grouped together: 3.1 and above (high-level) and 3.0 and below (below-level). High-level answer to question eight and a high GPA was an overall high level of self-efficacy, a low-level answer to question eight and a low GPA was an overall low level of self-efficacy, and a high-level answer to question eight and a low GPA or a low-level answer to question eight and a high GPA was an overall neutral level of self-efficacy. I created a scale (See Appendix E) that would asses the whole test for what would be the results for each level of stress. Data has been analyzed quantitatively, and was then used to analyze whether dog owners tended to have higher levels of self-reported self-efficacy levels. All data collection has been graphed for a visual analysis (see Appendix F).

Limitations

This research is short-term; did not specify whether people could be both students and employees; didn't ask to consider the currents stressors of people, such as a move, new parent,

getting fired, etc.; and doesn't clarify in the survey whether someone currently has a dog. Also, not every participant took part in the stress aspect of the study or handed in their Cohen Stress, Scale. In addition, this is a convenience sample, and that as such, this study may have limited external validity.

Chapter 4

Results

Fifty participants took part in the study and answered the survey. Self-reported demographics showed that the majority of participants in the survey were in the age range of "18 to 24 years old" (57.14%) and female (83.33%). The only two geographical region divisions that participates were "Mid-Atlantic: New York, New Jersey, and Pennsylvania" (78.36%) and "South Atlantic: Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, District of Columbia, and West Virginia" (21.74%). Many of the participants (40.91%) selected the "other" category for "current occupation." Although there were a variety of categories to choose from, participants still self-reported for being a "student," "unemployed," "Human Resources," and "retired."A majority of survey participants were dog owners (69.77%), as opposed to those who were not (30.23%). Most participants have been a dog owner for over 10 years (50%), were students (28%), female (90%), between the ages of 18-24 years old (55%), and were from the Mid-Atlantic geographic regional division (73%). Non-dog owners made up the other 30.23% of the participants with a majority being students (40%), female (75%), between the ages of 18-24 years old (67%), and were from the Mid-Atlantic geographic regional division (83%). Further information about demographics and statistics can be found in Appendix F.

In the survey, the overall, self-reported self-efficacy levels were measured using the questions eight and nine (see Appendix B). Results showed a majority of participants having high-levels of self-efficacy through choosing the survey answer of "I often find myself determined to finish a task" for question eight (78.57%) and a GPA of 3.1 and above for question nine (95.24%). Those who showed low-levels of self-efficacy chose "I often find myself wanting to

consistently giving up on a task before completing it" for question eight (21.43%) and a GPA of 3.0 or below for question nine (4.76%).

The first part of the hypothesis was testing to see whether there is a relationship between being being a dog owner and having self-efficacy levels. Testing showed that no participants had overall low levels of self-efficacy (low GPA/low answer to question 8). A majority (82%) of dog owners showed high levels of overall self-efficacy (high GPA/high answer to question 8), while 18% showed neutral levels of overall self-efficacy (mixture of high and low GPA/answer to question 8 answers). To get a more in-depth look into self-efficacy levels, the next step was to look at the GPA and motivation levels (Question 8). Dog owners who self-reported a GPA of 3.6-4.0, the most self-reported GPA for dog-owners, tended to have a higher level of motivation answer (93%), and the same is to be said for those with a self-reported GPA of 3.1-3.5 (71%). No dog owners self-reported any GPA lower. The most-reported GPA was 3.6-4.0 (52%) with a close follow by 3.1-3.5 (48%).

When looking at non-dog owners for the same tests, no participants had low overall levels of self-efficacy. A majority of non-dog owners showed overall high levels of self-efficacy (58%); however, neutral overall self-efficacy levels were not far behind with 42%. Looking at GPA and motivation levels, a self-reported GPA of 3.6-4.0 for non-dog owners tended to have a higher level motivation answer (71%), those with a self-reported GPA of 3.1-3.5 had a higher level motivation answer (67%), and 100% of those with a self-reported GPA of 2.6-3.0 had a higher motivation answer. The most-reported GPA was 3.6-4.0 (58%), following with 3.1-3.5 (25%) and 2.6-3.0 (17%).

The second part of the hypothesis is analyzing participants' stress levels to test whether stress is a mediating factor between dog ownership and self-efficacy levels. Those who participated in this part of the study were predominately dog owners (67%); female (56%); from the Mid-Atlantic (56%); students (33%); 18-24 years old (56%); and if participants were dog owners, they were so for over 10 years (83%).

Stress levels were calculated from the Cohen Stress Test and ranked from least to most stress as the following: "none," "slight," "sometimes," "often," and "extreme." A majority of participants reported "slight" stress (44%), followed by "sometimes" (33%), a tie between "none" and "extreme" (11% each), and "often" (0%). Dog owners' results were the following: 50% "slight" and a three-way tie among "none," "sometimes," and "extreme" (17% each). Non-dog owners' stress levels only fell under the categories of "sometimes" (67%) and "slight" (33%).

The next part of the study compares self-reported stress levels to self-reported efficacy. Those who were dog owners and had overall high self-efficacy levels mainly had a "slight" stress level (50%), followed by "sometimes" (33%) and "none" (17%), and those with overall neutral self-efficacy levels had an "extreme" stress level (100%). Non-dog owners who had overall high self-efficacy levels mainly had a "sometimes" stress level (100%), and those with overall neutral self-efficacy levels had either a "slight" or "sometimes" stress levels (50% each).

Also, this comparison includes that of self-reported stress and self-efficacy levels through the survey's question eight answers. Dog owners who self-reported having a high-level answer for question eight also had stress levels of "none" (14%), "slight" (29%), and "sometimes" (43%), and those who self-reported having a low-level answer for this question also had a stress level of "extreme" (14%). Non-dog owners who self-reported having a high an-

swer level to question eight on the survey also had either a “slight” or “sometimes” stress level (33% each), and those who self-reported having a low-level answer had a “sometimes” stress level (33%).

The other aspect of comparing self-reported stress levels to self-reported self-efficacy levels through analyzing self-reported GPA. Those who were dog owners and self-reported a GPA level of 3.6-4.0 also self-reported stress levels of “slight” and “sometimes” (29% each); and those with a GPA level of 3.1-3.5 self-reported stress levels of “none,” “slight,” and “extreme” (each 14%). Non-dog owners who self-reported having a 3.6-4.0 GPA also had stress levels of “sometimes,” (67%) and those who self-reported having a 2.6-3.0 GPA also had stress levels of “slight” (33%).

Chapter 5

Discussion

Summary and Implication

The study tests whether dog ownership has a relationship with self-efficacy levels through the mediating factor of stress levels. The official hypothesis predicts that dog-ownership will have a negative relationship with stress levels, dog-ownership will have a positive relationship with self-efficacy levels, and that in turn, stress levels and self-efficacy levels would have a negative relationship, connecting dog ownership and self-efficacy. Results showed that in overall self-efficacy levels, more dog owners than non-dog owners showed a high level. In comparison, non-dog owners showed more overall neutral self-efficacy levels than dog owners. Dog-owners with GPAs of 3.1 and above tended to have high-level motivation, based off of question 8 of the survey. More non-dog owners self-reported a GPA of 3.6-4.0, but they also had the lower GPA range of 2.6-3.0 than dog owners. Therefore, dog ownership and self-efficacy levels have a positive relationship.

When discussing stress levels, more dog owners showed the least amount of stress with the predominant level as “slight,” and the predominant level of stress for non-dog owners was “sometimes,” which is considered to be more stress. Nevertheless, the stress levels on the opposing levels, “none” and “extreme” are both associated with dog owners. These results may be outliers because there are only one of each, and don’t entirely fit with the rest of the results. The “extreme” stress result also self-reported an overall neutral self-efficacy level and a low motivation level for question eight of the survey. Dog owners who had overall high self-efficacy levels showed “slight,” “sometimes,” and “none” stress levels. Stress levels has no relationship with

self-efficacy of non-dog owners. Overall self-efficacy levels showed “sometimes” stress levels with neutral self-efficacy also including “slight.” The GPAs between dog-owners and dog owners showed similar stress levels. A surprising result showed a lower stress level for a lower GPA of 2.6-3.0 in non-dog owners. The self-assessed motivation level through the survey question eight is where the relationship between stress levels and self-efficacy is. In dog owners, there is a difference between high levels and low levels of motivation (self-efficacy) and stress levels. Those with higher levels of self-assessed motivation had lower levels of self-reported stress, and those with lower levels of self-assessed motivation had an “extreme” level of stress. Therefore, in dog owners, there is a negative relationship between stress levels and levels of self-efficacy.

Future Directions

Due to the limitations, this study would not be generalizable. The participants did not represent the population of the United States, and therefore, should be further tested and studied. Nevertheless, the results concluded that dog ownership does have a relationship with self-efficacy through stress, even if it was only on a sample of these participants. Non-dog owners were not significantly affected in stress and efficacy levels, but dog owners did show higher percentage for higher self-reported GPAs and motivation levels (self-efficacy). The stress level were not too distinguishing between dog owners and dog owners, but this is something that should be further studied.

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Appendix A

Ethics Intent Agreement

Please read the above's terms about Survey Monkey's Private Policy. I personally will do the best to my ability to keep your identity private and confidential by keeping everything anonymous through no name usages, identifying surveys and the Cohen's Stress Scale through codes (numbers and letters), and deleting all Cohen's Stress Scales and any surveys that survey monkey alllows after the research has been completed. With the Cohen Stress Scale, I will use a separate email that will have a password for it, and I will delete the email account and all the emails when I am done. At any time you may remove yourself from the survey or Cohen's Stress Scale, and not submit them. You don't have to answer all of the questions if you don't want to.

Appendix B

Survey

1. Did you read all of the terms from Survey Monkey and what I wrote on the previous page? Do you agree to the above terms? Do you consent with your personal data from the survey being processed as described above? By clicking Yes, you consent that you are willing to answer the questions in this survey and the attached link for Cohen's Stress Scale.

    o Yes

    o No

2. What is your age?

    o Under 18 o 45 to 54

    o 18 to 24 o 55 to 64

    o 25 to 34 o 65 to 74

    o 35 to 44 o 75 or older

3. What is your gender?

    o Female

    o Male

4. What geographical region division do you live in the United States?

    o New England: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont

    o Mid-Atlantic: New York, New Jersey, and Pennsylvania

    o East North Central: Illinois, Indiana, Michigan, Ohio, and Wisconsin

- o West North Central: Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota
- o South Atlantic: Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, District of Columbia, and West Virginia
- o East South Central: Alabama, Kentucky, Mississippi, and Tennessee
- o West South Central: Arkansas, Louisiana, Oklahoma, and Texas
- o Mountain: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming
- o Pacific: Alaska, California, Hawaii, Oregon, and Washington

5. Which of the following best describes your current occupation?

- o Computer and Mathematical Occupations
- o Farming, Fishing, and Forestry Occupations
- o Community and Social Service Occupations
- o Production Occupations
- o Installation, Maintenance, and Repair Occupations
- o Protective Service Occupations
- o Education, Training, and Library Occupations
- o Food Preparation and Serving Related Occupations
- o Personal Care and Service Occupations
- o Sales and Related Occupations
- o Construction and Extraction Occupations
- o Arts, Design, Entertainment, Sports, and Media Occupations

o Management Occupations

o Architecture and Engineering Occupations

o Life, Physical, and Social Science Occupations

o Healthcare Support Occupations

o Office and Administrative Support Occupations

o Legal Occupations

o Healthcare Practitioners and Technical Occupations

o Business and Financial Operations Occupations

o Building and Grounds Cleaning and Maintenance Occupations

o Transportation and Materials Moving Occupations

o Other (please specify)

6. Are you a dog-owner?

o Yes

o No

7. How long have you been a dog-owner?

o Under 6 months o 5-7 years

o 6 months - 1 year o 8 - 10 years

o 2 - 4 years o Over 10 years

8. In general, when you are given an assignment or task, would you describe yourself as deter mined to finish it or wanting to consistently giving up before completing it?

o I often find myself determined to finish a task

o I often find myself wanting to consistently giving up on a task before completing it

9. If you are a student, what is your GPA? If you are a non-student, what GPA would you give yourself for your work quality?

o 3.6 - 4.0 o 2.1 - 2.5

o 3.1 - 3.5 o 2.0 or below

o 2.6 - 3.0

10. If you wish to participate in the second portion of the study, please provide your email below, and I will email you the online file to complete the Cohen Stress Scale.

Appendix C

Email Instructions

Hi,

I just wanted to personally thank you for taking part in my survey and research. I really means a lot that you took the time to participate. As mentioned in the consent agreement, all privacy factors that apply to the survey also apply here. Attached is the Cohen's Stress Scale, please send back the completed form. If you have any questions or concern, please don't hesitate to ask.

Thank you and God bless,

Juliana

Appendix D

Cohen's Stress Scale

PSS

INSTRUCTIONS:

The questions in this scale ask you about your feelings and thoughts during THE LAST MONTH. In each case, please indicate your response by writing a number 0-4 under the corresponding question representing HOW OFTEN you felt or thought a certain way. The scale is in the following page.

1. In the last month, how often have you been upset because of something that happened unexpectedly?

2. In the last month, how often have you felt that you were unable to control the important things in your life?

3. In the last month, how often have you felt nervous and "stressed"?

4. In the last month, how often have you felt confident about your ability to handle your personal problems?

5. In the last month, how often have you felt that things were going your way?

6. In the last month, how often have you found that you could not cope with all the things that you had to do?

7. In the last month, how often have you been able to control irritations in your life?

8. In the last month, how often have you felt that you were on top of things?

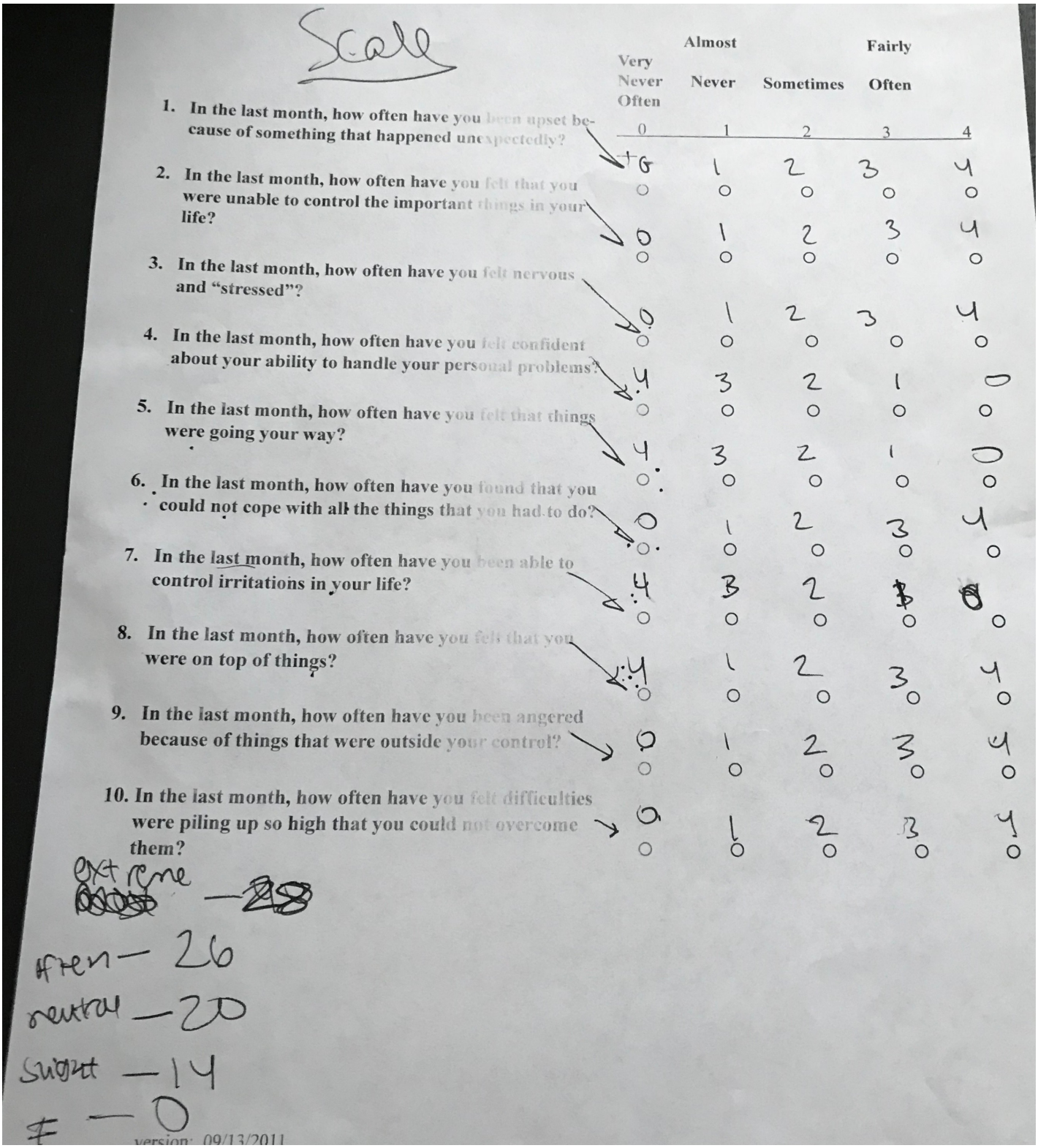
9. In the last month, how often have you been angered because of things that were outside your control?

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

Never	Almost Never	Sometimes	Fairly Often	Very Often
0	1	2	3	4

Appendix E

Study's Scale for Cohen Stress Scale Results



Appendix F

Figures

Dog Owner Gender

GENDER	PARTICIPATION
Female	27
Male	3

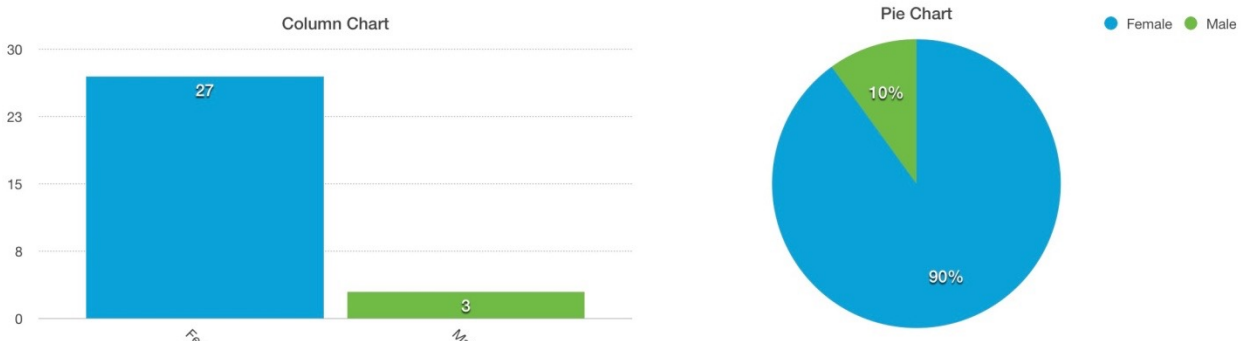


Figure 1: Percentage of Dog Owners by Gender

Dog Owner Years of Ownership

YEARS OF OWNERSHIP	PARTICIPATION
Under 6 Months	1
6 Months-1 Year	3
2-4 Years	4
5-7 Years	4
8-10 Years	3
Over 10 Years	15

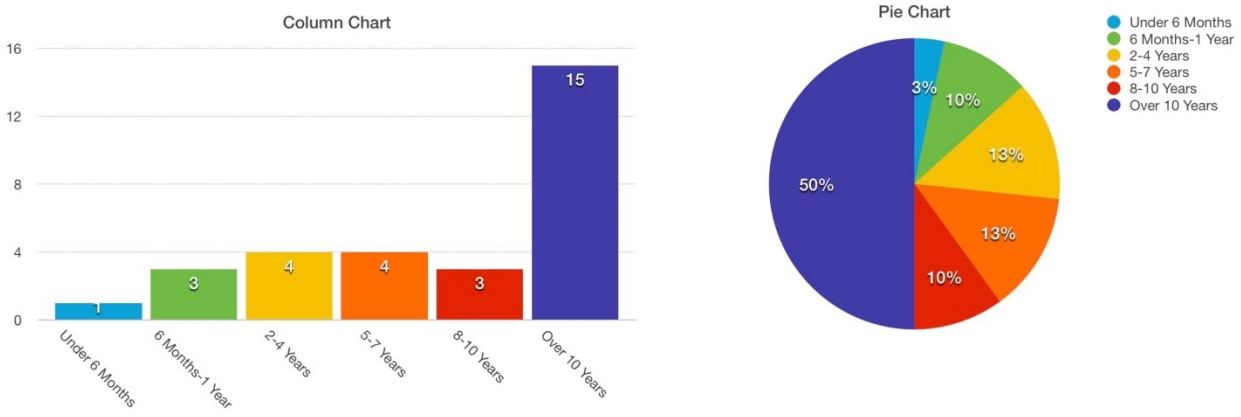


Figure 2: Percentage of Dog Owners by Years of Ownership

Dog Owner Geographic Regional Division

DIVISION	PARTICIPATION
Mid-Atlantic	22
South Atlantic	8

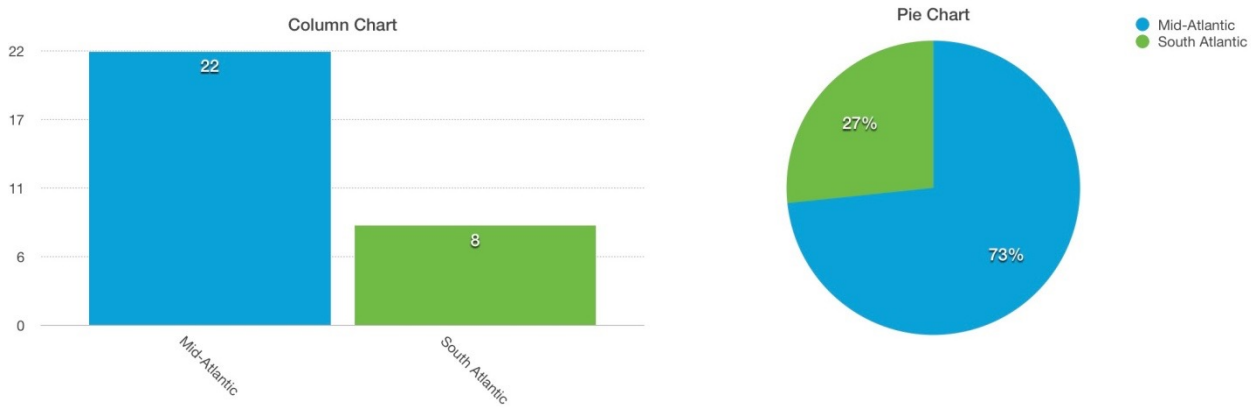


Figure 3: Percentage of Dog Owners by Geographic Regional Division

Dog Owner Age

AGE	PARTICIPATION
Under 18	3
18-24	16
25-34	1
35-44	3
45-54	3
55-64	1
65-74	2

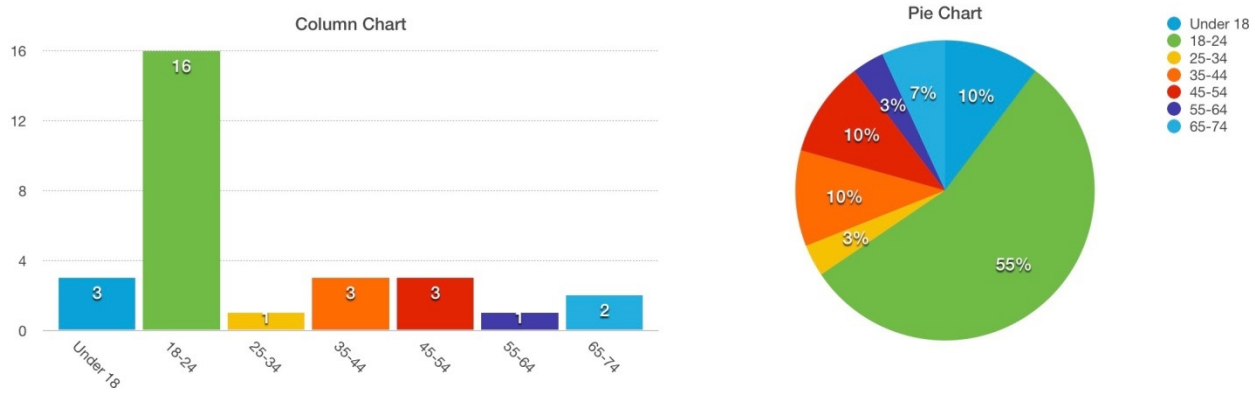


Figure 4: Percentage of Dog Owners by Age

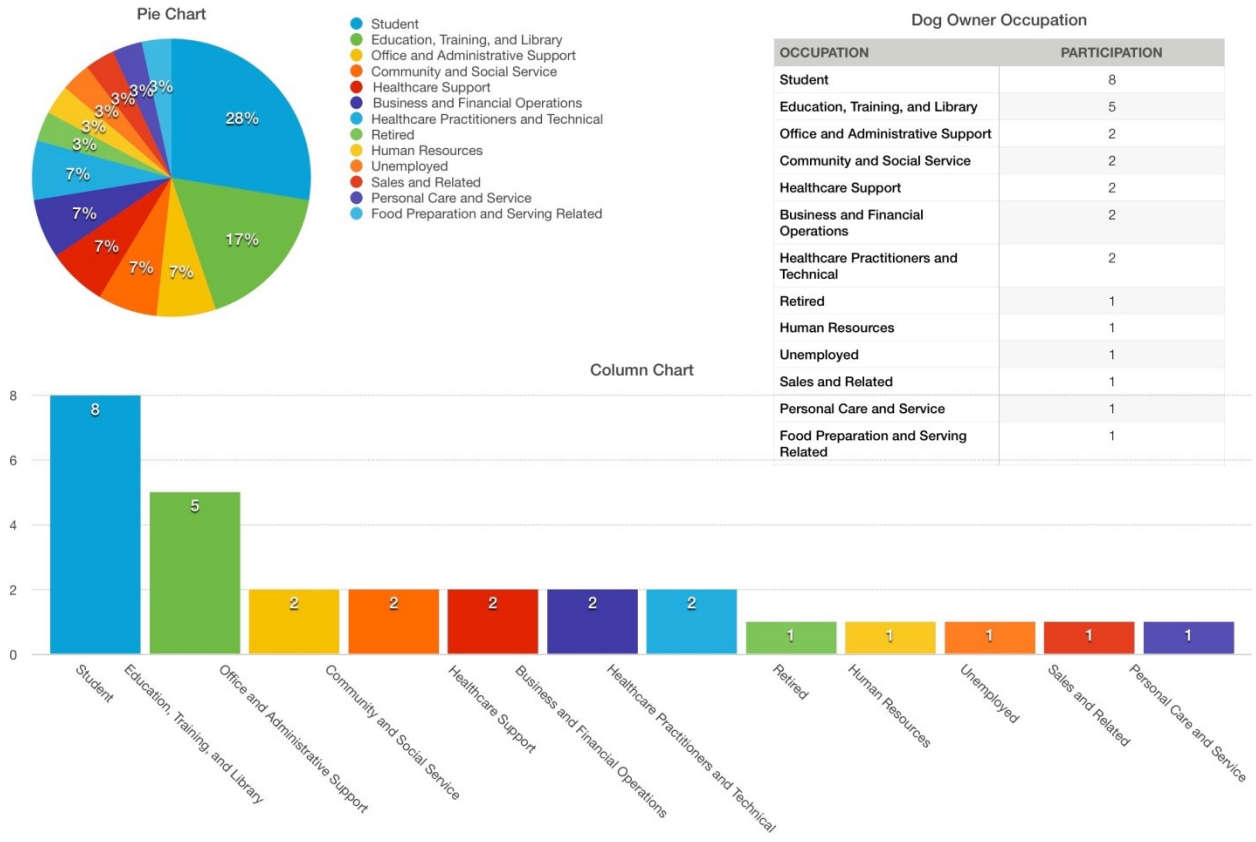


Figure 5: Percentage of Dog Owners by Occupation

Dog Owner Self-Efficacy Levels

LEVELS	PARTICIPANTS
High	23
Neutral	5
Low	0

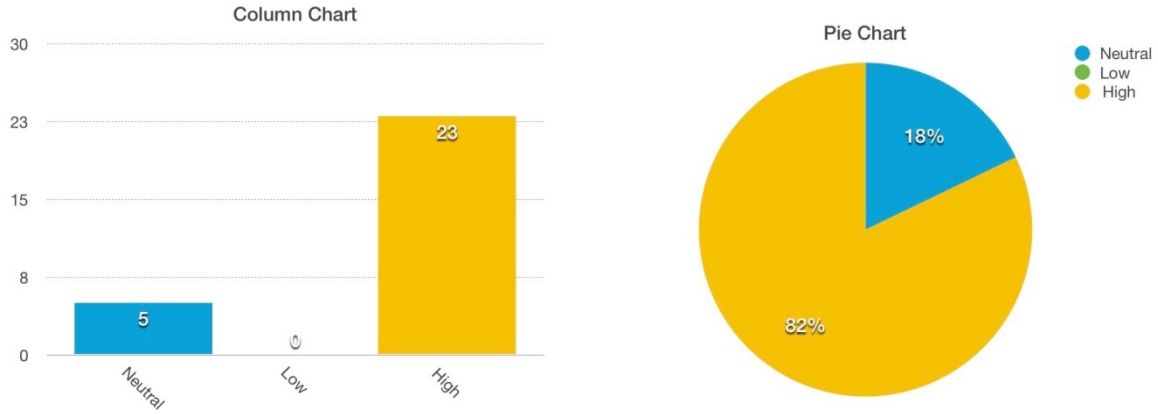


Figure 6: Percentage of Dog Owner Self-Efficacy Levels

Dog Owner Gender Self-Efficacy Levels

GENDER	PARTICIPANTS
Female	26
Male	3

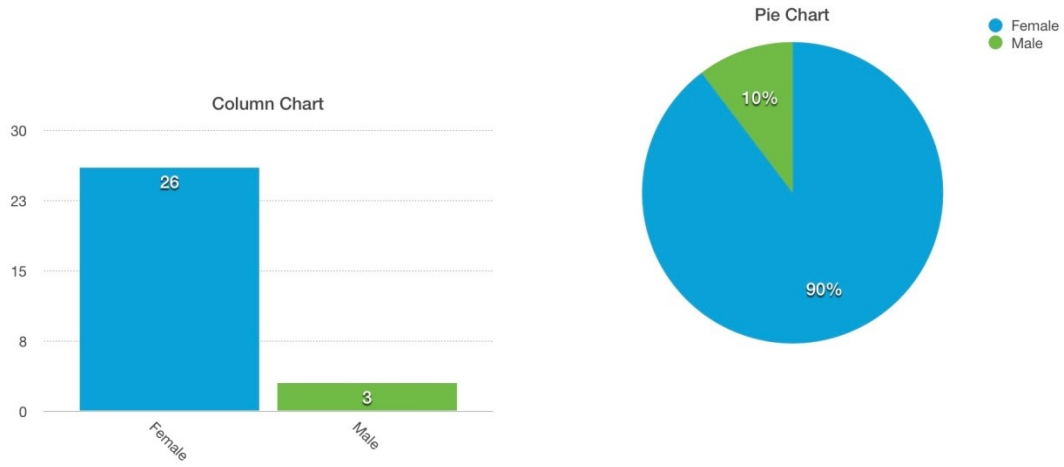


Figure 7: Percentage of Dog Owners Self-Efficacy Levels by Gender

Dog Owner Geographic Region Division Self-Efficacy Levels

DIVISION	PARTICIPANTS
Mid-Atlantic	21
South Atlantic	8

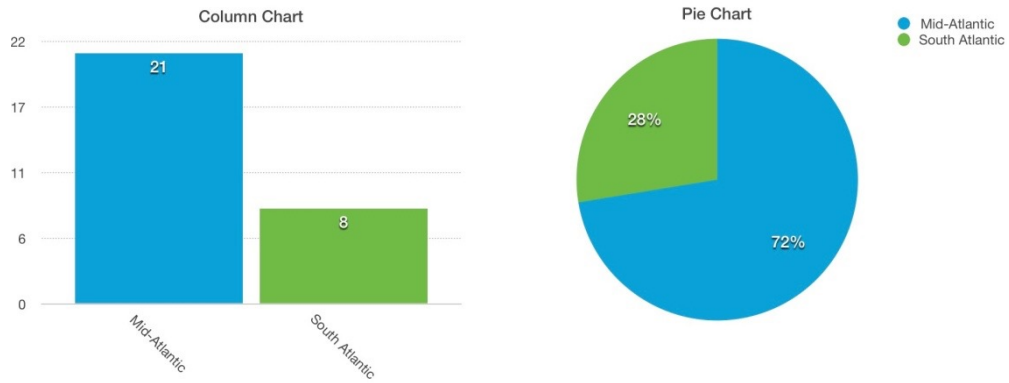


Figure 8: Percentage of Dog Owners Self-Efficacy Levels by Geographical Region Division

Dog Owner Age Self-Efficacy Levels

AGE	PARTICIPANTS
Under 18	3
18-24	15
25-34	1
35-44	3
45-54	4
55-64	1
65-74	2

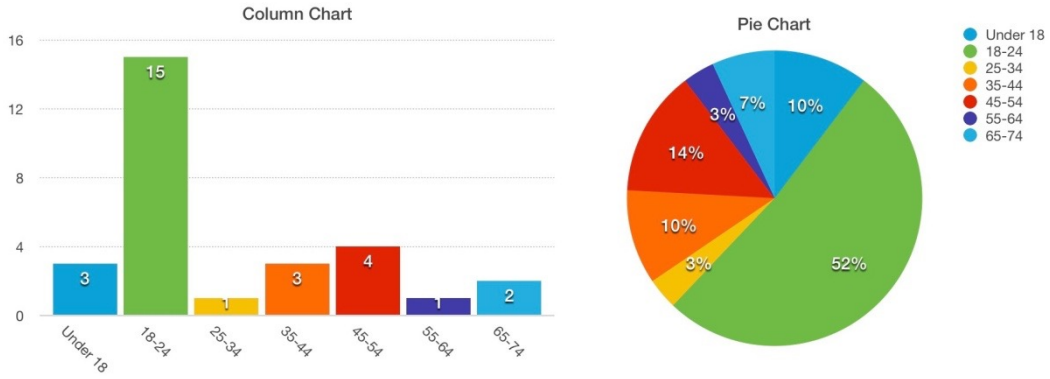


Figure 9: Percentage of Dog Owners Self-Efficacy Levels by Age

Dog Owner Gender Neutral Self-Efficacy Levels

GENDER	PARTICIPANTS
Female	5
Male	0

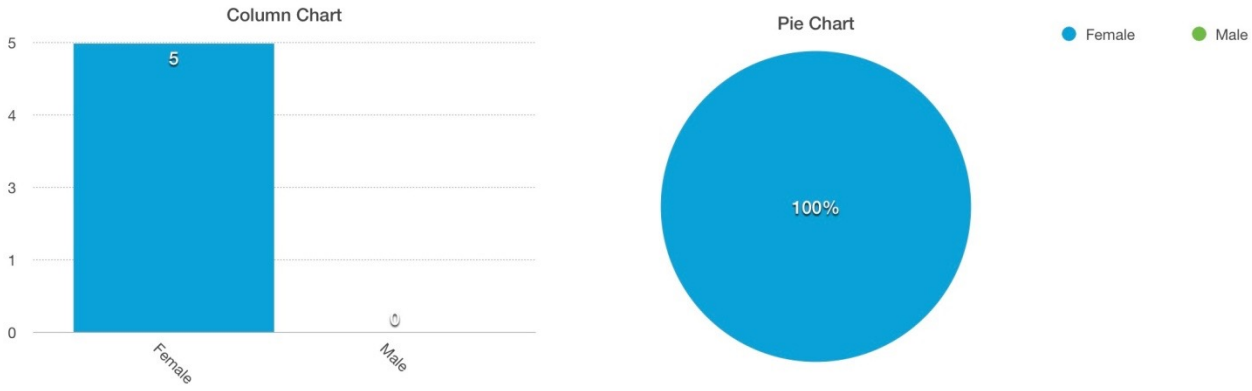


Figure 10: Percentage of Dog Owners Neutral Self-Efficacy Levels by Gender

Dog Owner Years of Ownership Neutral Self-Efficacy Levels

YEARS OF OWNERSHIP	PARTICIPANTS
Under 6 Months	0
6 Months-1 Year	1
2-4 Years	0
5-7 Years	0
8-10 Years	0
Over 10 Years	4

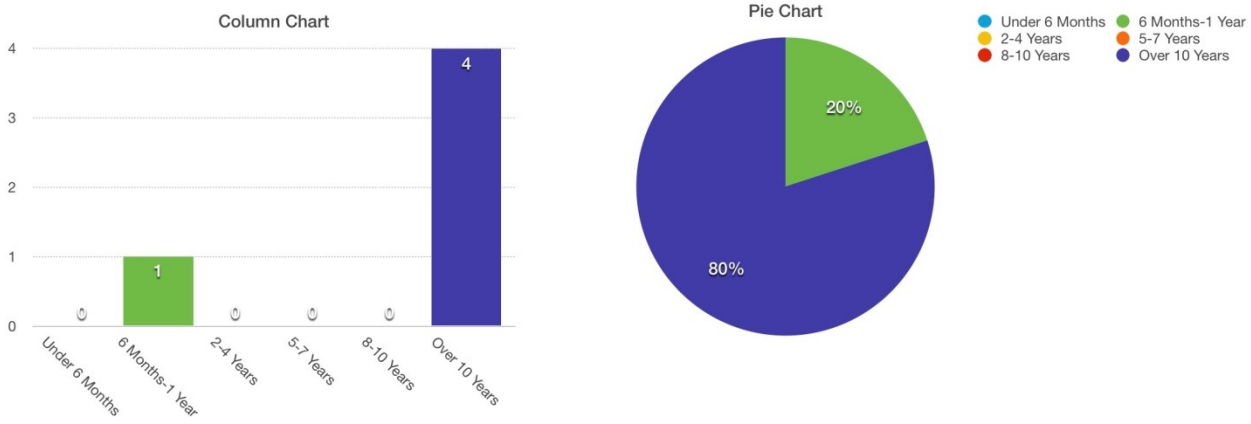


Figure 11: Percentage of Dog Owners Neutral Self-Efficacy Levels by Years of Ownership

Dog Owner Geographic Regional Division Neutral Self-Efficacy Levels

DIVISION	PARTICIPANTS
Mid-Atlantic	5
South Atlantic	0

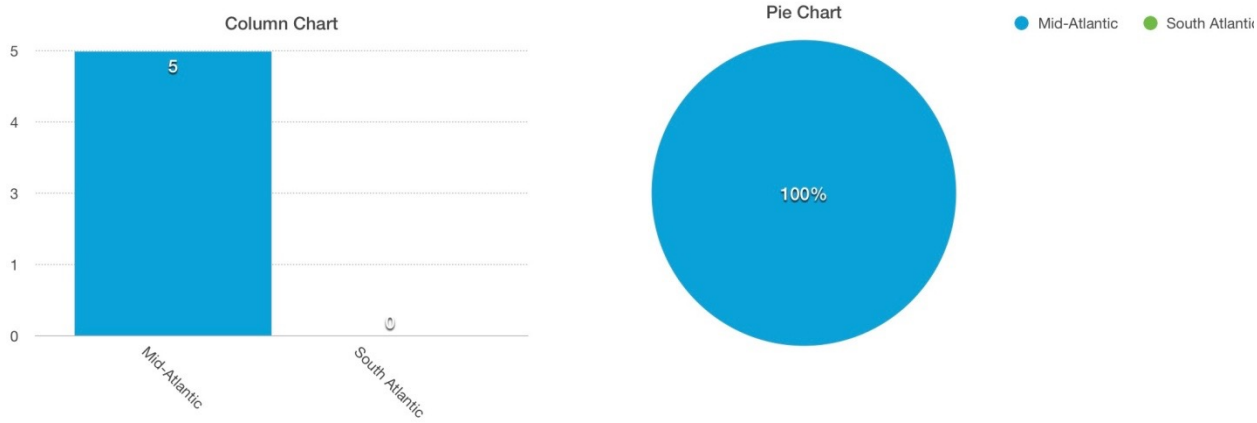
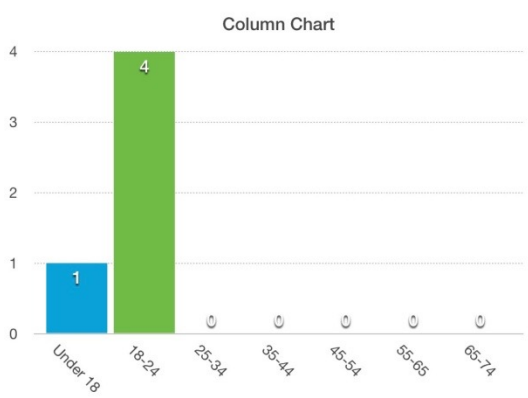


Figure 12: Percentage of Dog Owners Neutral Self-Efficacy Levels by Geographic Regional Division

Dog Owner Age Neutral Self-Efficacy Levels

AGE	PARTICIPANTS
Under 18	1
18-24	4
25-34	0
35-44	0
45-54	0
55-65	0
65-74	0



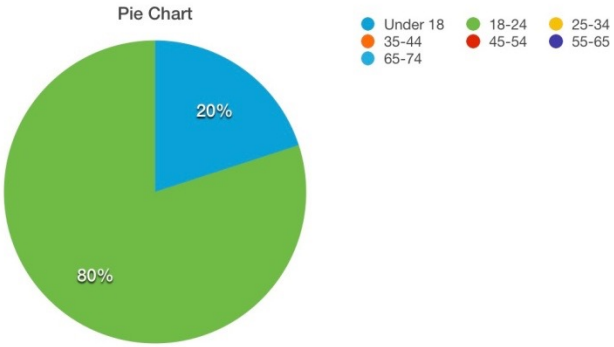
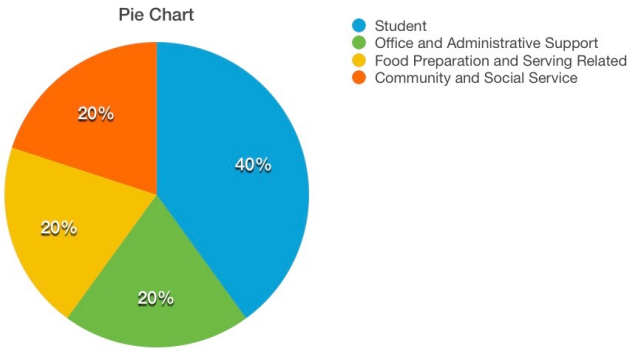


Figure 13: Percentage of Dog Owners Neutral Self-Efficacy Levels by Age



Dog Owner Occupation Neutral Self-Efficacy Levels

OCCUPATION	PARTICIPANTS
Student	2
Office and Administrative Support	1
Food Preparation and Serving Related	1
Community and Social Service	1

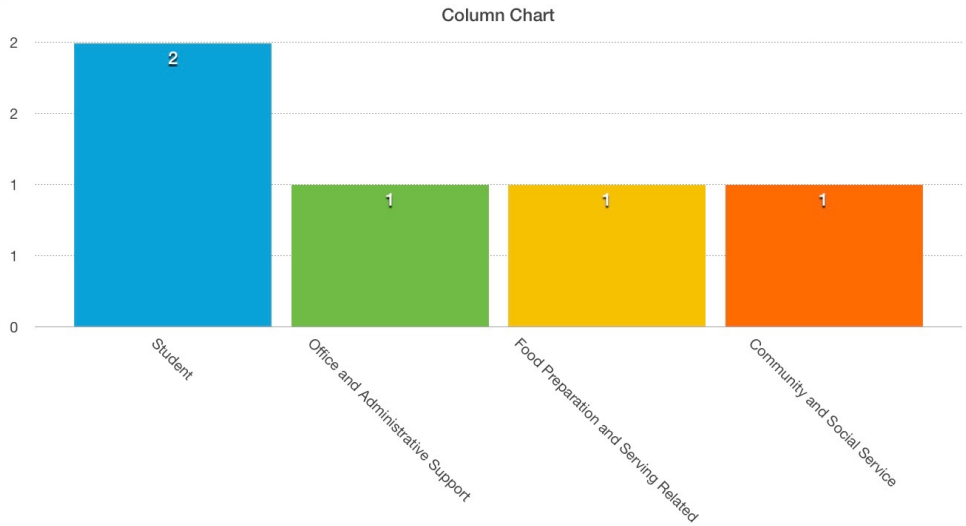


Figure 14: Percentage of Dog Owners Neutral Self-Efficacy Levels by Occupation

Dog Owner Gender Self-Efficacy High Levels

GENDER	PARTICIPANTS
Female	21
Male	3

Figure 15: Percentage of Dog Owners High Self-Efficacy Levels by Gender

Dog Owner Years Self-Efficacy High Levels

YEARS OF OWNERSHIP	PARTICIPANTS
Less Than 6 Months	1
6 Months-1 Year	2
2 - 4 Years	3
5 - 7 Years	4
8 - 10 Years	4
More Than 10 Years	10

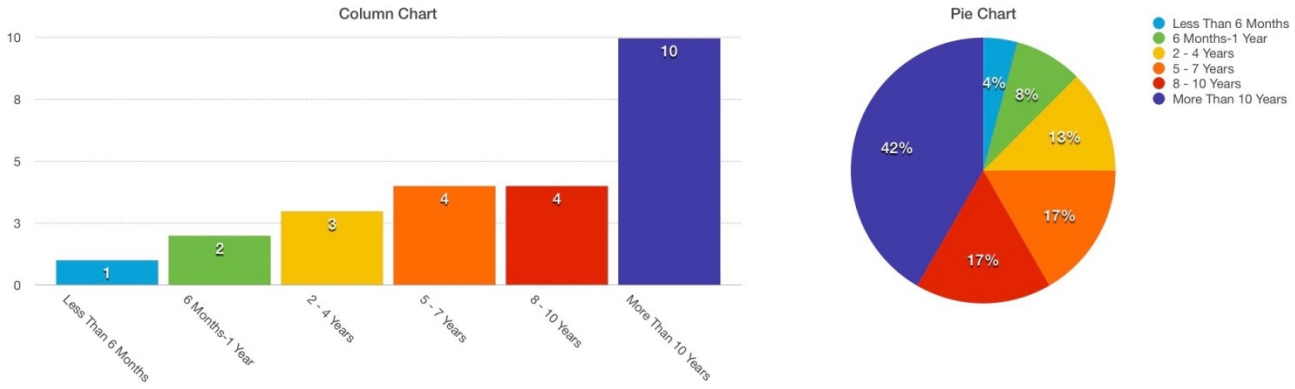


Figure 16: Percentage of Dog Owners High Self-Efficacy Levels by Years of Ownership

Dog Owner Geographic Region Self-Efficacy High Levels

DIVISION	PARTICIPANTS
Mid-Atlantic	16
South Atlantic	8

Figure 17: Percentage of Dog Owners High Self-Efficacy Levels by Geographic Regional Division

Dog Owner Age Self-Efficacy High Levels

AGE	PARTICIPANTS
Under 18	2
18-24	11
25-34	1
35-44	3
45-54	4
55-64	1
65-74	2

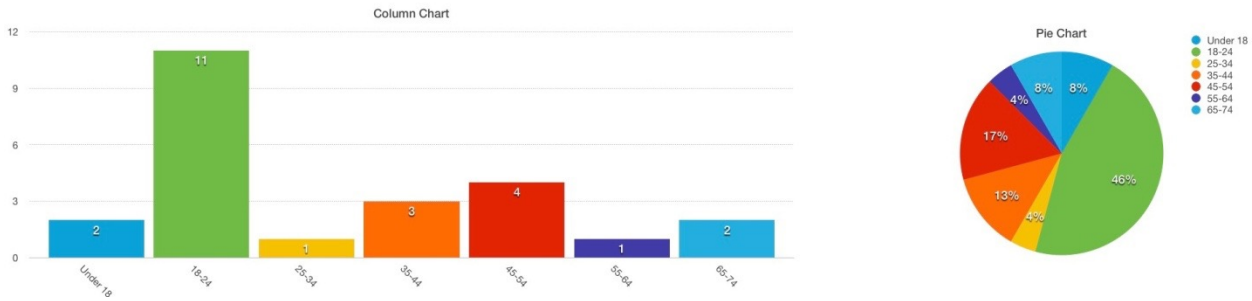
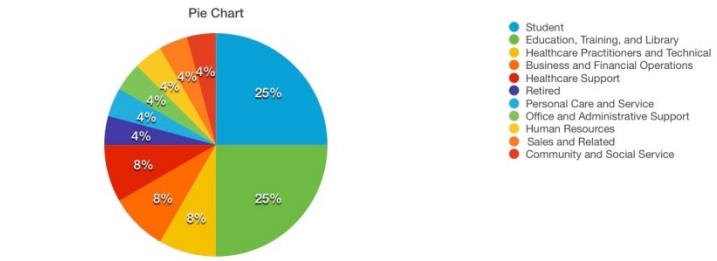


Figure 18: Percentage of Dog Owners High Self-Efficacy Levels by Age



Dog Owner Occupation Self-Efficacy High Level

OCCUPATION	PARTICIPANTS
Student	6
Education, Training, and Library	6
Healthcare Practitioners and Technical	2
Business and Financial Operations	2
Healthcare Support	2
Retired	1
Personal Care and Service	1
Office and Administrative Support	1
Human Resources	1
Sales and Related	1
Community and Social Service	1

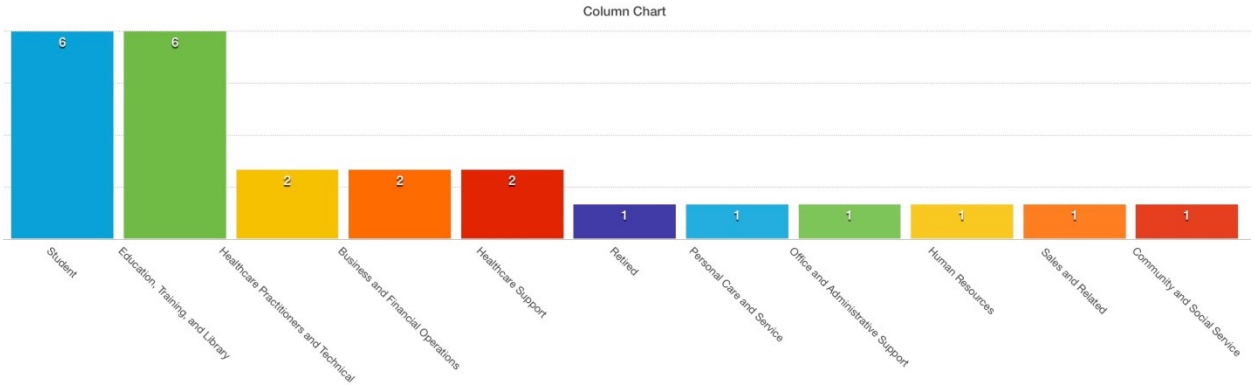


Figure 19: Percentage of Dog Owners High Self-Efficacy Levels by Occupation

Dog Owner Gender Self-Efficacy & Q8 High Levels

GENDER	PARTICIPANTS
Female	21
Male	3

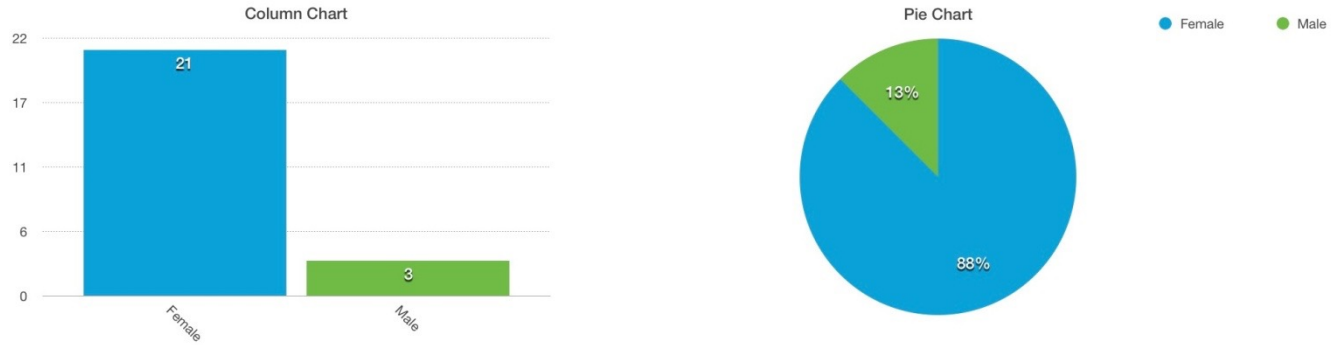


Figure 20: Percentage of Dog Owners Survey Question 8 High Levels by Gender

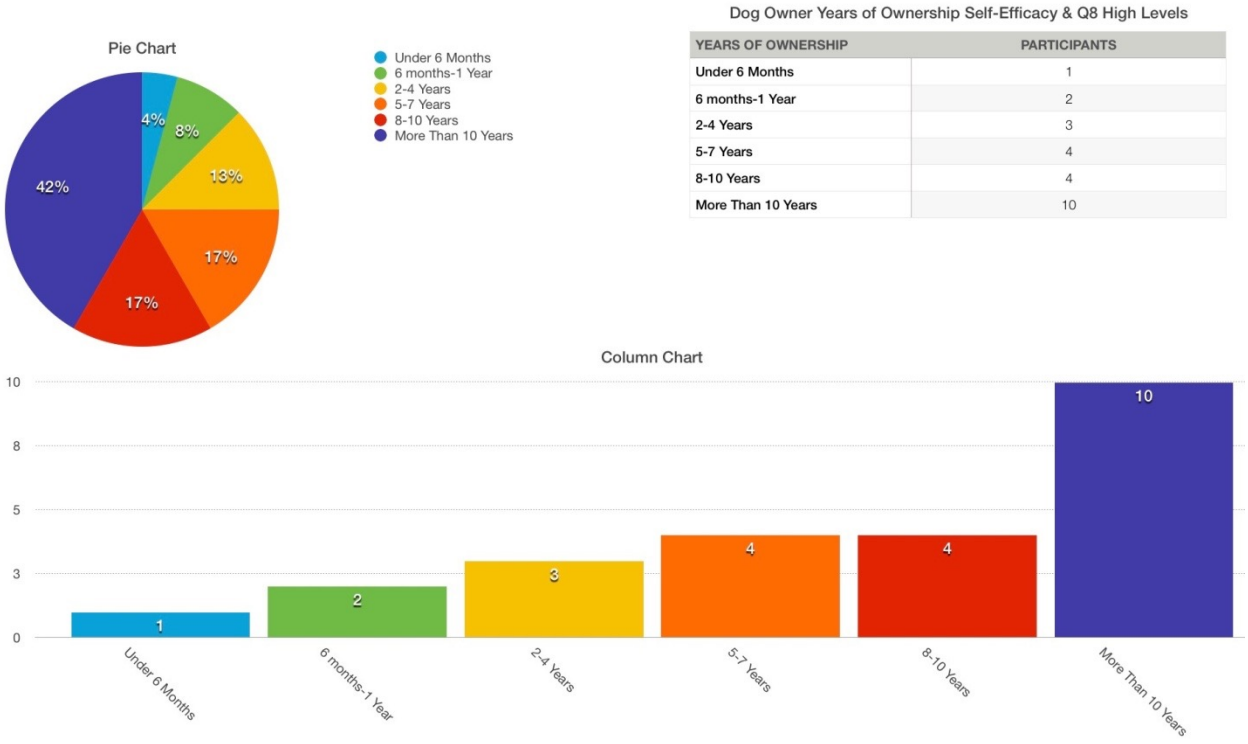


Figure 21: Percentage of Dog Owners Survey Question 8 High Levels by Years of Ownership

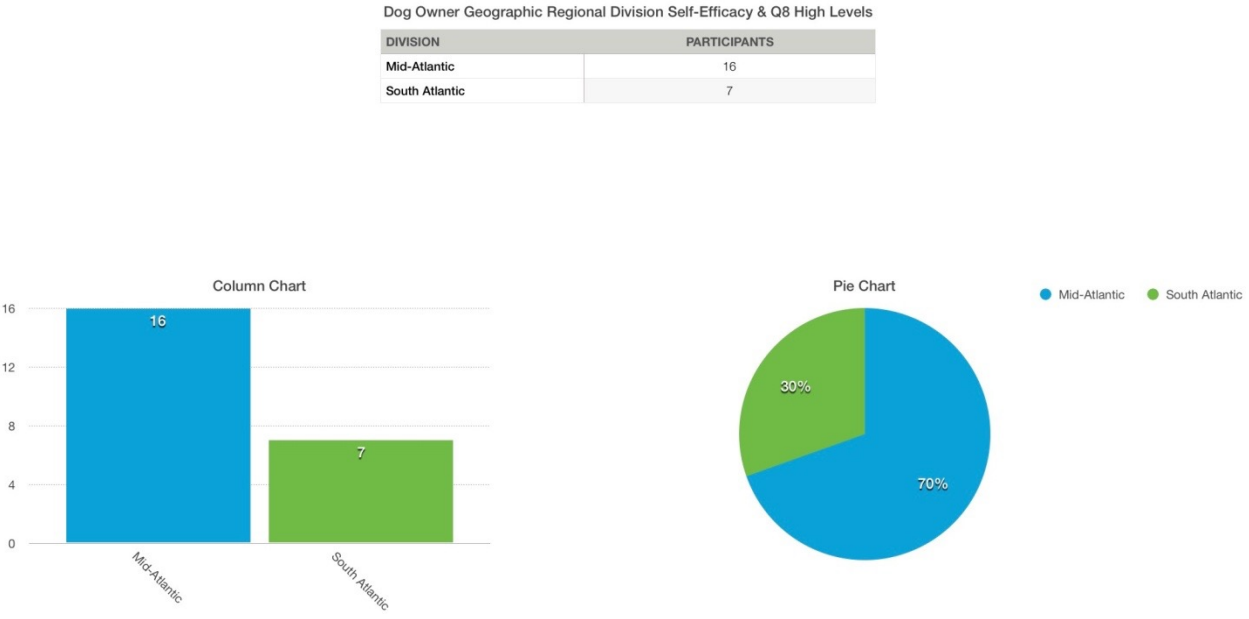


Figure 22: Percentage of Dog Owners Survey Question 8 High Levels by Geographic Regional Division

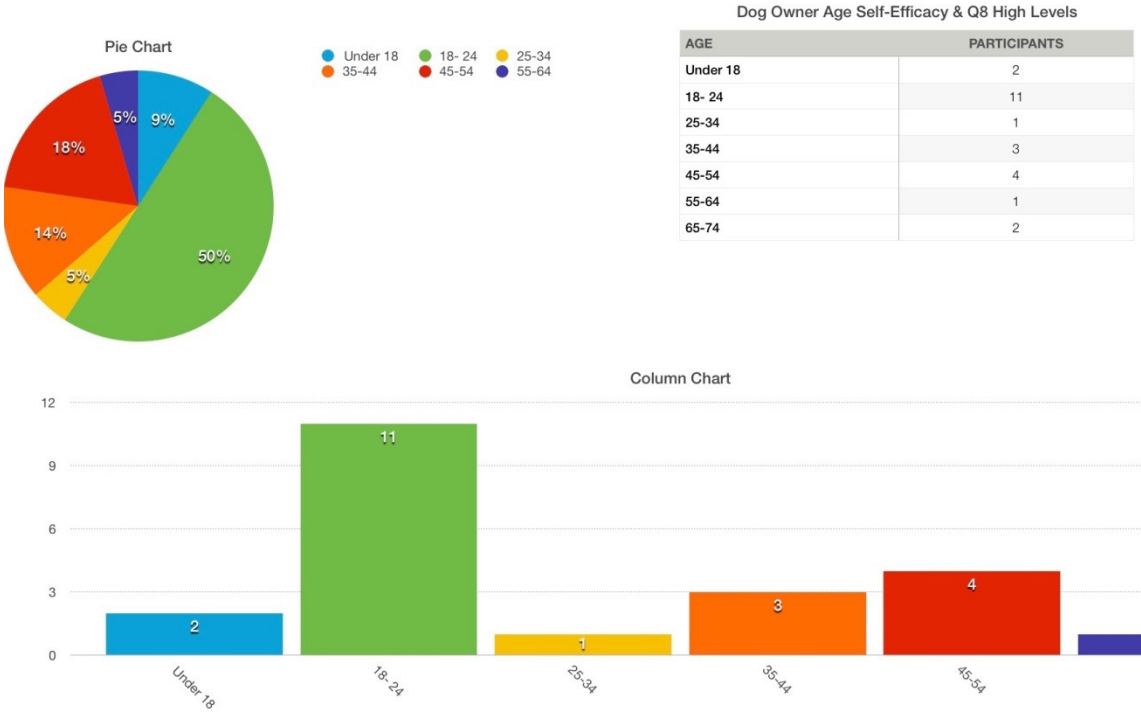


Figure 23: Percentage of Dog Owners Survey Question 8 High Levels by Age

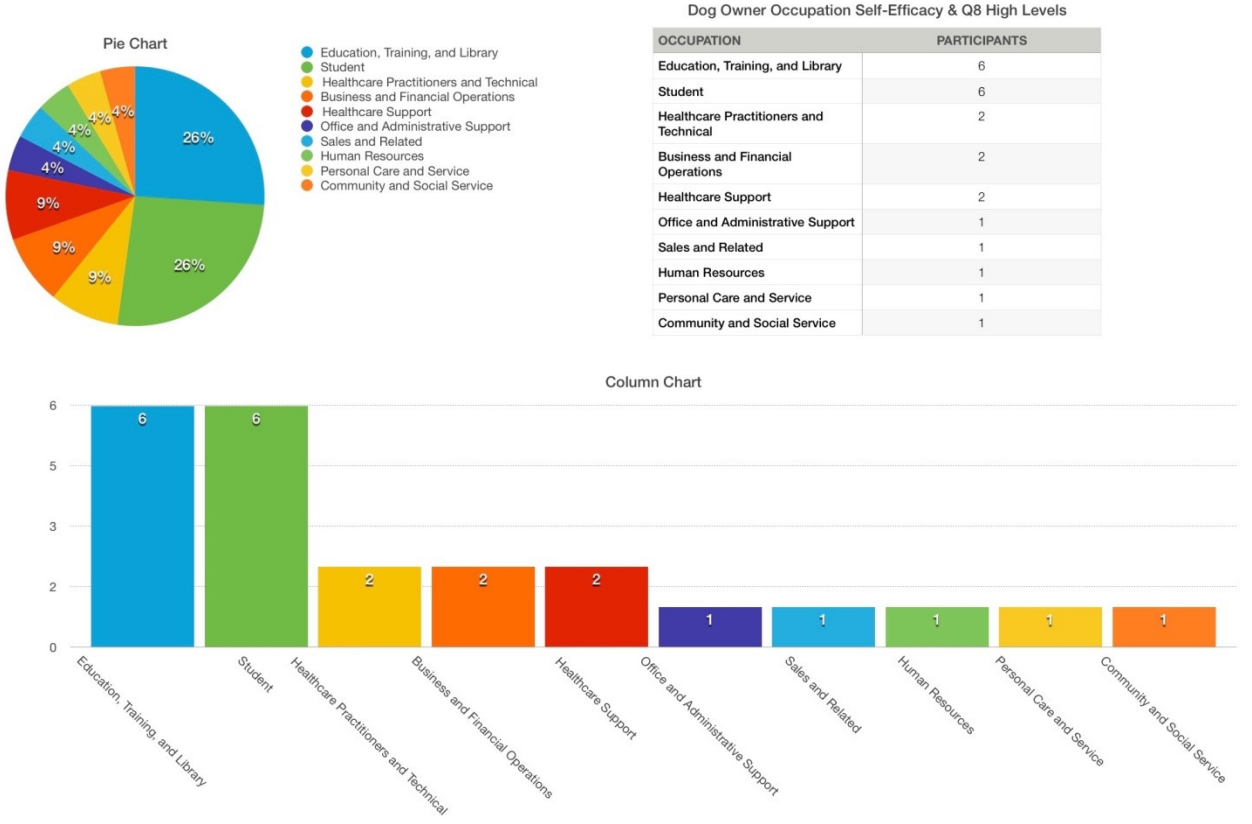


Figure 24: Percentage of Dog Owners Survey Question 8 High Levels by Occupation

Dog Owner Gender Self-Efficacy & Q8 Low Levels

GENDER	PARTICIPANTS
Female	5
Male	0

Figure 25: Percentage of Dog Owners Survey Question 8 Low Levels by Gender

Dog Owner Years of Ownership Self-Efficacy & Q8 Low Levels

YEARS OF OWNERSHIP	PARTICIPANTS
Under 6 Months	0
6 Months-1 Year	1
2-4 Years	0
5-7 Years	0
8-10 Years	0
More Than 10 Years	4

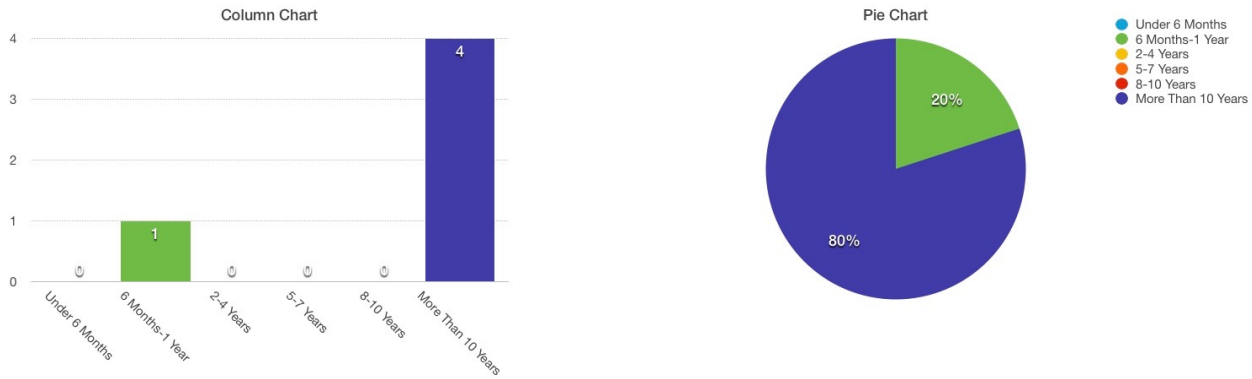


Figure 26: Percentage of Dog Owners Survey Question 8 Low Levels by Years of Ownership

Dog Owner Geographic Regional Division Self-Efficacy & Q8 Low Levels

DIVISION	PARTICIPANTS
Mid-Atlantic	5
South Atlantic	0

Figure 27: Percentage of Dog Owners Survey Question 8 Low Levels by Geographic Regional Division

Dog Owner Age Self-Efficacy & Q8 Low Levels

AGE	PARTICIPANTS
Under 18	1
18-24	4
25-34	0
35-44	0
45-54	0
55-64	0
65-74	0

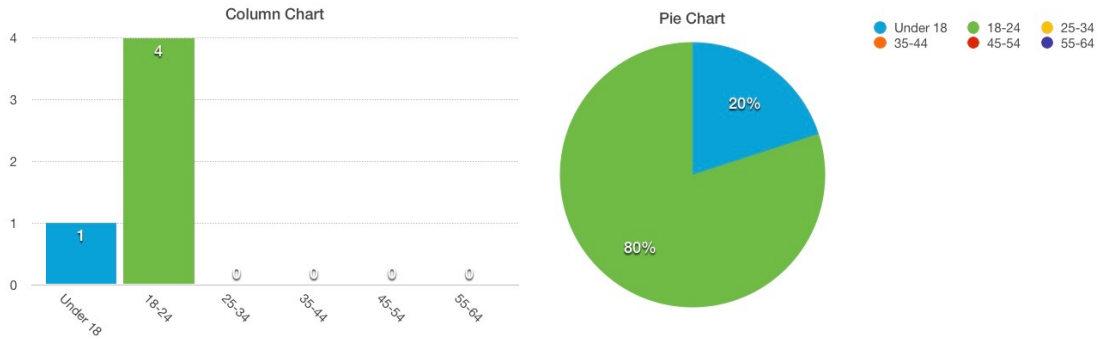


Figure 28: Percentage of Dog Owners Survey Question 8 Low Levels by Age

Dog Owner Occupation Self-Efficacy & Q8 Low Levels

OCCUPATION	PARTICIPANTS
Student	2
Office and Administrative Support	1
Community and Social Service	1
Food Preparation and Serving Related	1

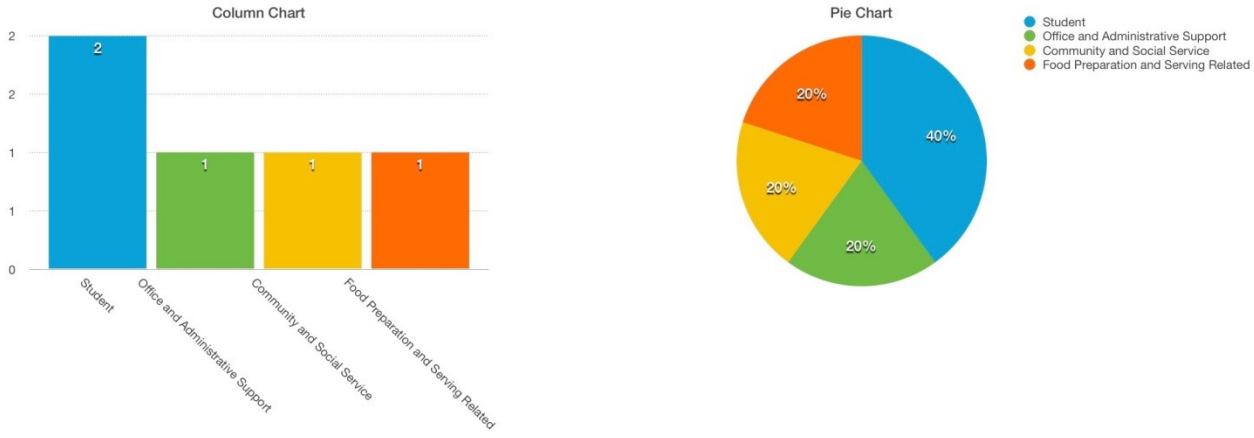


Figure 29: Percentage of Dog Owners Survey Question 8 Low Levels by Occupation

Dog Owner GPA

GPA	PARTICIPANTS
3.6-4.0	15
3.1-3.5	14

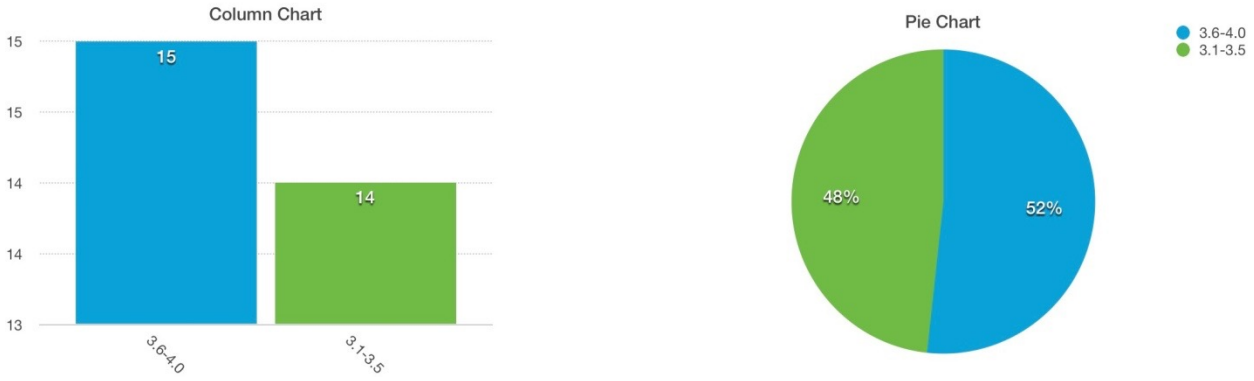


Figure 30: Percentage of Dog Owners GPA

Dog Owner Self-Efficacy Levels (3.6-4.0 GPA) & Question 8 answer

ANSWER LEVEL	PARTICIPANTS
High	14
Low	1

Figure 31: Percentage of Dog Owners with 3.6-4.0 GPA by Survey Question 8 Answer

Dog Owner Self-Efficacy Levels (3.6-4.0 GPA) & Gender

GENDER	PARTICIPANTS
Female	14
Male	1

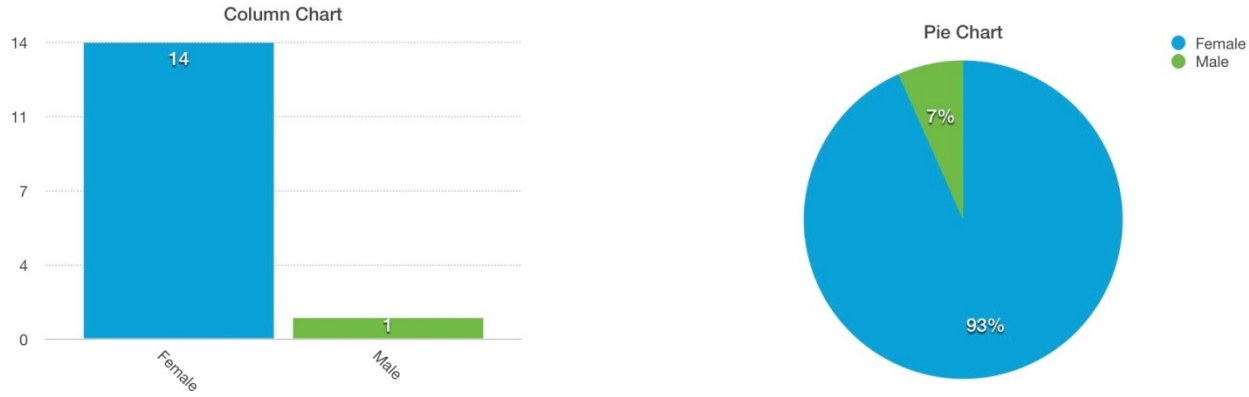
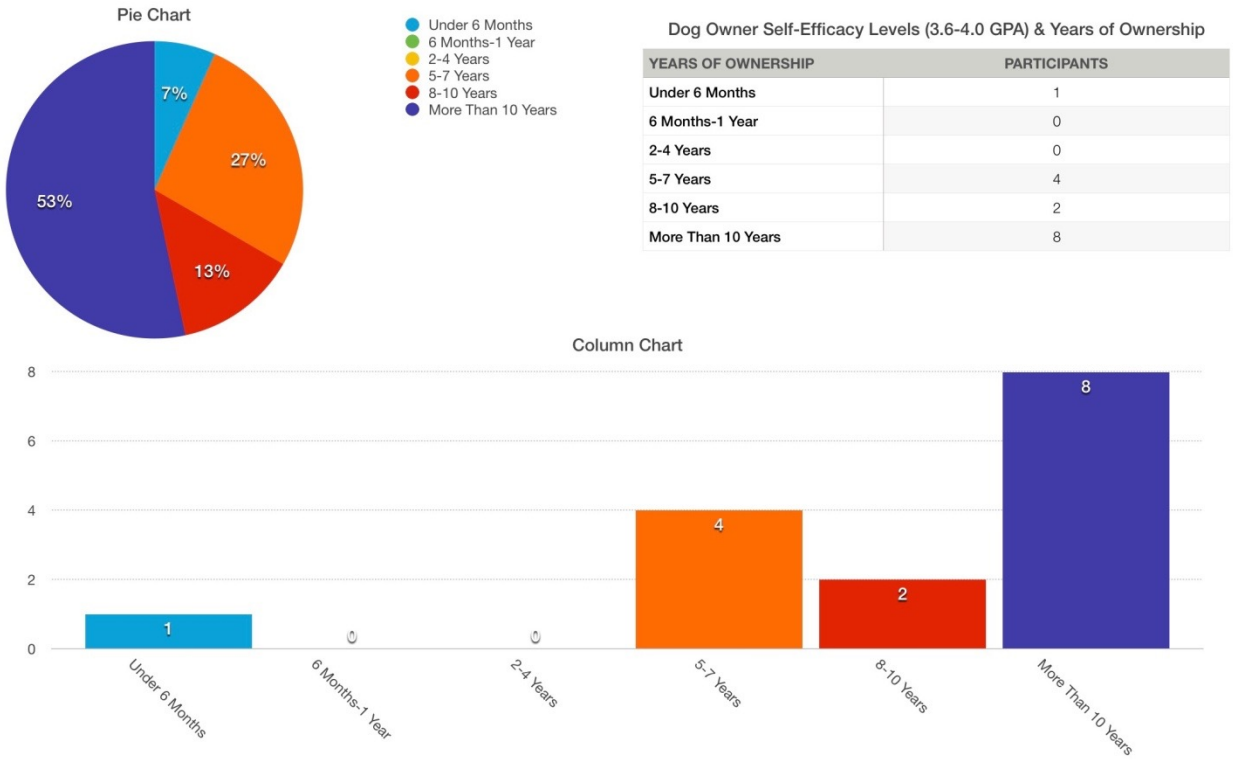


Figure 32: Percentage of Dog Owners with 3.6-4.0 GPA by Gender



Dog Owner Self-Efficacy Levels (3.6-4.0 GPA) & Years of Ownership

YEARS OF OWNERSHIP	PARTICIPANTS
Under 6 Months	1
6 Months-1 Year	0
2-4 Years	0
5-7 Years	4
8-10 Years	2
More Than 10 Years	8

Figure 33: Percentage of Dog Owners with 3.6-4.0 GPA by Years of Ownership

Dog Owner Self-Efficacy Levels (3.6-4.0 GPA) & Geographic Regional Division

DIVISION	PARTICIPANTS
Mid-Atlantic	11
South Atlantic	4

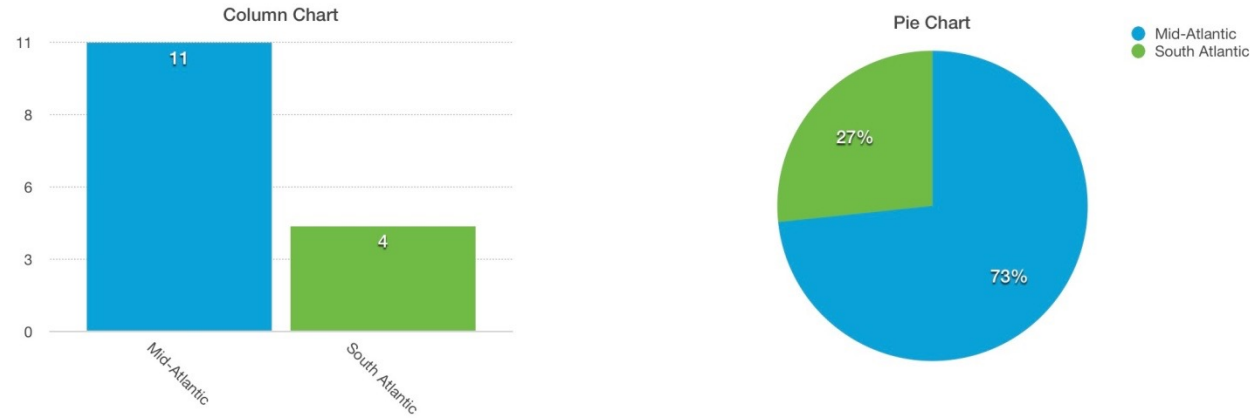


Figure 34: Percentage of Dog Owners with 3.6-4.0 GPA by Geographic Regional Division

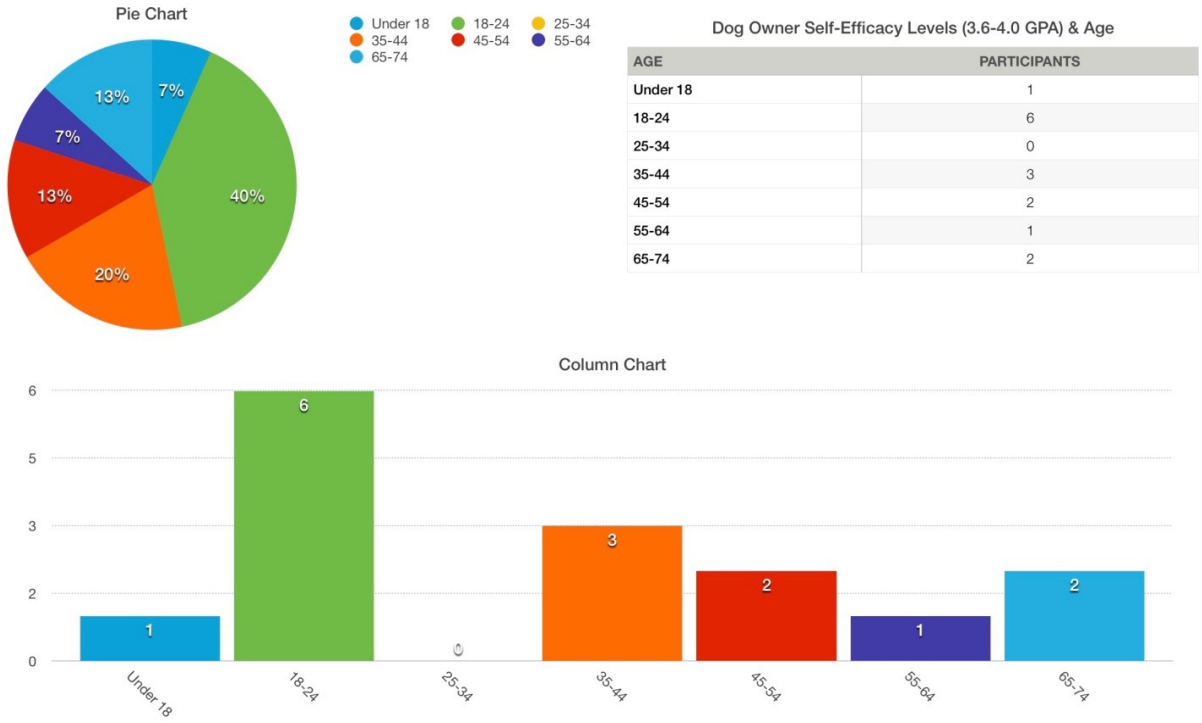


Figure 35: Percentage of Dog Owners with 3.6-4.0 GPA by Age

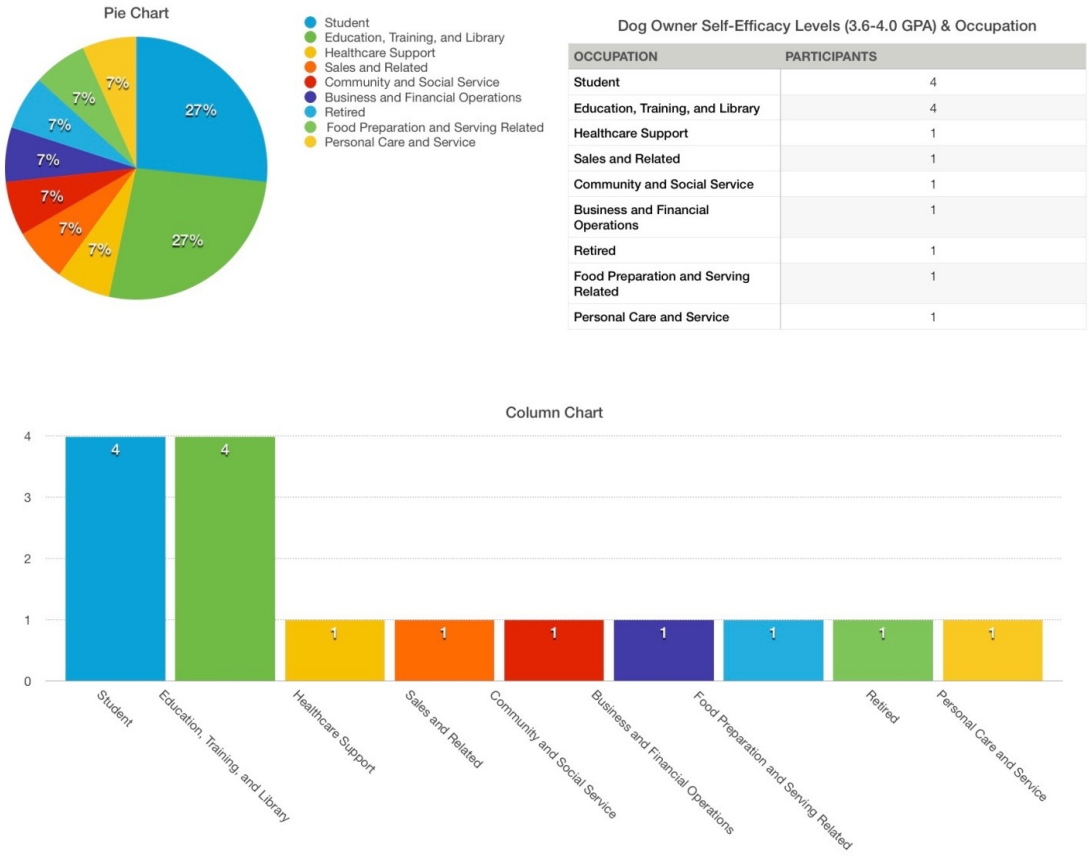


Figure 36: Percentage of Dog Owners with 3.6-4.0 GPA by Occupation

Dog Owner Self-Efficacy Levels (3.1-3.5 GPA) & Gender

GENDER	PARTICIPANTS
Female	12
Male	2

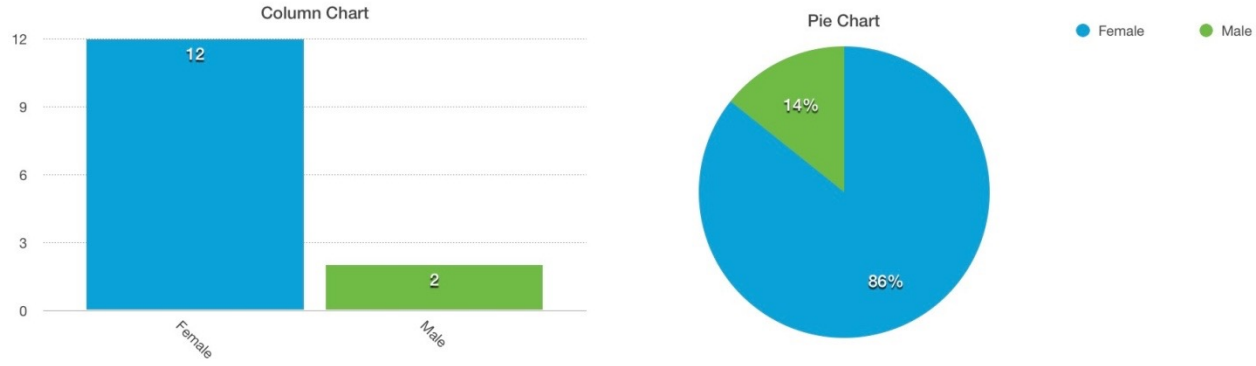
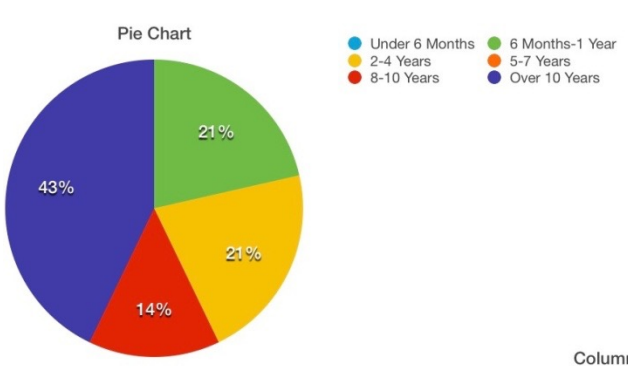


Figure 37: Percentage of Dog Owners with 3.1-3.5 GPA by Gender



Dog Owner Self-Efficacy Levels (3.1-3.5 GPA) & Years of Ownership

YEARS OF OWNERSHIP	PARTICIPANTS
Under 6 Months	0
6 Months-1 Year	3
2-4 Years	3
5-7 Years	0
8-10 Years	2
Over 10 Years	6

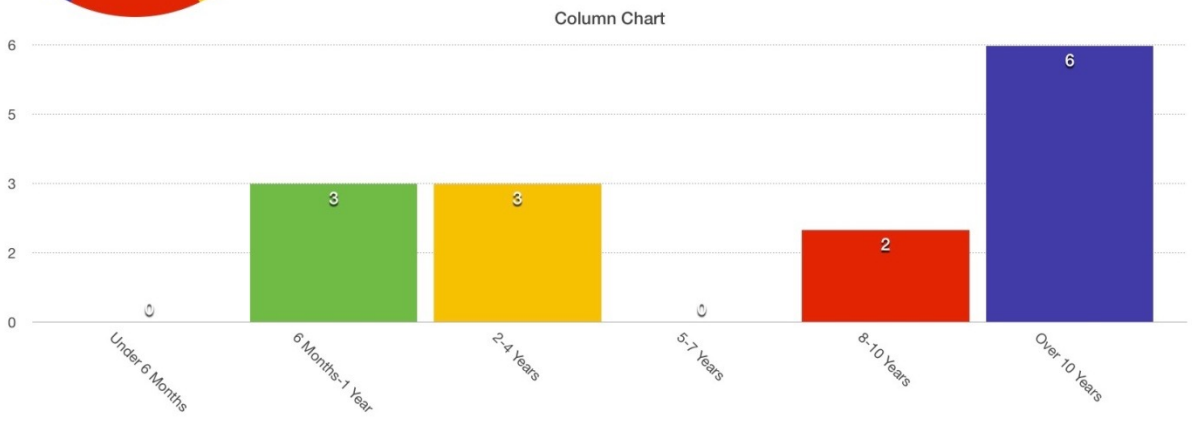


Figure 38: Percentage of Dog Owners with 3.1-3.5 GPA by Years of Ownership

Dog Owner Self-Efficacy Levels (3.1-3.5 GPA) & Geographic Regional Division

DIVISION	PARTICIPANTS
Mid-Atlantic	10
South Atlantic	4

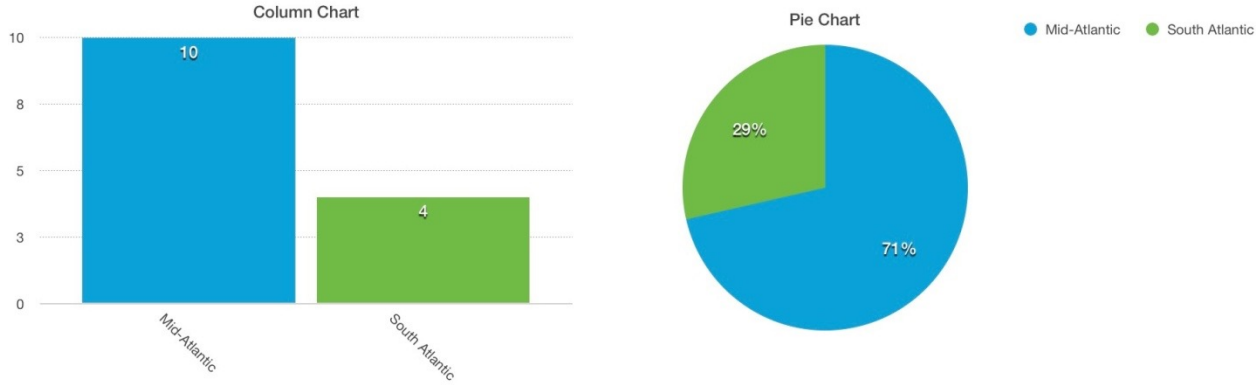
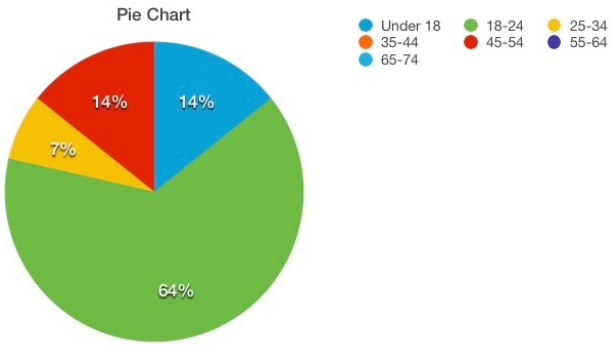


Figure 39: Percentage of Dog Owners with 3.1-3.5 GPA by Geographic Regional Division Figure



Dog Owner Self-Efficacy Levels (3.1-3.5 GPA) & Age

AGE	PARTICIPANTS
Under 18	2
18-24	9
25-34	1
35-44	0
45-54	2
55-64	0
65-74	0

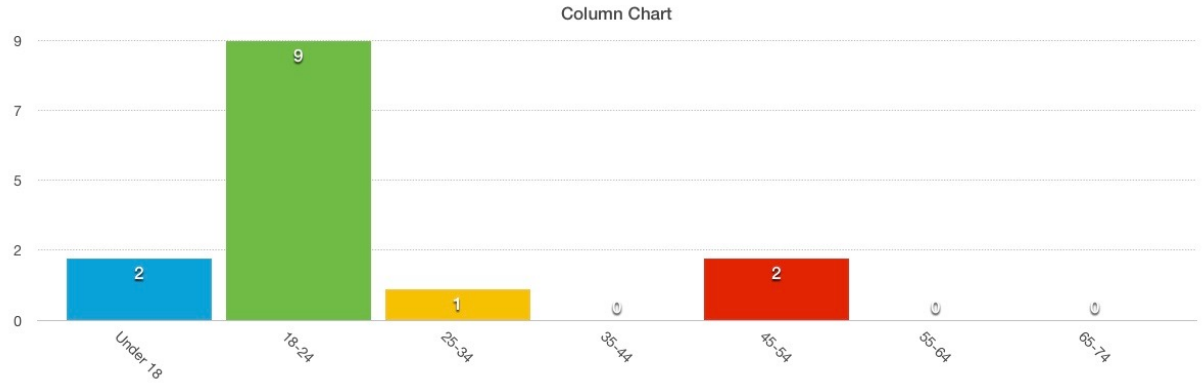


Figure 40: Percentage of Dog Owners with 3.1-3.5 GPA byAge

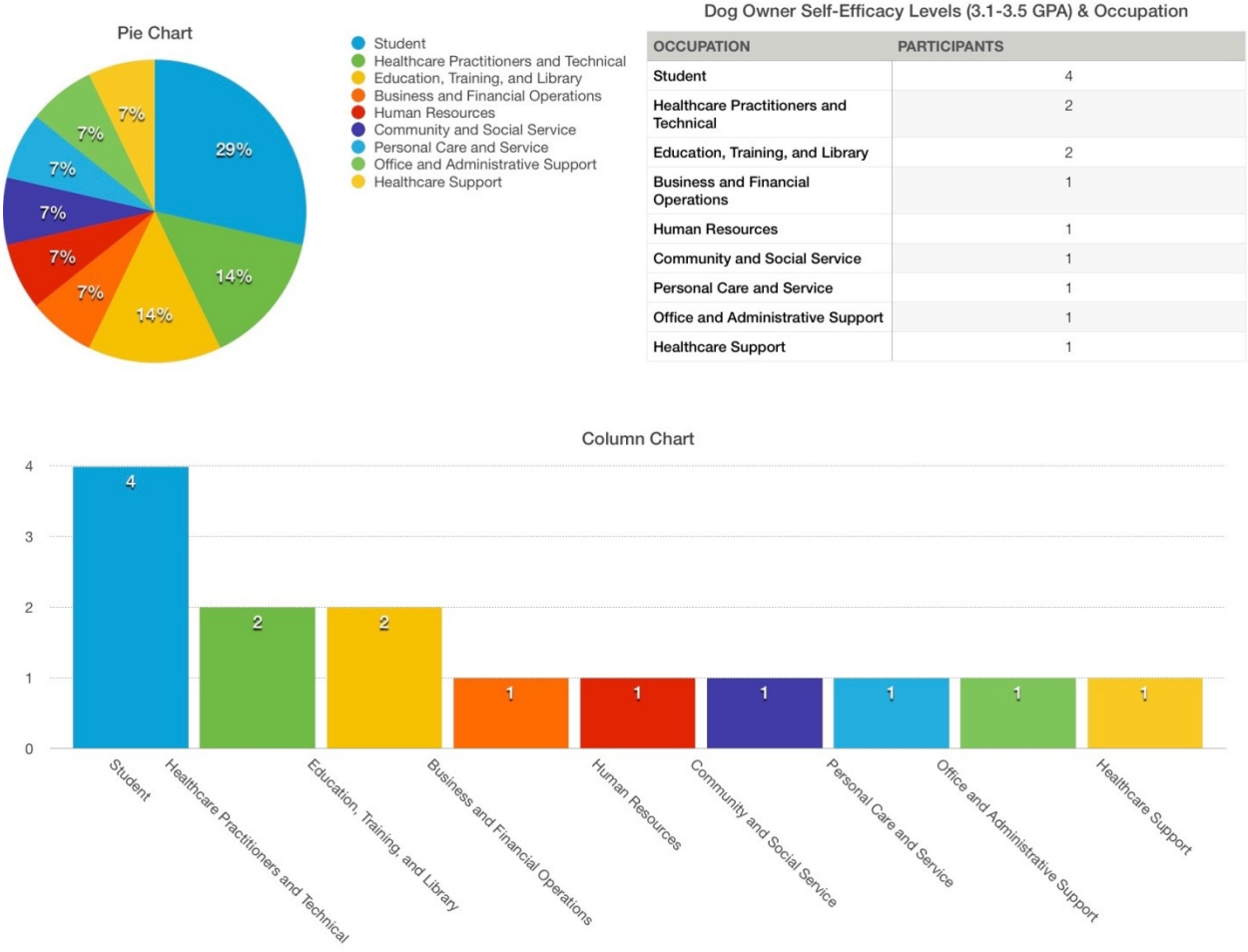


Figure 41: Percentage of Dog Owners with 3.1-3.5 GPA by Occupation

Non-Dog Owner Gender

GENDER	PARTICIPANTS
Female	9
Male	3

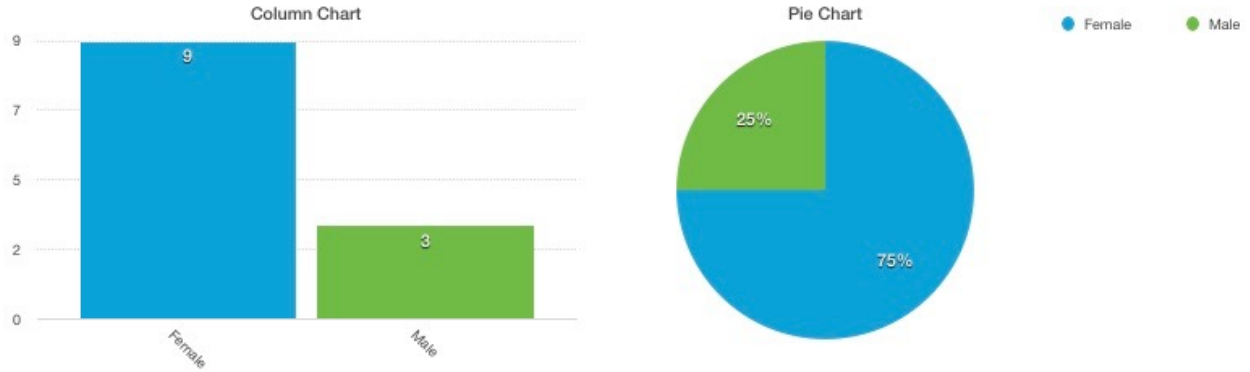


Figure 42: Percentage of Non-Dog Owners by Gender

Non-Dog Owner Geographic Regional Division

DIVISION	PARTICIPANTS
Mid-Atlantic	10
South Atlantic	2

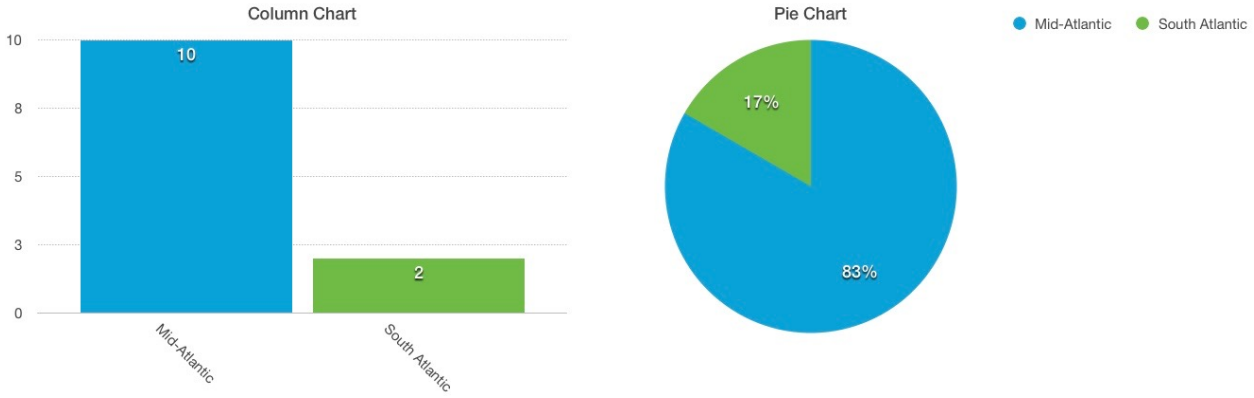
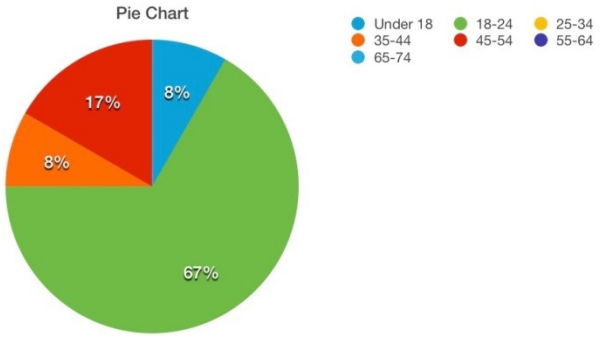


Figure 43: Percentage of Non-Dog Owners by Geographic Regional Division



Non-Dog Owner Age

AGE	PARTICIPANTS
Under 18	1
18-24	8
25-34	0
35-44	1
45-54	2
55-64	0
65-74	0

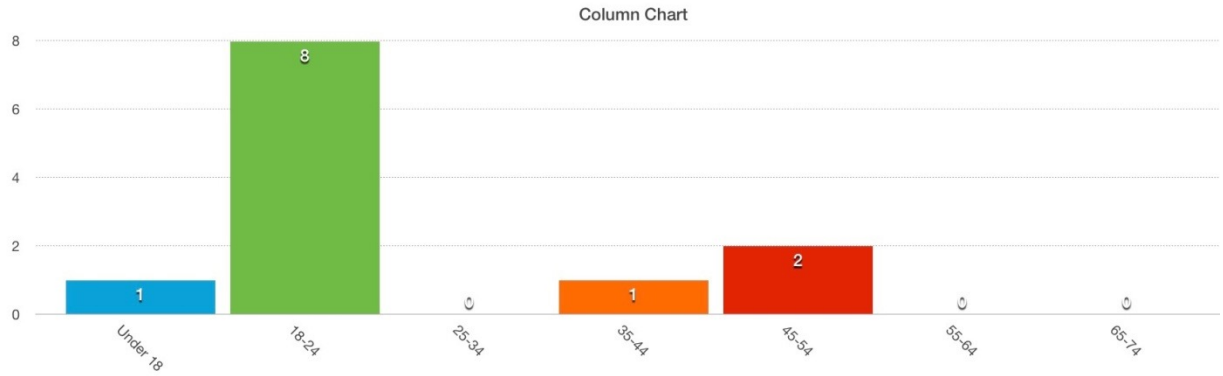
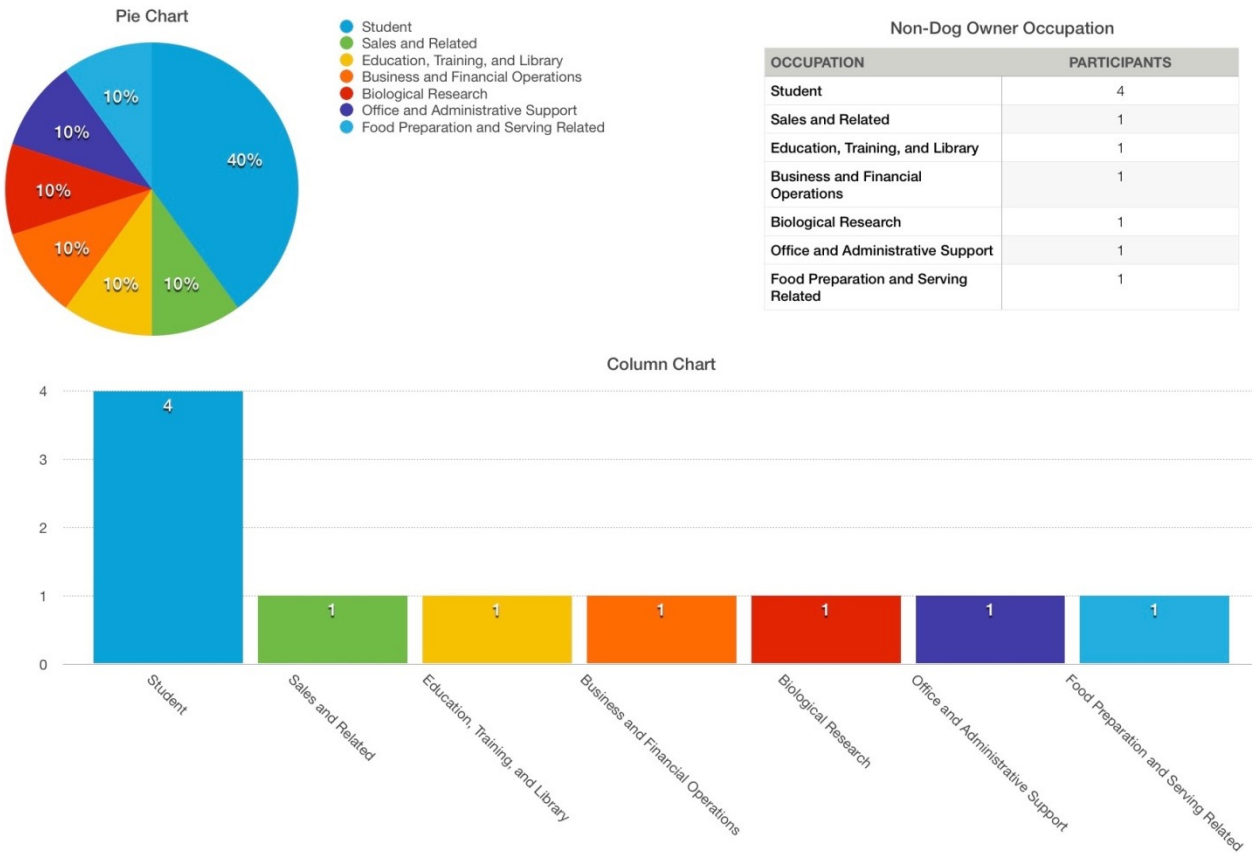


Figure 44: Percentage of Non-Dog Owners by Age



Non-Dog Owner Occupation

OCCUPATION	PARTICIPANTS
Student	4
Sales and Related	1
Education, Training, and Library	1
Business and Financial Operations	1
Biological Research	1
Office and Administrative Support	1
Food Preparation and Serving Related	1

Figure 45: Percentage of Non-Dog Owners by Occupation

Non-Dog Owner Self-Efficacy Levels

OVERALL LEVELS	PARTICIPANTS
High	7
Neutral	5
Low	0

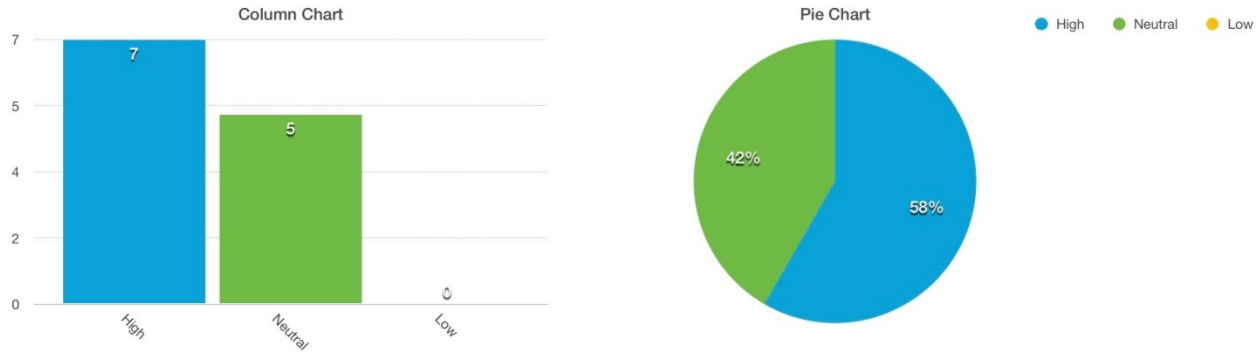


Figure 46: Percentage of Non-Dog Owners by Self-Efficacy Levels

Non-Dog Owner Gender Self-Efficacy Levels

GENDER	PARTICIPANTS
Female	9
Male	3

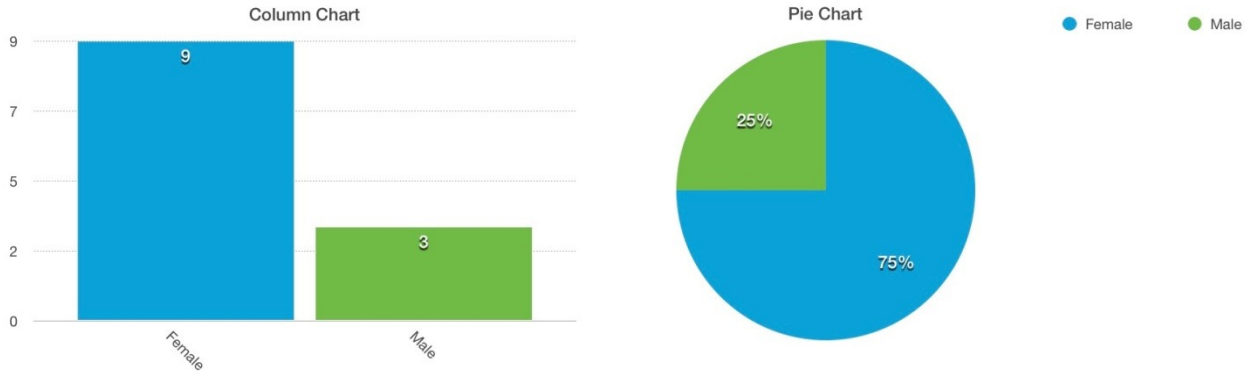


Figure 47: Percentage of Non-Dog Owners Self-Efficacy by Gender

Non-Dog Owner Geographic Regional Division Self-Efficacy Levels

DIVISION	PARTICIPANTS
Mid-Atlantic	10
South Atlantic	2

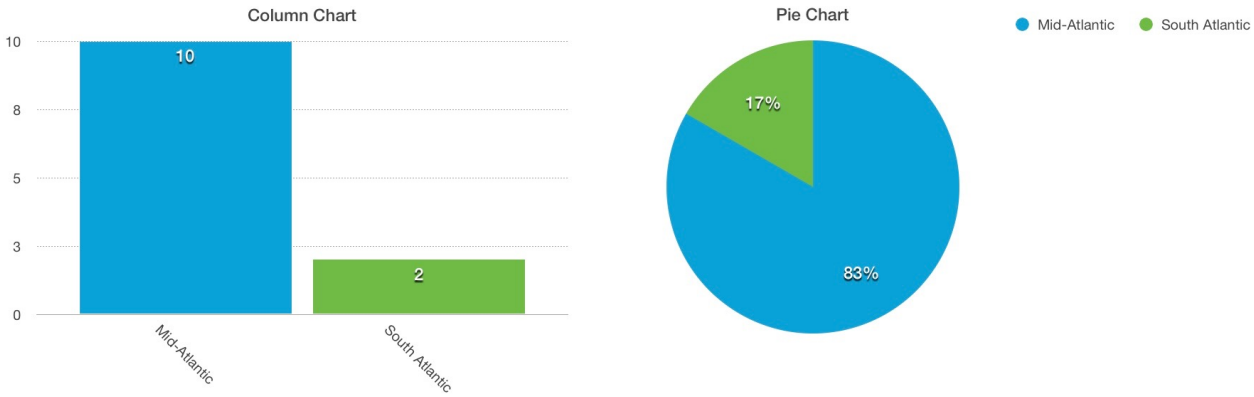


Figure 48: Percentage of Non-Dog Owners Self-Efficacy by Geographic

Non-Dog Owner Age Self-Efficacy Levels

AGE	PARTICIPANTS
Under 18	1
18-24	8
25-34	0
35-44	1
45-54	2
55-64	0
65-74	0

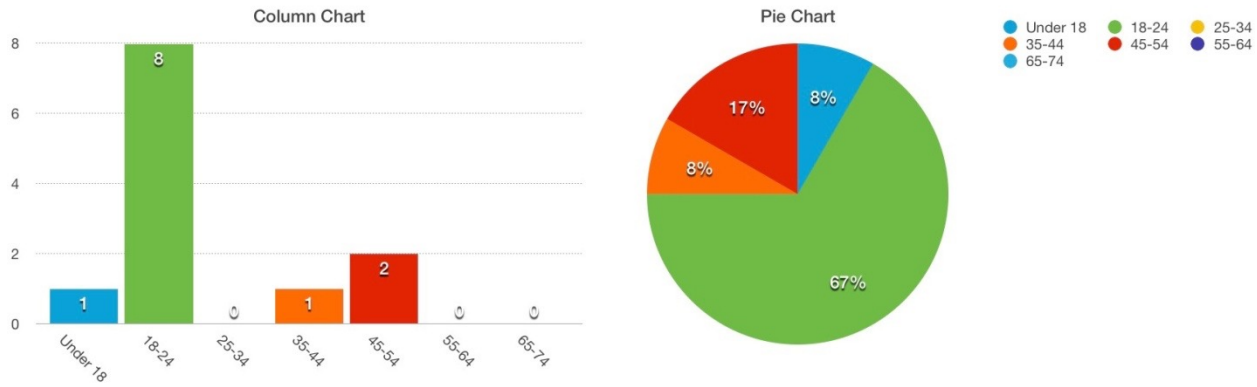
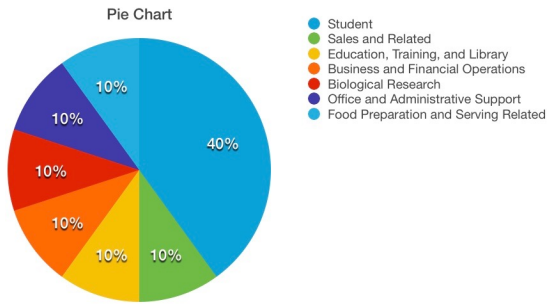


Figure 49: Percentage of Non-Dog Owners Self-Efficacy by Age



Non-Dog Owner Occupation

OCCUPATION	PARTICIPANTS
Student	4
Sales and Related	1
Education, Training, and Library	1
Business and Financial Operations	1
Biological Research	1
Office and Administrative Support	1
Food Preparation and Serving Related	1

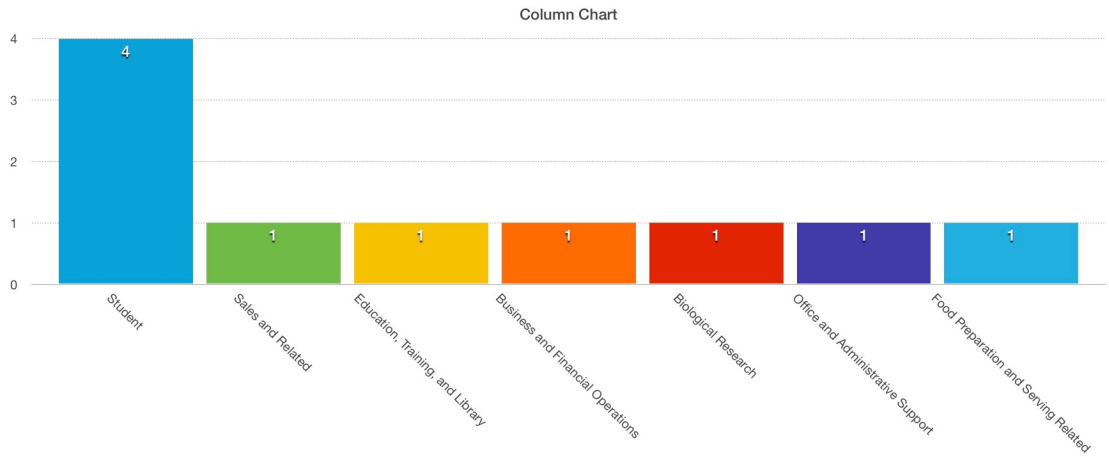


Figure 50: Percentage of Non-Dog Owners Self-Efficacy by Occupation

Non-Dog Owner Gender Neutral Self-Efficacy Levels

GENDER	PARTICIPANTS
Female	3
Male	2

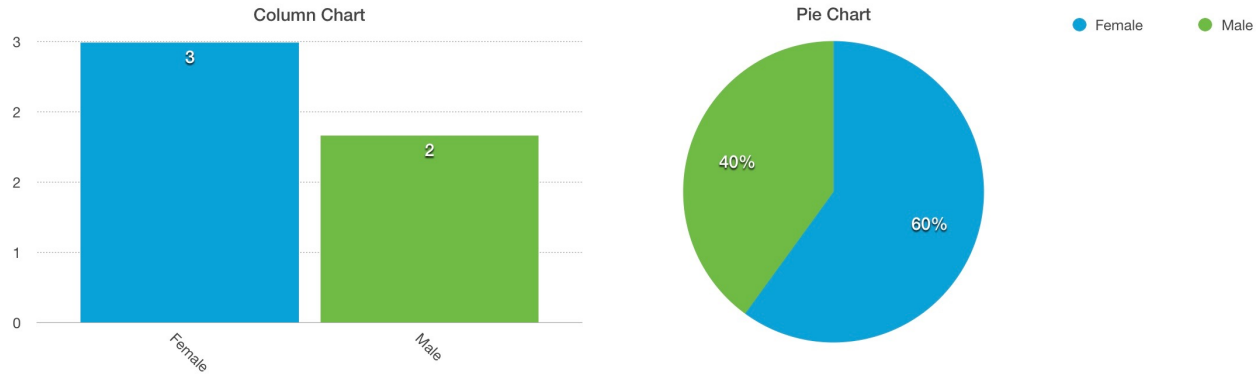


Figure 51: Percentage of Non-Dog Owners Neutral Self-Efficacy by Gender

Non-Dog Owner Geographic Regional Division Neutral Self-Efficacy Levels

DIVISION	PARTICIPANTS
Mid-Atlantic	5
South Atlantic	0

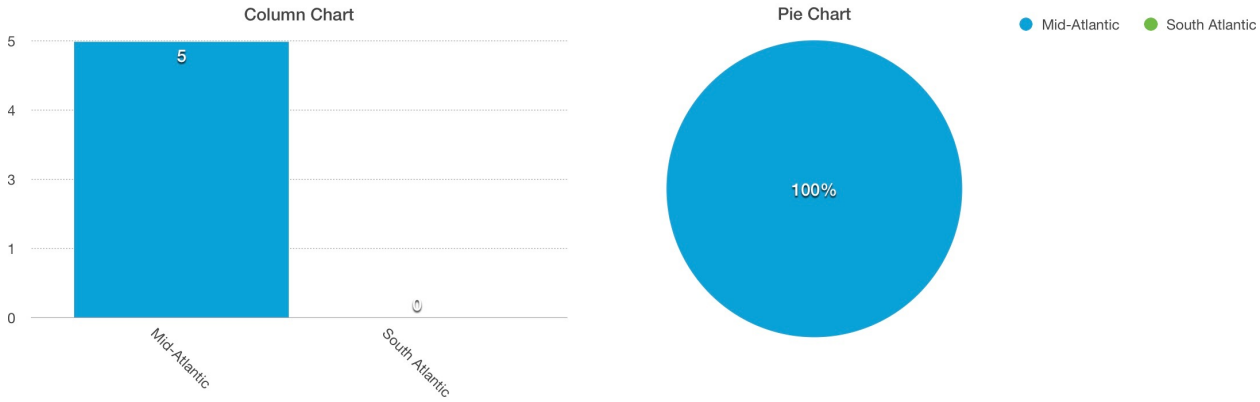


Figure 52: Percentage of Non-Dog Owners Neutral Self-Efficacy by Geographic Regional Division

Non-Dog Owner Age Neutral Self-Efficacy Levels

AGE	PARTICIPANTS
Under 18	1
18-24	4
25-34	0
35-44	0
45-54	0
55-64	0
65-74	0

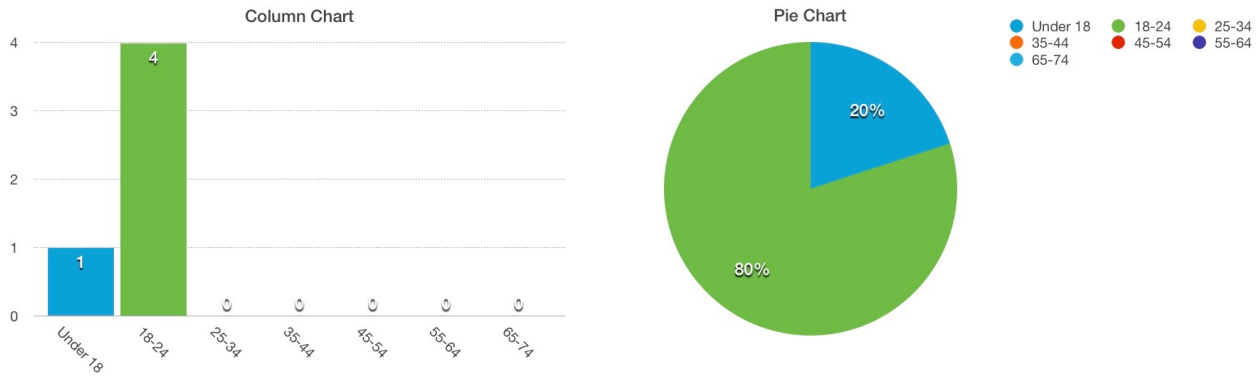


Figure 53: Percentage of Non-Dog Owners Neutral Self-Efficacy by Age

Non-Dog Owner Occupation Neutral Self-Efficacy Levels

OCCUPATIONS	PARTICIPANTS
Student	2
Education, Training, and Library	1
Biological Research	1
Food Preparation and Serving Related	1

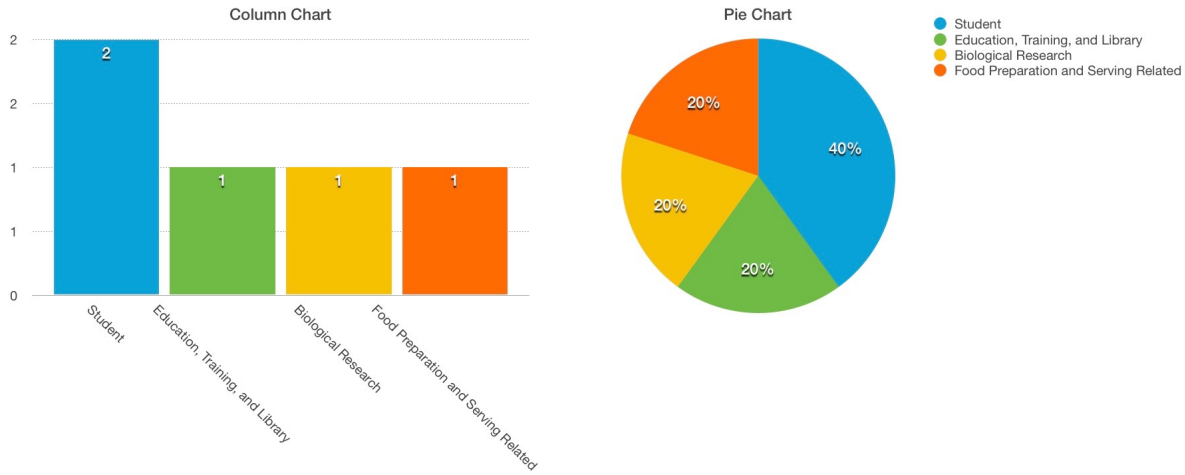


Figure 54: Percentage of Non-Dog Owners Neutral Self-Efficacy by Occupation

Non-Dog Owner Gender High Self-Efficacy Levels

GENDER	PARTICIPANTS
Female	6
Male	1

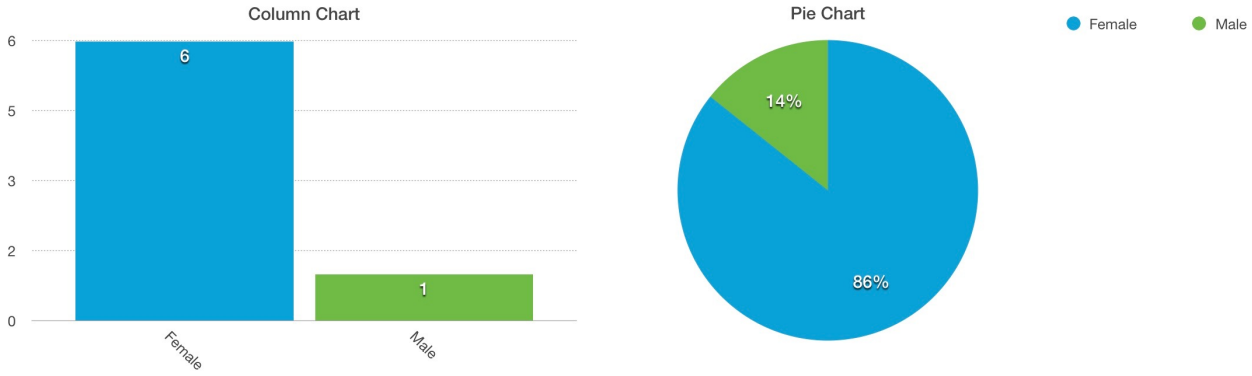


Figure 55: Percentage of Non-Dog Owners High Self-Efficacy by Gender

Non-Dog Owner Geographic Regional Division High Self-Efficacy Levels

DIVISION	PARTICIPANTS
Mid-Atlantic	5
South Atlantic	2

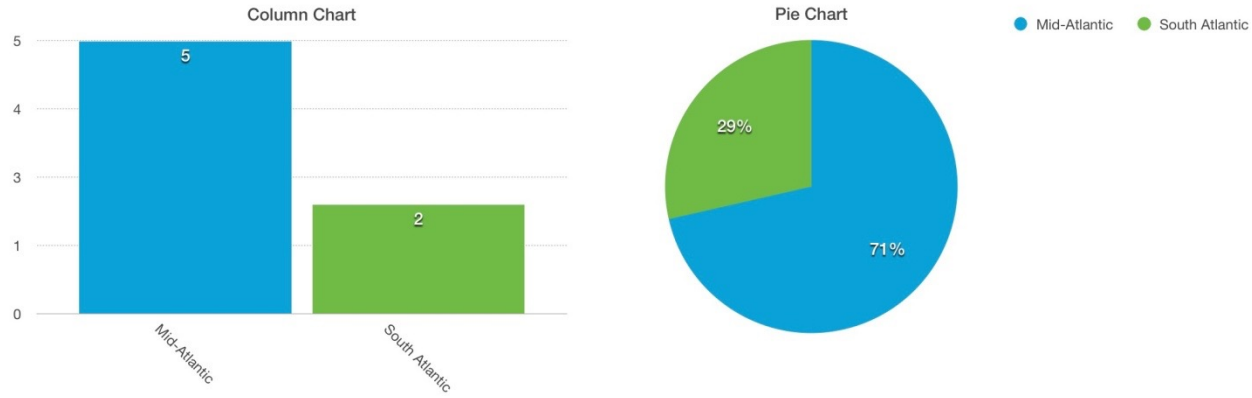


Figure 56: Percentage of Non-Dog Owners High Self-Efficacy by Geographic Regional Division

Non-Dog Owner Age High Self-Efficacy Levels

AGE	PARTICIPANTS
Under 18	0
18-24	4
25-34	0
35-44	1
45-54	2
55-64	0
65-74	0

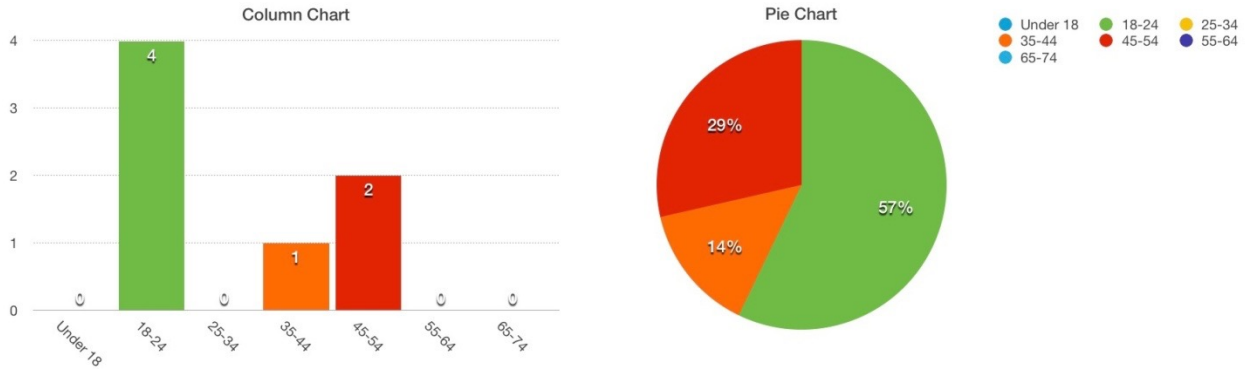


Figure 57: Percentage of Non-Dog Owners High Self-Efficacy by Age

Non-Dog Owner Occupation High Self-Efficacy Levels

OCCUPATION	PARTICIPANTS
Student	2
Sales and Related	2
Education, Training, and Library	1
Business and Financial Operations	1
Office and Administrative Support	1

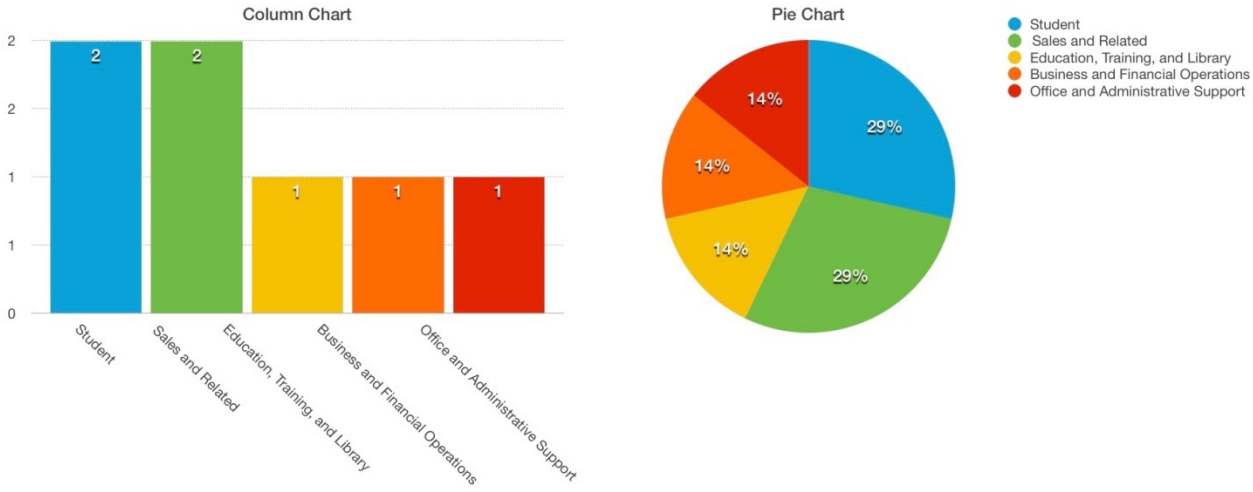


Figure 58: Percentage of Non-Dog Owners High Self-Efficacy by Occupation

Non-Dog Owner GPA

GPA	PARTICIPANTS
3.6-4.0	7
3.1-3.5	3
2.6-3.0	2

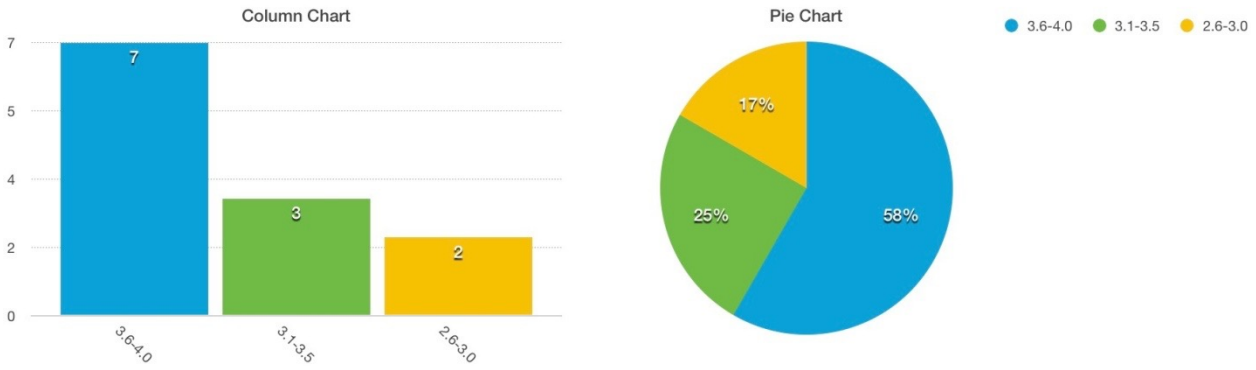


Figure 59: Percentage of Non-Dog Owners GPA

Non-Dog Owner Self-Efficacy Levels (3.6-4.0 GPA) & Gender

GENDER	PARTICIPANTS
Female	5
Male	2

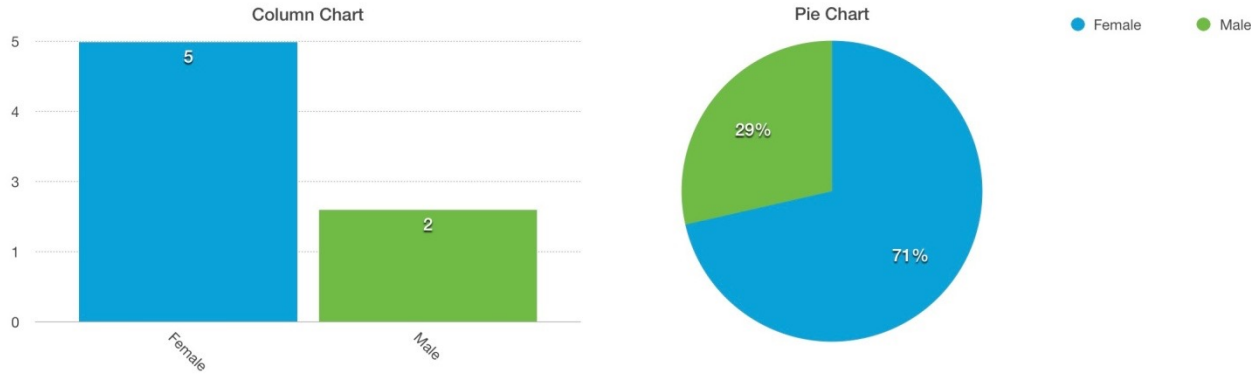


Figure 60: Percentage of Non-Dog Owners 3.6-4.0 GPA Self-Efficacy by Gender

Non-Dog Owner Self-Efficacy Levels (3.6-4.0 GPA) & Geographic Regional Divison

DIVISION	PARTICIPANTS
Mid-Atlantic	5
South Atlantic	2

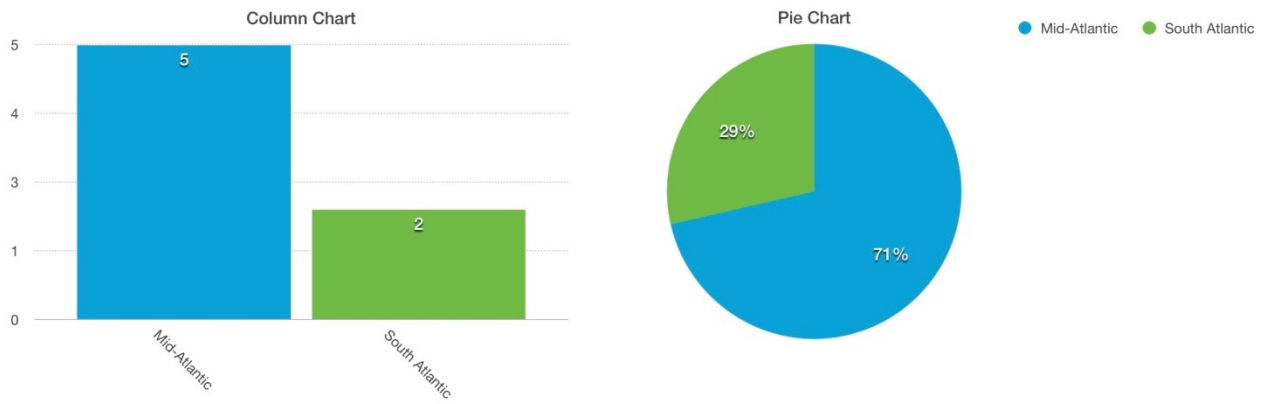


Figure 61: Percentage of Non-Dog Owners 3.6-4.0 GPA Self-Efficacy by Geographic Regional Division

Non-Dog Owner Self-Efficacy Levels (3.6-4.0 GPA) & Age

AGE	PARTICIPANTS
Under 18	0
18-24	4
25-34	0
35-44	1
45-54	2
55-64	0
65-74	0

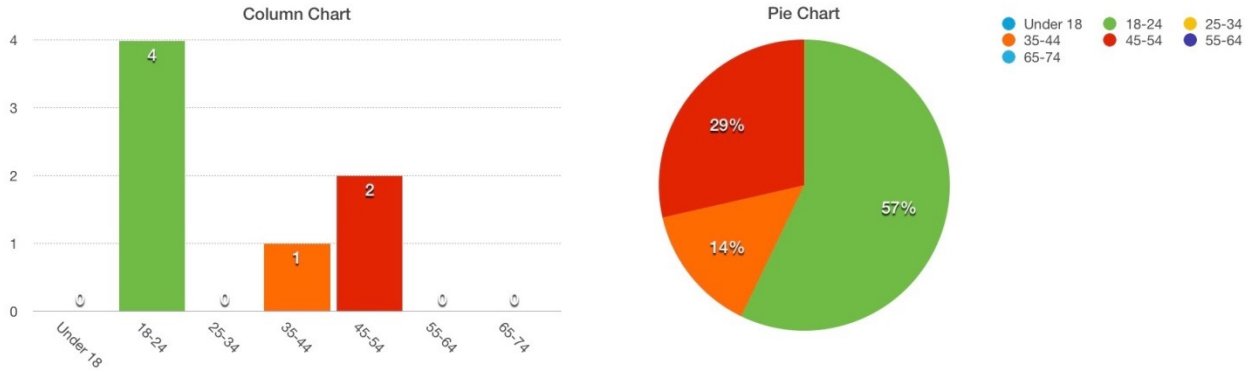


Figure 62: Percentage of Non-Dog Owners 3.6-4.0 GPA Self-Efficacy by Age

Non-Dog Owner Self-Efficacy Levels (3.6-4.0 GPA) & Occupation

OCCUPATION	PARTICIPANTS
Student	2
Sales and Related	2
Food Preparation and Serving Related	1
Office and Administrative Support	1
Education, Training, and Library	1

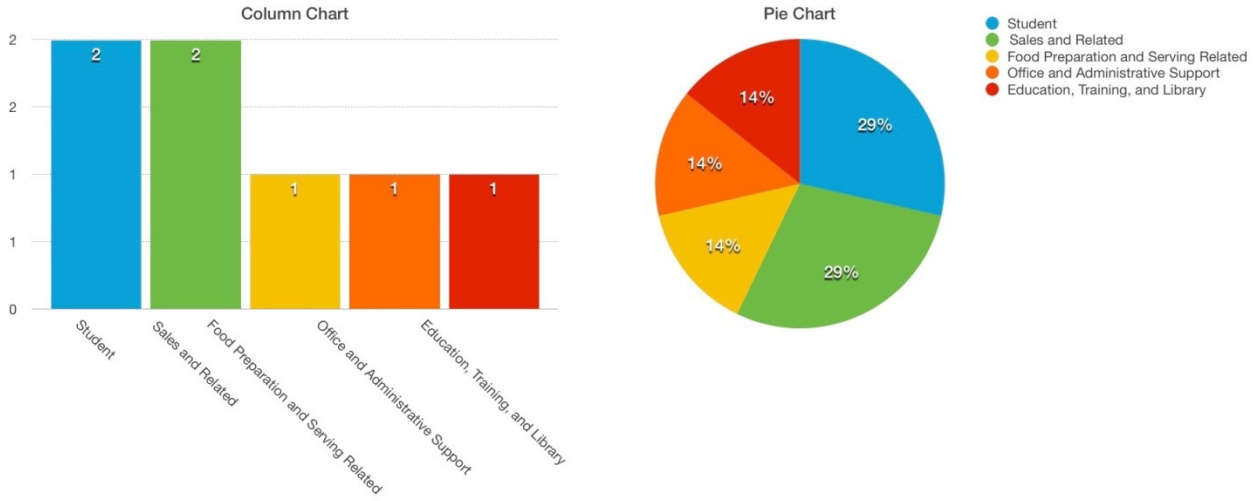


Figure 63: Percentage of Non-Dog Owners 3.6-4.0 GPA Self-Efficacy by Occupation

Non-Dog Owner Self-Efficacy Levels (3.1-3.5 GPA) & Gender

GENDER	PARTICIPANTS
Female	2
Male	1

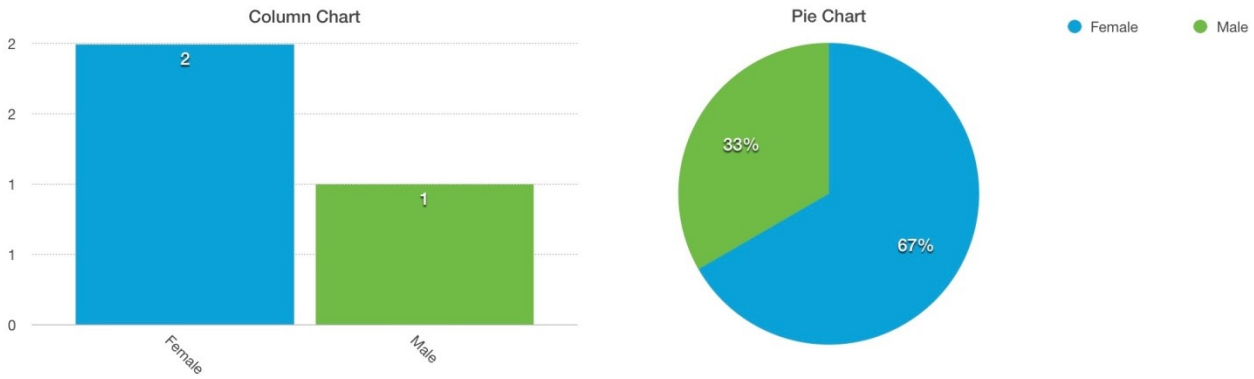


Figure 64: Percentage of Non-Dog Owners 3.1-3.5 GPA Self-Efficacy by Gender

Non-Dog Owner Self-Efficacy Levels (3.1-3.5 GPA) & Geographic Regional Divison

DIVISION	PARTICIPANTS
Mid-Atlantic	3
South Atlantic	0

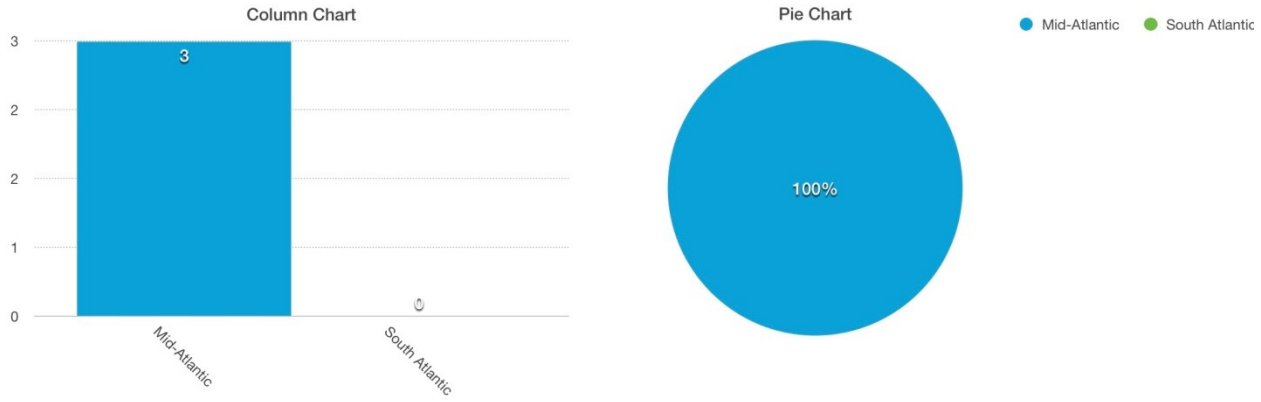


Figure 65: Percentage of Non-Dog Owners 3.1-3.5 GPA Self-Efficacy by Geographic Regional Division

Non-Dog Owner Self-Efficacy Levels (3.1-3.5 GPA) & Age

AGE	PARTICIPANTS
Under 18	1
18-24	2
25-34	0
35-44	0
45-54	0
55-64	0
65-74	0

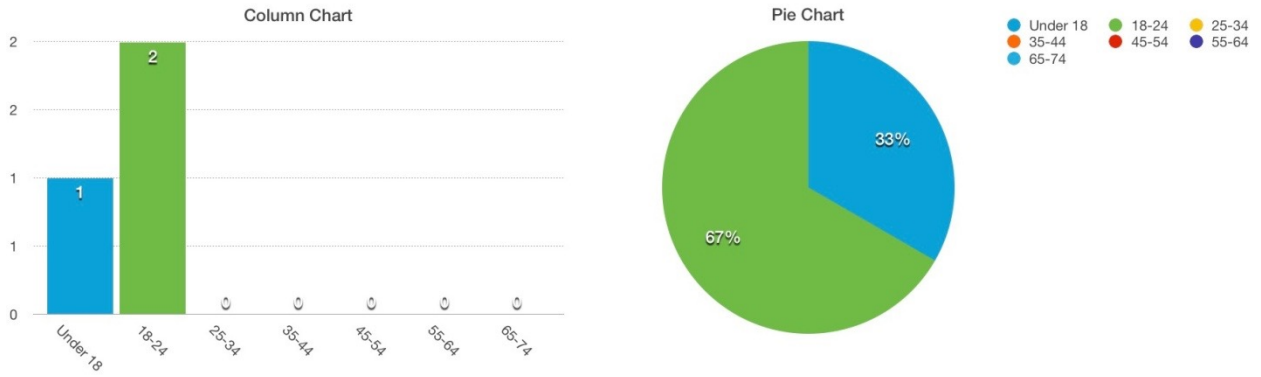


Figure 66: Percentage of Non-Dog Owners 3.1-3.5 GPA Self-Efficacy by Age

Non-Dog Owner Self-Efficacy Levels (3.1-3.5 GPA) & Occupation

OCCUPATION	PARTICIPANTS
Student	2
Business and Financial Operations	1

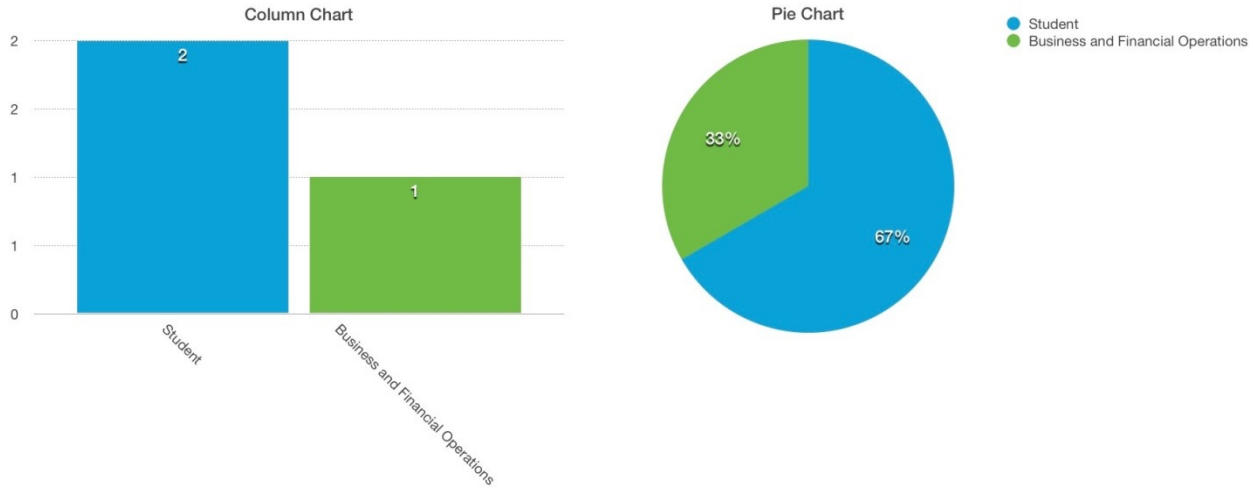


Figure 67: Percentage of Non-Dog Owners 3.1-3.5 GPA Self-Efficacy by Occupation

Non-Dog Owner Self-Efficacy Levels (3.1-3.5 GPA) & Question 8 answer

LEVEL OF ANSWER	PARTICIPANTS
High	2
Low	1

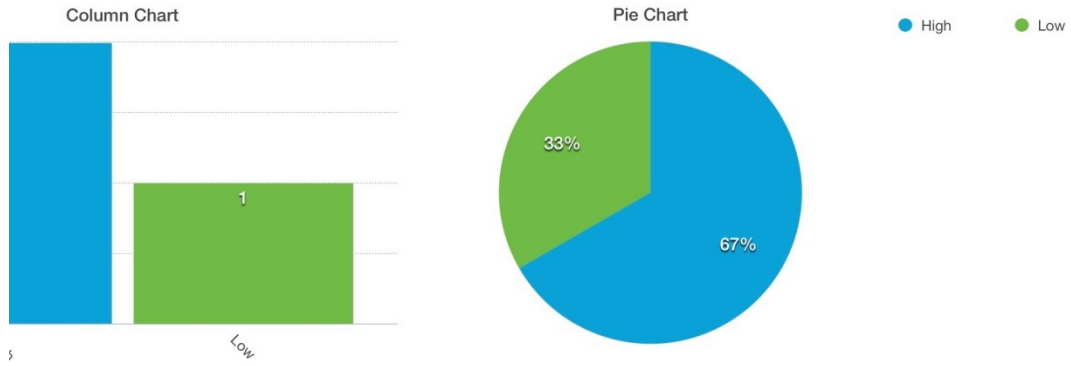


Figure 67: Percentage of Non-Dog Owners 3.1-3.5 GPA Self-Efficacy by Question 8 Answer

Non-Dog Owner Self-Efficacy Levels (2.6-3.0 GPA) & Gender

GENDER	PARTICIPANTS
Female	2
Male	0

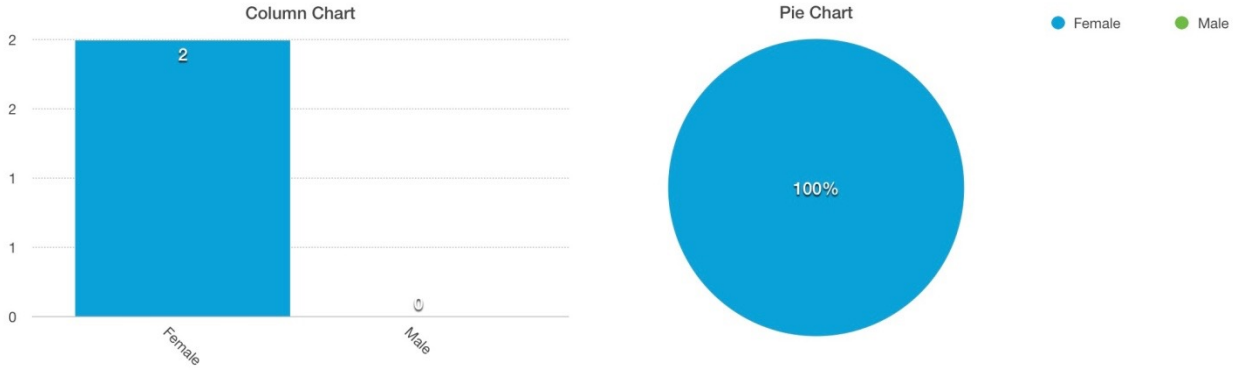


Figure 68: Percentage of Non-Dog Owners 2.6-3.0 GPA Self-Efficacy by Gender

Non-Dog Owner Self-Efficacy Levels (2.6-3.0 GPA) & Geographic Regional Divison

DIVISION	PARTICIPANTS
Mid-Atlantic	2
South Atlantic	0

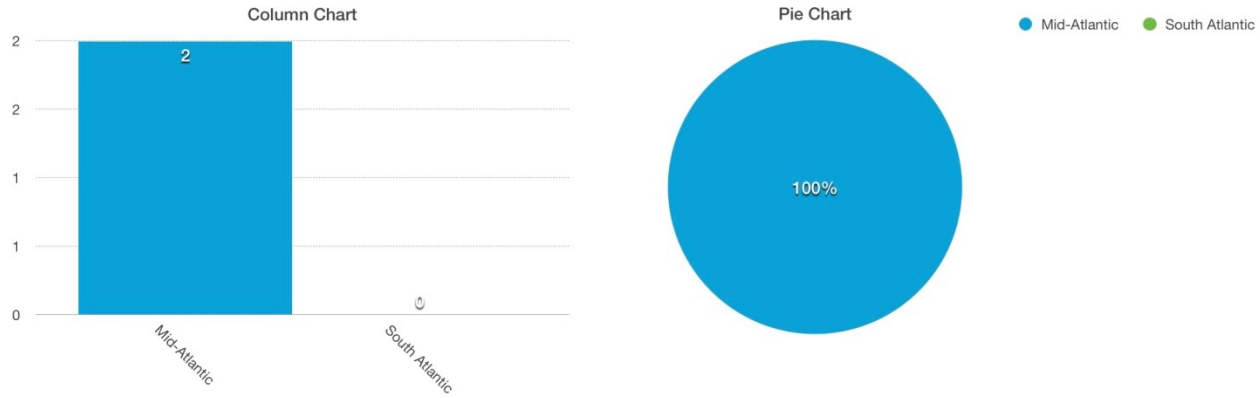


Figure 69: Percentage of Non-Dog Owners 2.6-3.0 GPA Self-Efficacy by Geographic Regional Division

Non-Dog Owner Self-Efficacy Levels (2.6-3.0 GPA) & Age

AGE	PARTICIPANTS
Under 18	0
18-24	2
25-34	0
35-44	0
45-54	0
55-64	0
65-74	0

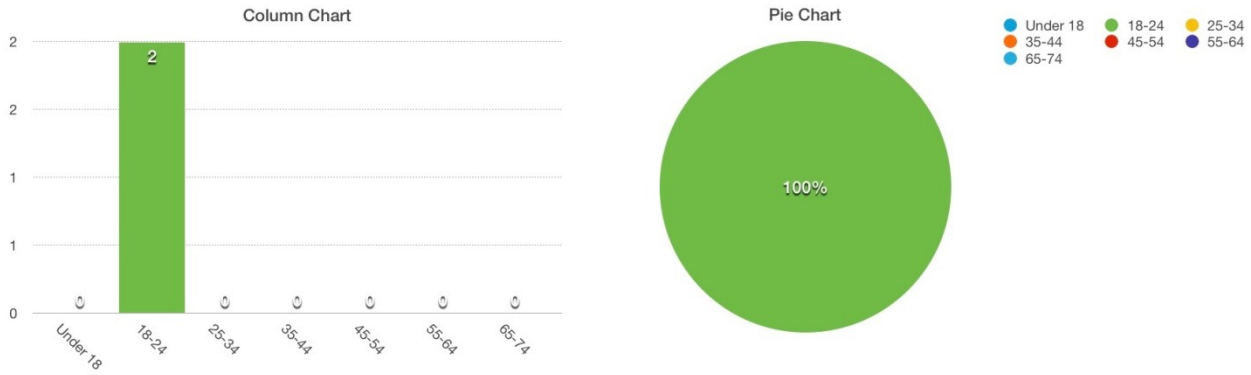


Figure 70: Percentage of Non-Dog Owners 2.6-3.0 GPA Self-Efficacy by Age

Non-Dog Owner Self-Efficacy Levels (2.6-3.0 GPA) & Occupation

OCCUPATION	PARTICIPANTS
Biological Research	1
Education, Training, and Library	1

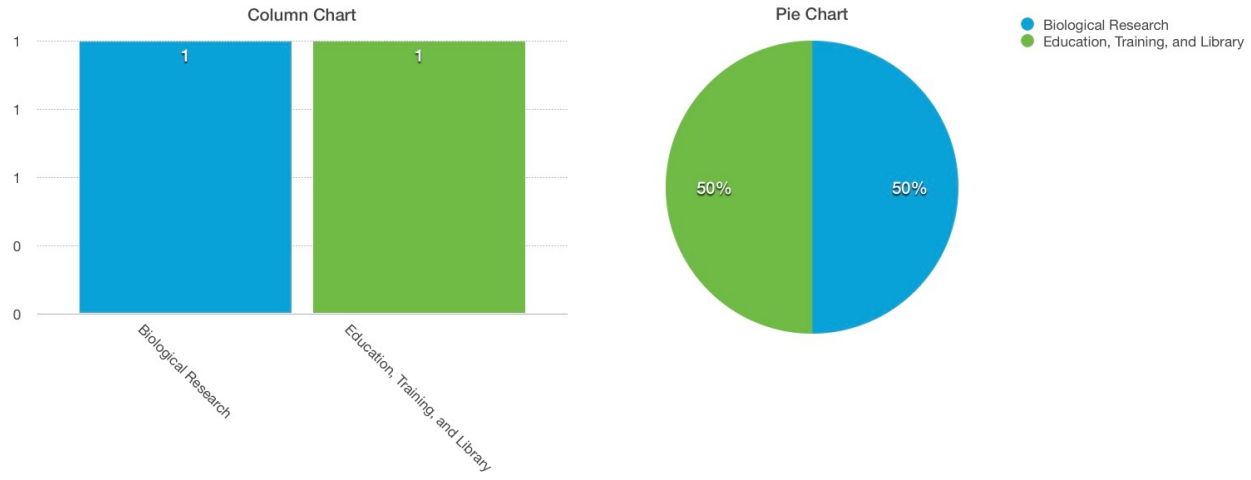


Figure 71: Percentage of Non-Dog Owners 2.6-3.0 GPA Self-Efficacy by Occupation

Non-Dog Owner Self-Efficacy Levels (2.6-3.0 GPA) & Question 8 answer

LEVEL OF ANSWER	PARTICIPANTS
High	2
Low	0

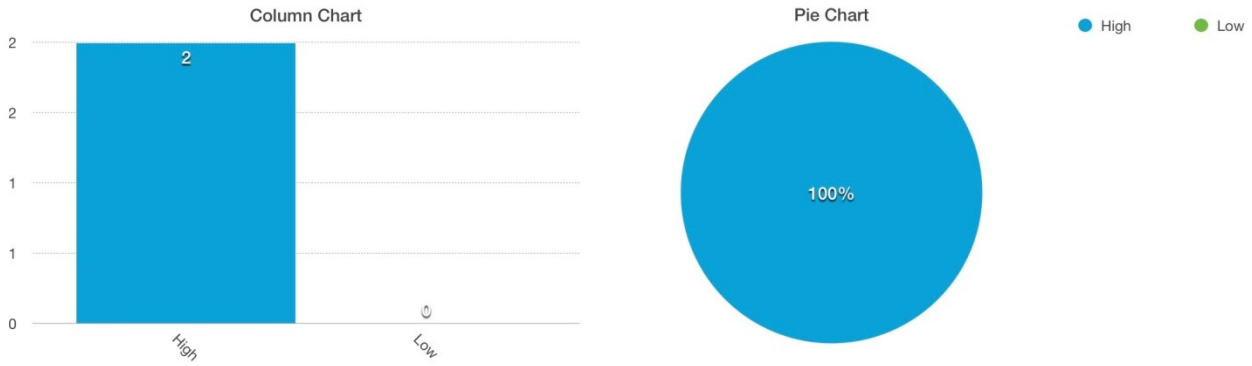


Figure 72: Percentage of Non-Dog Owners 2.6-3.0 GPA Self-Efficacy by Question 8 Answer

Non-Dog Owner Gender Self-Efficacy & Q8 High Levels

GENDER	PARTICIPANTS
Female	8
Male	1

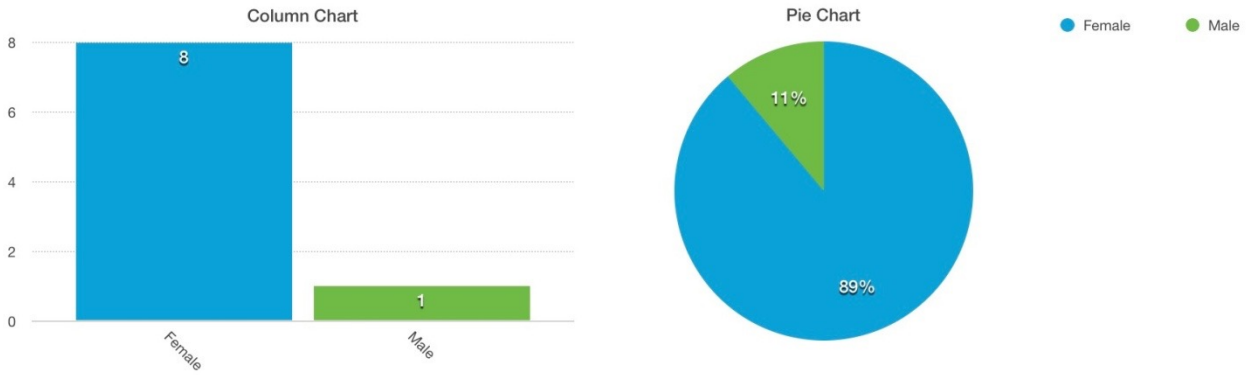


Figure 73: Percentage of Non-Dog Owners Survey Question 8 High Levels by Gender

Non-Dog Owner Geographic Regional Division Self-Efficacy & Q8 High Levels

DIVISION	PARTICIPANTS
Mid-Atlantic	7
South Atlantic	2

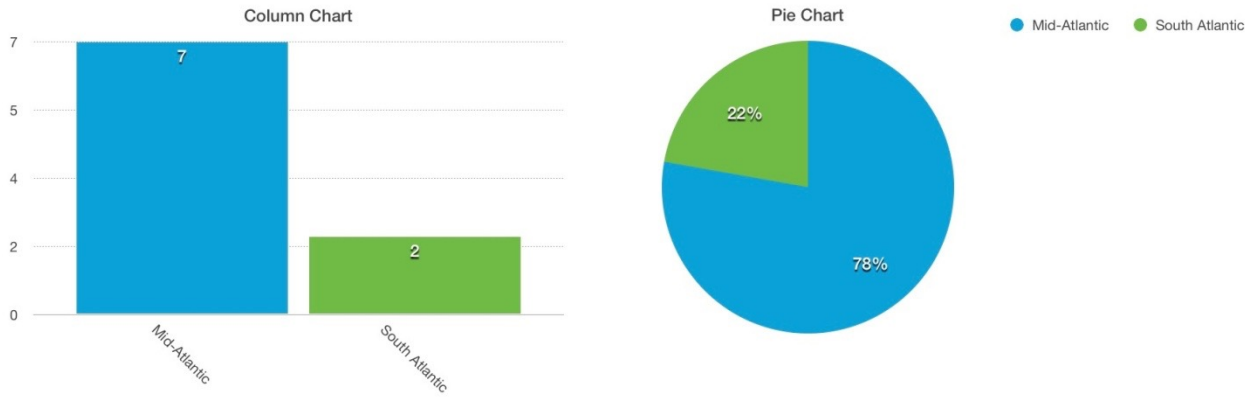


Figure 74: Percentage of Non-Dog Owners Survey Question 8 High Levels by Geographic Regional Division

Non-Dog Owner Age Self-Efficacy & Q8 High Levels

AGE	PARTICIPANTS
Under 18	0
18-24	6
25-34	0
35-44	1
45-54	2
55-64	0
65-74	0

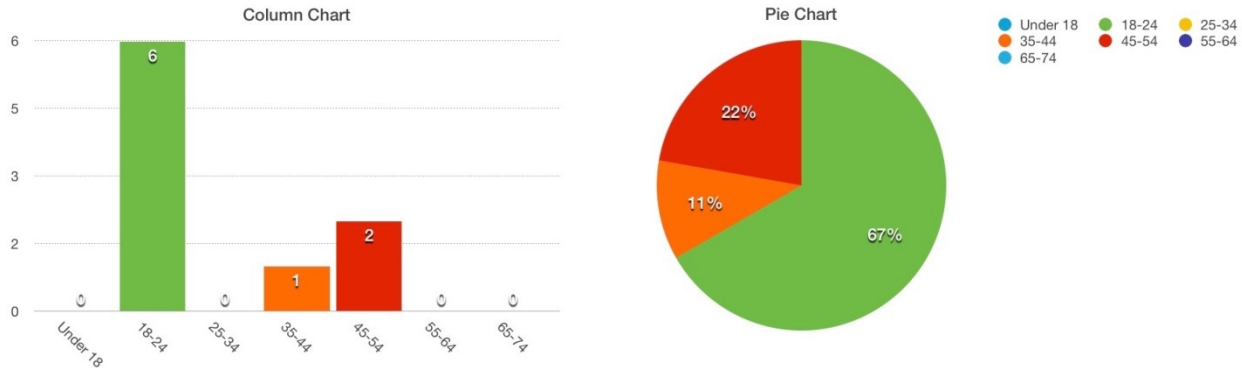


Figure 75: Percentage of Non-Dog Owners Survey Question 8 High Levels by Age

Non-Dog Owner Occupation Self-Efficacy & Q8 High Levels

OCCUPATION	PARTICIPANTS
Student	2
Education, Training, and Library	2
Sales and Related	2
Biological Research	1
Office and Administrative Support	1
Business and Financial Operations	1

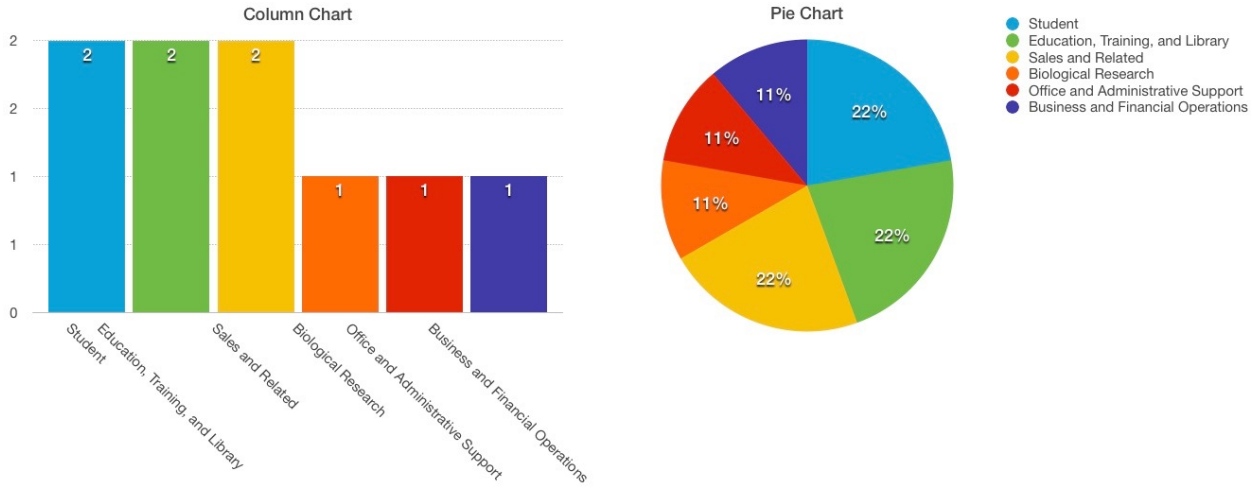


Figure 76: Percentage of Non-Dog Owners Survey Question 8 High Levels by Occupation

Non-Dog Owner Gender Self-Efficacy & Q8 Low Levels

GENDER	PARTICIPANTS
Female	1
Male	2

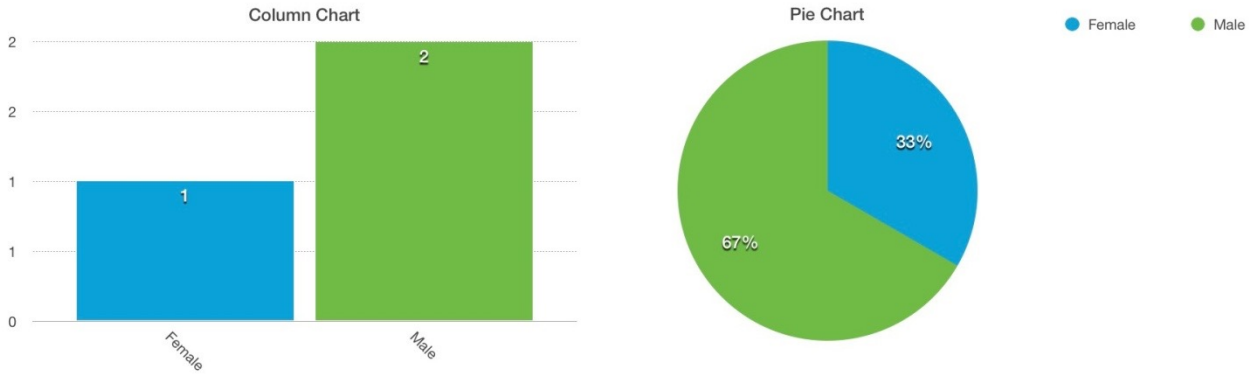


Figure 77: Percentage of Non-Dog Owners Survey Question 8 Low Levels by Gender

Non-Dog Owner Geographic Regional Division Self-Efficacy & Q8 Low Levels

DIVISION	PARTICIPANTS
Mid-Atlantic	3
South Atlantic	0

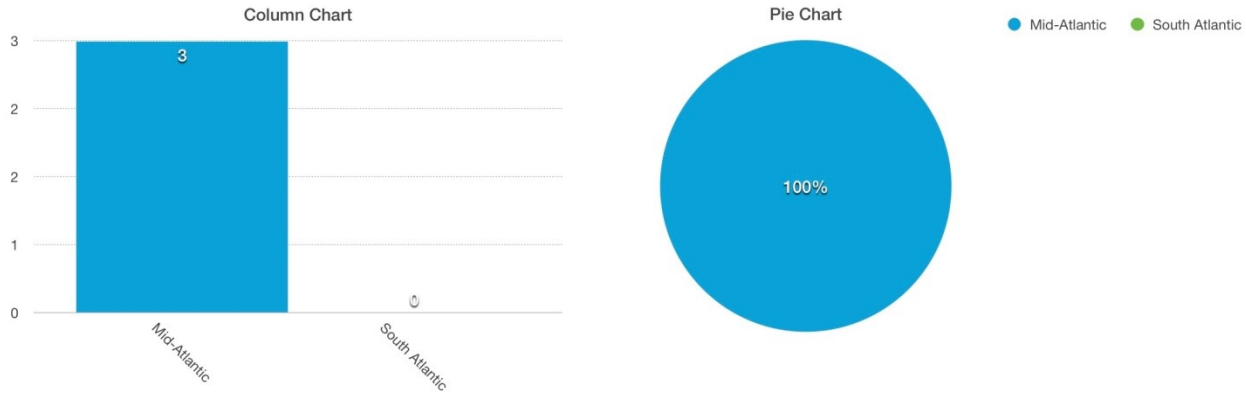


Figure 78: Percentage of Non-Dog Owners Survey Question 8 Low Levels by Geographic Regional Division

Non-Dog Owner Age Self-Efficacy & Q8 Low Levels

AGE	PARTICIPANTS
Under 18	1
18-24	2
25-34	0
35-44	0
45-54	0
55-64	0
65-74	0

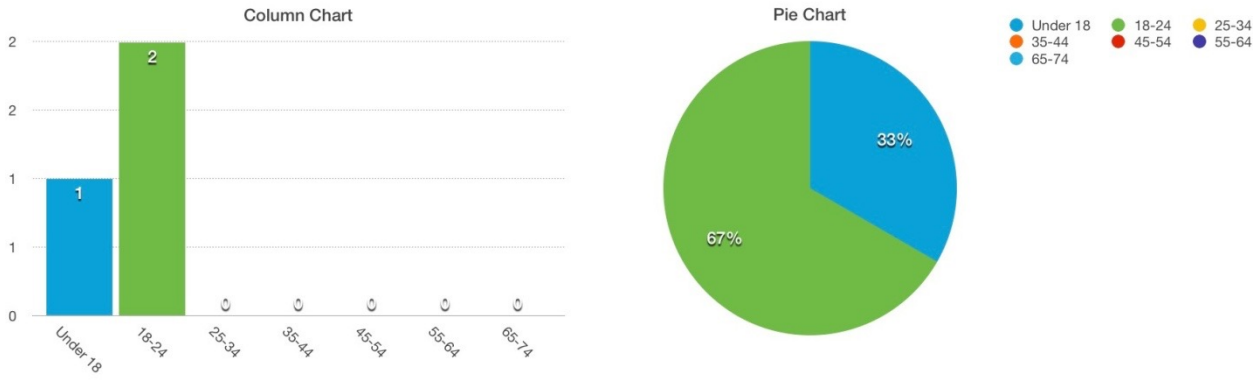


Figure 79: Percentage of Non-Dog Owners Survey Question 8 Low Levels by Age

Non-Dog Owner Occupation Self-Efficacy & Q8 Low Levels

OCCUPATION	PARTICIPANTS
Student	2
Food Preparation and Serving Related	1

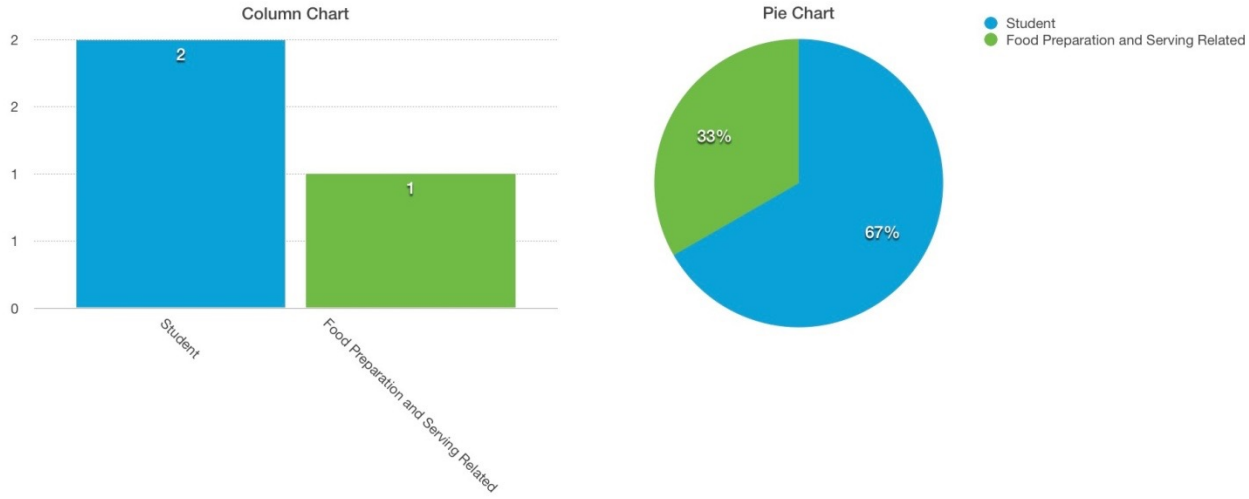


Figure 80: Percentage of Non-Dog Owners Survey Question 8 Low Levels by Occupation

Stress Levels

STRESS LEVEL	PARTICIPANTS
None	1
Slight	4
Sometimes	3
Often	0
Extreme	1

Figure 81: Percentage of Stress Levels

Stress Levels Gender

GENDER	PARTICIPANTS
Female	5
Male	4

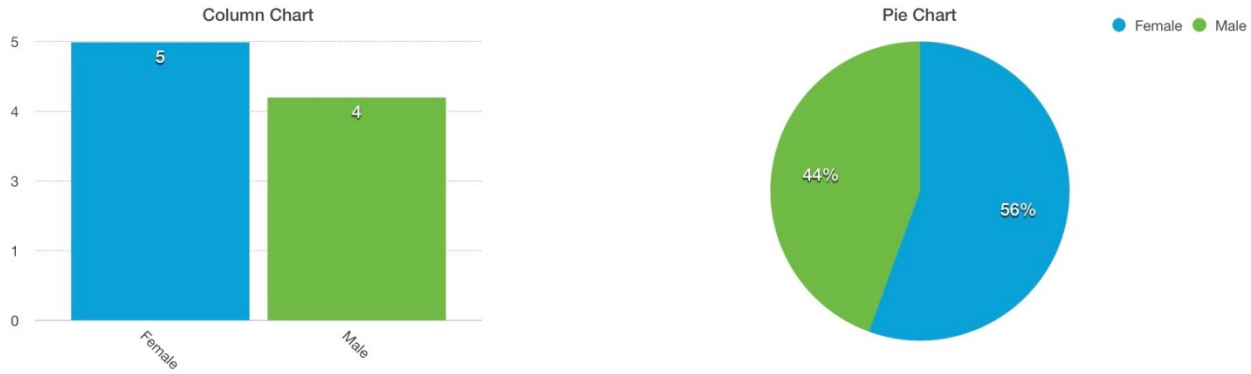


Figure 82: Percentage of Stress Levels of Participants by Gender

Stress Levels Geographic Regional Division

DIVISION	PARTICIPANTS
Mid-Atlantic	5
South Atlantic	4

Figure 83: Percentage of Stress Levels of Participants by Geographic Regional Division

Stress Levels Age

AGE	PARTICIPANTS
Under 18	1
18-24	5
25-34	0
35-44	1
45-54	1
55-64	0
65-74	1

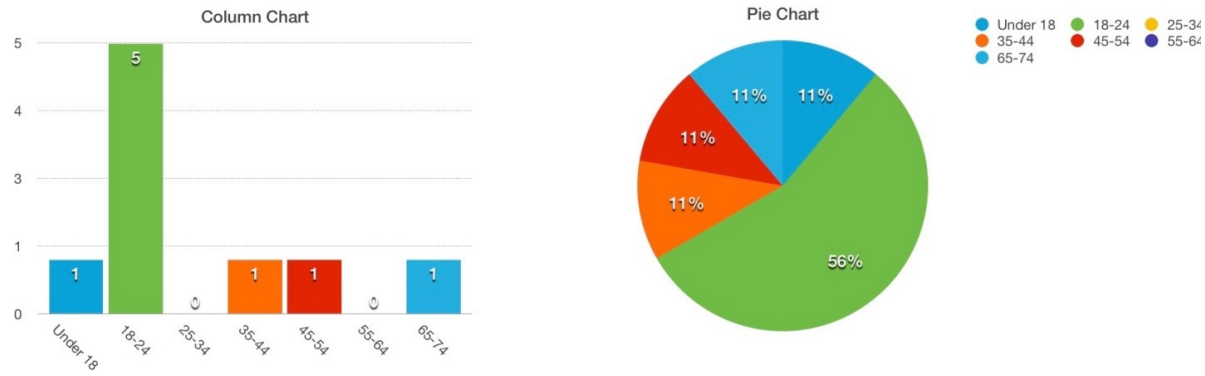
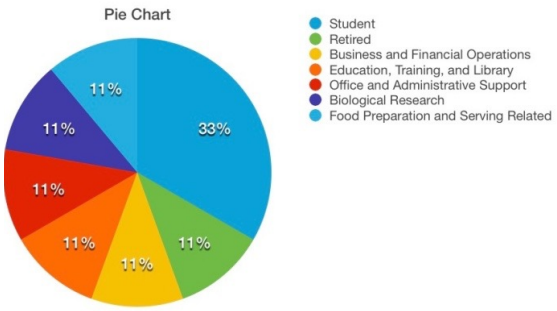


Figure 84: Percentage of Stress Levels of Participants by Age



Stress Levels Occupation

OCCUPATION	PARTICIPANTS
Student	3
Retired	1
Business and Financial Operations	1
Education, Training, and Library	1
Office and Administrative Support	1
Biological Research	1
Food Preparation and Serving Related	1

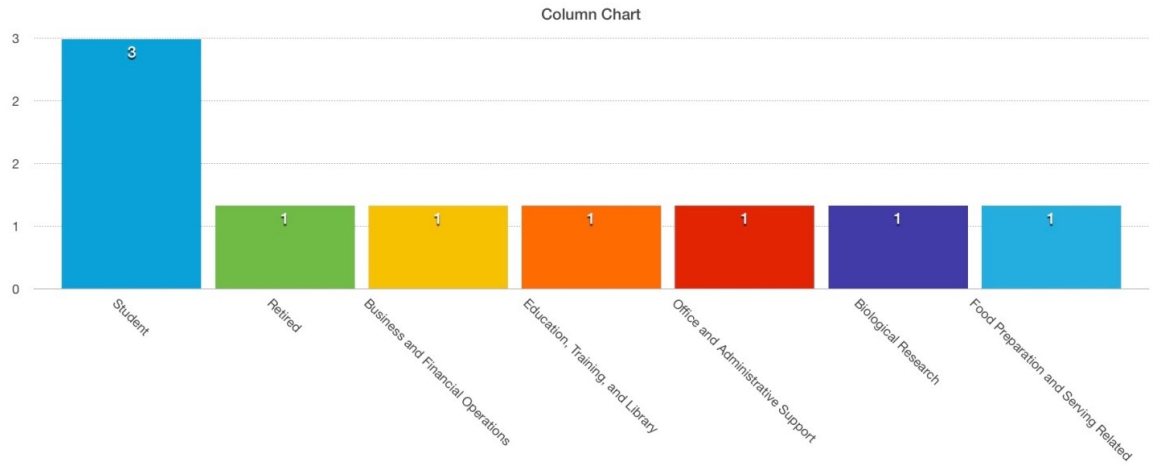


Figure 85: Percentage of Stress Levels of Participants by Occupation

Stress Levels

TYPE OF OWNER	PARTICIPANTS
Dog Owners	6
Non-Dog Owners	3

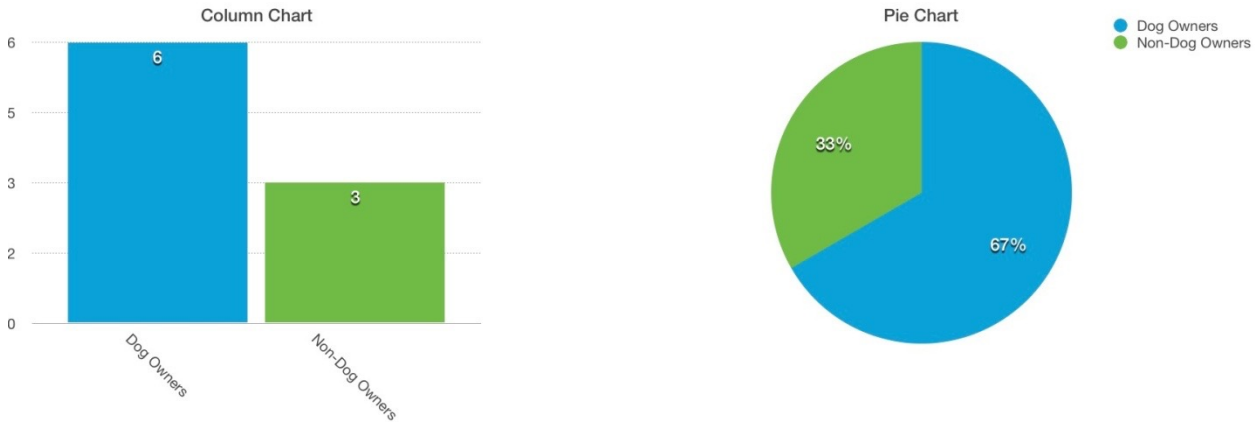


Figure 86: Percentage of Stress Levels of Participant Type

Stress Levels

LEVEL	DOG OWNER	NO DOG OWNER
None	1	0
Slight	3	1
Sometimes	1	2
Often	0	0
Extreme	1	0

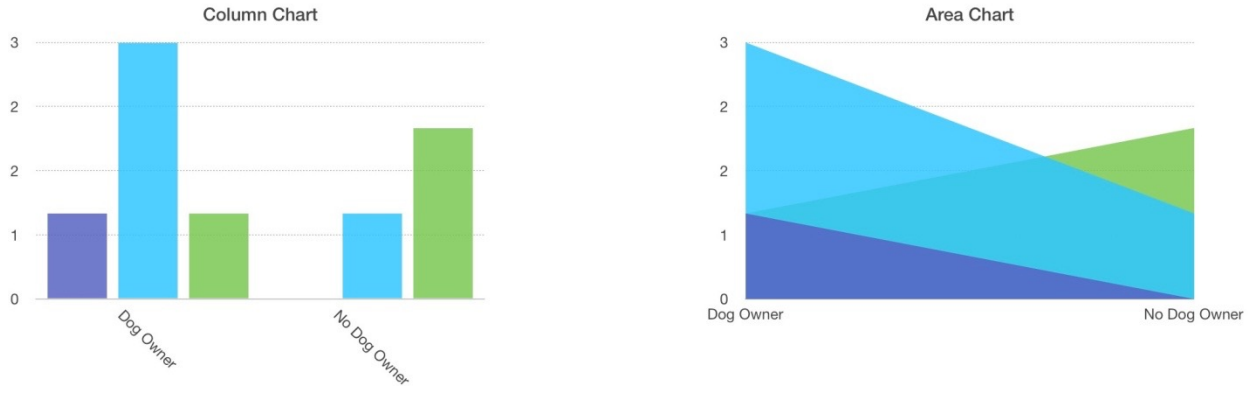


Figure 87: Percentage of Stress Levels of Participants by Type (Double Comparison)

Stress Levels of Dog Owners

STRESS LEVEL	DOG OWNERS
None	1
Slight	3
Sometimes	1
Often	0
Extreme	1

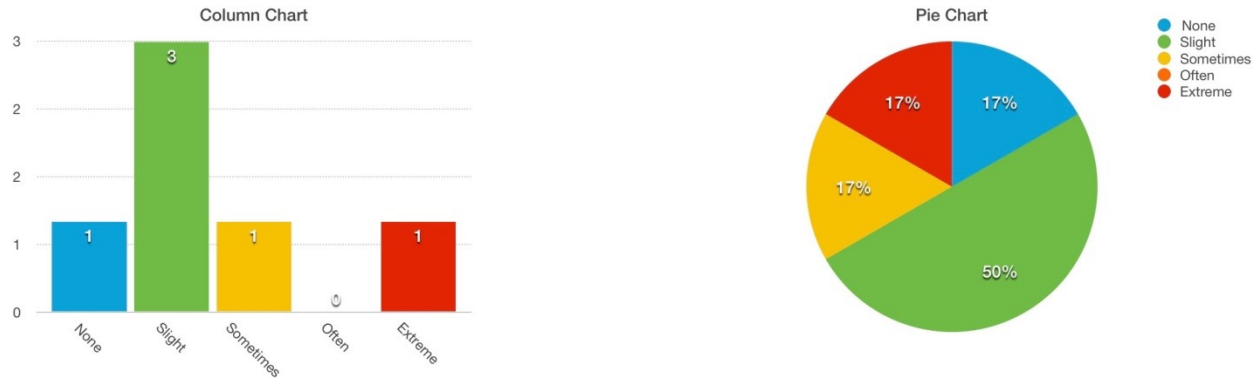


Figure 88: Percentage of Stress Levels of Dog Owners

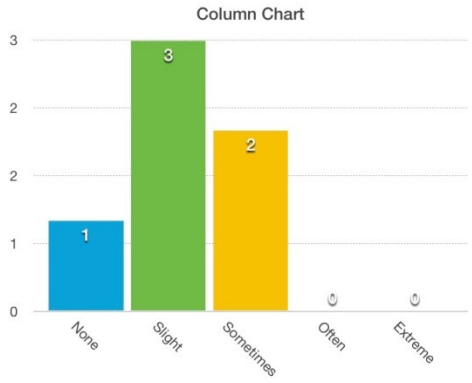
Stress Levels of Dog Owners & Neutral Self-Efficacy Levels

STRESS LEVEL	NON-DOG OWNERS
None	0
Slight	0
Sometimes	0
Often	0
Extreme	1

Figure 89: Percentage of Stress Levels of Dog Owners by Neutral Self-Efficacy

Stress Levels of Dog Owners & High Self-Efficacy Levels

STRESS LEVEL	NON-DOG OWNERS
None	1
Slight	3
Sometimes	2
Often	0
Extreme	0



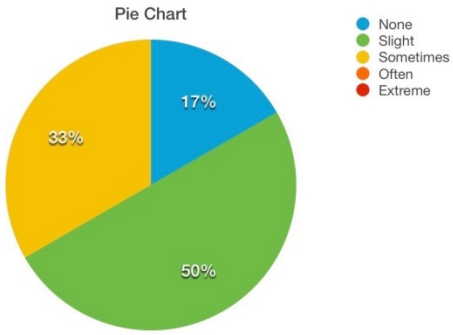
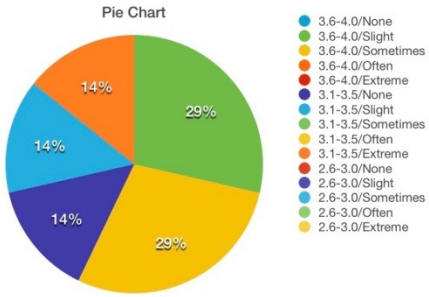


Figure 90: Percentage of Stress Levels of Dog Owners by High Self-Efficacy



Stress Levels of Dog Owners & GPA

GPA/STRESS LEVEL	NON-DOG OWNERS
3.6-4.0/None	0
3.6-4.0/Slight	2
3.6-4.0/Sometimes	2
3.6-4.0/Often	0
3.6-4.0/Extreme	0
3.1-3.5/None	1
3.1-3.5/Slight	1
3.1-3.5/Sometimes	0
3.1-3.5/Often	0
3.1-3.5/Extreme	1
2.6-3.0/None	0
2.6-3.0/Slight	0
2.6-3.0/Sometimes	0
2.6-3.0/Often	0
2.6-3.0/Extreme	0

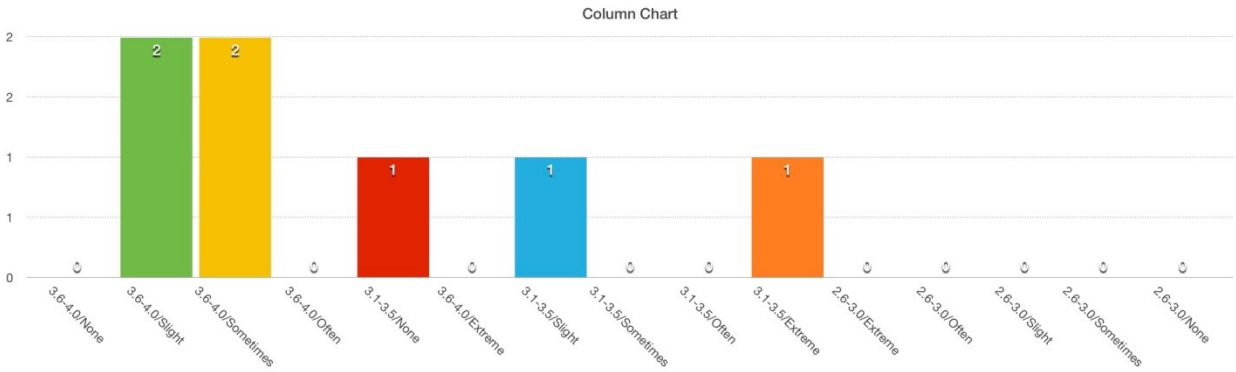
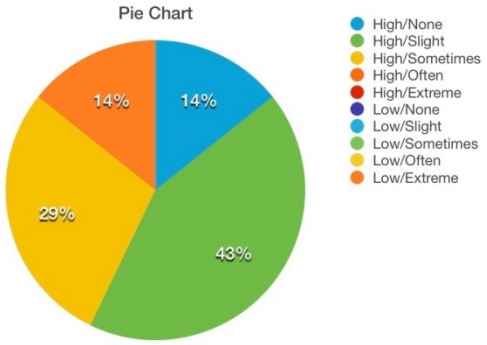


Figure 91: Percentage of Stress Levels of Dog Owners by GPA



Stress Levels of Dog Owners & Q8 Answers

ANSWER LEVEL/STRESS LEVEL	NON-DOG OWNERS
High/None	1
High/Slight	3
High/Sometimes	2
High/Often	0
High/Extreme	0
Low/None	0
Low/Slight	0
Low/Sometimes	0
Low/Often	0
Low/Extreme	1

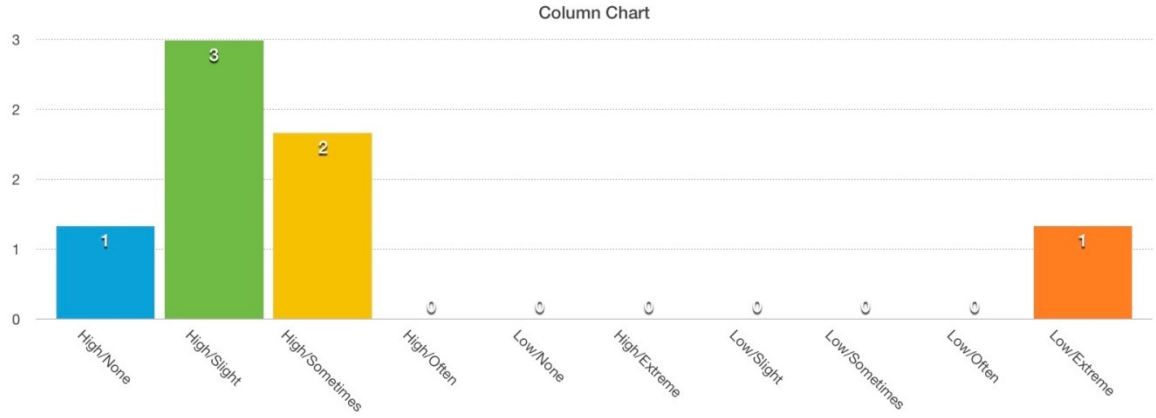


Figure 92: Percentage of Stress Levels of Dog Owners by Survey Question 8

Dog Owner Gender Stress Levels

GENDER	PARTICIPANTS
Female	3
Male	3

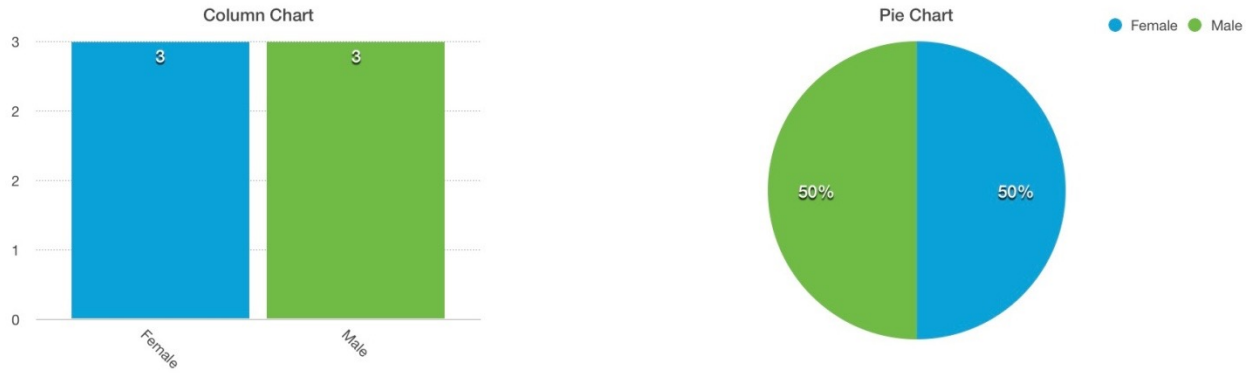


Figure 93: Percentage of Stress Levels of Dog Owners by Gender

Years of Dog Ownership Stress Levels

YEARS OF OWNERSHIP	PARTICIPANTS
Under 6 Months	0
6 Months-1 Year	0
2-4 Years	0
5-7 Years	0
8-10 Years	1
More Than 10 Years	5

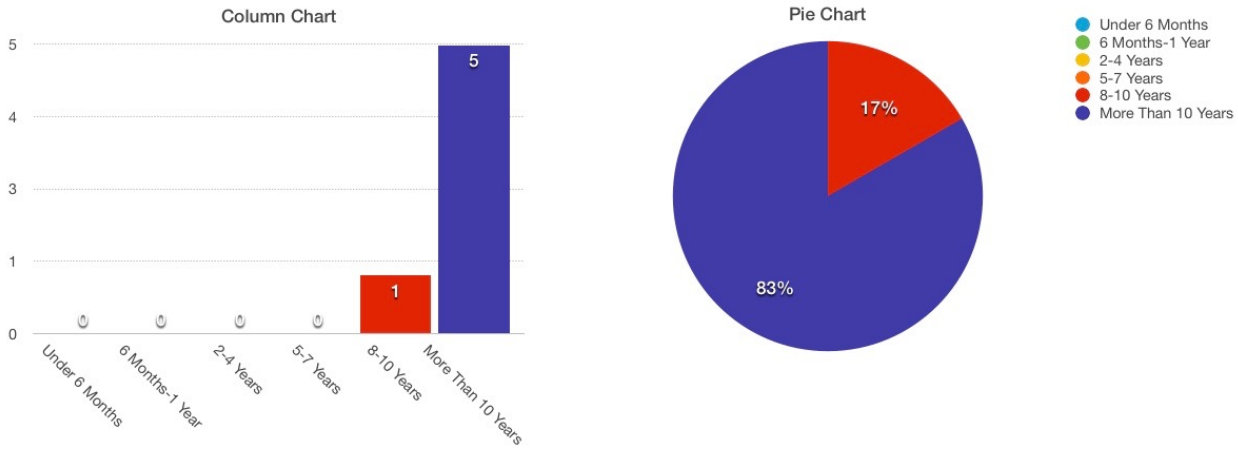


Figure 94: Percentage of Stress Levels of Dog Owners by Years of Ownership

Dog Owner Geographic Regional Division Stress Levels

DIVISION	PARTICIPANTS
Mid-Atlantic	2
South Atlantic	4

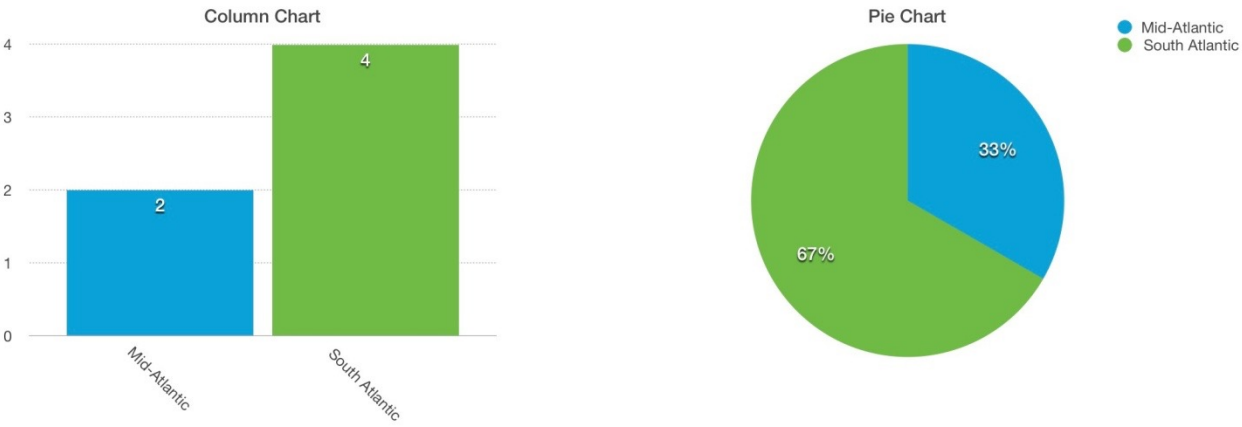


Figure 95: Percentage of Stress Levels of Dog Owners by Geographic Regional Division

Dog Owner Age Stress Levels

AGE	PARTICIPANTS
Under 18	1
18-24	2
25-34	0
35-44	1
45-54	1
55-64	0
65-74	1

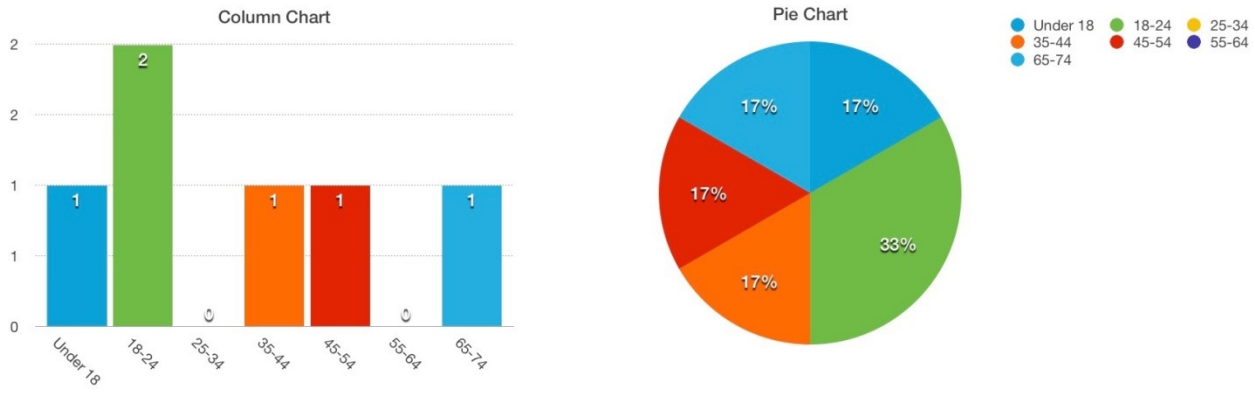


Figure 96: Percentage of Stress Levels of Dog Owners by Age

Dog Owner Occupation Stress Levels

OCCUPATION	PARTICIPANTS
Student	2
Retired	1
Business and Financial Operations	1
Education, Training, and Library	1
Office and Administrative Support	1

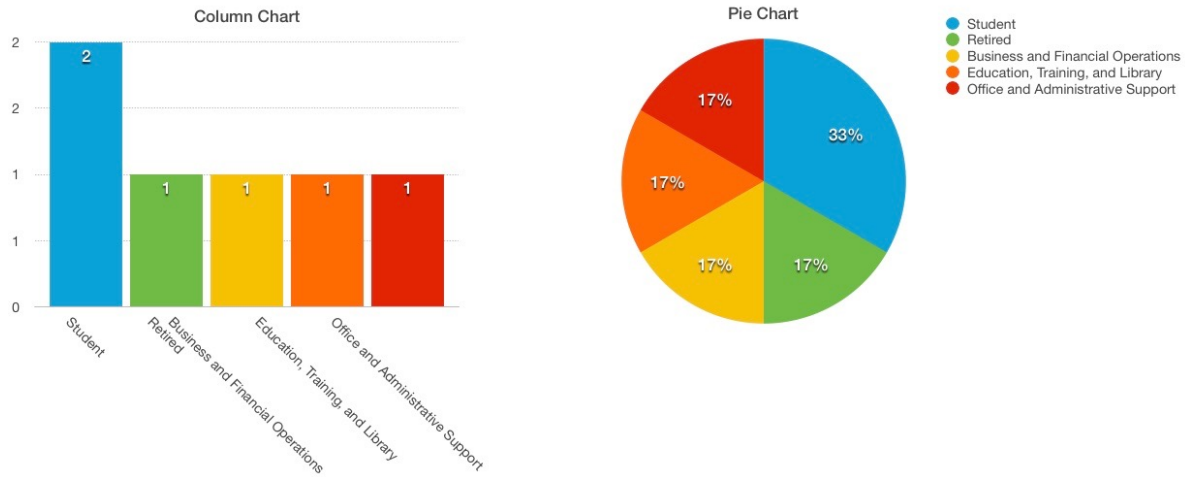
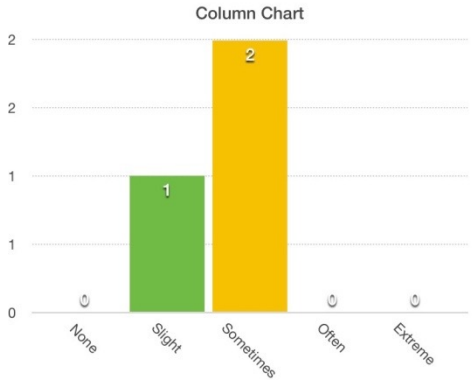


Figure 97: Percentage of Stress Levels of Dog Owners by Occupation

Stress Levels of Non-Dog Owners

STRESS LEVEL	NON-DOG OWNERS
None	0
Slight	1
Sometimes	2
Often	0
Extreme	0



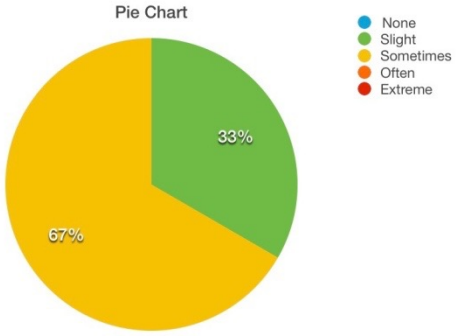
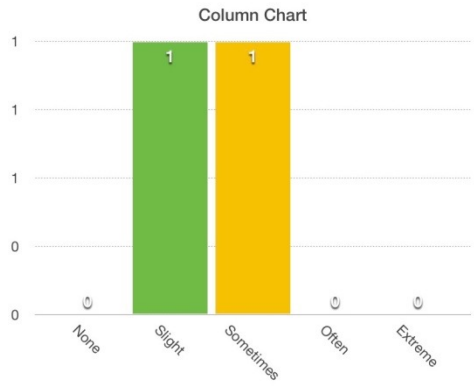


Figure 98: Percentage of Stress Levels of Non-Dog Owners by Neutral Self-Efficacy Levels

Stress Levels of Non-Dog Owners & Neutral Self-Efficacy Levels

STRESS LEVEL	NON-DOG OWNERS
None	0
Slight	1
Sometimes	1
Often	0
Extreme	0



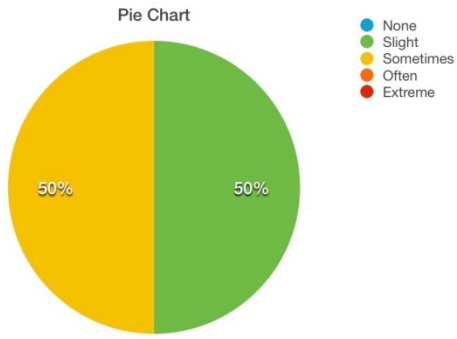
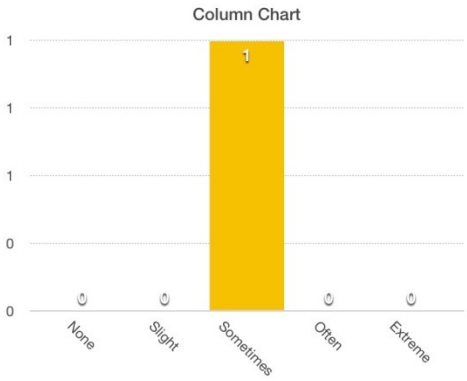


Figure 99: Percentage of Stress Levels of Non-Dog Owners by Neutral Self-Efficacy Levels

Stress Levels of Non-Dog Owners & High Self-Efficacy Levels

STRESS LEVEL	NON-DOG OWNERS
None	0
Slight	0
Sometimes	1
Often	0
Extreme	0



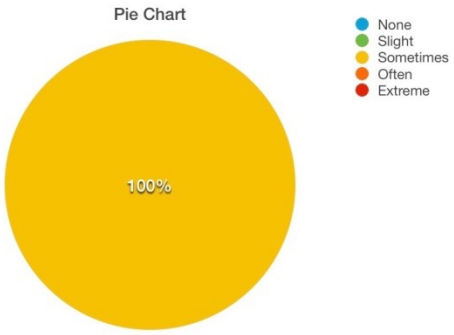
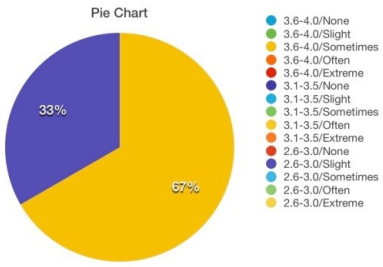


Figure 100: Percentage of Stress Levels of Non-Dog Owners by High Self-Efficacy Levels



Stress Levels of Non-Dog Owners & GPA

GPA/STRESS LEVEL	NON-DOG OWNERS
3.6-4.0/None	0
3.6-4.0/Slight	0
3.6-4.0/Sometimes	2
3.6-4.0/Often	0
3.6-4.0/Extreme	0
3.1-3.5/None	0
3.1-3.5/Slight	0
3.1-3.5/Sometimes	0
3.1-3.5/Often	0
3.1-3.5/Extreme	0
2.6-3.0/None	0
2.6-3.0/Slight	1
2.6-3.0/Sometimes	0
2.6-3.0/Often	0
2.6-3.0/Extreme	0

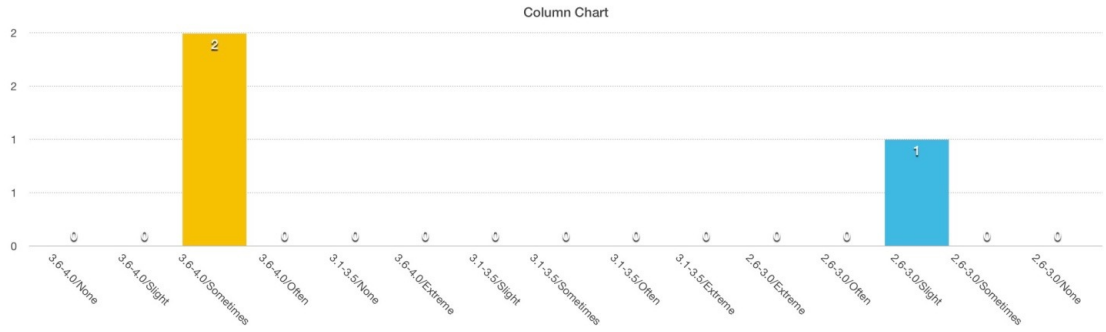
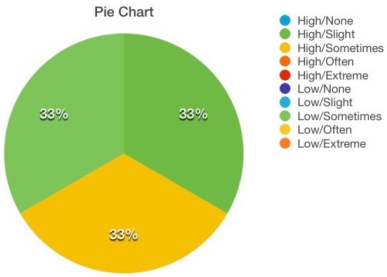


Figure 101: Percentage of Stress Levels of Non-Dog Owners by GPA



Stress Levels of Non-Dog Owners & Q8 Answers

ANSWER LEVEL/STRESS LEVEL	NON-DOG OWNERS
High/None	0
High/Slight	1
High/Sometimes	1
High/Often	0
High/Extreme	0
Low/None	0
Low/Slight	0
Low/Sometimes	1
Low/Often	0
Low/Extreme	0

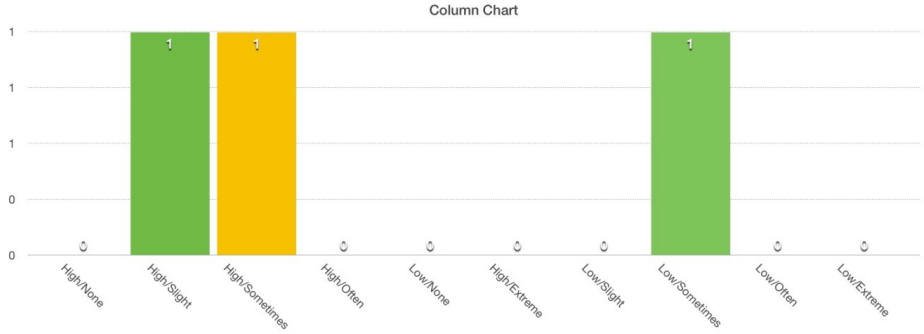
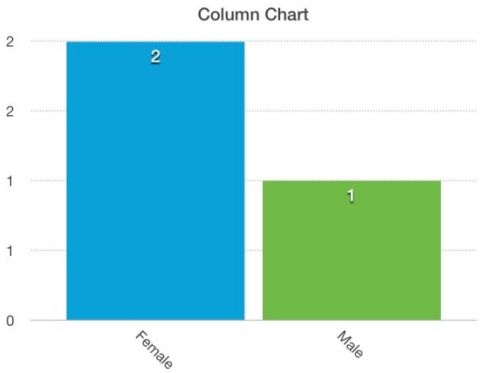


Figure 102: Percentage of Stress Levels of Non-Dog Owners by Survey Question 8 Answers

Non-Dog Owner Gender Stress Levels

GENDER	PARTICIPANTS
Female	2
Male	1



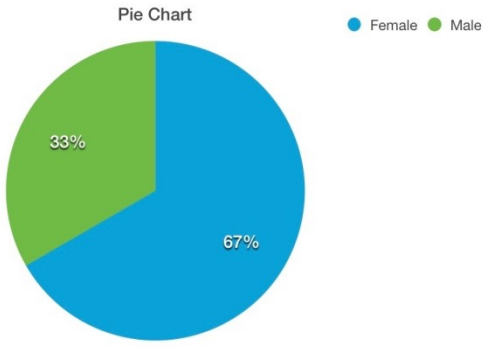


Figure 103: Percentage of Stress Levels of Non-Dog Owners by Gender

Non-Dog Owner Geographic Regional Division Stress Levels

DIVISION	PARTICIPANTS
Mid-Atlantic	3
South Atlantic	0

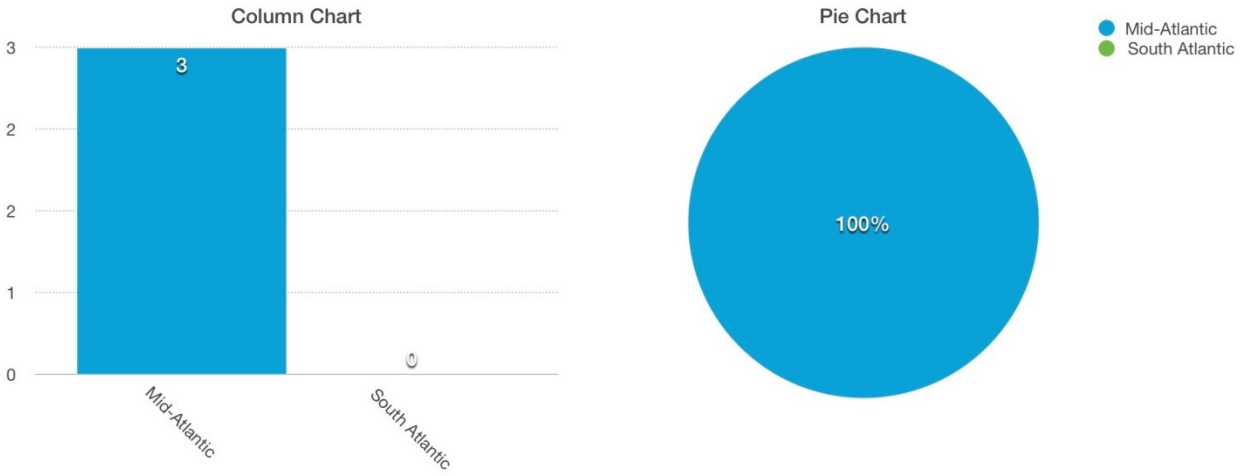


Figure 104: Percentage of Stress Levels of Non-Dog Owners by Geographic Regional Division

Non-Dog Owner Age Stress Levels

AGE	PARTICIPANTS
Under 18	0
18-24	3
25-34	0
35-44	0
45-54	0
55-64	0
65-74	0

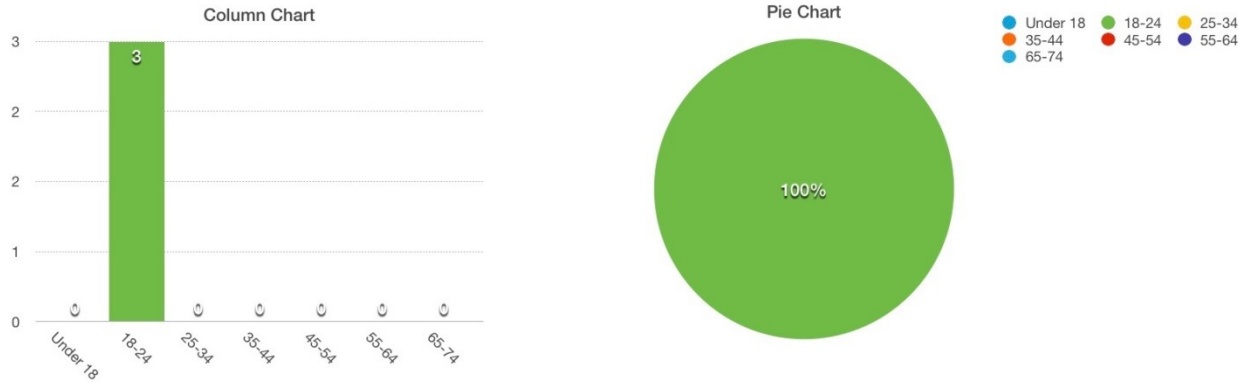


Figure 105: Percentage of Stress Levels of Non-Dog Owners by Age

Non-Dog Owner Occupation Stress Levels

OCCUPATION	PARTICIPANTS
Student	1
Biological Research	1
Food Preparation and Serving Related	1

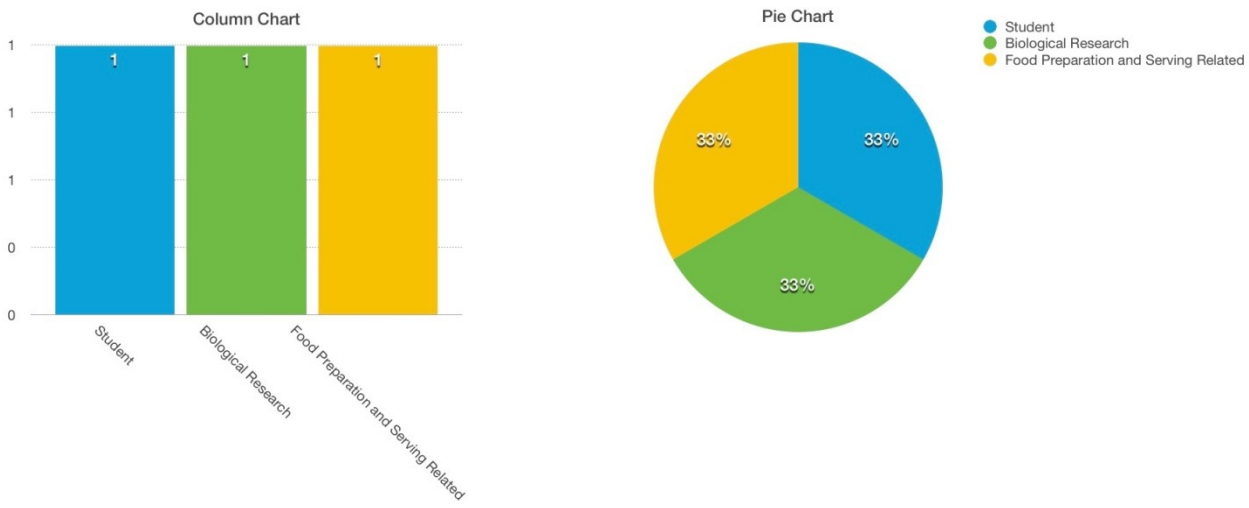


Figure 106: Percentage of Stress Levels of Non-Dog Owners by Occupation