

The cover features a large, semi-transparent blue globe of the Earth in the background. In the foreground, several hands of various skin tones are raised, reaching towards the globe. The text is overlaid on the left side of the globe.

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Higher Education Faculty Use and Self-efficacy of mLearning Devices: Findings from a Case Study

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Introduction

In January, 2015, 66% of American adults owned a smartphone, 42% owned a tablet computer, and sixty-three percent of those owning smartphones reported using them for Internet access (Mobile Technology Fact Sheet, 2015). By November, 2016, the percentage of Americans owning smartphones had increased to 77% (Smith, 2017). Taylor, Parker, Lenhart, & Patten (2011) found that 57% of college graduates use smartphones, tablets, or laptop computers, while 87% of college presidents reported using smartphones daily. In a university case study, Hanley (2013) found that 74% of the students owned smartphones, 98% used them for internet access, and three of ten also owned tablets. Clearly, mobile learning (mLearning) has become an integral part of our daily lives.

Interestingly, mLearning has been defined from multiple perspectives. Keegan (2005) defined mobile learning as “the provision of education and training on smartphones and mobile phones” (p. 3), while Crompton (2013) defined mLearning as “learning across multiple contexts, through social and content interactions, using personal electronic devices” (p. 357). Similarly, El-Hussein and Cronje (2010) defined mobile learning as “any type of learning that takes place in learning environments and spaces that take account of the mobility of technology, mobility of learners, and mobility of learning” (p. 20).

Most of the available literature on mLearning focuses on P-12 student use and self-efficacy of mLearning devices. There are pilot programs in universities that give students access to individual mLearning devices, typically iPads (Murphy, 2011), and some research has been conducted on the usage of mLearning devices by college-level students (Geist, 2011; Miller, 2012; Murphy, 2011). Available literature on higher education faculty use and self-efficacy for using mLearning devices is sparse (Souleles, Savva, Watters, Annesley, & Bull, 2015).

Harris Interactive (2013) surveyed 1,206 college students in 2013 and found 80% of these students felt tablets could change the way material is presented in a course, 60% expected tablets to increase student performance, and 40% of the students surveyed reported using tablets in academic settings. College students tend to show interest in using mLearning devices in the classroom (Rogers, Connelly, Hazlewood, & Tedesco, 2010) and student attitudes toward using mLearning devices in the classroom tend to be positive (Cavus & Uzunboylu, 2009; Jacob & Isaac, 2007; Uzunboylu, Cavus, & Ercag, 2009). Dahlstrom, Brooks, and Bichsel (2014) surveyed students in 213 colleges and universities in the United States and 15 other countries. Smartphones were owned by 86% of the students and 47% of the students owned tablets. More than half (59%) of these smartphone owners used their smartphone for education-related purposes during class meetings, and among tablet owners, 31% used tablets in class for instructional purposes. Students also tend to have a high self-efficacy toward mLearning (Kenny, Park, & Van Neste-Kenny, 2010) and would like to see instructors incorporate more mLearning into the classroom (Mahat, Ayub, & Luan, 2012).

Self-efficacy is defined as “[p]eople’s judgments of their capabilities to organize and execute courses of action required to attain designated types of performances” (Bandura, 1986, p. 391). Self-efficacy also “...encapsulates the way that faculty members see themselves as teachers, researchers, and academic citizens as well as their beliefs about whether they can successfully complete tasks in each of these areas”

(Major & Dolly, 2003, p. 91). Previous studies found a positive relationship between computer self-efficacy and the use of technology (Agarwal & Karahanna, 2000; Fagan & Neill, 2004).

The extensive and increasing usage of mLearning devices by students notwithstanding, faculty members have not overwhelmingly embraced the use of mLearning technology in an academic context. Dahlstrom and Brooks (2014) surveyed 17,452 faculty members and found 78% were interested in incorporating technology into their pedagogy despite 51% who ban smartphones during class and 18% who ban tablets from class. Thirty percent of the faculty reported creating assignments that required the use of an mLearning device. The same study also found almost half (47%) of the students and two-thirds of the faculty found smartphone/tablets to be distracting during course time.

Purpose of the Study

Available literature on faculty use and self-efficacy levels of mLearning devices is sparse at best. Chen and Denoyelles (2013) concentrated on undergraduate academic usage of handheld devices in central Florida, but faculty usage was not studied. Perkins and Saltsman (2010) studied iPhone and iPod use with students and faculty, but did not study self-efficacy levels. More research is needed concerning mLearning device usage in higher education for instructional and professional activities (Chen & deNoyelles, 2013; Marrs, 2013; Ngyuen, Barton, & Nguyen, 2015; Park, Nam, & Cha, 2012; Perkins & Saltsman 2010). This mixed-methods study provides initial assessments of levels of use of mLearning devices for professional activities and the self-efficacy of faculty members for using these devices. Differences in self-efficacy and use levels, based on selected demographic and attribute variables (age, sex, years of experience, and level taught), and major challenges to faculty use of mLearning devices are also provided.

The following specific research questions guided the study:

1. What are faculty members' level of use of mLearning devices for professional activities?
2. What are faculty members' levels of self-efficacy for using mLearning devices for professional activities?
3. What are the differences, if any, in levels of faculty members' use and self-efficacy for using mLearning devices for professional activities based on selected demographics/attribute variables (age, sex, level taught and teaching experience)?
4. What is the relationship, if any, between faculty levels of use and self-efficacy for using mLearning devices for professional activities?
5. What are the biggest challenges facing faculty members in using mLearning devices?

Research Design and Data Collection

The study employed a mixed methods case study design. Dependent variables were levels of faculty use and self-efficacy for using mLearning devices. Independent variables included age, sex, years of teaching experience, and level taught (undergraduate, graduate, or both). The study population consisted of all full-time faculty members (N = 1,067) at one regional public university in the Southeast United States. Data were collected in the 2016-2017 academic year.

Two instruments were developed for use in the study. The *Faculty mLearning Device Survey* is a two-part, three-page, self-report survey. Part A of the instrument solicits participant demographic and attribute data. Part B consists of 34 questions, the first 17 relate to the frequency of use of mLearning devices for a particular professional activity, and the second 17 relate to the self-efficacy level of faculty related to using mLearning devices for these same 17 professional activities. Part C is an open-ended question requesting respondents to identify any barriers faced in using mLearning devices for professional activities.

The second instrument, an interview protocol, *Faculty mLearning Interview Protocol*, was used to validate information gathered through the survey as well as gather additional information to explore the uses and challenges of using mLearning devices for professional activities. The interview protocol

prompts are aligned with specific research questions. A panel of experts was used to validate both instruments.

The survey instrument was administered to faculty members (N = 1,067) using the university email list. Overall, 142 surveys were returned. Of the 140 usable surveys, 107 respondents answered the open-ended question. Twenty-one respondents agreed to be contacted for a follow-up interview. Eleven of these 21 faculty members were interviewed.

Findings

Thirty-seven percent (n = 52) of the respondents were male and 62.6% (n = 87) were female. Six respondents (4.3%) were 30 or younger, 22.1% (n = 31) were 31-40 years of age, 22.1% (n = 31) were 41-50 years of age, 31.4% (n = 44) were 51-60 years of age, and 20.0% (n = 28) were 61 years of age or older. Thirty-two (22.9%) respondents taught undergraduate courses only, 47.1% (n = 66) taught graduate courses only, and 30.0% (n = 42) taught both undergraduate and graduate courses. Forty-four (31.4%) had five years or less of higher education faculty experience, 15.7% (n = 22) had 6-10 years of experience, 22.1% (n = 31) had 11-15 years of experience, 12.1% (n = 17) had 16 - 20 years of experience, and 18.6% (n = 26) had more than 20 years of higher education experience. Sixty-one (56.4%) respondents reported teaching face-to-face courses only, 12 (8.6%) taught online courses, eight (5.7%) taught hybrid courses, 16 (11.4%) taught face-to-face and online courses, 17 (12.1%) taught face-to-face and hybrid courses, eight (5.7%) taught online and hybrid courses, and 15 (10.7%) taught face-to-face, online, and hybrid courses.

Levels of Use of mLearning Devices

Respondents were asked to identify the types of mLearning devices they used for professional activities. Twenty-six (18.6%) used smartphones, 7.1% (n = 10) used tablets, 34.3% (n=48) used smartphones and tablets, and 50.0% (n = 7) used smartphones, tablets, and e-readers. No other combinations of smartphone, tablet, and e-reader use were reported.

Twenty-two (15.7%) respondents indicated they did not use mLearning devices for any professional activities. Of those reporting the use of mLearning devices for professional activities, the percentage response for specific professional activities for not using mLearning devices ranged from a low of 7.9% for email to colleagues to a high of 26.4% for having students access Internet apps for in-class activities, discussions, presentations, etc. Four professional activities produced do not use scores of 10% or less, seven had do not use scores between 10.1% and 19.3%, and six had scores of 20.0% or greater. (See Table 1)

Interview findings regarding mLearning device use were consistent with the survey data. When asked how they used mLearning devices professionally outside of the classroom, seven of the 11 interviewees discussed checking email or communicating with students and other faculty members and four mentioned checking their courses with mLearning devices. When asked how they used mLearning devices in the classroom, four respondents indicated they used mLearning devices for using apps, and three respondents indicated they have students access Blackboard course material for use in the face-to-face classroom.

Respondents who reported they used mLearning devices for professional activities were asked their level of use for mLearning devices for the 17 professional activities using a five-point Likert scale (1 = Very Rarely, 2 = Rarely, 3 = Sometimes, 4 = Frequently, 5 = Almost Always). The mean level of use scores for the 17 professional activities ranged from M = 3.35 for creating audio/video to M = 4.35 for email to colleagues. Sample means for all activities were statistically significantly different from the mean (M = 3.0) of a hypothetical normal distribution ($p < .05$) (See Table 2).

A one-way analysis of variance (ANOVA) test found mean level of use scores for research consumption between age groups of 40 and younger (M = 3.87, SD = 1.10), 41-50 (M = 4.18, SD = 1.01), 51-60 (M = 4.33, SD = .646), and 61 and older (M = 3.54, SD = 1.03) to be statistically significant at $p < .05$. There were no significant differences in the mean level of use scores for any of the 17 professional activities based on sex, years of experience, or level of courses taught.

Levels of Self-efficacy for using mLearning Devices for Professional Activities.

Respondents were asked to indicate their self-efficacy level for using mLearning devices for the 17 professional activities, using a five-point Likert scale (1 = Limited, 2 = Fair, 3 = Good, 4 = Very Good, 5 = Exceptional). The mean self-efficacy scores of the 17 professional activities ranged from M = 4.30 for email to students to M = 2.82 for accessing Internet apps. A one-sample t-test found that all seven mean scores of 3.26 or greater were statistically significantly different from the comparison mean (M = 3.0) of the hypothetical normal distribution at $p < .05$. (See Table 3).

The 17 professional activity mean scores were analyzed to determine if there were differences in self-efficacy mean scores based on selected demographic and attribute variables. Independent samples t-test and one-way ANOVA results indicated there were no significant differences in the self-efficacy levels for the 17 professional activities based on sex, years of experience, and levels (undergraduate, graduate, or both) taught. Significant differences based on age were found for one professional activity, research consumption

Relationship between Levels of Use and Self-efficacy.

Spearman's correlation was applied to describe the relationship between the levels of use and self-efficacy for each of the 17 professional activities. Correlations ranged from .016 to .670. A significant positive correlation was found in the relationship between levels of use and self-efficacy for 15 of the 17 professional activities. Large correlations ($r \geq .50$) between levels of use and self-efficacy were found with social media, providing feedback, using Internet resources, using Internet apps, creating audio/video, having students use Internet resources, having students use Internet apps, calendar/scheduling, creating research, meetings, and updating course materials. Medium correlations ($r \geq .30$ to $r \geq .49$) between levels of use and self-efficacy were found with sending email to colleagues, consuming research, and service committee work. Statistically significant correlations were found in the relationship between email to students, email to colleagues, social media, accessing Internet resources, accessing Internet apps, creating audio/video, providing feedback, having students access Internet resources, having students access Internet apps, calendar/scheduling, research consumption, research creation, service committee work, meetings, and updating course materials.

Challenges in Using mLearning Devices

One open-ended question in the *Faculty mLearning Device Survey* asked respondents to list the challenges they faced in using mLearning devices for professional activities. One hundred five responses were provided. Eleven respondents identified the small screen size of mLearning devices and nine respondents noted the reliability of the connection as challenges. Respondents also indicated the incompatibility of mLearning devices with the LMS, a lack of time to learn about using mLearning devices, using the on-screen keyboard, and that mLearning devices did not work as well as computers as challenges in using mLearning devices. Interview findings indicated the biggest challenges to using mLearning devices reported by faculty were connectivity issues and reliability of the technology.

Conclusions, Discussion and Recommendations

The data collected for this study provided sufficient evidence to support the following conclusions.

Levels of Use

Overall, faculty reported mLearning device use levels of Sometimes – Almost Always with 14 of the 17 professional activity mean scores falling in the 3.50 – 4.35 range (on a five point Likert scale). Significant differences were found between the obtained sample mean levels of use scores for all 17 of the professional activities when compared to the mean of a hypothetical normal distribution. Overall, age, sex, level taught and years of teaching experience do not appear to influence levels of use of mLearning devices for the selected professional activities.

Levels of Self-efficacy

Overall, faculty reported self-efficacy scores ranging from 2.82 for using Internet apps to 4.30 (on a five-point Likert scale). Participants rated their self-efficacy levels from Good to Exceptional for 13 of the 17 professional activities. Significant differences were found between the mean self-efficacy level scores for seven professional activities when compared to the mean of a hypothetical normal distribution.

Overall, age, sex, level taught and years of teaching experience do not appear to influence self-efficacy levels of mLearning devices for selected professional activities.

Relationship between Use and Self-efficacy

Overall, there are medium to large positive correlations between levels of use and self-efficacy of mLearning devices for 16 of the 17 selected professional activities. Fifteen of the 17 correlations coefficients were statistically significant.

Challenges

Findings from the survey suggested the biggest challenges facing faculty members in using mLearning devices for professional activities were the small screen sizes of mLearning devices, the reliability of connections, incompatibility with the LMS, lack of time to learn how to use mLearning devices, the on-screen keyboard, preference for using a computer, lack of training, and keeping up with technological advances. Findings from the interviews suggested the biggest challenges facing faculty members were two challenges noted in the survey findings: reliability of the connection and a lack of training.

Discussion

Overall, the faculty members who use mLearning devices tend to use the devices for consumption, rather than creation (Cochrane, 2010). Faculty members also have more self-efficacy to use mLearning devices for consumption-related activities, rather than creation activities. This may be due to the challenges of the mLearning devices as creation devices. In the classroom, faculty members tend to use mLearning devices for repackaging existing knowledge, a study finding also supported by the findings of Buckley and Du Toit's (2010) in their study of 54 management faculty members.

Faculty members also tend to use mLearning devices for communication. Sending email to students, and sending email to colleagues were the professional activities in which mLearning devices were reported to be used most frequently in this study. This finding is supported by findings from Sahin and Thompson's (2006) study, in which 117 faculty members were asked if they used technology for instructional purposes. The results of the current study are also consistent with Groves and Zemel's (2000) findings related to faculty technology use. Of 41 faculty members and 23 graduate teaching assistants, 86% rated their knowledge of using email as good to expert.

In the current study, activities involving the creation of audio/video, research creation, having students use Internet apps, and using Internet apps were the professional activities in which mLearning devices were used least often. This result is consistent with the conclusions reached by Santilli and Beck (2005), who found 47 graduate faculty members who used educational technologies in the classroom reported communication with students as being the most-often used technology.

In the current study, nine of ten (91.4%) faculty reported using mLearning devices to text colleagues, but only 25% reported using mLearning devices to text students. As the procedure is the same for either professional activity, it can be argued faculty were not comfortable with students having access to faculty's personal cellphones. Faculty seemed more comfortable with students having access to faculty email addresses; 91.4% of faculty used mLearning devices to email students, and 92.1% of faculty used mLearning devices to email colleagues.

Consistent with findings from the current study, Spotts, et al. (1997) surveyed 367 faculty and found no significant differences between male and female faculty members regarding instructional technology use. Sending email to students and to colleagues were the professional activities in which faculty members had the most self-efficacy in using mLearning devices in this study. This finding is consistent with the findings of Sabin and Thompson (2006) in which the mean self-efficacy score for using email for 177 faculty members was $M = 3.7$ on a 5.0 Likert scale.

Although not statistically significant, faculty members reported the lowest self-efficacy levels in using mLearning devices for creating audio/video, and accessing Internet apps in this study. This result supports the conclusions reached by Groves and Zemel (2000) who reported 21% of faculty members and graduate teaching assistants viewed their knowledge of using computer-aided instruction as good to expert.

Although not statistically significant, the faculty self-efficacy levels for sending email to students, sending email to colleagues, providing feedback, using Internet apps, having students use Internet resources, calendar/scheduling, service committee work, and updating course materials increased between less than five years' experience, 6-10 years of experience, 11-15 years of experience, and 16-20 years of experience before decreasing for faculty with more than 20 years of experience. These results support Klassen and Chiu's (2010) study finding that the self-efficacy of teachers increased through 23 years of experience, then began to decline as experience increased. These findings also support the results of Myers, et al. (2004) who found faculty members with more than 10 years' experience teaching were less likely to use online learning environments than those with less than two years' experience.

Statistically significant medium to large positive correlation coefficients between faculty mLearning device use and self-efficacy levels were found for 15 of the professional activities. These results are consistent with the findings of Sahin and Thompson (2006), who indicated a high, positive correlation between use and self-efficacy concerning the use of technology for instructional purposes with 117 full-time College of Education faculty members.

Eleven respondents of the current study stated the small screen size of mLearning devices was a challenge for using mLearning devices for professional activities, which is consistent with the findings of Maniar, Bennett, Hand, and Allan (2008), who found students had a lower overall opinion of the small screen size of mLearning devices using a pilot study of 15 students. Respondents of the current study also felt the reliability of the connection was a challenge. This finding supports the work of Butler and Sellbom (2002) who indicated reliability was the most cited issue mentioned by 125 faculty members in the College of Sciences and Humanities at Ball State University.

Respondents of the current study stated a lack of training on how to use mLearning devices was a challenge. Interview findings suggested faculty members from different academic departments had different training needs. Some wanted basic training in using mLearning devices, while others, more comfortable with the technology, felt more advanced training would benefit that particular department. Respondents also noted keeping up with technology advances as a challenge, and that the on-screen keyboard and small screen size may hinder the adoption of mLearning devices for creation activities. If the Internet connection is unreliable, faculty members may have more trust in using teaching methods that do not involve Internet-connected technology.

Implications for Future Research

The study population consisted of full-time faculty at one university. Additional research could focus on broadening the population to include adjunct faculty. Research could also focus on broadening the population to include faculty at multiple institutions. The role of prior experience should be studied to determine if a correlation exists with the use of mLearning devices in higher education.

The survey instrument measured the levels of use and levels of self-efficacy for mLearning devices. Future studies may want to explore motivation of faculty members to use mLearning devices. The use of mLearning devices in online courses and programs should be studied. Studying computer anxiety may provide further insight into self-efficacy levels. Additional studies should be conducted in the area of professional development related to the use of mLearning devices for professional activities to determine the areas of weakness. Other studies should examine factors that contribute to the use of mLearning devices for professional activities.

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Table 1

Responses of “Do Not Use mLearning Devices” for Professional Activities

Professional Activity	n*	%
Students Internet apps	37	26.4
Service committee work	35	25.0
Social media	35	25.0
Text messages to students	35	25.0
Research creation	33	23.6
Creating audio/video	32	22.9
Access Internet apps	27	19.3
Providing feedback	27	19.3
Course materials	19	13.6
Meetings	19	13.6
Access Internet resources	15	10.7
Calendar/scheduling	15	10.7
Students – Internet resources	15	10.7
Research consumption	13	9.3
Email to students	12	8.6
Text messages to colleagues	12	8.6
Email to colleagues	11	7.9

Note: N = 140. N* = duplicated count

Table 2

Use of mLearning Devices for Professional Activities

Professional Activity	n	m	SD	t-value
Text messages students	81	4.17	.91	11.66*
Text messages to colleagues	104	4.19	.89	13.62*
Email to students	105	4.34	.79	17.32*
Email to colleagues	105	4.35	.78	17.67*
Social media	79	3.71	1.20	5.25*
Providing feedback	89	3.89	1.10	7.67*
Access Internet resources	101	3.88	1.00	8.83*
Access Internet apps	88	3.38	1.33	2.64*
Creating audio/video	84	3.35	1.34	2.36*
Students – Internet resources	100	3.89	1.07	8.30*
Students Internet apps	78	3.44	1.24	3.10*
Calendar/scheduling	99	3.90	1.20	7.51*
Research consumption	104	4.00	.98	10.46*
Research creation	82	3.55	1.23	4.04*
Service committee work	79	3.75	1.07	6.22*
Meetings	96	3.90	1.01	8.69*
Course materials	94	3.66	1.17	5.47*

Note: $N = 140$. * $p \leq .05$. Scale: 1 = Very Rarely. 2 = Rarely. 3 = Sometimes. 4 = Frequently. 5 = Almost Always

Table 3

Self-efficacy Level of Using mLearning Devices for Professional Activities

Professional Activity	N	m	SD	t-value
Texts/ students	75	3.05	1.22	.706
Texts/colleagues	75	3.05	1.22	.706
Email to students	108	4.14	.89	.000*
Email to colleagues	110	4.30	.73	.000*
Social media	67	3.24	1.40	.169
Providing feedback	84	3.26	1.23	.055
Internet resources	101	3.41	1.12	.000*
Internet apps	77	2.82	1.14	.167
Creating audio/video	78	2.88	1.34	.449
Students resources	100	3.46	1.04	.000*
Students apps	72	2.92	1.22	.564
Calendar/scheduling	102	3.93	1.13	.000*
Research consumed	103	3.52	1.18	.000*
Research creation	80	2.99	1.37	.935
Service committee work	75	3.07	1.03	.577
Meetings	96	3.26	1.24	.043*
Course materials	95	3.17	1.33	.222

Note: N = 140. *p ≤ .05. Scale: 1 = Limited. 2 = Fair. 3 = Good. 4 = Very Good. 5 = Exceptional

Perceived Neighborhood Diversity and Trust A Multilevel Examination

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Abstract

This study examines the association between perceived neighborhood diversity and perceptions of neighbors' trustworthiness. Previously, a wealth of research examined trust and its importance to neighborhood dynamics. However, few studies have examined the relationship between respondents' perception of the diversity in their neighborhood and respondents' perception of trustworthiness in that neighborhood. Because trust is a perceived measure, perceived neighborhood diversity may be a more conducive measure compared to census data. Using the Seattle Neighborhood and Crime Survey data, a series of multilevel ordinal logistic regression models were conducted to understand the degree that hypothesized predictor variables impacted perceptions of whether people in the neighborhood can be trusted. The results reinforced that engaging in individual interactions and perceived social control positively influenced perceived trust, while neighborhood disorder had a negative influence on trust. Finally, this work demonstrated a relationship between the perceived ratio of white neighbors and the perception that people in the neighborhood can be trusted.

Keywords

Neighborhood diversity, individual interaction, disorder, social control, trust

Introduction

As a result of recent immigration, Western society's demographics have changed to include more racial diversity. Putnam (2007) questioned whether increased racial diversification would impact the functioning of various social components. As Dinesen & Sønderskov articulated, "ethnicity is one such sign...an immutable one. From this perspective, the central mechanism underlying the diversity-trust nexus is exposure to people of different ethnic background in our daily life." (2015, p.552). Thus, perceived racial neighborhood composition and any biases derived based upon this perception is an important construct to analyze, regarding a variety of neighborhood social processes. While scholars have conducted considerable research on trust and neighborhood composition, a gap exists surrounding the influence of perceived neighborhood diversity on perceptions of trustworthiness. These gaps exist because responses to questions about the neighbors' trustworthiness use respondents' perceptions and because researchers often juxtapose census data about neighborhood racial composition, instead of the respondents' perceptions about the composition of their neighborhood.

As previously mentioned, some researchers argue that diversity, in neighborhood composition, can lead to less social trust and control, less neighboring interactions, and increase fear. If this is true, then extending the analysis of perceived neighborhood diversity to the examination of perception of trust is an essential undertaking in the continued exploration of factors that impact perceptions about individuals and neighborhoods. We analyze the relationship between diversity and trust using white respondents from a random sample of Seattle, Washington, USA. This work examines a model that extends the study of trust, using multilevel modeling and by including the perceived ratio of white neighbors, as a measure of perceived exposure to neighborhood diversity.

Trust

Durkheim (2018) argued that societies achieve solidarity through cooperation and trust (see also, Merton, 1934). Trust has three main functions in society. First, trust has an integrative role. Parson (2010) and others consider system-level trust as the primary source of social order, and that trust is the result of

norms prescribing trustful and trustworthy behavior (Ross, 2017). This view rejects more individualistic explanations of trust according to rational self-interest positions. Second, trust functions to reduce complexity. Luhmann (2018) and others argue that individuals increasingly need confidence because of the growing complexity of society. This complexity creates uncertainty about the consequences of decisions (Lin, 2002). Finally, trust functions as a lubricant for cooperation. An individual-level explanation of trust emphasizes research through a rational choice approach (Barrera, Buskens, & Raub, 2015; Buskens & Raub, 2013).

Social Integration

Social integration is the extent to which individuals have relations with other individuals within the community (Perkins & Long, 2002). Relationships might be familial or friendship; however, the lack of integration or an attachment to a neighborhood is a principal reason why people do not become involved in local community activities. The willingness of people to act communally for the good of the area is related to their sense of local attachment, belonging, and level of trust, as well as the way they view their role in the community (Sampson, 2012). Social integration and identity drive people's sense of membership in a location and help facilitate group behaviors and processes (Hogg, 2013). Furthermore, social integration and identity research demonstrate that highly connected individuals engage in more group-oriented behavior than those lacking connection with the community (Foster-Fishman et al., 2013; Hogg, 2013).

Having trust in the members of the community and identifying with the area has a significant role in fostering participation in collective action and local governance (Ahlbrandt, 2013; Hogg, 2013). Moreover, social integration can assist in furthering the influence of reciprocal actions in a neighborhood. Additionally, situations that require trusting are ones that often occur through repeated interactions (Finseraas et al. 2017; Frey, Buskens, & Raub, 2015). In these repeated interactions, individuals learn about others' abilities and have opportunities to reciprocate cooperative behaviors. The existing research has generally linked neighborhood conditions to perceptions of trust.

Neighborhood Disorder

Neighborhood disorders are symbols of social ailment. Social disorder includes visible signs of incivilities, such as drunkards, loitering youths, and drug dealers (Intravia et al., 2016). Massey and Denton's (1993) work illustrates how neighborhood disorder can influence the social components of a community "In the face of persistent neighborhood disorder, residents come to distrust their neighbors and to look upon them as threats rather than as sources of support or assistance" (p. 138). This research demonstrates that neighborhood disorder decreases individuals' universal trust (O'Brien & Sampson, 2015). Wilson and Kelling (1982) found that individuals' levels of fear increased in neighborhoods with increased physical and social disorder. Additionally, this research shows the positive relationship between perceived social control and the trusting of individuals in the neighborhood.

Social Control

This neighborhood disorder preceded individuals withdrawing from the community, which led to a breakdown in informal social control, as the opportunities to form trust reduced. Informal social control refers to the "willingness of neighborhood residents to actively engage in behaviors aimed at preventing criminal and deviant behavior in the local area" (Silver & Miller, 2004 p. 553). At the individual-level, informal social control describes as residents' willingness to intervene, to maintain order in the neighborhood. Social control uses on individuals' assumptions that neighbors are willing to assume some responsibility for one another; this concept is also referred to as reciprocity (Bursik & Grasmick, 1999; Sampson et al., 1997; Taylor 2018). Morenoff, Sampson, and Raudenbush (2001) posited that informal social control represents a collective perception that neighbors are willing to engage in specific social control actions, such as the willingness of neighbors to stop children spray painting graffiti or to intervene when children are fighting.

Perceived Neighborhood Racial Composition

Neighborhood diversity and any biases derived based upon this perception is an important construct to analyze, regarding a variety of neighborhood social processes. These biases undermine the shared value and can lead to a lack of engagement in more diverse neighborhoods (Finseraas et al., 2017;

Koopsmans & Schaeffer, 2015). In turn, this lack of engagement undermines neighborhood social cohesion and control (Hewstone, 2015; Koopsmans & Schaeffer, 2015; Warner et al., 2015). Increasing ethnic diversity, in neighborhood composition, together with diversity in social norms and a lack of shared experiences may influence perceptions of trustworthiness (van der Meer & Tolsma, 2014; Warner et al., 2015). These perceived disconnections in social norms, may, foster sentiments of exclusion, fear, and distrust (Sampson, 2012).

Additionally, perceptions of neighborhood diversity and cultural bias have a documented influence on a variety of social and neighborhood conditions (Sampson, 2012; Sampson & Raudenbush, 2004). Research in social psychology has shown that unconscious biases can continue regardless of cognizant or personal rejection of prejudice towards minorities (Trepagnier, 2017). Likewise, Wickes, Hipp, Zahnaw, and Mazerolle (2013) examined the effects that seeing minorities has on perceptions of disorder. These biases about diversity may assist individuals in formulating opinions about the neighborhood and its residents. Neighborhood diversity research suggests that beliefs about disadvantaged minority groups are linked to negative perceptions, which makes these individuals unwelcomed as neighbors (Jacoby-Senghor, Sinclair, & Smith, 2015; Leslie, Mayer, & Kravitz, 2014). As Lory and colleagues argue that dark skin is an easily discernable characteristic, which carries connotations about crime and disorder and the places where they live (Bowles, Lory, & Sethi, 2014; Lory & Lory, 2009).

Nevertheless, we understand that other social components apart from ethnic diversity may also have consequences for levels of perceived trustworthiness. As such, this paper aims to examine the effect of perceived racial neighborhood composition, as well as social integration, neighborhood disorder, and social control to formulate further understanding about the influencers of trustworthiness.

Purpose of the Study

The current study analyzes the influence of implied bias on perceived trust, by examining respondents' perceptions of neighborhood diversity. Two research questions are formulated to guide the present research. Does the perceived ratio of white neighbors influence a respondent's perceptions of neighbors' trustworthiness? Also, in the full model, does the perceived number of white neighbors remain statistically significant? This study uses multilevel ordinal logistic regression models, to examine perceived neighborhood diversity's influence on perceptions of trust. The regression models built from 1,627 White survey respondents in Seattle.

Methodology

To study perceptions of neighborhood safety, secondary data from the simple random sample portion of the Seattle Neighborhoods and Crime Survey (SNCS) was analyzed. Seattle, Washington is located in the Northwestern part of the USA, and 2000 was ranked 24th in size, with a population of approximately 560,000 (U.S. Census Bureau, 2003a). Of this population, 70.1% identified as White and 50.1% as female. SNCS was a National Science Foundation-funded project and the data, which was made available by the Interuniversity Consortium for Political and Social Research, was collected telephonically from adults surveyed from 2002-2003 (Matsueda, 2010). To compile this data cluster samples were drawn, where two block groups were randomly selected from each of the 123 census tracts in Seattle, then nine households were randomly selected from each block group (Matsueda & Drakulich, 2016). The response rate was over 51%, resulting in an overall sample of 2220 households (Matsueda & Drakulich, 2016).

Measures

The outcome variable of interest was an individual's perception of the trustworthiness of their neighbors ($\bar{x} = 3.24$). To examine this construct, the survey question "People in this neighborhood can be trusted" was used. This variable was ordinal and response categories range from 1-4, once this measure was reversed recoded, the corresponding response categories are "1 = Strongly Disagree;" "2 = Disagree;" "3 = Agree;" "4 = Strongly Agree."

Social integration is measured by examining friendship ties, family ties, and engaging in individual interactions. Familial ties ($\bar{x} = .08$) were measured by asking respondents, "Not counting those who live with you: How many of your relatives or in-laws live in your neighborhood, that is, the three-block area on each side of your home?" Friendship ties ($\bar{x} = .68$) are measured by asking respondents, "Not counting those who live with you: Excluding family, how many close friends do you have in your neighborhood?"

Each question included the following response categories: “1 - A Lot;” “2 - A Few;” “3 - None”. Because, quantifiably, the difference between “a lot” and “a few” cannot be measured and to provide more consistency, both measures were recorded as binary by combining the “1 - A Lot” and “2 - A Few” response options and coding them as 1, and by recording response option “3 - None” as 0. Additionally, individual interaction ($\bar{x} = 6.15$) was measured as a series of Likert scale items asking the respondent, “How often have you partaken in an action with a neighbor?” The response scale ranged from “0 = Never” to “2 = Often.” The specific items in this measure include: watched a neighbor’s home, borrowed tools or small food items, had dinner or lunch with a neighbor, helped a neighbor with a problem, asked about personal things, said hello or talked and participated in any other organized block activity (Cronbach’s Alpha; $\alpha = 0.79$).

Neighborhood Conditions is measured by examining neighborhood disorder, perceptions of social control, and perceptions of neighborhood diversity. Like previous studies, the disorder is ($\bar{x} = 2.49$) constructed by measuring both observed and perceived disorder. This measure consists of nine questions. The perceived disorder questions were: “how much of a problem would you say the following is: i) groups of teenagers hanging around the street, ii) litter/garbage/trash on the streets, iii) spray-painted graffiti on buildings and streets, iv) abandoned houses and v) rundown buildings, and neighbors who cause trouble or make noise?” The perceived disorder responses categories are: 2=big problem, 1=small problem, and 0=not a problem (Cronbach’s Alpha; $\alpha = 0.73$). The observed disorder question was “have you personally observed the following in your neighborhood: i) children fighting in the street, ii) children spray-painting graffiti on a local building, iii) children disrespecting adults, and iv) children skipping school and hanging out on a street corner?” The observed disorder responses categories are ‘Yes’ equaling one (Cronbach’s Alpha; $\alpha = 0.56$). These constructs are combined to create a disorder measure, whose Cronbach’s Alpha is .76.

Additionally, social control ($\bar{x} = 11.88$) is measured as a series of Likert scale items asking the respondent, “how likely is it that your neighbor will do something about children's actions.” Each response scale ranges from 1 = “Very Unlikely” to 4 = “Very Likely.” The specific items in this measure include: skipping school, spray painting graffiti, disrespecting adults, and fighting in the neighborhood (Cronbach’s Alpha; $\alpha = 0.76$). Finally, the perception of the number of white neighbors’ variable is grounded in research examining implicit bias, ethnic diversity, and cultural stereotyping. This variable was measured by the question: “About how many of your neighbors belong to the White ethnic group?” The response categories range from 1-4 were: 1=nearly all, 2=at least half, 3=some, and 4=hardly any ($\bar{x} = 1.62$).

Additionally, a few social demographic control variables were included in the analysis. Females are coded the value of one ($\bar{x} = .51$). Age in years is a continuous variable ($\bar{x} = 48.98$). Residence length is operationalized as the number of years the respondents reported living at their current addresses ($\bar{x} = 11.83$). Homeownership ($\bar{x} = .70$) is included as a recoded binary measure, where respondents were asked “do you own your current dwelling?” in which No=0, Yes=1.

SEE TABLE 1

Analytical Strategy

Listwise deletion was used to address missing data. The current investigation includes 1627 subjects from blocks that nest within all 123 Seattle census tracts. A multilevel ordinal logistic regression model is used for statistical estimation because individuals nested in the same block or tract tend to be more similar to each other than to individuals living in other areas (West, Welch, & Galecki, 2014). Multilevel modeling estimates both individual and neighborhood level residuals, to recognize the partial interdependence of individuals within the same location.

Additionally, multilevel modeling allows for the examination of both higher and lower level unit variance in the outcome variable while maintaining the appropriate level of analysis for the independent variables. Within the multilevel modeling technique, mixed effects were calculated. Stata 14.2 is used to conduct the analysis (StataCorp, 2014). Also, Chi-squared tests (not presented here) were run to analyze the relationship between the categorical predictor variables. While some showed statistically significant relationships, Cramer’s V indicated a weak association among these relationships.

Results

First, we run an unconditional, random effects model (not presented here) to assess whether statistically, significant variation is present across neighborhoods for respondents' perceptions of neighbors' trustworthiness. The results from Model 1 of Table 2 reports that the between tract variance is 0.542, which is the variance in the intercepts across all tracts. Another method is to look at the ratio of variance in the intercept and its standard error, $0.542/.124 = 4.37$, which is larger than 2 and indicates that the between tract variance is significant. Additionally, the intraclass correlation coefficient (ICC) indicates that census tracts can explain roughly 14.1% of the total variance, concerning perceptions of trust ($ICC = 0.542 / (0.542 + \pi^2/3)$).

Based on these results, individual and neighborhood level predictors were added to investigate our main research questions. Table 2 shows the results from the multilevel ordinal logistic regression models predicting perceptions of trustworthiness. For Model 1, which is displayed in Table 2, estimates perceived trustworthiness with the inclusion of only the perceived diversity measure. This model was significant at the less than .001 level. The results for this model reported that the between tract variance is 0.278, which is the variance in the intercepts across all tracts. Another method is to look at the ratio of variance in the intercept and its standard error, $0.278/.089 = 3.12$. This result is larger than 2 and indicates that the between tract variance remains significant with the inclusion of the perceived neighborhood diversity measure. Additionally, the intraclass correlation coefficient (ICC) shows that census tracts can explain roughly 7.8% of the total variance ($ICC = 0.278 / (0.278 + \pi^2/3)$). A perceived decrease in the ratio of white neighbors has a significantly negative relationship with the perception of neighbors' trustworthiness and decreases the odds of strongly agreeing that neighbors are trustworthy by roughly 44% (odds ratio .561; $p < .001$).

SEE TABLE 2

For Model 2, the full model, homeownership, engaging in individual interactions, and neighborhood conditions were significant predictors of perception of trustworthiness. Being a homeowner was positively associated with strongly agreeing that their neighbors can be trusted, compared to the other response categories. The odds ratio associated with strongly agreeing was roughly 56% higher for those owning a home (odds ratio = 1.561; $p < .001$). Also, increases in individual interaction increased the odds of strongly agreeing, compared to the other response categories by roughly 14% (odds ratio = 1.146; $p < .001$). Moreover, neighborhood conditions were significantly associated with the perception of trustworthiness. Increases in neighborhood disorder decreased the odds of perceiving trustworthiness by roughly 24% (odds ratio = 0.762; $p < .001$). Finally, the perception of social control had a significant positive relationship with perceived trustworthiness. Increases in control increased the odds of strongly agreeing, compared to other response categories by roughly 23% (odds ratio = 1.234; $p < .001$). Finally, the perception of the ratio of white neighbors had a significant negative relationship with trust. The perception of diversity decreased the odds of strongly agreeing by roughly 21% (odds ratio = 0.786; $p < .001$).

Discussion

This study builds on previous research on the perception of trustworthiness by examining individual-level factors. Several findings have emerged. First, the findings regarding a respondent's friendship ties to the neighborhood perceived social control, reaffirm previous analyses into the impact that these factors have. Also, individual interaction positively influences the strongly agree response to the perception of trustworthiness. This result might stem from the respondents having firsthand knowledge about their neighbors, as well as knowledge about how well the residents in a given area work together (Finseraas et al., 2017; Warner et al., 2015; Yuan & McNeeley, 2017). Also, this increase in neighboring interaction may facilitate a better understanding of the skills possessed by other neighbors and shape a view of whether these other neighbors can address specific issues. This increase may also inform individuals of the lack of cohesion and control in an area. The interactions may highlight the idea that multiple individuals share similar interests, wish to maintain a reputation as trustworthy, and have the willingness and capabilities to maintain the safety of the neighborhood (van der Meer & Tolsma, 2014; Warner et al., 2015). Furthermore, engaging in neighborly behavior may facilitate the dissemination of indirect

information about the trustworthiness of the individuals within a neighborhood, and, about the capabilities of individuals to intervene in social problems.

Secondly, being a homeowner has a significant effect on strongly agreeing that people in the neighborhood can be trusted. Homeownership and respondents' race may also be connected. Typically, urban areas are zoned as residential or commercial. In these residentially zoned areas, subdivisions and neighborhoods primarily consist of homeowners. In the United States, due to historical economic, social, and housing discrimination, most homeowners are not minorities (U.S. Census Bureau, 2003b). If white people comprise most homeowners, then it is likely that these subdivisions and neighborhoods are composed of other white people. This homogenous composition of homeowners may signal to each other that they all have similar interests and values. Homogeneity may result from white respondents who are homeowners having a higher likelihood of living near other white homeowners (Bonilla-Silva 2012; 2009; U.S. Census Bureau 2003b).

Thirdly, perceived diversity, through the perception of the decrease in the ratio of white neighbors has an impact on perceptions of the trustworthiness of neighbors. The decrease in the number of perceived white neighbors having a statistically significant association may be indicative of the times or the culture (Bonilla-Silva, 2012; 2017; Koopmans & Schaeffer 2015). The idea that more whiteness means more purity or more trustworthiness may result from an inundation of similar information within the media, perceptions of what is successful, social learning, or the result of cultural conflicts. Conceptually, loss of homogeneity may influence an individual to perceive others as lacking similar interests and sharing similar values (Hewstone, 2015; Schmid et al., 2014).

Additionally, limitations to the present study should be noted. First, this study used secondary data to test these hypotheses, and the data is correlational, which means that it cannot make causal interpretations. The focus of the primary data collection was not to analyze individual-level constructs into how people interact and the effects these interactions have on social components. The lack of consistent census tract identification with previous studies of Seattle inhibits the study's ability to describe the results to any specific census tract, thus impacting comparative analyses (see Miethe, 1992). Also, the cross-sectional nature of the data impacts determining any changes to any particular location and affecting any aggregation of the perception of trust, social control, and racial composition to the neighborhood level. While these individual-level factors may be necessary for understanding other social components, the ability to discern and describe the area in which a respondent resides would add valuable context to these perceptions. Future research should examine whether these results are consistent within defined neighborhoods and if those results are useful for a comparative study.

Second, using perception as a measure of neighborhood diversity is not the most reliable measure due to biases regarding skin tone and individuals' self-identification. For example, there are Latinos or Hispanics who appear White. Additionally, Hispanics can have darker skin tones which respondents may identify as Black/African American. A better measure would be census data on heterogeneity per tract. To analyze the reliability of the respondent's belief comparing perceived diversity and reported diversity might validate the cognition process of the respondent. However, this data was unavailable due to the inability to assign a location to tracts.

Additionally, to examine the relationship of diversity, future research should test the influence of a respondents' racial group through the mediation of the perceived number of neighbors that fit the respondents' racial group. This research would examine if a respondent is more likely to "agree" that individuals in the neighborhood can be trusted for those respondents from a different racial background other than white and depending upon if increases in the ethnic composition of the community match the respondent's specific ethnic group. Also, as an expansion on the perception of racial makeup, the impact of this construct on individual interactions, perceptions of social control, and on respondents' social network, should be tested.

Finally, the study instrumentation could not model individual-level interactions through the ideas of game theory thoroughly. Game theory is a strategic approach concerned with the analysis of situations where the result of a participant's choice of action depends critically on the effects of other participants. For example, the survey did ask the respondent if they had watched a neighbor's home and had a

neighbor watch their home while away. However, to model trust and cooperation games under a game theoretical approach, the survey should have incorporated measures that allowed the researcher to examine if the interactions were with the same with different neighbors. This approach would allow for further individual-level analysis into the effects that networking, cooperation, and perceptions have on trust and other important social aspects.

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Table 1

Descriptive Statistics for White-Only Respondents N = 1627

Variable(s)	N	mean	sd	min	max
Neighbors Trustworthy		3.237	0.619	1	4
Strongly Disagree	20				
Disagree	105				
Agree	972				
Strongly Agree	530				
Perceived Racial Diversity (Ratio of White Neighbors)		1.621	0.806	1	4
Nearly All	891				
At least Half	523				
Some	151				
Hardly Any	62				
Home Owner		0.698	0.459	0	87
Female		0.514	0.500	8	1
Age		48.979	15.525	18	91
Length of Residence		11.835	12.339	0	87
Familial Ties		0.076	0.265	0	1
Friendship Ties		0.675	0.469	0	1
Individual Interaction		6.150	2.718	0	12
Neighborhood Disorder		2.493	2.589	0	14
Social Control		11.884	2.452	0	16

Table 2:
Trust Multilevel Ordinal Logistic Regression For White-Only Respondents

Variable(s)	Model 1			Model 2		
	<i>OR</i>	<i>SE</i>	95% CI	<i>OR</i>	<i>SE</i>	95% CI
Demographic						
Home Owner				1.561***	0.213	[1.196, 2.040]
Female				1.090	0.116	[0.885, 1.344]
Age				0.996	0.005	[0.988, 1.005]
Length of Residence				1.007	0.006	0.998, 1.020]
Social Integration						
Familial Ties				1.147	0.228	[0.778, 1.694]
Friendship Ties				1.250+	0.158	[0.975, 1.602]
Individual Interaction				1.146***	0.027	[1.094, 1.120]
Neighborhood						
Disorder				0.762***	0.019	[0.726, 0.800]
Social Control				1.234***	0.032	[1.173, 1.300]
Racial Diversity	0.561***	0.042	[0.484, 0.649]	0.786***	0.057	[0.683, 0.905]
Variance Constant	0.278	0.089		8.56E-34	6.25E-18	
Model χ^2		60.27			416.11	
P		0.001			0.001	
Log Likelihood		-1408.9			-1209.7	
n		1627			1627	

*** p<0.001, ** p<0.01, * p<0.05, +p<0.1

A Multilevel Analysis of Participation in Police Block Activity

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Abstract

Community-oriented policing is one approach that seeks to increase the co-production of crime prevention, by engaging the community in informal and voluntary activities. These optional activities are designed to promote a working relationship between the residents and the police. These activities and a working police-citizen relationship should incentivize residents to assist in community-based crime prevention. This study conducts a mediating analysis of the influence of previous voluntary participation on the standard predictors of voluntary participation, by applying them to participation in police block activity (PBA). Using the Seattle Neighborhood and Crime Survey data, first, multilevel ordinal regression was run to estimate the extent to which standard predictor variables impact the frequency of voluntary participation in PBA. Then, prior participation in other block activity was included to examine the extent to which this measure mediates the influence of the standard predictors. The results extend the existing knowledge of factors that influence voluntary participation to PBA. Additionally, the inclusion of block activity participation mediates the influence of some standard predictors.

INTRODUCTION

In Western civilization, police forces have tried to develop citizen outreach programs, whereby these programs usually look to improve public relations (Crawford and Evans 2017; Mackey and Levan 2013). These programs are attempts to overcome public attitudes and perceptions of the police and to foster a new and more productive relationship between the police and citizens. These programs are designed to directly reduce concerns about crime by increasing citizen feelings of efficacy, strengthening the bond among neighbors themselves, and involving citizens in order maintenance in their neighborhoods (Kang 2015; Kochel 2017). One approach to engaging residents involves organizing block activities, which allows the policing agencies to engage its citizens less formally.

Factor Influencing Voluntary Participation

Many researchers have highlighted the role of citizen involvement and people's participation in voluntary activities and community organizers (Adler and Goggin 2005; Edelenbos, van Meerkerk and Schenk 2018). Social embeddedness and identity drive people's sense of membership in the community and help facilitate group behaviors and processes (Christens and Speer 2011; Elster 2015). The lack of embeddedness in a neighborhood is a principal reason why people do not become involved in local collective action; the willingness of people to act communally for the good of the area is related to their sense of local attachment and belonging, as well as how they view their role in the community (Christens and Speer 2011; Sampson 2012; Warner and Roundtree 1997). Identifying with the community or block has a significant role in fostering participation in collective action and local governance and, in fact, research has found that individuals who became activists initially possessed a strong sense of connection and ties to their community (Ahlbrandt 2013; Hogg et al. 2017; Hogg and Terry 2014; Sampson 2012).

Additionally, studies suggest that the neighborhood environment has a significant impact on voluntary participation. Sampson and colleagues suggest that "willingness to intervene on behalf of the common good" or informal social control will have a positive impact on neighborhood functioning and togetherness (Sampson, Raudenbush, and Earls 1997: 918). Encouraging citizen involvement in neighborhood watch groups, youth education, block activities, and clean-up programs are designed to facilitate interaction between neighbors, to increase the sense of belonging in their neighborhood and thereby help enhance the capacity of the neighborhood to address problems (Collins, Neal and Neal

2014). Conversely, neighborhood disorders are symbols of social ailment. Wilson and Kelling (1982) found that increases in neighborhood disorder increased the residents' fear. These increased fears lead to individual's withdrawing from the public space, which resulted in a diminished influence of informal social control over another neighborhood. The consequences of withdrawing lead to further disorder and the cycle continues (Massey and Denton 1993). Massey & Denton's (1993) work illustrates how neighborhood disorder can influence the social components of a community, "In the face of persistent neighborhood disorder, residents come to distrust their neighbors and to look upon them as threats rather than as sources of support or assistance" (p. 138).

Finally, the existing literature shows that concerns about the legitimacy of the police and the treatment by the police influence the police/citizen relationship. These concerns may affect whether individuals choose to engage in community-oriented activities with the police (Murphy and Cherney 2011). One line of research has examined the notions of support for the police by analyzing beliefs about the quality of service and overall satisfaction with policing (Weitzer 2010). Additionally, research has studied citizens' concerns about the legitimacy and effectiveness of the police and various policing tactics (Madon, Murphy and Sargeant 2017; Cherney and Murphy 2017). Finally, research has delved into public perceptions about how the police treat different individuals and various groups of ethnicities (Murphy and Mazerolle 2016).

Summary and Purpose of the Study

Prior research suggest that factors, such as, social connections, neighborhood disorder, informal control, and voluntary engagement are associated. As result, we contribute to the literature by examining whether these factors extend to the examination of voluntary police block activity (PBA). The present study assesses PBA, in two ways. First, we examine whether the standard predictors of voluntary participation, in other activities, will be significantly related to participation in PBA. Second, we examine whether participation in other block activities mediates any significant relationships between the standard predictors and PBA participation. We evaluate these predictions using multilevel data from the Seattle Neighborhood and Crime Survey (SNCS).

METHODOLOGY

Secondary data from the random sample portion of the Seattle Neighborhoods and Crime Survey (SNCS) was analyzed to study participation in PBA. SNCS study was supported by grants from the National Science Foundation (SES-0004324) and the National Consortium on Violence Research (SBR-9513040). SNCS was collected telephonically from adults surveyed from 2002-2003 and was made available by the Interuniversity Consortium for Political and Social Research (Matsueda 2010). Cluster samples were drawn to compile this data, where two census blocks were randomly selected from each of the 123 census tracts in Seattle. Then, nine households were randomly selected from each census block group (Matsueda and Drakulich 2016). The response rate was over 51%, resulting in an overall sample of 2220 households (Matsueda and Drakulich 2016).

Seattle, Washington is located in the Northwestern portion of the USA, and in 2000 was ranked 24th in size, with a population of approximately 560,000 (U.S. Census Bureau 2003a). White, Black, and Asian were the three most identified racial groups in the Census and of this population, 70.09% identified as White; thus this is the dominant racial group. Also, 8.44% identified as Black, and 13.12% identified as Asian. Also, 94.73% of respondents identified as not of Hispanic or Latino origin. Additionally, 50.05% identified as female and 54% of Seattle residents were homeowners.

Dependent Variable

The outcome variable of interest is an individual's prior participation in PBA. To analyze this construct, previous involvement in PBA is measured by asking: "How often have you...Participated in a block activity sponsored by the Seattle Police Department?" The response categories were 1 (Often), 2 (Sometimes), and 3 (Never). This measure was reverse coded where 'Never' equals zero and 'Often' equals two.

Standard Predictor Variables

Connection to the community is measured by examining generalized trust and engaging in personal interactions. Generalized trust is measured by asking a series of four questions to assess if the respondent

agrees that: (1) “You can count on adults in this neighborhood to watch out that children are safe and don’t get into trouble; (2) People in this neighborhood can be trusted; (3) People of different races trust each other in this neighborhood, and (4) People around here are willing to help their neighbors.” Responses for this measure were based on a Likert-type scale (Cronbach’s Alpha; $\alpha = 0.78$). The response categories were reverse coded and ranged from 1 (strongly disagree) to 4 (strongly agree). The two internal categories correspond with the following: disagree=2 and agree=3 ($\bar{x} = 12.58$).

Additionally, individual interaction ($\bar{x} = 4.191$) was measured as a series of Likert scale items asking the respondent, “How often have you partaken in an action with a neighbor?” The response scale ranged from “0 = Never” to “2 = Often.” The specific items in this measure include: watched a neighbor’s home, borrowed tools or small food items, had dinner or lunch with a neighbor, helped a neighbor with a problem, and asked about personal things (Cronbach’s Alpha; $\alpha = 0.78$).

Like previous studies, disorder is constructed by measuring both observed and perceived disorder. This measure consists of nine questions. The perceived disorder questions were: “how much of a problem would you say the following is: i) groups of teenagers hanging around the street, ii) litter/garbage/trash on the streets, iii) spray-painted graffiti on buildings and streets, iv) abandoned houses and v) rundown buildings, and neighbors who cause trouble or make noise?” The perceived disorder responses categories are: 2=big problem, 1=small problem, and 0=not a problem (Cronbach’s Alpha; $\alpha = 0.75$). The observed disorder question was “have you personally observed the following in your neighborhood: i) children fighting in the street, ii) children disrespecting adults, and iii) children skipping school and hanging out on a street corner?” The observed disorder responses categories are ‘Yes’ equaling one (Cronbach’s Alpha; $\alpha = 0.63$). These constructs are combined to create a disorder measure, whose Cronbach’s Alpha is .79 ($\bar{x} = 2.644$).

Perception of informal social control ($\bar{x} = 11.746$) is measured as a series of Likert scale items asking the respondent, “how likely is it that your neighbor will do something about children’s actions.” Each response scale ranges from 1 = “Very Unlikely” to 4 = “Very Likely.” The specific items in this measure include: skipping school, spray painting graffiti, disrespecting adults, and fighting in the neighborhood (Cronbach’s Alpha; $\alpha = 0.76$).

Policing procedural injustice ($\bar{x} = 3.078$) measure was created using five questions that examine perceived mistreatment and police bias. Respondents were asked: do you think the police treat wealthy people better, the same or worse than poor people? Furthermore, respondents were asked: do you think the police treat white people better, the same, or worse than: African Americans, Asians, and Hispanics? Finally, respondents were asked: Do you think the police treat English-speaking people better, the same, or worse than non-English speaking people? Each of the aforementioned measures were recoded “the same” equals zero and “better”, or “worse” were combined to equal one, because any form of difference in treatment, by the police, equates to injustice for someone. The Cronbach’s Alpha for this measure is .87 and the measure responses ranged from zero to five.

Mediator Variable

The mediator variable of interest examines the influence of frequency of block activity participation ($\bar{x} = 0.528$), on the frequency of PBA participation. Previous involvement in block activity is measured by asking: “How often have you...Participated in a block activity? The response categories were 1 (Often), 2 (Sometimes), and 3 (Never). This measure was reverse coded where ‘Never’ equals zero, ‘Sometimes’ equals one and ‘Often’ equals two.

Demographic Variables

A few social demographic control variables were included in the analysis. Females are coded the value of one ($\bar{x} = .48$). Age in years is an integer variable ($\bar{x} = 47.064$). Residence length is operationalized as the number of years the respondents reported living at their current addresses ($\bar{x} = 10.746$). Home ownership ($\bar{x} = .658$) is included as a binary measure, where respondents were asked “do you own your current dwelling?” in which No=0, Yes=1. Marital status ($\bar{x} = .740$) was also binary measure (1 = married, 0 = never married). Educational attainment ($\bar{x} = 2.911$) was measured, in the survey, as an ordinal scale ranging from one (high school or less) to four (graduate school/professional). The internal response categories were two and third equal some college and college graduate,

respectively. Family income ($\bar{x} = 9.014$) was integer variable based on 15 distinct income brackets (1= less than \$5,000 to 15 = more than \$200,000). Respondents' race/ethnicity variables were a series of binary measures, with Whites used for a reference group, indicating whether respondents identified as: Black ($\bar{x} = .044$), Asian ($\bar{x} = .064$), and Latino ($\bar{x} = .043$)

SEE TALE 1

Analytical Strategy

Stata 14.2 is used to conduct the investigation (StataCorp 2014). Listwise deletion was used to address missing data. The current investigation includes 1,509 subjects from blocks that are nested within all 123 Seattle census tracts. A multilevel ordinal logistic regression model is used for statistical estimation because individuals nested in the same neighborhood or tract tend to be more similar to each other than to individuals living in other areas (Liu 2015; West, Welch and Galecki, 2014). Multilevel modeling estimates both individual and neighborhood level residuals, to address the partial interdependence of individuals within the same location (West, Welch and Galecki 2014; Yuan and McNeely 2017). Additionally, multilevel modeling allows for the examination of both higher and lower level unit variance in the outcome variable while maintaining the appropriate level of analysis for the independent variables (Yuan and McNeely 2016).

The analyses proceeded in three stages. First, an unconditional model (not presented here) was estimated to examine the distribution of participation in PBA across census tracts. Significant variation in perceived safety would provide evidence for further multilevel testing. Second, an intercepts-as-outcome model was analyzed to examine the simultaneous relationship between the standard predictor variables, demographic variables, and PBA, accounting for other individual-level covariates. Finally, a model including the frequency of participation in other block activities was analyzed.

RESULTS

From Table 1, approximately 7.29% of the respondents reported 'often' participating in PBA. Conversely, 71.04% of the respondents reported never participating in PBA. Additionally, regression models were estimated to continue the analysis of this data. The multilevel regression models have a total number of respondents of 1509. To further examine participation in PBA, first, we estimated an unconditional intercept-only model (not presented here) to assess whether statistically significant variation is present across neighborhoods for respondents' participation. The results for the null model reported that the between tract variance is 0.311, which is the variance in the intercepts across all tracts. Another method is to look at the ratio of variance in the intercept and its standard error, $0.311/.103 = 3.019$, which is larger than 2 and indicates that the between tract variance is significant. Additionally, the intraclass correlation coefficient (ICC) shows that census tracts can explain roughly 8.64% of the total variance ($ICC = 0.311 / (0.311 + \pi^2/3)$), while 91.36% of the variance in perceptions that the respondents' participated in PBA is within the tract or at the individual-level. Based on this result, the predictor variables were added to investigate our main hypotheses.

SEE TABLE 2

Table 2 shows the results from the multilevel ordinal logistic regression analysis examining participation in PBA. The standard model used demographic and standard predictor variables to analyze a respondent's prior involvement, in PBA, and this model was significant at the less than .001 level. From the demographic variables, being married and homeownership have a significantly positive relationship with PBA participation. Asian respondents had a significantly negative relationship with PBA participation. Some of the standard predictor variables demonstrated a significant relationship with PBA, in this study. Increases in individual interactions, neighborhood disorder, and informal social control had a significantly positive relationship with the frequency of participation in PBA.

In the full model, some of these statistically significant relationships remain with the inclusion of prior participation in other block activities. Being married and homeownership remained statistically significant, at the .001 level. These measures increased the odds of participating often in PBA, by roughly 164% and 121%, respectively. Likewise, being Asian continued a statistically negative relationship with the frequency of PBA participation, at the .01 level. In this study, being Asian decreased the odds of often participating in PBA, by roughly 62%. From the standard predictors, increases in informal social control

increased the odds of often participating in PBA, when compared to other response categories, by roughly 8%.

Additionally, from the demographic variables, length of residence within the neighborhood and household income became statistically significant, with the inclusion of participation in other block activities. Increases in length of residency increased the odds of often participating, by roughly 1.5%; conversely, increases in household income decreased the odds of often participating, by roughly 3.5%. Finally, prior participation in other block activities had a significant positive relationship with PBA participation. Increases in the frequency of prior participation in other block activities increased the odds of often participating in PBA by roughly 269%.

DISCUSSION

This study builds on previous research into voluntary participation, by extending this research to participation in PBA. The current research examined the influence of a wide variety of social aspects that simultaneously exist within a neighborhood, by including measures for the disorder, informal social control, individual interactions, perceptions of the police procedural injustice and prior participation in other block activities. Several findings have emerged.

First, the findings regarding the standard model reaffirm previous analyses into the impact that these factors have on voluntary participation. The positive association between engaging in interactions with neighbors and voluntary participation may have a symbiotic relationship, whereby individuals who feel a greater sense of connection to their neighbors may also feel a more significant tie to their community, which may contribute to individuals' willingness to give up time to voluntarily participate in activities in their neighborhoods (see Hogg et al. 2017; Kang 2015; Sampson 2012). Additionally, Sampson and colleagues have demonstrated the influence of various neighborhood conditions as an indication of other problems, which exist in certain areas (Sampson and Raudenbush 2004; Sampson et. 1997). The impact of informal social control is well documented as an influencer on disorder and voluntary engagement (Sampson et al. 1997; Wickes et al. 2013). Finally, the results from the standard model might stem from the simultaneous existence of these circumstances, which shape respondents' willingness to participate voluntarily. Although Seattle may differ, in culture and ideology, racial demographics, and migration patterns, from the routinely examined urban areas in the United States (i.e., New York City, Chicago, Miami, and Los Angeles) this work extends the established influencers of participation to Seattle.

Secondly, the results of being married or a homeowner has a significant effect on volunteering with the police. Typically, urban areas are zoned as residential or commercial. This may result in respondents who are married or homeowners having a higher likelihood of living near other individuals who are married or homeowners (U.S. Census Bureau 2003b). This homogenous composition of married individuals or homeowners may signal to each other that they all have similar interests and values. The perception of shared values may also be the catalyst for beginning community building activities. Additionally, in areas of homeowners, the perceptions of shared pro-social norms may be warranted. If being a homeowner motivates individuals to engage neighbors, then the residual results of these interactions may enable residents to begin cooperation with each other, in voluntary activities.

Thirdly, these models extend our understanding of the influence of prior voluntary participation in a neighborhood to voluntary participation in PBA. The extant research consistently demonstrates, for effective governance, citizen engagement is necessary (Bennett 1989; Lavarkas and Herz 1982; Olson 2009). Conceptually, engaging neighbors should increase a feeling of connection to the neighborhood. This increased connection may assist individuals in overcoming the mental obstacle of giving up one's time to engage in a voluntary activity (see Arnstein 1969; Kang 2015). The purpose of PBA is to socially engage individuals as a collective and foster a better relationship between the police and the citizenry. It stands to reason that individuals who already engage in the voluntary neighborhood or group-level activities would be more likely to engage in larger scale voluntary activities with the police. Further examination into what influences voluntary block activity participation, in Seattle, is warranted, because of the demonstrated effect this measure has on participation in PBA.

Limitations and Future Research

Limitations to the present study should be noted. First, this study used secondary data, which is cross-sectional, to test these hypotheses. While, we found several statistically significant relationships, we cannot make causal interpretations. It is important to emphasize that these analyses only examined the relationships between the operationalized variables at the level of individual perceptions. The primary focus of the data collection was not to analyze individual-level constructs into how people interact and the effects these interactions have on social components. Due to the nature of the study, which was a clustered random sample of Seattle, it is not possible to aggregate disorder, informal social control, homeownership, perceptions of the police, and voluntary PBA participation to any specific neighborhood. This lack of consistent census tract identification inhibits the study's ability to describe the results to any specific census tract, thus allowing for comparative or longitudinal analyses (see Miethe 1992).

Second, the measure used to analyze voluntary PBA participation does not examine the number of times the respondent participated in PBA. To further the study of voluntary PBA participation, future testing should examine the quantity of participation to see if there are differences in the individuals who will continue to participate or participate more, than the individuals who only participate in voluntary activities once or twice. It is essential to understand these difference, as governmental agencies attempt to enhance the quality of interactions with citizens. Additionally, future studies should examine this measure in longitudinal aspects. Is there a difference in who participated in PBA during different periods? Also, is there a difference in the amount of participation for an individual, based upon the different periods?

Thirdly, to advance the study into these and other social components, future testing should examine the influence of these types of variables on participation in PBA for each racial group. Also, future testing should examine the moderating effects of neighborhood racial composition on individual engagement, informal social control, and perceptions of the policing services. To examine the relationship of homogeneity or neighborhood diversity, future research should test the influence of a respondents' racial group through the mediation of a perceived number of neighbors that fit the respondents' racial group, as well as, include census numbers for each neighborhood. This research would examine if a respondent is more likely to participate in voluntary PBA with individuals who are of their same or different racial groups or if the participation rate remains the same, regardless of the ethnic composition of a neighborhood.

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Table 1
 Descriptive Statistics for SPD Block Activity Participation N = 1509

Variable(s)	N	mean	sd	min	max
Dependent					
Seattle Police Block Activity Participation		0.362	0.614	0	2
Never	1,072				
Sometimes	327				
Often	110				
Control					
Female		0.480	0.500	0	1
Age		47.064	15.300	18	91
Length of Residence		10.746	11.343	0	62
Home Owner		0.658	0.475	0	1
Educational Attainment		2.911	0.966	1	4
Income		9.014	4.015	0	15
Married		0.740	0.439	0	1
Black		0.044	0.206	0	1
Asian		0.064	0.245	0	1
Latino/Hispanic		0.043	0.203	0	1
Predictor					
Trust		12.580	2.013	4	16
Individual Interaction		4.191	2.545	0	12
Neighborhood Disorder		2.644	2.691	0	13
Informal Social Control		11.746	2.477	4	16
Policing Procedural Injustice		3.078	1.937	0	5
Mediator					
Participation in Other Block Activity		0.528	0.633	0	2
Never	826				
Sometimes	569				
Often	114				

Table 2:
Seattle Police Block Activity Participation Multi-Level Ordinal Regression

Variable(s)	Standard		Full	
	<i>OR</i>	<i>SE</i>	<i>OR</i>	<i>SE</i>
Control				
Female	0.973	0.123	1.047	0.138
Age	1.007	0.006	1.002	0.006
Length of Residence	1.013+	0.007	1.015*	0.007
Home Owner	2.143***	0.387	2.213***	0.415
Educational Attainment	1.008	0.069	0.974	0.070
Household Income	0.974	0.017	0.965*	0.017
Married	2.711***	0.530	2.643***	0.541
Race (White as Reference Group)				
Black	0.695	0.248	0.594	0.220
Asian	0.392**	0.142	0.378**	0.142
Hispanic or Latino	0.943	0.303	1.043	0.347
Standard Predictors				
Trust	1.076+	0.042	1.023	0.042
Individual Interaction	1.149***	0.032	1.031	0.032
Neighborhood Disorder	1.061*	0.029	1.017	0.029
Informal Social Control	1.101**	0.035	1.081*	0.034
Policing Procedural Injustice	0.970	0.032	0.985	0.034
Mediator				
Participation in Other Block Activity			3.691***	0.422
Variance Constant	1.145	0.081	0.191	0.092
Model X ²		193.33		287.50
P		0.001		0.001
Log Likelihood		-1017.28		-945.45
n		1509		1509

*** p<0.001, ** p<0.01, * p<0.05, +p<0.1

The Etymology of Geechee: A Position Statement From a Freshwater Geechee

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Abstract

This paper examines the etymology of the term Geechee. It takes the position that the term Geechee has an American Indian origin and not an African origin. This paper also takes the position that the term Geechee originated as a war-name for Gullah-speaking Maroon partisans in the Seminole Nation during the 19th century. In addition, it takes the position that every original Geechee was a Gullah, but every Gullah was not a Geechee. As for methodology, this paper utilizes the case study method approach and the participant observation approach.

Introduction

Charles Garrett and David M. Lucas (2002) have pointed out that there are two theories regarding the etymology of the term Gullah. Both theories pose that Gullah has an African origin. One theory holds that Gullah descends from the Gola, which is an ethnic group living in Liberia and Guinea. The other theory holds that Gullah descends from Angola. Garrett and Lucas further asserted that many ancestors of Gullah people came from the Angola region.

As Garrett and Lucas (2002) have noted, there are also two theories regarding the etymology of the term Geechee. One of the theories holds that Geechee is an African word and descends from the term Kissi, which is an ethnic group in Liberia, Sierra Leone, and Guinea. The second theory holds that Geechee is an American Indian word and descends from the term Ogeechee. Garrett and Lucas have acknowledged that some scholars and writers hold that Geechee has an African origin and that some scholars and writers hold that Geechee has an American Indian origin.

Guy B. Johnson (1930), Mary Granger (1940/1986), Juanita Jackson, Sabra Slaughter, and J. Herman Blake (1974), Charles Joyner (1986), Philip Morgan (2010), and the present writer hold that Geechee has an American Indian origin in that they believe it comes from the Ogeechee River or Ogeechee Indians. Reed Smith (1926), Mason Crum (1940), Patricia Jones-Jackson (1987), Joseph E. Holloway and Winifred Kellersberger Vass (1993), Muriel Miller Branch (1995), Hillary S. Barnwell (1997), Cornelia Walker Bailey (Bailey & Bledsoe, 2000), Joko Sengova (2008), and Amy Lotson Roberts and Patrick J. Holladay (2019) hold that Geechee has an African origin.¹ According to Charles Garrett and David M. Lucas (2002), Marquetta L. Goodwine also holds that Geechee has an African origin. Garrett and Lucas have informed us that:

Among academicians, the word “Gullah” is generally used in the South Carolina Sea Islands, while the word “Geechee” is often used to describe descendants of enslaved Africans now living in the Sea Islands of Georgia and northern Florida. Joyner (1986) suggests the word “Geechee” derives from the Ogeechee River near Savannah, Georgia. Barnwell (1997) argues “Geechee” is simply another name for the language and culture of Black Sea Islanders, originating from a tribal name in Liberia. However, Marquetta L. Goodwine (2001) definitively states, “Geechee exists due to the transliteration of the name ‘Gidzi,’ an ethnic group from the Windward Coast of Africa. When Following Goodwine and others, Garrett and Lucas proceeded to argue that “the terms ‘Gullah’ and ‘Geechee’ should be considered synonymous” (p. 4).

Following Goodwine and others, Garrett and Lucas proceeded to argue that “the terms ‘Gullah’ and ‘Geechee’ should be considered synonymous” (p. 4).

Cornelia Walker Bailey (Bailey & Bledsoe, 2000), writing in her autobiography, made an observation which can be compared with that of Marquette Goodwine about the origin of the term Geechee. She said:

As to the labels “Geechee” and “Gullah,” there’s a line of thinking that they came from two neighboring tribes in West Africa—the Kissi, pronounced “Geezee,” who lived where the modern-day countries of Sierra Leone, Liberia and Guinea converge; and the Gola, a tribe on the Sierra Leone-Liberia border. A lot of members from both of these tribes were brought to these islands, and while it has never been proven—the people who study such things will be arguing about it for years to come—it could very well be that what we were called stemmed from the two tribal names. (p. 4)

Cornelia Walker Bailey noted that it has never been proven that term Geechee is derived Kissi or that the term Gullah is derived from Gola. She also noted that people who study the Geechee and Gullah heritage will be arguing about the origins of the terms for years to come.²

Nevertheless, Cornelia Walker Bailey (Bailey & Bledsoe, 2000), chose to weigh in on the subject and presented an argument about the origin of the term Geechee. Cornelia Walker Bailey made the important observation that “Ogeechee is an Indian name” and identified it as one of the three major rivers in Georgia (p. 312). However, Cornelia Walker Bailey proceeded to argue that the term Geechee did not derive from the term Ogeechee because none of her ancestors had ever lived near the Ogeechee River. Cornelia Walker Bailey related that she was following Lorenzo Dow Turner and took the position that the term Geechee “probably came from Kissi,” the ethnic group found in Sierra Leone, Liberia, and Guinea (p. 312).³

The objective of this paper is to examine the etymology of the term Geechee. It will take the position that the term Geechee has an American Indian origin and not an African origin. This paper will also take the position that the term Geechee originated as a war-name for Gullah-speaking Maroon partisans in the Seminole Nation during the 19th century. In addition, it will take the position that every original Geechee was a Gullah, but every Gullah was not a Geechee. The methodology used in this paper will be the case study method approach and the participant observation method approach.

Discussion of the Etymology of the Term Geechee

As used in this paper, the term Geechee refers to a social group of Gullah-speaking Maroons (and their descendants) who joined the Seminole Nation as partisans during their three wars with the USA in the 19th century.⁴ The definition of the term Geechee used in this paper draws on Jedidiah Morse (1822); John T. Sprague (1848); Thomas Jesup (1861b, 1861c); John R. Swanton (1928); Lorenzo Dow Turner (1941b); Sterling Brown (1941); William C. Sturtevant (1955); and John K. Mahon (1967). During the 19th century, Gullah-speaking Maroons of Black African descent and American Indians of Muskogean (Creek) descent united as the Seminole Nation and fought three wars against the USA (Giddings, 1858; Mooney, 1910b; Porter, 1971, 1996; Cromartie, 2011a, 2011b, 2013c; Amos, 2011; Hancock, 1980, 2014a, 2014b; Twyman, 1999; Rivers, 2000; Dixon, 2014).⁵ One of the strongholds of the Seminole Nation was the Okefenokee Swamp. The location of that swamp is in southeast Georgia.

In the June 15, 1837 issue of the *Army and Navy Chronicle*, as Porter (1971) pointed out, it published the following extract of a letter received by an unnamed White man living in Savannah from another White man writing from Camden County, Georgia:

You will be surprised to hear that I have not long returned from an excursion after Indians. Three of them were captured about two miles from my house, and it is believed that some hundreds are in the Oakafanoke. The Indians were conducted to this neighborhood by a runaway negro from this section. The negro is well known to me, and a great villain he is—he is fled to the Oakafanoke, or in that direction, and fears are entertained that he may conduct, the next time, a much greater number. (“Extract,” 1837, p. 379)

The letter was dated May 31, 1837. It showed evidence that Black people and American Indian people were operating together in the Okefenokee Swamp. Two years later, Major General Thomas S. Jesup, a White soldier in the Army of the USA, wrote a letter which mentioned Black people and American Indian people operating together in the Okefenokee Swamp. Jesup stated that:

. . . the Creek Indians have all left the Okefenokee & gone south, there were seven runaway negroes from Georgia among them, well armed & plenty of ammunition. . . . the negroes have done most of the mischief in that quarter; the negroes also have left & on their way south burned the houses in the vicinity. (Quoted in Porter, 1971, p. 282)

There are many Black people from Georgia who have a connection to the Okefenokee Swamp and/or the Seminole Nation. For example, Cornelia Walker Bailey (2016), a self-identified Saltwater Geechee, has informed us that her grandfather John Bryant, also known as John Bryan and John Bryan', was "one half Creek and one half African and they say he came from the Okefenokee Swamp" (p. 2).⁶

In her autobiography, Cornelia Walker Bailey made an important statement about Gullah-speaking Maroon partisans in the Seminole Nation. She stated that:

. . . instead of using the Underground Railroad and going north, a lot of Geechee/Gullah people who escaped from slavery went down to Florida and joined the Native Americans there, the Seminoles. That some of them intermarried with the Seminoles and over time came to see themselves as part of the Seminole tribe. That after the Second Seminole War, when most of the Seminoles were forcibly removed to Indian Territory, to Oklahoma, that people of Geechee/Gullah ancestry went too and that some of their descendants still live in Oklahoma. (Bailey & Bledsoe, 2000, p. 311)

Cornelia Walker Bailey pointed out that some Geechees from Oklahoma were present in the Gullah Geechee delegation that made a trip to Sierra Leone in 1989. The delegation included Geechees and other Gullahs from Georgia, South Carolina, and Oklahoma.⁷

During March 1940, the American Council of Learned Societies (ACLS) held a conference at Howard University titled "The Interdisciplinary Aspects of Negro Studies." At the ACLS conference, Turner (1941a) presented a paper titled "Linguistic Research and African Survivals." During the question and answer period following the paper, Sterling Brown (1941) asked Lorenzo Dow Turner a question about the etymology of the term Geechee at the Howard Conference. Brown's question and Turner's response should not be overlooked or ignored.

As a response to the question asked by Sterling Brown regarding the term Geechee, Turner (1941b) stated in part that, "I think this name is an Indian word . . ." (p. 79). However, when he published his book *Africanisms in the Gullah Dialect*, Turner (1949) said that the term Geechee had "a probable African origin . . ." (p. 301). Thus, Turner contradicted that which he said some nine years earlier at the ACLS conference. Many people have read Turner's statement on Geechee in his book. However, it appears that a lot of them have overlooked or ignored his statement on the term Geechee in the ACLS conference proceedings. This situation has caused some people to repeat the speculative error Turner made in *Africanisms in the Gullah Dialect*. The present writer believes that Turner was right in 1941 with his statement in the ACLS proceedings and wrong in 1949 with his statement in *Africanisms in the Gullah Dialect*. The position of the present writer is that the term Geechee derived from an American Indian word, not an African word.⁸

There is ample evidence that Geechee is an American Indian word. In Georgia, there is a waterway known as the Ogeechee River. Part of the American Indians known variously as Creek, Muskogee, and Ogeechee lived near the Ogeechee River. The language of the Muskogee people gave birth to the term Geechee. The position of the present writer is that the terms Ogeechee and Geechee come from the Muskogee language. The ample evidence comes from James Mooney (1910a), William Bartram (1791),

Francis Harper (1958), and Thomas S. Jesup (1861b, 1861c). They have all written about some aspects of the American Indian roots of the term Ogeechee. They have also noted that the Ogeechee Indians were one of the tribes and clans within the Creek Confederacy. In the case of Jesup, he has pointed out that the Ogeechee Indians were one of the groups in the Seminole Nation during its Second War with the USA.

Regarding the Ogeechee Indians, James Mooney (1910a) has written in the *Handbook of American Indians North of Mexico* that:

Ogeechee. A town or subtribe of the Yuchi, formerly situated at some point on lower Ogeechee r., Ga. The Creeks and other tribes made war on them, and according to Bartram they were exterminated by the Creeks and Carolina settlers (?) on Amelia id., Fla., where they had taken refuge after having been driven from the mainland. (p. 109)

Mooney pointed out that the Ogeechee Indians were attacked by a combination of Carolina settlers and other American Indians. He also pointed out that the Ogeechee Indians were forced out of the Ogeechee River area of Georgia down into Florida on Amelia Island.

William Bartram (1791) traveled through Georgia and Florida shortly before the outbreak of the Revolutionary War and made observations of American Indians and their physical environment. In his report, Bartram stated that:

And they say, also, that about this period the English were establishing the colony of Carolina, and the Creeks, understanding that they were a powerful, warlike people, sent deputies to Charleston, their capital, offering them their friendship and alliance, which was accepted, and, in consequence thereof, a treaty took place between them, which has remained inviolable to this day: they never ceased war against the numerous and potent bands of Indians, who then surrounded and cramped the Indian plantations, as the Savannas, Ogeeches, Wapoos, Santees, Yamasees, Utinas, Icosans, Paticas, and others, until they had extirpated them. The Yamasees and their adherents sheltering themselves under the power and protection of the Spaniards of East Florida, they pursued them to the very gates of St. Augustine, and the Spanish refusing to deliver them up, these faithful intrepid allies had the courage to declare war against them, and incessantly persecuted them, until they entirely broke up and ruined their settlements, driving them before them, till at length they were obliged to retire within the walls of St. Augustine and a few inferior fortified posts on the sea coast. (p. 55)

Bartram referred to American Indians in the Creek Confederacy as “they.” He made it clear that following the three languages were observed among American Indians in the Creek Confederacy: (1) Muscogulge, (2) Stincard, and (3) Uches and Savannucas. In terms of those three, Bartram related that he observed the “Muscogulge tongue being now the national or sovereign language” (p. 55). The terms Muscogulge Confederacy and Creek Confederacy were synonymous to Bartram. He also used those terms to refer to the same political nation. According to J. Leitch Wright (1986), the term Muscogulge later morphed into the term Muskogee in spelling and pronunciation.⁹

Francis Harper (1958) provided an important “Commentary” in the reprint Naturalist Edition of *The Travels of William Bartram*. In his commentary, Harper reported that:

. . . the Ogeechee tribe was a band of Yuchi and this may have been the one which afterwards removed to Florida and settled at Spring Garden by Woodruff Lake. Possibly these Indians stopped upon the Georgia coast long enough to leave a memory of themselves there though could hardly have remained for a sufficient length of time to erect mounds of any magnitude. However, the Ogeechee mentioned here may have been Indians from the mouth of Ogeechee River belonging to the Guale tribe which later settled in Florida north of St. Augustine. The Quaker Dickenson visited their towns in 1699. As to their “destruction” we may say that myth makers have destroyed more tribes than America ever contained. (p. 350)

It was noted by Harper that the Ogeechee Indian information contained in his commentary was supplied by J. R. S., which were the initials of John R. Swanton.

While serving as a general in the Second Seminole War, Thomas S. Jesup (1861b) sent a letter dated January 19, 1837 to Benjamin F. Butler, the Secretary of War. He stated:

I detached Lieutenant Colonel Foster, from Fort Clinch, with five hundred regular troops, Georgia volunteers, and Indian warriors, against the Tallahassee and Ogeechee Indians, who had fled from the Withlacoochee, and have established themselves in the swamps south of the mouth of the Withlacoochee. (p. 826)

Some two days later, on January 21, 1837, Jesup (1861c) sent another letter to Butler. In the letter, Jesup reported that, "Lieutenant Colonel Foster is in pursuit of the Tallahassee and Ogeechees, south of the Withlacoochee . . ." (p. 827). Jesup, in both letters, identified Ogeechee Indians as partisans of the Seminole Nation.

In addition to providing information to Butler about the Ogeechee Indians, Thomas S. Jesup reported on the Gullah-speaking Maroon partisans of the Seminole Nation to Butler. On December 9, 1836, Jesup (1861a) sent a letter to Butler and stated that, "This, you may be assured, is a negro, not an Indian war" (p. 821). Jesup also informed Butler that the Gullah-speaking Maroon partisans of the Seminole Nation were "perhaps, the most numerous" (p. 820). During the Second Seminole War, which lasted from 1835 to 1842, Gullah-speaking Maroon partisans of the Seminole Nation served as chiefs and captains of their own warriors or served as lieutenants and warriors under American Indian hereditary chiefs and war leaders. The highest-ranking Gullah-speaking Maroon partisan was known to Jesup as Abraham. In a military report, Jesup (1861d) wrote the following about Abraham:

The principal negro chief, supposed to be friendly to the whites; said to be a good soldier and an intrepid leader; he is the most cunning and intelligent negro we have seen; he is married to the widow of the former chief of the nation. (p. 852)

Jesup was very clear about the groups active in the Seminole Nation, including the Ogeechee Indians and the Gullah-speaking Maroon partisans. His reports reflect that clarity. It should be noted that the reports of Jesup refer to Gullah-speaking Maroon partisans simply as "Negroes."

Webster's New International Dictionary and *The Oxford English Dictionary* have been widely acknowledged as two of the most authoritative reference sources of the English language. Although both dictionaries do not offer an etymology of the term Ogeechee, they have offered definitions of the term Geechee that leave a lot to be desired. Despite the shortcomings of their definitions of the term Geechee, neither tries to make the case that the term Geechee is an African word. In *Webster's New International Dictionary*, the Merriam-Webster Inc. (1986) defined the term Geechee in the following way:

geechee . . . *n -s usu cap* [fr. the *Ogeechee* river, Ga.] 1 : a dialect containing English words and words of native African origin spoken chiefly by the descendants of Negro slaves settled on the Ogeechee river in Georgia—compare GULLAH 2 : a Geechee-speaking Negro. (p. 943)

The definition of the term Geechee offered by the Merriam-Webster Inc. referred to the language first and to the people second. It also stated that the term Geechee is derived from the Ogeechee River.

Writing in *The Oxford English Dictionary*, J. A. Simpson and E. S. C. Weiner (1989), two White outsiders, offered a definition of Geechee as follows:

Geechee . . . U.S. dial. [f. the name of the Ogeechee River, Georgia.] (See quot. 1934.) Also a derogatory term for a Negro of the southern United States. Cf. Gullah.

1926 *Nat. Geogr.* Sept. 287 Among the negroes living on the Ogeechee River a patois, developed in ante bellum days, has persisted. . . The origin of ‘Geechee’, as the patois is called, is explained by the fact that slaves employed on the old rice plantations were more less isolated and rarely conversed with their white owners, with the result that their knowledge of English words was bizarre. The ‘Geechee’ speaks in a sort of staccato and always seem excited when talking. 1934 Webster, *Geechee*. A dialect, originally of Negro slaves on the Ogeechee river, Georgia, formed of English and native African words. 2. One who speaks Geechee. (p. 417)

The definition provided by Simpson and Weiner states that the term Geechee is derived from the Ogeechee River and identified it as a derogatory term for Black people in the South. Simpson and Weiner acknowledged that their definition was based an article by Ralph A. Graves in the *National Geographic* and the definition offered by Merriam-Webster Inc.

During the second decade of the 20th century, Ralph A. Graves (1926), a White outsider, published an article wherein he offered a definition of the term Geechee. In that article, Graves declared that:

Among the negroes living on the Ogeechee River a patois, developed in ante bellum days, has persisted. It impressed the stranger almost as a foreign new language. The origin of “Geechee,” as the patois is called, is explained by the fact that slaves employed on the old rice plantations were more or less isolated and rarely conversed with their white owners, with the result that their knowledge of English words was slight and the pronunciation of them was bizarre. The “Geechee” negro speaks in a sort of staccato and always seems excited when talking. His patois is encountered all along the Georgia coast. (p. 278)

Graves was a White outsider who referred to Gullah as a patois as did John G. Williams (1895) some 30 years earlier. He noted that Gullah could be found all along the coast of Georgia. Graves emphasized that Gullahs were often on plantations where they were the larger group and had little contact with White slaveholders. It should be noted that Gullahs were the majority group in terms of numbers, but not power.

Some 20 years before Ralph A. Graves’s article appeared, Monroe N. Work (1905), a Black outsider, published an article titled “Some Geechee Folklore” and posed that the term Geechee was a derogatory one for Black people. This may or not be the first time that the term Geechee appeared in print in relation to the Gullah people. Work wrote that, “The Negroes inhabiting the tide-water section of Georgia and South Carolina are so peculiar in their dialect, customs, and beliefs that the term Geechee, which means a rough, ignorant, and uncouth person, is applied to them” (p. 633). Also, this may or may not be where J. A. Simpson and E. S. C. Weiner got their derogatory notion from. Nevertheless, J. A. Simpson and E. S. C. Weiner as well as Work are incorrect.¹⁰

In the age when J. A. Simpson, E. S. C. Weiner, Ralph A. Graves, and Monroe N. Work were writing, among many people, anything associated with people of Black African descent was often viewed as rough, ignorant, and uncouth when compared to anything associated with people of White European descent. Thus, to be called an African or a Geechee or even a Gullah was viewed as derogatory in some circles. More recently, Margaret Washington Creel (1988) has declared:

Today Geechee is a folk term, generally used as a provocation. In this context it means “country.” The term is generally used between intimates in a joking manner, or intended as a challenge to a fight. (p. 18)

It is also clear that outsiders J. A. Simpson, E. S. C. Weiner, Ralph Graves, Monroe N. Work, and Margaret Washington Creel played a role in Geechee being depicted as a derogatory term for Black people instead of a badge of honor.¹¹

The actions of J. A. Simpson, E. S. C. Weiner, Monroe N. Work, and Margaret Washington Creel do not negate the fact that within the Seminole Nation, the American Indians referred to Gullah-speaking Maroon partisans and all Black people as “Estelusti” as pointed out by Minnie Moore-Willson (1910),

Daniel F. Littlefield (1977), J. Leitch Wright (1986), and Anthony E. Dixon (2014).¹² The position of the present writer is that the war-names Geechee and Geechees were given to Estelusti in the Seminole Nation by Muskogee-speaking American Indians in the Seminole Nation to distinguish the Estelusti who fought alongside them for over 100 years from the other Estelusti. The position of the present writer also is that their Muskogee-speaking American Indian comrades-in-arms gave them the war-names Geechee and Geechees in honor of the Ogeechee Indians whose numbers were decimated by the treachery of the European colonists. John R. Swanton (1928), William C. Sturtevant (1955), John K. Mahon (1967), and Joseph A. Opala (1981) have all noted the Creek-Seminole custom of bestowing honorary war-names on individuals and groups. Clay MacCauley (1887) observed that Seminoles in Florida continued the tradition of bestowing honorary names on groups and clans after the Emancipation Proclamation took effect.¹³

Implications of this Research on the Term Geechee

In terms of implications, this research on the term Geechee has at least four significant consequences. One significant consequence is that it sheds light on the etymology of the term Geechee. This research has provided evidence that the term Geechee has an American Indian origin and not an African origin. A second significant consequence is that it sheds light on the position that the term Geechee originated as a war-name for Gullah-speaking Maroon partisans in the Seminole Nation during the 19th century. This research has provided evidence that the Seminole Nation followed the practice of Muskogee-speaking American Indians and used war-names during the three Seminole Wars. The present researcher has taken the position that the term Geechee is derived from the Ogeechee Indians in the Seminole Nation and was used as a war-name to make a distinction between those Estelusti in the Seminole Nation who fought alongside American Indians like Osceola and Coacoochee and those Etsteluti who did not. In contrast, Joko Sengova (2007) has taken the position that Geechee derives from the African term Giizi or Kissi and that Giizi or Kissi “probably gave the Georgia river its name” (p. 198). A third significant consequence is that it sheds light on the position that every original Geechee was a Gullah, but every Gullah was not a Geechee. However, language is very dynamic, instead of static, and after the Civil War many Gullahs, who were not connected to the Seminole Nation, began to refer to themselves as Geechees or have other people refer to them as Geechees.

Summary and Conclusion

The objective of this paper was to examine the etymology of the term Geechee. It has taken the position that the term Geechee has an American Indian origin and not an African origin. This paper has also taken the position that the term Geechee originated as a war-name for Gullah-speaking Maroon partisans in the Seminole Nation during the 19th century. In addition, it has taken the position that every original Geechee was a Gullah, but every Gullah was not a Geechee. This position does not deny the fact that language can be very dynamic as opposed to being static. For example, there are now many Black people with a Geechee heritage who self-identify as Gullahs and many Black people with a Gullah heritage who self-identify as Geechees. Some writers, scholars, and government officials now speak of the “Gullah Geechee people” and the “Gullah Geechee heritage” as designations and markers for one social group as a whole.¹⁴

Further, in his book *Black Majority*, Peter H. Wood (1974) raised the issue of whether the term Gullah has a multiple etymology. He stated that:

The etymology of the term “Gullah” itself remains in some doubt. It could represent an abbreviated form of Angola, which would fit with the import data cited in the previous note. But it could also derive from the Gola tribe of the Windward Coast, which would relate to expressed preferences for slaves from the rice-growing region. The most likely answer is that both sources contributed to the word, and that it has a multiple etymology . . .” (p. 172)

The same may be true with the term Geechee in that it might have a multiple etymology wherein the American Indian source and the African source contributed to the word.¹⁵ However, it is most likely that the term Geechee is derived from the term Ogeechee and comes from the Ogeechee Indians and not the Ogeechee River. As mentioned above, the position of the present writer is that the term Geechee originally referred to a social group of Gullah-speaking Maroons (and their descendants) who joined the Seminole Nation as partisans during their three wars with the USA in the 19th century. The position of the present writer is that every original Geechee was a Gullah, but every Gullah was not a Geechee.¹⁶

Writing in his book *Freedom on the Border: The Seminole Maroons in Florida, the Indian Territory, Coahuila, and Texas*, Kevin Mulroy (1993) made the following statement about the racial dynamic during the Second Seminole War:

Whites had named them “Seminole Negroes” and had recognized them as an independent group during the Second Seminole War. We do not know how the maroons referred to themselves at this point. I would argue, however, that from an early stage in their development they would have felt a self-awareness and would have shared ideas about themselves as a people; that by the time of removal this had developed into a historical consciousness; that they had engaged in common pursuits, established an economic and social system and built communities based on group goals, collective action, and strong kinship ties; that they possessed a unique history and culture. In Robert K. Thomas’s terms, they shared a common origin—a sense of “peoplehood”—and possessed an acute sense of both the significance of membership and the boundaries dividing them from others. This is what gave the group cohesiveness, strength, and identity. (p. 33)

Mulroy also related that the American Indians in the Seminole Nation were fighting against the USA to “retain their land and . . . maintain an identity separate from the Creeks” (p. 33). He noted that the Gullah-speaking Maroons were fighting against the USA “for their freedom” (p. 33). On the one hand, the White slaveholders in the USA wanted the land of the Muskogee-speaking American Indians. On the other, the White slaveholders wanted the free labor of the Gullah-speaking Maroons who fled from enslavement in Georgia and South Carolina. This social condition made the Gullah-speaking Maroons and the Muskogee-speaking American Indians into natural allies in Florida. This social condition also led to the spread of Gullah culture from Georgia and South Carolina to Florida, Oklahoma, Texas, Mexico, and the Bahamas as well as elsewhere.¹⁷ In addition, this social condition led to acculturation between the Muskogee-speaking American Indians and Gullah-speaking Maroons wherein the latter acquired the names Geechee and Geechees.¹⁸

Notes

1. Writing in their book *The African Heritage of American English*, Joseph E. Holloway and Winifred Kellersberger Vass (1993) gave the following description for the term Geechee:

Liberian county called Kissi. Mende *gidzi*. Originally meant an African from the Guinea coast. Later it meant a black who was not yet acculturated in American culture. In 1789, applied to Africans brought to Ogeechee River plantation under coercion to become acculturated as southern Americans. (p. 141)

As for their description of the term Gullah, they said the following: “Bantu Ngola, an ethnic group in Angola. Refers to African Americans living in the Sea Islands and regions of South Carolina, Georgia, and northern Florida. Also refers to their language” (p. 141). According to Holloway and Vass, they took the position that the term Geechee can be traced to Kissi and the term Gullah can be traced to Angola. However, in their definition of the term Geechee they seemed to have mixed it with that which Tonie Houston said about the term Gullah. They also failed to identify the name of the plantation located on the Ogeechee River.

2. When she was in the process of writing her book, Cornelia Walker Bailey (1998) declared in an

article that:

. . . a White planter named Thomas Spalding bought the southern portion of the island in 1802 and imported enslaved Blacks from the West Indies and Golas from West Africa to work his fields. The name Gullah is derived from these Gola people. After slavery ended, our ancestors stayed on, carving out a life that was rich in the culture of the Gola tribe. (p. 135).

Later, in her autobiography, Bailey appears to have backed off that statement about the origin of Gullah. She said that the Gola origin of Gullah may or may not be true (Bailey & Bledsoe, 2000). One year before the publication of Bailey's autobiography, William S. Politzer (1999) informed us that "the people of African descent on the coast are known as 'Gullahs,' especially in South Carolina, and as 'Geechees,' especially in Georgia" (p. xx). In his discussion of the terms Geechee and Gullah, Politzer (1999, p. 242) also related that:

"Geechee," sometimes used as a synonym for "Gullah," and sometimes for the black population of coastal Georgia, is said to be derived from the Ogeechee River, but it has been attributed to the Kissy (Kissi) language and tribe in Liberia and Sierra Leone (Turner, *Africanisms in the Gullah Dialect*, 1973, p. 194).

Politzer did not take a position on the term Geechee's American Indian origin or the African origin. Instead, he simply acknowledged both origins in his discussion. Michael Montgomery (1994) took a similar position to Politzer when he stated that, "On the etymology of both Gullah and Geechee there is no consensus but rather two plausible sources for each" (p. 14). Following Peter B. Wood, Montgomery stated that "there is no reason to believe that each did not have two complementary and reinforcing derivations" (p. 14). In her discussion of the etymology of Gullah, Margaret Washington Creel (1988) took a similar position when she stated:

One early twentieth-century white South Carolinian, Reed Smith, wrote extensively about Gullah dialect, maintaining that the term refers to the Goals of Liberia. His suggestion alone proves nothing. But further research demonstrates its plausibility, or at least the possibility of two complimentary original derivations. (p. 17)

Creel, following Reed Smith (1926), Guy B. Johnson (1930), Turner (1949), Vass (1979), and others, noted the two theories regarding the etymology of Gullah.

3. It should be noted that there is a very large ethnic group in Kenya known variously as the Kissi and Gusii. For some information about that group of people in Kenya, see Timothy Parsons (2011); and Tabitha N. Otieno and Albertha Yeboah (2003, 2004). It should also be noted that Uche is a first name which has been used by Igbo (aka Ibo) women in Nigeria. For example, there is a relatively famous movie actress named Uche Uwujii in Nigeria's Nollywood. Her films include *Lost Passion* in 2003, *A Can of Worms* in 2008, and *Up to Me* in 2006 (IMDb, 2019).

4. I can trace back my Geechee and Gullah heritage for at least six generations. For example, my mother Julia Frazier Cromartie Boyd, was a Geechee and a descendant of a Black Seminole woman named Bess Frazier who lived on the Georgia coast in Camden County. A report from AfricanAncestry.com indicates that the present writer's maternal DNA is Yoruba from Nigeria. My father, Jimmie Lee Cromartie, was a Gullah born in the shadow of Negro Fort in Florida and a descendant of a Gullah man, June Wright Cromartie, who once lived in North Carolina's Bladen County and Sampson County. A report from AfricanAncestry.com shows that my paternal DNA is Akan from Ghana. For discussions of my Geechee background received from a lineage through my mother, see Cromartie (2013a, 2013b, 2013c). For discussions of my Gullah background received from a lineage through my father, see Cromartie (2016a; 2016b; 2016c). As I stated in my book *Morgan-Frazier Family Clan: Chronicles of a Black Family with a Geechee and Gullah Heritage in Essays, Research Reports,*

Documents, and Photographs, my mother Julia Frazier Cromartie Boyd proudly referred to herself as a Freshwater Geechee. I also wrote the following in my book:

Certain institutions within the mass media have taught Black people to engage in self-hatred and contempt for their own cultural heritage. Sadly, some members of the Morgan-Frazier family clan have not been able to escape that social phenomenon. However, there are members of the Morgan-Frazier family clan who have managed to escape that social phenomenon and embraced our Geechee and Gullah heritage. For example, Julia Frazier Cromartie Boyd, my mother proudly described herself to me as a freshwater Geechee as opposed to a saltwater Geechee. My mother, a former packer in a Brunswick, Georgia shrimp factory, used the term saltwater Geechee to refer to cultural insiders living on Georgia's barrier islands and coastal counties. She used the term freshwater Geechee to refer to cultural insiders living within inland counties like Wayne, Ware, Liberty, and elsewhere. My mother took the position that one of the only significant differences between saltwater Geechees and freshwater Geechees involves the location (i.e., place of residence). For her, the cultural heritage of saltwater Geechees and freshwater Geechees consists of the same basic traits. When it comes to food, both groups tend to rely heavily on a rice diet. This norm can be traced back to Africa. My mother informed me in 1987 that some of our relatives with the surnames Lee and Johnson still lived on St. Simons Island. (p. 13)

Cornelia Bailey has written that, "Here on the Georgia islands, Saltwater Geechee was what we called ourselves, and black people who lived about thirty miles inland, around freshwater, were called Freshwater Geechee" (Bailey & Bledsoe, 2000, p. 5). Further, as mentioned above, the grandmother (Bess Frazier a.k.a. Bessie Frazier) of my grandfather (Augustus Manson Frazier) on my mother's side of the family was a Black Seminole. She was born in 1838 during the Second Seminole War. By 1861, Bess Frazier found herself enslaved in Camden County, Georgia on a rice plantation. At that time, Bess Frazier and her three children—six years old Fanny, four years old Albert, and two years old Jordan—were held in bondage by a slaveholding White woman named Louisa T. Nichols. The father of Louisa T. Nichols was Henry J. Nichols, a White slaveholding man and physician, who migrated from Charleston, South Carolina and owned a rice plantation in Camden County. Her brother Henry Johnathan Nichols was also a White slaveholder as well as her husband Nathan A. Brown. The Nichols also spelled their surname Nicholes (Cromartie, 2013a, 2013b, 2013c; Louisa T. Nichols, Henry J. Nichols, & Nathan A. Brown, 1861; Census Office, 1860). It should be noted that Patricia Jones-Jackson (1987) made the following statement in her book *When Roots Die*:

Though many writers have stated that rice was a Sea Island crop (see, for example, Wood, *Black Majority*; and Jackson, Slaughter, and Blake, "The Sea Islands as a Cultural Resource"), Professor Charles Joyner has indicated to me (through personal communication) that rice was grown not on the Sea Islands but in rice fields adjoining nearby mainland rivers. Rice requires fresh water, and the flooding and draining of rice fields require freshwater rivers moved by ocean tides. Thus Sandy Island had rice fields but the ocean islands did not. (p. 171)

Jones-Jackson has really helped to set the record straight by reporting that which Joyner told her. If Joyner was correct, this means that it very well may be that certain White slaveholders wanted enslaved Africans from specific areas of the Motherland to work on rice plantations on the mainland and not on the Sea Islands. For the works mentioned by Jones-Jackson, see Peter H. Wood (1974) and Juanita Jackson, Sabra Slaughter, and J. Herman Blake (1974). Further, Asa G. Hilliard, III (1995) pointed out that Maroons were active "in the United States in South Carolina, North Carolina, Virginia, Louisiana, Florida, Georgia, Mississippi, and Alabama" (p. 53). He also urged Black people to accept, and not reject, our Maroon heritage and the Maroon within us. I certainly agree with Asa G. Hilliard, III.

5. For some important books by White officers who fought against the armed forces of the Seminole Nation, see William Hayne Simmons (1822), Woodburne Potter (1836), M. M. Cohen (1836), John Lee

Williams (1837), John T. Sprague (1848); George A. McCall (1868). In the case of Cohen, he said that “maroon negroes live among the Indians” (p. 46). McCall wrote an important letter on September 25, 1826 about a visit he had to Pilacklichaha (aka Pelahlikaha, Pu-lacklicaha, Pyaclekaha, and Peliklakaha), which was one of the largest Maroon communities, if not the largest, in Florida. He stated that Pilacklichaha was “one of the most prosperous negro towns in the Indian territory” (p. 160). McCall added:

We found these negroes in possession of large fields of the finest land, producing large crops of corn, beans, melons, pumpkins, and other esculent vegetables. They are chiefly runaway slaves from Georgia . . . I saw while, riding along the borders of the ponds, fine rice growing; and in the village large corn-cribs well filled, while the houses were larger and more comfortable than those of the Indians themselves. The three principal men bear the distinguished names of July, August, and Abram. We found these men to be shrewd, intelligent fellows, and to the highest degree obsequious. (p. 160)

McCall made it clear that most of the Maroons at Pilacklichaha were from Georgia and that the Black chiefs in that Maroon community were July, August, and Abraham (aka Abram). He also made it clear that the Maroons were raising rice, corn, beans, melons, and pumpkins as well as animals. Sprague published important images of Abraham and John Horse, two of the principal war-chiefs among the Maroons during the Second Seminole War. Another important book from the 19th century was written by Charles H. Poe (1898). He said that, “The Maroons were thoroughly established among the Seminoles, had in a few cases intermarried with them, and were regarded more as brethren and allies” (p. 15). Poe, as did McCall, reported that many of the Maroons who allied themselves with American Indians in the Seminole Nation were “runaway slaves from Georgia” (p. 14)

6. I was born and raised in Georgia’s Okefenokee Swamp area. I went to high school in a city named Waycross, which is located a few miles to the northeast of the Okefenokee Swamp. Laura Singleton Walker (1934) has related that the first White family to live in the present limits of Waycross on a permanent basis occurred in 1871. The first White family that attempted to live in Waycross was the Wildes family consisting of Maximillan “Maxie” Wildes, his wife Elizabeth Wilkinson Wildes, and their 10 children. Of the 12 original members in the Wildes family, 8 of them and 1 other person lost their lives during a July 22, 1838 attack by Seminoles who were based in the Okefenokee Swamp. Survivors of the attack included four members of the Wildes family. I went to Waycross Senior High School with a direct descendant of one of the four survivors. His name was Maxie Wildes just like his ancestor and namesake. On the one hand, I am descendant of a Black Seminole. On the other hand, Maxie Wildes is a descendant of the Wildes family who was attacked by Seminoles. For reports about the attack on the Wildes family, which is also known as the Wildes Massacre and the last attack by the Seminoles and other American Indians on White people in Georgia, see Laura Singleton Walker (1934) and Thomas Hilliard (1934). Hilliard correctly reported that incident occurred on July 22, 1938. Walker incorrectly reported that it occurred on July 22, 1932. For further information about the Wildes Massacre, see Susan Lott Clark (2010), who reported that it took place in July 1838.

7. See the documentary *Family Across the Sea* by Tim Carrier (1990) that covers a pilgrimage to Sierra Leone by a delegation of Gullah Geechee people. Likewise, see the documentary *The Language You Cry In* by Angel Serrano and Alvaro Topeke (1998) that covers a pilgrimage by a delegation of Sierra Leone people to what has been designated by the U.S. Congress as the Gullah Geechee Cultural Heritage Corridor. For some important documents regarding the Gullah Geechee Cultural Heritage Corridor, see U.S. House of Representatives (2006) and U.S. Senate (2006). Those two bodies of government designated the Gullah Geechee Cultural Heritage as a territory that includes the coastal areas of northeastern Florida, Georgia, South Carolina, and southeastern North Carolina.

8. Patricia Jones-Jackson (1987) was one of the researchers who repeated Turner’s speculative error about the term Geechee. She wrote: “. . . some researchers suggest that Angola is a possible source for the word *Gullah*; *Geechee* may be derived from the Gidzi, a language and people in the Kissy country of Liberia”

(p. 133). Jones-Jackson acknowledged that she followed Peter Wood's etymology for the term Gullah and Lorenzo Dow Turner's etymology for the term Geechee. To her credit, Jones-Jackson said that the term Geechee "may be derived" from a Liberian language instead of saying it did. Joko Sengova (2008) was another researcher who offered a speculation regarding Gullah. He posed that, "Turner's geographical region for African substrate languages influencing Gullah, leaves unanswered the question of the exact origin(s) of the words *Gullah* and *Geechee*, two hot spots in the debate on the origin of pidgins and creoles" (p. 178). For Joko Sengova, some Mende language people (Gola, Kissi, Mende, Krim, Vai, Shabro, and Kono) were shipped from Bunce Island to the coasts of South Carolina and Georgia by White slaveholders Henry Laurens and Richard Oswald and the "scenario lends some validity to the view that the names *Gullah* and *Geechee* derive from a Sierra Leone/Liberia/Guinea provenance rather than from Angola or the Ogeechee River of Georgia" (p. 182). Sengova said he speculated that, "*Gullah* derives from *Gola*, and *Geechee* derives from *Giizi*; by the same token, *Giizi/Geechee* probably gave the Georgia river its name" (p. 198). Although he postulated that the name of the Ogeechee River derived from Geechee as an African term, Sengova was silent about the process by which it took place. It is possible, but not likely, that the term Geechee or Ogeechee was introduced to Muskogee-speaking American Indians by Africans who escaped from the San Miguel de Gualdape settlement in Sapelo Sound and became Maroons in or around 1526. The Ogeechee River is only 43 miles from Sapelo Sound. As Herbert Aptheker (1943/1974) and William Loren Katz (1986) have pointed out, a White Spanish colonizer named Lucas Vasquez de Ayllon, during the fall of 1526, led the first effort to establish a permanent Spanish settlement in the present limits of the USA. The settlement was known as San Miguel de Gualdape. The Spanish brought some 100 enslaved Africans with them to build the settlement. However, some of the enslaved Africans rebelled and became Maroons living among the local American Indians. Aptheker explained that those Africans became "the first permanent inhabitants, other than the Indians, in what was to be the United States" (p. 163). Aptheker Katz took the position that the location of San Miguel de Gualdape was in the present-day Peedee River area of Georgetown County, South Carolina. However, on the one hand, Paul E. Hoffman (1990/2004,1992) took the position that the location of San Miguel de Gualdape was in the present-day Sapelo Sound area of McIntosh County, Georgia. On the other hand, Douglas T. Peck (2001) took the position that the location of San Miguel de Gualdape was in the present-day Savannah River area of Chatham County, Georgia. Furthermore, Philip Morgan (2010), in contrast to Jones-Jackson and Sengova, has acknowledged that the term Geechee may be derived from the Muskogee language. He wrote:

Gullah (probably deriving from Angola, or possibly the Gola of the Windward Coast, or perhaps a combination of the two) is generally applied to those blacks living in the South Carolina section of the lowcountry; Geechee (which some have attributed to the Kissi of Upper Guinea, but more likely traceable to a shortened form of the Muskogean name for a prominent Georgia river, the Ogeechee) refers to those living south of the Savannah River. (p. 2)

Morgan was very clear when he took the position that the term Geechee is more traceable to an American Indian origin rather than an African origin.

9. For more information about the Creek Confederacy and what one writer has termed the Muskogean linguistic family, see Frederick Webb Hodge (1907) as well as Henry W. Henshaw and James Mooney (1907).

10. The contribution of Monroe N. Work to the study of Geechees and other Gullahs came up short when it came to history. However, he did a much better job when it came to folklore. For example, Work (1919) informed us in an article for the *Journal of American Folk-Lore* that a key folk saying he found among the Geechees was "A hard head makes a soft back. (This is equivalent to, 'If a child will not be admonished, he will be beaten.')" (p. 441). It should be noted that Portia Smiley (1919) mentioned in same issue of the *Journal of American Folk-Lore* that there were "Geechees" in the Florida Keys who practiced the "shout" as a ritual. She wrote: "Among the Geechee of the Florida Keys, the step in the 'shout' is also with the right foot behind the left" (p. 378). Smiley added: "In South Carolina the feet are

parallel, the left drawn sidewise to the right.—If you do not cross your feet, it is religious dancing; cross your feet, “it is sin” (p. 378).

11. American Indians have faced a somewhat similar situation in terms of such racist treatment. In 1868, James Michael Cavanaugh, a White member from Missouri in the House of Representatives, stated that, “. . . I like an Indian better dead than living. I have never in my life seen a good Indian (and I have seen thousands) except when I have seen a dead Indian” (Quoted in Wolfgang Mieder, 1993, p. 42). General Philip Sheridan, a White officer in the Army of the USA, has been credited with having once told an American Indian that “the only good Indian I ever saw was dead” (Quoted in Wolfgang Mieder, 1993, p. 45). During 1886, Theodore Roosevelt, a White man who would later become the president of the USA, said in a speech that: “I don’t go so far as to say that the only good Indians are dead Indians, but I believe nine out of ten are, and I shouldn’t like to inquire too closely into the case of the tenth” (Quoted in Wolfgang Mieder, 1993, pp. 45-46). No matter how it was phrased, the three supported the view that, “The only good Indian is a dead Indian.” When it came to Black people, some White people and some Black people held the position that anything Black is inferior to anything White. To be connected to American Indian people and Black people was a recipe for the receipt of derogatory statements during the early and late 20th Century. The derogatory statements led to the development of self-hatred and/or self-denial among many Geechees and other Gullahs. For example, see Emory Campbell (2011), William C. Saunders (1980), Ronald Daise (2007), and Clarence Thomas (2007). Campbell, who grew up on Hilton Head Island in South Carolina, stated that the derogatory statements led to “ridicule and shame” (p. 78). Looking back at his childhood, Campbell recalled that, “At school our Gullah Geechee speech was vigorously denounced, and we tried with considerable enthusiasm to learn English” (p. 80). Saunders (1980), who grew up on Johns Island in South Carolina, said that:

In the age of Tarzan, most of us hated Africa because of the way it was presented to us—that everybody was stupid and it took one white man to whip 200 or 300 of them at any stage in history. My grandfather was not exposed to that kind of thing, so he had a better outlook on Africa than I did when I was a child. I took a real positive view on Africa about 1960.

My own children, now, have very much interest in Africa, more than I did. Before, they knew very little about Africa, but in the 1960s in many ways it reached a new proportion. They now know where so many raw materials came from, more about Africa possibly being the Mother of the World. There’s a lot of scientific things that know that we didn’t. So they have a lot more interest in Africa. They have a chance even to interact with people from Africa now. They have a better sense of being connected with Africa, and it’s growing more and more, even though we don’t like people calling us “Gullah.” It’s a derogatory word, supposedly meaning the way we talk or our language. That is just how black people. (pp. 486-187)

Daise (2007), who grew up on St. Helena Island in South Carolina, reported that, Gullah was a term used more readily by scholars, linguists, and academicians. ‘Geechee’ was used as an invective or insult. ‘Sea Island heritage’ however, had become a term of endearment and ownership” (p. x). Daise also reported that Ardell Greene, a charter member of the Sea Island Translation Team of St. Helena Island, told him that, “People used to ask, ‘Are you Gullah?’ and I would say, ‘No, I’m not!’ But now I say, ‘Yeah, A Gullah! A Gullah Down (p. xiii). Thomas (2007), who grew up in Pinpoint, Georgia, has stated that:

I am descended from the West African slaves who lived on barrier islands and in the low country of Georgia, South Carolina, and coastal Florida. In Georgia my people were called Geechees; in South Carolina, Gullahs. They were isolated from the rest of the population, black and white alike, and so maintained their distinctive dialect and culture well into the twentieth century. What remains of Geechee life is now celebrated by scholars of black folklore, but when I was a boy, “Geechee” was a derogatory term for Georgians who had profoundly Negroid features and spoke with a foreign-sounding accent similar to the dialects heard on certain Caribbean islands. (p. 2)

According to Thomas (2007), his ancestors on his paternal and maternal sides of his family were once enslaved on a rice plantation in Liberty County which is an inland county. They later migrated to Pinpoint, Georgia, which is in the Savannah area. During her research on Gullahs in South Carolina, Muriel Miller Branch (1995) was told by two of her respondents that:

“We were perceived as being ‘backward’ and called Geechies, a reference made to people who ate rice and talked bad! I spent a lot of energy trying to improve my speech, even though mine [speech] was not as strong as other islanders. Yet, the Gullah dialect is easily picked up by those who are not used to the speech pattern. At times, I am asked if I am from the West Indies,” Carrie Bell remembered painfully. Janie Moore agrees. She, too, was made to feel inferior for the way she spoke. Even her teachers discouraged her from speaking her language. (p. 65)

The experiences of Carrie Bell and Janie Moore, the two Gullah respondents Branch spoke to, had a similarity to those of Emory Campbell, William C. Saunders, Ronald Daise, and Clarence Thomas in that they were all taught to hate themselves by outsiders because of their Gullah cultural background.

12. Minnie Moore-Wilson (1910) has informed us that, in the language of the Seminole Nation, “Estalustee” was used to refer to the Black race, “Estachatee” was used to refer to the American Indian race, and “Estahadkee” was used to refer to the White race (p. 187). The spelling of Estelusti with the term ending with a double “e” letters may have been more correct because of the Muskogee phonetics tradition with words. Kevin Mulroy (1993) pointed out that Esteluti were also known as Mascogas in Mexico; Seminole Freedmen or simply Freedmen in Oklahoma; and Seminole Freedmen, Seminole Negroes, or simply Seminole in Texas. For some contemporary problems and challenges of Estelusti in the Seminole Nation, see Ray Von Robertson (2006, 2008a, 2008b, 2011) and Shirley Boteler Mock (2010).

13. According to Mary Alicia Owen (1904), one or more clans among the Musquakie Indians of the Midwest used the term “Geechee Manito-ah” to refer to a major deity. She also pointed out that the Musquakie Indians used war-chiefs in battle and the succession of the royal chief went to a nephew and not his own son. It should be noted that the Seminole Nation used war-chiefs in battle and the succession of the royal chief went to a nephew and not his own son. James Mooney and Cyrus Thomas (1907) have informed us that the Musquakie was part of the better-known Foxes Indian tribe and vice versa. In fact, Mooney and Thomas have written the following about the tribe:

An Algonquian tribe, so named, according to Fox tradition recorded by Dr William Jones, because once while some Wagohug, members of the Fox clan, were hunting, they met the French, who asked who they were; the Indians gave the name of their clan, and ever since the whole tribe has been known by the name of the Fox clan. Their own name for themselves, according to the same authority, is Meshkwakihug, “red-earth people,” because of the kind of earth from which they are supposed to have been created. They were known to the Chippewa and other Algonquian tribes as Utugamig, “people of the other shore.” (p. 472).

William Thornton Parker (1913) is another person who has observed some American Indians using the term Geechee Manito-ah to refer to a major deity in the form of the “Great Spirit” (p. 151). However, Parker has provided a slightly different spelling which is “Gitche-manito” (p. 151).

14. For some works and documents that speak of the “Gullah Geechee” people, see Marquette L. Goodwine and The Clarity Press Gullah Project (1998); National Park Service (2005), U.S. House of Representatives (2006); U.S. Senate (2006); Michele Nicole Johnson (2009), Philip Morgan (2010); Emory S. Campbell (2011); Thomas B. Klein (2011); Kendra Hamilton (2012); LeRhonda S. Manigault-Bryant (2014), Melissa Cooper (2017), and Amy Lotson Roberts and Patrick J. Holladay (2019). In the case of LeRhonda S. Manigault-Bryant, she has written: “I characterize the Gullah as those who inhabit the Sea Islands, and the Geechee as those who inhabit the lowlands and interior, nonisland dwellings

within five to forty minutes from a barrier island” (p. 2). She added that “these terms are employed with an understanding that the distinctions between Gullah and Geechee are not historically accurate” (p. 3). In contrast, Kendra Hamilton said Gullah is a language “that is called Gullah on the South Carolina Sea Islands and Geechee in city of Charleston and throughout Georgia . . .” (p. 55). In addition to Emory S. Campbell (2011), Thomas B. Klein (2011), and Kendra Hamilton (2012), for some works that examine Gullah as a language, see John G. Williams (1895); John Bennett (1908, 1909); Reed Smith (1926); Guy Benton Johnson (1930, 1980); Lorenzo Dow Turner (1941a, 1941b, 1949); J. L. Dillard (1972); Peter H. Wood (1974); Vass (1979); Ian Hancock (1980, 2014a, 2014b); Guy Bailey, Natalie Maynor, and Patricia Cukor-Avila (1991); Salikoko S. Mufwene and Nancy Condon (1993); Michael Montgomery (1994); and Salikoko S. Mufwene, John R. Rickford, Guy Bailey, and John Baugh (2005).

15. Margaret Washington Creel (1993) has acknowledged Peter B. Wood’s usage of the multiple etymology concept. She stated: “Peter Wood also suggests that perhaps Gullah derived from a ‘multiple etymology’” (p. 357). Creel also mentioned the usage of a multiple etymology in her discussion of Reed Smith and his position on Gullah. She said:

One early twentieth-century white South Carolinian, Reed Smith, wrote extensively about Gullah dialect, maintaining that the term refers to the Golas of Liberia. His suggestion alone proves nothing. But further research demonstrates its plausibility, or at least the possibility of two complimentary original derivations” (p. 17)

For Creel, a multiple etymology is referred to as two complimentary original derivations. Creel took the position that the term Gullah may have a multiple etymology. Although Creel did not make it clear, the same may be true of the term Geechee. Furthermore, it could be that Geechee meant one thing in the 19th century within the Seminole Nation and another thing in the 20th century within the racist mainstream media in the USA.

16. Robert Farris Thompson (1983) has noted that Geechees and Gullahs have the ability to engage in critical thinking about our own culture. He stated that Geechees and Gullahs can engage in critical thinking by “by virtue of the culturally open and responsive spirit.” Because of Africanisms in Gullah culture, Gullahs are in a position to stay in touch with their Africanity. Thompson has informed us that one Gullah folk saying from the Congo holds that, “The man in touch with his origins . . . is a man who will never die” (p. 158). He also reported that a related Gullah folk saying from the Congo is as follows: “If you know where you are going, and where you are coming from, you can decorate the way to other worlds—the road to the ancestors and to God; and your name will merge forever with their glory” (p. 158). I hold that it is imperative for Geechees and other Gullahs to be in touch with our origins. I also hold that it is imperative for Geechees and other Gullahs to know where we are going and where we have been for the sake of our ancestors. As for the Gullah language, I agree with Charles Joyner (1984) that Gullah started out as pidgin language and later developed into a Creole language. He has argued that, in the case of the Gullah language, “The English contribution was principally lexical; the African contribution was principally grammatical” (p. xxi). I also agree with the position of Jodi Barnes and Carl Steen (2012) that “reflexive, indigenous research is valuable, and we wish more people like Eugene Frazier, Sr. (2005) and Vennie Deas Moore (1987) were writing about their communities and their histories” (p. 175). They added: “This lore is being lost as elders pass on without conveying their stories to younger generations” (p. 175). For some recent works by the authors mentioned by Barnes and Steen, see Eugene Frazier, Sr. (2006, 2010), and Vennie Deas Moore and William P. Baldwin (2006, 2007).

17. For the plight of Gullah-speaking Maroons in the Seminole Nation who fled to Andros Island in the Bahamas, see Kenneth Wiggins Porter (1945), John M. Goggin (1946), Rosalyn Howard (2002).

18. William Cross (2008) raised the question regarding whether some White people can be considered a Gullah because they can speak the language as a result of acculturation, which refers to the process wherein one group borrows a cultural trait from another group. The answer is no in the view of the present writer. Some White people may be able to speak the language, but they did not have an ancestor who came to the USA in bondage on slave ships from Africa. As mentioned above, Gullahs refer to

people who came to the USA in bondage on slave ships from Africa and the language they brought with them. Just because John Hawkins, the White slave ship captain, brought Black people in bondage from Africa to this country on slave ships and may have learned their language, that does not make him or his descendants into Gullahs. Similarly, just because Charles Lamar, the White slave trader, had Black people in bondage brought from Africa to this country on slave ships and may have learned their language, that does not make him or his descendants into Gullahs. For other discussions of acculturation among Geechees and other Gullahs, see William Bascom (1941); Guy Benton Johnson (1980); Margaret Washington Creel (1988); Joseph E. Holloway (1990/2005); Mary A. Twining and Keith E. Baird (1991); Keith E. Baird and Mary A. Twining (1991); Bamidele Agbasegbe Demerson (1991); Joseph E. Holloway and Winifred Kellersberger Vass (1993); and Ian F. Hancock (2014b).

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Sherman Uses Instagram: A Look Into Civil War Tourism Advertisements And How They Have Changed

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Civil War tourism is nothing new; however, the style of advertising for the state parks has changed with the advent of modern technology. This fact is an obvious one, but the usefulness and effectiveness have improved as well. Many would believe that the contemporary platforms of social media, such as Instagram or Twitter, have the potential to reach a broader range and thus advertising in the modern age would be more effective than how Civil War sites were advertised for before the advent of social media. This assumption is surprisingly incorrect, and the ineffectiveness of how advertisements are made for Civil War heritage is seen in a comparison of how the Civil War tourist sites were advertised during the 1960s and the 2010s. These two dates are important as the 1960s were during the centennial for the Civil War and the mid-2010s was the sesquicentennial for the Civil War. During the centennial for one of the most impactful events in United States History, people got involved, and different levels of government started funding programs promoting education and tourism. Americans were able to learn about this important history, and they were excited. High school students were encouraged to write essays for a state prize, the television was playing mini crash courses on Civil War history, and the Governor of the state of Georgia got involved. None of this was happening in the mid-2010s, and because of these various reasons, advertising for the Civil War tourism was more effective in the 1960s than it was in the 2010s.

Tourism in the South has always been important, but the main attraction will typically revolve around a sense of racial supremacy and the idea of the lost causeⁱ. However, for the statewide government, advertisements have typically been about money. Even by today's standard, there are advertisements made by park services to attract large school groups to come and experience the park all while the park can make money off of themⁱⁱ. Civil War tourism in all of its forms has been around for decades, but the difference in how the Civil War heritage has been advertised is astounding. In the early 1960s, there were incredible events put on to draw large crowds of the rich and well to do. Even more so, there was a tremendous push to educate the Southern population on the history of the Civil War.ⁱⁱⁱ The education came first in the advertisements which also made them more attention-grabbing than modern day public relations attempts. Moreover, having a Civil War Centennial Committee was a useful tool in advertising for Civil War heritage sites. With the CWCC starting to help out these Civil War sites garnered much more attention because of the structure and how well put together the committee was.

The Civil War Centennial Commission was created after Georgia Governor Ernest Vandiver Jr. issued an executive order creating it early in 1959 with the intent to help the United States Congress with the remembrance of the Civil War.^{iv} In addition to creating and organizing this committee, there were also several other subcommittees created during the first meeting of the GCWCC by the chairman of the commission, Peter Geer.

Peter Geer created the promotion and publicity committee amongst other committees. , and he was adamant that, with the budget the GCWCC was given, he would be able to attract around two million tourists with battle reenactments and other various outdoor activities.^v The way the committees were broken up created enough groups to allow them to focus on many different and essential tasks. There was an educational activities committee for school outreach and the education of Georgia's citizens; a committee for publishing newsletters that were delivered to update people on the progress made by the GCWCC, a souvenirs committee which helped make even more money and several more committees. All

these committees helped to create the success of the GCWCC and came together to make the advertising in the 1960s much more effective than any advertising seen in modern times for Civil War Heritage sites.

The promotion and publicity committee planned numerous events and had several different forms for getting Georgia and Southern citizens in general involved in Civil War remembrance. One of the most successful events executed was the Centennial Benefit Costume Ball which took place on Thursday and Friday of March 9th and 10th, 1961^{vi}. The invitation also includes a separate document which you can send back to RSVP and donate more money as well. To reserve a spot at the costume ball, it cost 25 dollars to attend or 50 dollars as a couple. Accounting for inflation, for a couple to go to the costume ball would cost them around 400 dollars today.^{vii} The costume ball, while the most luxurious of the events offered, was not the only cash grabber. There was also a centennial premiere of *Gone With The Wind*, a deep southern classic, with tickets priced from 15 dollars per person to 5 dollars. So assuming a couple were to go to the charity ball and come back for the centennial premier they would, at a minimum, be donating around 60 dollars which would be well over 400 dollars in today's money. Of course to afford this event, one would have needed deep pockets, and the honored guest list reflects that. Included in the Honored Guests list are Governors from the state of Alabama, Florida, Kentucky, Louisiana, Maryland, Virginia, North Carolina, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas.^{viii} Just for the sake of argument, if it were to be assumed that all of these governors went to both the costume ball, bought the most expensive seats for the movie the next day and went with a guest, these 13 governors would have raised over 1,040 dollars alone. This number is not factoring in the other honored guests who most likely would have bought tickets to both events or the other regular people who came who were not included on the honored guest list. The success of this event speaks volumes for how wide-reaching the advertising was for the GCWCC and how much of an impact the commission had on the success of remembering the Civil War during the centennial.

Another way that the GCWCC was able to attract so much attention was through the Local and Special Projects, Pageants and Re-enactment Committee.^{ix} This committee was, of course, in charge of setting up different public events to draw large crowds. One of these events that was planned was the One-Hundredth Anniversary of The Andrews Raid in Atlanta and Kennesaw^x. This event had multiple different speakers who lectured on the Civil War and its history in Georgia. At these events, they typically have the presentation of colors and different musical selections as well as a benediction.^{xi} An interesting detail to note on the invitation is that it says the governor has cordially invited whoever received the invitation. Having the governor personally invite an individual to a civil war event would be very special and to get to see the governor at the event is also a unique opportunity. Having the governor also go along with this invitation shows a unified push for the education and appreciation of Civil War history by the local government and by individual citizens.

One of the most powerful forms of advertisements were the Georgia Civil War Centennial Commission newsletter that was sent out during the GCWCC's lifespan.^{xii} In these newsletters, the GCWCC would explain what events were coming up soon and where they were located as well as what future events they were planning.^{xiii} Having the newsletters sent out in this way helps people who are interested in the Civil War centennial celebrations stay in the loop of the planning for these different events and can stay up to date on all things Civil War remembrance. This is similar to how Instagram is able to share scheduling that can reach a large audience; however, this newsletter is able to include much more information than a simple caption on an Instagram post. Because of this, the newsletters were highly effective at conveying schedules to massive amounts of people quickly.

There are, of course, several other forms of advertisements that the GCWCC had employed around the 1960s. One of the more educational ones was a mini crash course called "Understanding the Civil War"^{xiv}. These courses were taught by Col. Allen P. Julian who was the director of the Atlanta Historical Society. There were several different "assignments" where the leader of the course would delve into different topics such as, organizing for war or what the roots of the conflict were. Each of these lessons would also include suggested readings for more information on the topic of the day, to further encourage more learning on the subjects. Another form of advertisements were the radio station advertisements that the GCWCC sent out for reading. The tapes are not available to be listened to at the

Georgia State Archive in Jonesboro, however, from what can be gleaned by reading over the bulletin to the radio stations, makes it seem like these tapes were just general advertisements for different events that were going to be put on by the GCWCC^{xv}.

The GCWCC did a phenomenal job of getting high schoolers involved with the educational side of the centennial commission. The GCWCC held a massive essay contest which the participants would write about “any person, place, thing or event that definitely relates to “GEORGIA AT WAR, 1861”.”^{xvi} This contests winner will also get a reward for participating in the essay writing where you could even win a one hundred dollar savings bond and a certificate.^{xvii} Even if the student did not win the statewide contest, the participants could still win at a county level with the reward of a medal and certificate.^{xviii} This contest was a fantastic way to get students involved in Civil War remembrance, and the goal of the entire contests was to “help develop a knowledgeable pride in the valor and courage of our forefathers a century ago during the War Between the States.”^{xix} This contest was a great example of how well the GCWCC was able to reach all different types of audiences and help spread education.

The methods of advertisement during the one hundred year anniversary of the Civil War compared to the one hundred and fifty year anniversary are very different. For starters, there was no unified push for education by the government, or a full commission made by the governor to help raise money and draw tourism into the state. Tourism on the scale that the GCWCC created made the centennial of the Civil War a remarkable event which people would experience even if they never attended an event. On the other hand, the advertisements created for the state parks and Civil War heritage sites during the 2010’s are much different. In fact, they are not on the same level at all. There was no unified push, and there are many people who may not have even realized that the Civil War happened 150 during the sesquicentennial, and this is not entirely their fault. More people would have been invested in the sesquicentennial had the advertisements reached farther than just Instagram. There are several different National Park Services official Instagram pages that will showcase different events and advertise for different programs sponsored by the parks themselves.

The Instagram pages that the National Park Services control have very high-quality pictures with a caption under the photo with a small blurb either detailing the picture or advertising for a program that the park offers. One of the examples of this is a post on the Fort Pulaski National Park Service where park ranger Joel and the “new rangers” learn about the surrounding vegetation and history of the park.^{xx} This post helps to advertise the different child-friendly programs that the parks will set up for younger groups. They also have options for field trips for schools where they can learn more civil war history, which in a way, does help advertise the park as an education tool but not in the same way that the GCWCC was able to advertise. The GCWCC not only was able to have a much larger advertising base, but they also helped educate on the Civil War in its entirety while the National Park Services are only able to teach park by park. Which does not help when not all of the parks do this. Another large state park is the Chickamauga state park however, they do not have similar children's programs advertised on their Instagram.

Another substantial benefit of the official Instagram posts from the National Park Services is the historical education of the bases to adults as well. While the children advertisements are good, the adults will want to do something at the park while their children are off doing something with the park rangers. In one post the Fort Pulaski National Park Service Instagram did a “this day in history” style post where they showed old pictures of the fort during the Civil War which helps to advertise the history of the Civil War heritage sites^{xxi}. While these style posts do help grab attention, the problem is that these posts will only show up if you are looking for them, while the GCWCC had a multimedia advertising campaign which had a much broader reach. The Instagram posts are better in a sense that the parks control the narrative but the GCWCC had an entire education department dedicated to outreach to inspire people to learn all they could about the Civil War history.

The Instagram pages can also capitalize on how easily they can share information by posting about different events they have coming up and invite people out to celebrate holidays or other events. In one post by the Fort Pulaski National Park Service Instagram, they advertise for the Fourth of July celebrations they will be putting on.^{xxii} In this post, they show that not only are they open on the Fourth of July, but they will also be doing a cannon firing demonstration in honor of the holiday. This post is

actually brilliant because not only would Fort Pulaski be a great place to watch the fireworks on the Fourth of July, but visitors will also be able to experience the park in a way that many people often do not get to enjoy. While this is a great way to advertise that the park is open and conducting special cannon firing sessions, this form of advertisement will only reach someone if they already follow the Instagram page or are explicitly looking for the Fort Pulaski Instagram. It is not out of the question for a guest who has visited the park to follow their Instagram page if they had a good experience at the park and might want to come back, but this advertisement will still not have a vast reach as this one post only has 240 likes.^{xxiii}

The Instagram pages are not a total loss, however. Even though they cannot compete with the marketing power of the GCWCC, Instagram is still a vast and far-reaching media platform able to share high-quality videos and pictures. These pictures can also include schedules for battle reenactments^{xxiv}, or even just to display how naturally beautiful these parks are^{xxv}. While the posts that showcase the natural beauty of the parks are not necessarily advertising for the Civil War history, they are still attracting people and getting them to spend money at the park. While they are at the park they will probably even take pictures themselves and post those pictures onto their own Instagram. The free advertising that park visitors can generate is great for the parks because once one person posts a picture onto their own Instagram, everyone who follows them on social media will also see that picture. To take it one step further, a hashtag can be added onto a post which will add it to a digital library full of photos with the same hashtag. So for instance, if a parkgoer were to take a picture and put "#Chickamauga" other posts with the same hashtag would show up if you were to click that. Thus, if you were interested in going to Chickamauga, seeing all of these beautiful photos could inspire one to go even more.

These types of posts do, however, have drawbacks. If the picture is unflattering, people may have reservations about visiting the park. Also if a state park were to post a picture and a disgruntled park visitor were to leave a comment, the post would look bad, and it could deter people from visiting. This actually happened on a post from the Chickamauga National Park Service Instagram^{xxvi}, someone was upset they had to pay to park and pay for entrance into the park. While, obviously, the park needs to make money somehow and the parking might have been a third party vendor, the conversation leaves control of the National Park Service. Having this happen can detract from the primary goal of the National Park Service, but this also happens with other people making their own posts on social media with their own captions. But the biggest shortcoming with the National Park Service relying on social media for advertisements is just that; they are relying on social media too much.

The GCWCC had a budget of approximately 25,000 dollars.^{xxvii} While the United States National Park Service budget has been decreased to 2.6 billion dollars as of 2018^{xxviii}. This might seem like a lot but there are fifty-eight national parks in the United States alone that have to share that budget, meaning that one state park would only have around 44,827,586 dollars to work with if they were all funded and operated proportionally. The Fort Pulaski Instagram has been active and posting relatively regularly since March 23, 2013^{xxix} Whereas other state parks Instagram's might not be posting frequently, but most importantly, most of the National Parks in the United States are not Civil War Heritage sites. So the budget of 44,827,586 dollars per park will be cut even smaller for actual Civil War Heritage. This compared to the 25,000 that was spent on specifically Civil War historical tourism is incomparable and evident that when the money is directly spent on Civil War tourism, the outcome will be much better as in the case with the National Park Service advertising for Civil War parks compared to the effectiveness of the Georgia Civil War Centennial Commission.

When it comes down to spreading the word about these Civil War heritage sites, the more modern ways of advertising has the potential to reach a vast audience. When there is content that can be shared around with multiple other people, the people seeing the advertisements may want to visit even more. Especially when you consider the different social media strategies they employ. The best social media posts are the ones that advertise the natural beauty, but the social media posts are not very helpful when it comes to actually sharing the history of the location, the posts are never that strong. You are not able to teach the history in a short post on a social media platform; however, this does not hamstring the social media platforms of the modern era. With everything taken into account, the ability to share the posts with

friends and the fact that so many other people can take and share pictures, it makes sense that the social media advertisements and the free press that fan pictures generate would be very effective. The press generated by the GCWCC however, was overall much better for several reasons. During this time the governor of the state of Georgia put out a call for attendance, and not only him but several other state governors were in attendance at the Centennial Benefit Costume Ball. This was a long event which still brought in several of the other state governors. This kind of event would not have happened without significant help from the governor and the GCWCC, but because of the nature of the event and the political force behind it, the old way of advertising and getting these parks and their history out there worked better. When comparing the two, there is no benefit to switching to only using this modern form of advertising via social media. Especially if the goal is to also put out historical information, when comparing the throwback pictures, like the ones that Fort Pulaski posted compared to the television short course, one is clearly better than the other. When comparing all of these differences, it is clear to see that the advertisement campaign led by the GCWCC was much more effective and more beneficial than the current advertisements on social media.

- ⁱ Davis, John, and Gross, Jennifer. *Destination Dixie, Tourism & Southern History*. ed. Karen L. Cox (Florida; University Press of Florida, 2012), 204.
- ⁱⁱ Fort Pulaski National Park Service. "Ranger Joel and New Rangers" Instagram, September 3, 2018. Accessed September 20, 2018. <https://www.instagram.com/p/BnRhIKVfwkd/?taken-by=fortpulaskinps>.
- ⁱⁱⁱ The Georgia Civil War Centennial Commission. Outline for television short course, *Understanding the Civil War*. Undated from box 079-02-004, Record Number C320731, Georgia State Archives.
- ^{iv} Executive Department of Atlanta, *Executive Order to Create the Georgia Civil War Centennial Commission*, by S. Ernest Vandiver. April 10th, 1959.
- ^v Georgia Civil War Centennial Commission minutes, July 21, 1959, Box number 079-02-004, Record number C320708, Georgia State Archives.
- ^{vi} Reservation order sent from the Georgia Civil War Centennial Commission, March 9-10. Found in Box 079-02-004, Record Number C320710, Georgia State Archives.
- ^{vii} "What was \$100 worth in the decade you were born? By business insider". Accessed November 13, 2018, <https://www.businessinsider.com/what-100-was-worth-in-the-decade-you-were-born-2016-6#-9>.
- ^{viii} Centennial Benefit Costume Ball program on March 9 and 10, 1961. Found in box 079-02-004, Record Number C320711. Georgia State Archives.
- ^{ix} Georgia Civil War Centennial Commission minutes, July 21, 1959.
- ^x RSPVP sent from the Georgia Civil War Centennial Commission for the Andrews Raid. Found in box 079-02-004, Record Number C320714. Georgia State Archives.
- ^{xi} Programs for the seven Chickamauga ceremonies, Jul.-Sept., 1963. Found in box 079-02-004, Record Number C320715. Georgia State Archives.
- ^{xii} Georgia Civil War Centennial Commission News Letter December 1960. Box 079-02-004, Record Number C320709. Georgia State Archives.
- ^{xiii} Georgia Civil War Centennial Commission News Letter December 1960.
- ^{xiv} Short Course for Understanding the Civil war. Found in box 079-02-004, Record Number C320731. Georgia State Archives.
- ^{xv} Short Course for Understanding the Civil War.
- ^{xvi} The War Between the States, GCWCC contest rules – "Georgia At War, 1861. Box 079-02-004, Record Number C320731 . Georgia State Archives.
- ^{xvii} The War Between the States, GCWCC contest rules.
- ^{xviii} The War Between the States, GCWCC contest rules.
- ^{xix} The War Between the States, GCWCC contest rules.
- ^{xx} Fort Pulaski National Park Service. "Ranger Joel and New Rangers" Instagram, September 3, 2018. Accessed September 20, 2018. <https://www.instagram.com/p/BnRhIKVfwkd/?taken-by=fortpulaskinps>.
- ^{xxi} Fort Pulaski National Park Service. "Regimental Band in 1863" Instagram, September 10, 2018. Accessed September 20, 2018. <https://www.instagram.com/p/Bnjw6Kiloff/?taken-by=fortpulaskinps>.
- ^{xxii} Fort Pulaski National Park Service. "Fourth of July Post" Instagram, July 4, 2018. Accessed September 20, 2018. <https://www.instagram.com/p/Bk0uXCYFrzu/?taken-by=fortpulaskinps>.
- ^{xxiii} Fort Pulaski National Park Service. "Fourth of July Post" Instagram, July 4, 2018. Accessed September 20, 2018. <https://www.instagram.com/p/Bk0uXCYFrzu/?taken-by=fortpulaskinps>.
- ^{xxiv} Chickamauga National Park Service. "Grant Taylor and Ambrose Hayward Meet and Greet" Instagram, November 20, 2016. Accessed September 20, 2018. <https://www.instagram.com/p/BNcMbKAjDi7/?taken-by=chickamauganps>.
- ^{xxv} Chickamauga National Park Service. "Living History" Instagram, July 3, 2017. Accessed September 20, 2018. https://www.instagram.com/p/BWFr2zZggA_/?taken-by=chickamauganps.
- ^{xxvi} Chickamauga National Park Service. "Garrity's Battery" *Instagram*, November 16, 2017. Accessed September 20, 2018. <https://www.instagram.com/p/Bbjt4hFAKWK/?taken-by=chickamauganps>.
- ^{xxvii} McCarty, Laura. "Civil War Centennial." *New Georgia Encyclopedia*. 09 September 2014. Web. 14 November 2018.

^{xxviii} https://www.doi.gov/sites/doi.gov/files/uploads/fy2018_bib_bh069.pdf (properly cite later).

^{xxix} Fort Pulaski National Park Service. "34 Star Flag" Instagram, March 23, 2018. Accessed November 14, 2018. <https://www.instagram.com/p/XM-O6mBthM/>.

Educational and Professional Backgrounds of Kinesiology Graduates

Toby Dore'
University of Louisiana at Lafayette
Praphul Joshi
Lamar University
Charity Bryan
Kennesaw State University
Tiffany Esmat
Kennesaw State University
Kandice Porter
Kennesaw State University
Brian Campbell
University of Louisiana at Lafayette

ABSTRACT

This purpose of this study was to examine the educational preparation and professional backgrounds of Kinesiology graduates from three Universities in three different states located in the southern region of the United States. A 28-question survey instrument, developed by the researchers, was used to collect the data. There were 426 respondents including 240 females and 186 males. A majority of the respondents (84%) indicated they are currently employed, and, of those, 85% are employed full time. In addition, most respondents (83%) indicated that they are satisfied with their current career choice. Recommendations for further research include inquiring whether students were required to take a certification exam to pursue their career choice, specific factors that may have affected the quality of interaction between students and faculty, and if they were currently employed in a field related to their academic degree program. Cross-referencing first time pass rates with appropriate fields of study would also be recommended.

INTRODUCTION

Insight regarding the educational and professional backgrounds of students who receive a degree in an area of Kinesiology can be of value to administrators, faculty and students. For the academic administrator responsible for reporting student success post-graduation, it is worthwhile to assess student employment rates and areas of emphasis as it relates to the degree earned. The results of assessments related to program preparation for relevant certifications and passing rates can be a valuable recruitment tool when marketing a program to potential majors. Successfully employed alumni may be more likely to contribute back to their alma mater and provide valuable insight regarding their experiences.

The program coordinator and faculty can benefit from data related to the student experience including connections with fellow students in the degree program whom may serve as a support system and improve student retention and progression towards graduation. In addition, it is of value to track areas of interest as it relates to the next professional step of students enrolled within a program. Knowledge of this information can assist with curriculum design and implementation aimed to improve preparation for professional or graduate school and relevant certification. Students who have a strong connection with a fellow degree seeking student and receive mentorship from a faculty member, (Berger and Milem, 1999 and Attinasi 1989) or academic advisor, may be more likely to progress timely towards graduation, thereby enhancing the overall student experience within the program (Rendon 1995). Feedback from alumni can provide insight on areas in need of improvement to enhance the level of student preparation

and engagement (Kuh 2001, 2003; Pascarella and Terenzini 2005) for their next professional step while giving insight on current trends within a specific program. Student satisfaction can influence the quality of the undergraduate experience. A student who reports high satisfaction within a program may feel a sense of belonging and loyalty, (Lenning, Beal, and Sauer 1980; Tinto, 1987) which correlates to student engagement (Abrahamowicz, 1988; Astin 1993b; Holland and Huba 1991; NSSE 2005; Russel and Skinkle 1990; Whitt 1994).

The field of Kinesiology has significantly increased in popularity as an undergraduate major over the last two decades. From 2003-2008, a 50% growth rate was demonstrated in the number of undergraduate Kinesiology majors (Wojciechowska, 2010) with a continued upward trend. According to the American Kinesiology Association (AKA), Kinesiology is defined as:

an academic discipline which involves the study of physical activity and its impact on health, society, and quality of life. It includes, but is not limited to, such areas of study as exercise science, sports management, athletic training and sports medicine, socio-cultural analyses of sports, sport and exercise psychology, fitness leadership, physical education-teacher education, and pre-professional training for physical therapy, occupational therapy, medicine and other health related fields. (“About AKA,” 2018).

According to Data USA, in 2016, approximately 28,000 degrees were granted in Kinesiology, an increase of 6.4% from previous years. In addition, the field of Kinesiology has over 562,000 professionals in the workforce with a projected growth rate of approximately 9% per year. The median income for Kinesiology professionals is near \$54,000 annually with a projected growth rate of 4% per year (“Kinesiology and Exercise Science,” 2018).

A variety of career related options are available for students pursuing a degree in Kinesiology. Kinesiology is a highly specialized field by area and program of study. The AKA lists 29 different career tracks in the field of Kinesiology (“Careers in Kinesiology,” 2018). In addition, allied health fields will continue to be of significant importance as Baby Boomers continue to advance in age. By the year 2035, there will be more U.S. citizens over the age of 65 than under the age of 18 for the first time in history (“Older People Projected to Outnumber Children for First Time in U.S. History,” 2018). Among those 29 career areas highlighted by AKA, some of the most popular include physical therapist, physician assistant and health/physical education teacher.

According to the Bureau of Labor Statistics, physical therapy career opportunities are increasing with the field projecting a 28% increase in number of positions from 2016-2026. When compared to the average growth of all occupations, the growth rate for physical therapists is much greater than average (Bureau of Labor Statistics U.S. Department of Labor, 2018b). Physician Assistant (PA) jobs are growing at rates more rapid than that projected for physical therapists. The growth rate for PA’s is 37% for 2016-2026 (Bureau of Labor Statistics U.S. Department of Labor, 2018c). While experiencing less aggressive growth, there is still an 8% expected increase in the need for high school teachers, such as physical educators, from 2016-2026 (Bureau of Labor Statistics U.S. Department of Labor, 2018a).

While research exists on the evaluation of doctoral programs in Kinesiology, less research is available evaluating Kinesiology programs at the undergraduate level. Due to the increased number of students pursuing a degree in Kinesiology, it is of value to examine the data related to the undergraduate degree to provide the best academic and experiential preparation possible. The purpose of this investigation was to assess the educational preparation and professional backgrounds of students who received a degree in one of the areas of Kinesiology and to evaluate the results of the investigation to allow informed decisions related to enhancing overall program quality and preparation of majors. This research supports the field of Kinesiology by using evidence-based information to improve the quality of undergraduate programs in Kinesiology.

METHODOLOGY

This study was conducted in three large universities, each with enrollments of over 10,000 students. Surveys were distributed electronically through email to alumni from the departments of Kinesiology (or similar title). Institutional review boards in each participating university granted their approvals for human subjects research prior to administering the survey. The questionnaire consisted of 28 questions

including a mix of qualitative and quantitative measures. Analysis included basic descriptive statistics, including means and percentages, and chi-squares for select quantitative measures.

RESULTS

The survey had a total of 426 respondents including 240 females and 186 males. Over 60% of the respondents were in the age group of 25 – 34 years, about 22% were between 18 – 24 years and the rest of the respondents were 35 years or older. As indicated in Figure 1, the highest number of graduates majored in exercise science or related areas. Exercise Science reported significantly greater number of females compared to males. While Health, Sport Management, and Health and PE fields reported a greater percentage of males. Athletic training did not have significant difference by gender representation. Distribution of the respondents by gender across disciplines were statistically significant (Chi-square = 13.3 and $p = 0.02$).

Student Experience

The majority of the respondents (over 63%) felt a strong connection with their fellow students within their degree program during their time at the university. About 30% of the respondents felt a strong connection with their fellow students outside of their degree program during their time at the university. The majority (57%) of the respondents felt that a faculty mentor in the department served as a mentor during their tenure in the college. Over half (55%) of the respondents felt that their academic advisor served as a mentor during their tenure in the college. A summary of responses to student experience questions are indicated in Tables 1A, B and C.

Alumni Experience

Half (50%) of the respondents indicated following completion of their undergraduate degree they attended or are currently attending graduate school or other professional school. Most respondents (77%) indicated that they were well prepared for professional or graduate school. The majority of graduates (74%) who indicated attempting a certification exam, passed on the first attempt.

Employment Status

A majority of the respondents (84%) indicated they are currently employed. Full-time employment was reported by 85% while 15% reported part-time employment. Most respondents (83%) indicated that they are satisfied with their current career choice.

Income Levels

Respondents were asked about their current salaries ranging from less than \$30,000 per year to over \$100,000 per year. Figure 2 indicates the distribution of salary levels across different disciplines. Across all income levels, there was no statistically different gender gap in terms of pay. Over 70% of the Health and PE majors reported earning between the income levels of \$31,000 - \$60,000 per year, compared to those with Health (56%), Sport Management (56%), Athletic Training (42%) and Exercise Science (39%). These differences were statistically significant (Chi-square = 88.3, $p = 0.001$). Exercise science majors had the highest likelihood of earning more than \$60,000 per year.

According to the Bureau of Labor Statistics Occupational Outlook Handbook (2018f), the field of exercise physiology will outpace other job growth by 13% which is considered faster than average. The increased number of cardiovascular and pulmonary events in the aging population will necessitate additional exercise professionals who can intervene both proactively, to improve health, and in a rehabilitative role. Alternatively, physical education jobs in the United States are expected to grow, but at a more modest rate than exercise physiology. For high school teachers, the growth rate is 8% until the year 2026 (Bureau of Labor Statistics U.S. Department of Labor, 2018a). This growth rate is equivalent to all other occupations.

The greatest rate of growth in the fields of allied health are expected to be in the area of athletic training (23%) (Bureau of Labor Statistics U.S. Department of Labor, 2018d), occupational therapists (24%) (Bureau of Labor Statistics U.S. Department of Labor, 2018e), and physical therapists (28%) (Bureau of Labor Statistics U.S. Department of Labor, 2018b). These growth rates are considered to be much faster than all other occupational averages in the United States. Athletic trainers will continue to see increasing demands with the growth of the aging population and Baby Boomers who want to try and

stay active. Occupational therapists and physical therapists are a critical member of the rehabilitation team for individuals with disabilities and varying age related diseases.

DISCUSSION

This study examined the education and professional backgrounds of Kinesiology majors including, but not limited to, the overall quality of the student experience while pursuing their degree, how alumni felt about the quality of their academic preparation in their field, first-time certification exam pass-rates, and factors related to their current employment status. Although Kinesiology encompasses several different areas of study, it is interesting to note that just over half of all respondents were Exercise Science majors. Based on the results of the investigation there is a need to encourage more interaction between Kinesiology majors and other students outside their major. In general, the majority of Kinesiology majors felt that they had good connection with their faculty and academic advisors. Factors that may have contributed to the strong interaction with faculty members and academic advisors include faculty student ratios, the size of the University, and the size of the Kinesiology Department (or corresponding academic units). Further research is recommended to examine factors that may have contributed to a negative experience with faculty in the department.

Nearly half of Kinesiology graduates attended either graduate or professional school. An overwhelming majority felt that their undergraduate Kinesiology program prepared them well for their next professional step. Kinesiology encompasses a wide variety of fields. As a result, respondents of the study attempted certification in a variety of areas such as physical therapy, occupational therapy, teacher certification, the Board of Certification exam for athletic training (BOC), and Strength and Conditioning Specialist and exercise physiology (CSCS). Over 70% of graduates reported passing the certification exam on the first attempt compared to the national average for ACSM for the Certified Exercise Physiologist professional certification exams in 2018 was 71% (ACSM, 2019). This high pass rate can be deceiving as all certifications were combined for this study when reporting passing rates. For instance, the first time pass rate for the BOC exam for the year 2017 was 93% (<https://caate.net/program-outcomes/>). A recommendation for future studies would be to cross-reference these pass rates with the specific fields of study and certifications. Furthermore, it may also be beneficial to know if students were required to take a certification exam upon completion of their academic degree program.

A concern with rapidly growing fields like Kinesiology is the employability, retention, and job satisfaction of its recent graduates. The great majority of graduates reported that they were employed full time. Over half of the respondents reported that they were very satisfied with their career choice and less than 4% reported that they were unsatisfied. Future research is recommended examining whether or not these individuals were employed in a field related to their degree area.

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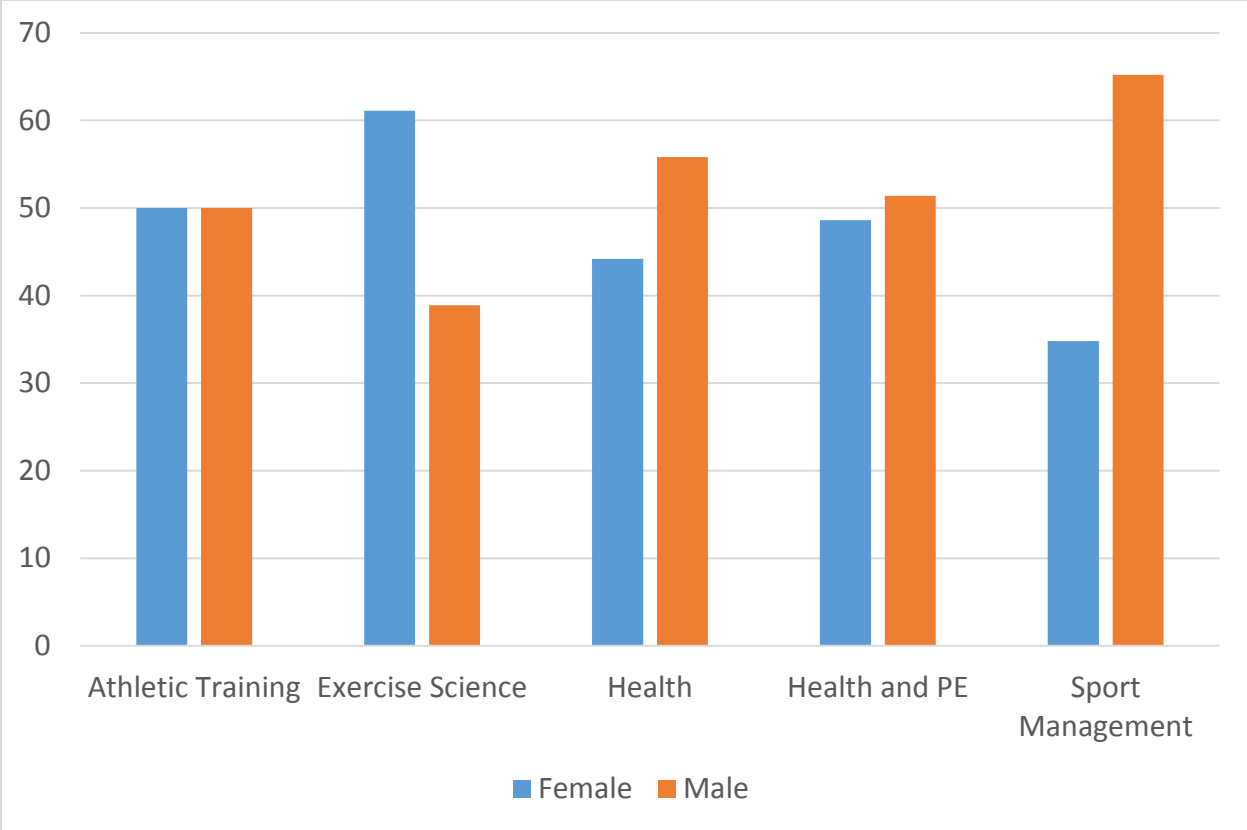


Figure 1: Gender distribution of survey respondents (by percentage)

	A little	Most of the time	Not at all	Seldom	Somewhat	Very much
Athletic Training	0.0%	29.2%	0.0%	0.0%	12.5%	58.3%
Exercise Science	10.6%	38.9%	0.0%	1.9%	26.9%	21.6%
Health	14.0%	30.2%	2.3%	0.0%	27.9%	25.6%
Health and PE	8.6%	17.1%	0.0%	2.9%	8.6%	62.9%
Sport Management	17.4%	34.8%	0.0%	0.0%	21.7%	26.1%

Table 1A: To what extent did you feel a connection with your fellow students within your degree program

	A little	Most of the time	Not at all	Seldom	Somewhat	Very much
Athletic Training	0.0%	29.2%	8.3%	16.7%	25.0%	20.8%
Exercise Science	10.1%	20.3%	2.4%	26.1%	36.2%	4.8%
Health	19.0%	23.8%	2.4%	31.0%	16.7%	7.1%
Health and PE	9.1%	42.4%	3.0%	6.1%	30.3%	9.1%
Sport Management	13.0%	28.3%	2.2%	30.4%	17.4%	6.5%

Table 1B: To what degree did you feel a connection with Kinesiology students outside of your degree program

	A little	Most of the time	Not at all	Seldom	Somewhat	Very much
Athletic Training	0.0%	16.7%	0.0%	0.0%	25.0%	58.3%
Exercise Science	8.2%	22.7%	3.9%	20.3%	20.8%	24.2%
Health	9.3%	30.2%	0.0%	4.7%	18.6%	37.2%
Health and PE	0.0%	28.6%	0.0%	0.0%	14.3%	57.1%
Sport Management	15.2%	23.9%	4.3%	21.7%	17.4%	17.4%

Table 1C: To what degree do you feel that your academic advisor served as a mentor to you

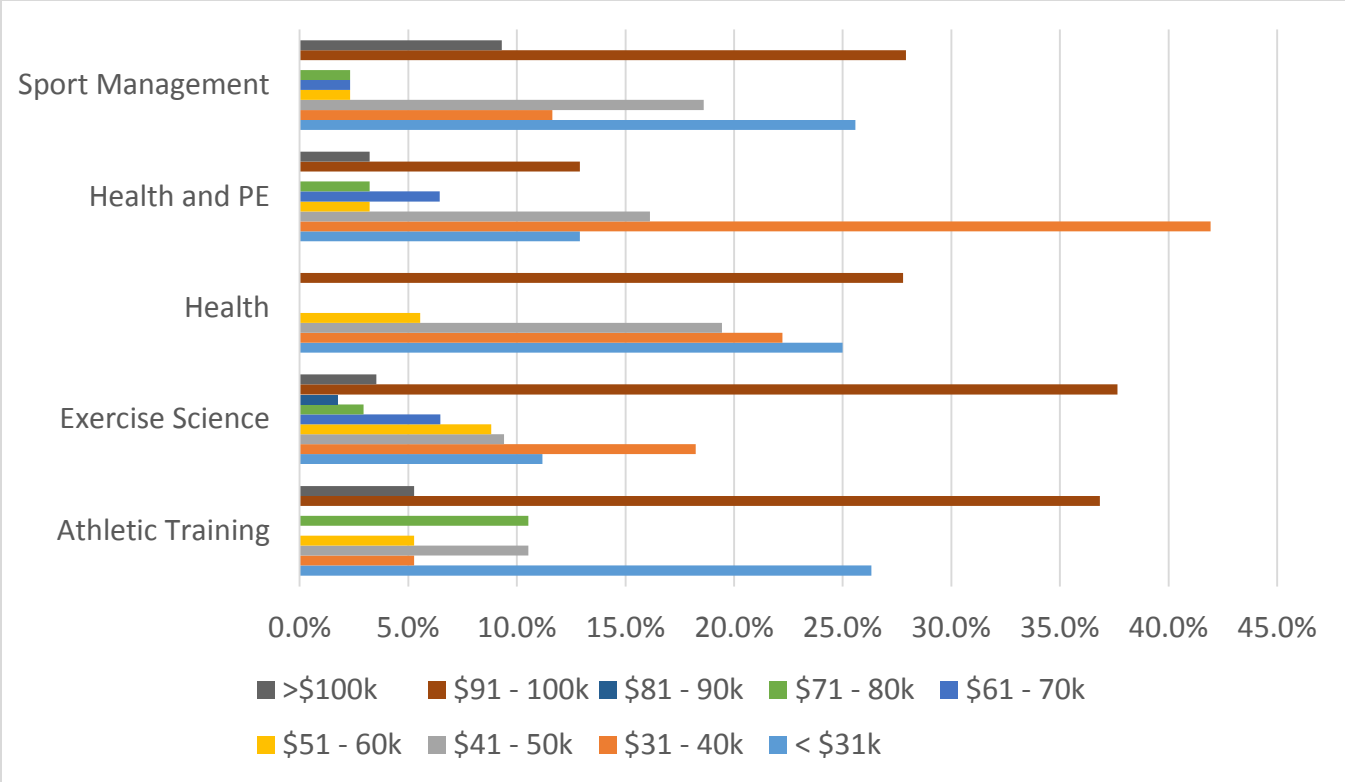


Figure 2: Reported annual salaries of Kinesiology graduates by their respective disciplines

Economic And Legal Implications Of Daubert Expert Witness Challenges In Civil Litigation

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Introduction

Over the last few decades more than half the states in the United States have enacted some type of “tort reform” legislation. While the phrase tort reform would seem to imply a broad range of restructurings and/or improvements to the legal system, these highly contentious legislative battles have tended to focus attention most heavily—if not exclusively—on the plaintiff side of the bar. Almost without fail the stated aim of state tort reform legislation has been to reduce (a) the volume of litigation and (b) the size of damage awards. And while efforts to reduce the size of damage awards seem to have been more aimed at protecting certain classes of frequent defendants than at improving legal processes, a recurring refrain of tort reformers has involved the need to curb “lawsuit abuse” and “frivolous lawsuits.” In the words of Marianne Bonner (2019), an insurance industry advocate and author of *Small Business-The Balance*, tort reform “prevents lawyers from clogging the legal system with too many frivolous lawsuits.” It is in the context and climate of this “tort reform” effort ostensibly aimed at improving the legal system by more efficiently utilizing the courts’ scarce time and resources that the present analysis of expert witness testimony and attempts to limit the role and scope of such testimony in civil litigation is undertaken.

The Problem of Crowded Courts

The crowded court dockets and high expense of civil trials stem from any number of factors, but generally can be attributed to two related economic phenomena: externalities and the tragedy of the commons. Economists use the term “externalities” to describe economic side effects—situations in which uncompensated third parties to a transaction are impacted, either positively or negatively. In the context of civil litigation, tort reform and the court system, whenever any Party A brings suit against Party B, the costs and economic impact of that transaction are not limited exclusively to those two parties, but the action also shifts certain costs onto society as a whole. When criminal and civil actions—including family and commercial issues—all are vying for the same scarce court time, space and other resources, there are significant spillover costs associated with any one party’s drawing from the well.

The economic concept called the tragedy of the commons is a special category of externality. This phenomenon, initially described by British economist William Forster Lloyd in the 1830s, failed to gain popular attention until the 1960s when an American ecologist and philosopher, Garrett Hardin (1968), coined the actual term in an article in *Science*. The concept can be described as the problem that arises when many individuals endeavor to reap the greatest benefit from a given, common resource. Hardin’s famous example involved public pastureland that herdsmen used to graze their cattle. Each individual herdsman does not consider how excessive grazing or introducing additional cattle to their herd will impact other herdsmen, much less the community as a whole over the long run. The greater the number of herdsmen who consider only their own herd and their own gain, the more the pasture is run down and the more all the herds suffer. As Hardin put the problem, “Freedom in a commons brings ruin to all.” The problem is that each individual acting alone has an incentive to overuse the common resource, with no real incentive to conserve and protect it. In a very real sense the civil court system represents such a commons. While access to the courts may not be completely free in a medieval pasturelands sense, it is highly subsidized by the public.

Through a series of articles beginning in the 1980s Shavell (1982, 1997, 1999) described how plaintiffs fail to fully internalize the social consequences of engaging in civil litigation. His argument is that when initiating suit plaintiffs only internalize their own litigation costs and neglect the costs of opposing parties and those of the public system generally. This negative externality, he argues, suggests that there is an excessive level of litigation—providing an intellectual underpinning for the ubiquitous tort reformer cries to rein in the wasteful practice of frivolous lawsuits. As a corollary, however, it can be argued that any superfluous or “frivolous” use of the court’s time and resources—to the extent that the offending entity does not internalize all the costs—generates similar negative externalities.

Regulation of Expert Testimony

Reliance on experts and expert testimony by the courts is by no means a new phenomenon. Legal historians report that as far back as the Roman Empire handwriting experts and land surveyors were recognized as legal experts. There is general agreement that it is ancient common law rule that on a subject requiring special knowledge and competence, evidence is admissible from witnesses who by knowledge, skill, experience, training and/or education have acquired the necessary expertise on that subject. The “modern” predicate for present day treatment of expert testimony is generally traced back to the 1780s when in *Folkes v Chadd* (1782), Lord Mansfield, Chief Justice of the King’s Bench, ruled: “the opinion of scientific men upon proven facts may be given within their own science.” While Lord Mansfield’s rule sounds quite straightforward and easily applicable, experience over the following 200 years showed that it was anything but. Consequently, over the years a body of regulations and guidelines has developed to guide the courts in this sometimes vexing area. While the broad goal of keeping the courts free of “junk science” is definitely laudable and necessary, implementation is not so straightforward. Making sure that “experts” have the necessary qualifications/expertise to support their opinions, and ensuring that the expert opinions are sufficiently scientifically based can present quite a challenge.

The Frye Standard

While a movie drama involving a courtroom “battle of experts” may be entertaining, a very real fear involving the adversary expert phenomenon is that it may lead to a motivational bias. How does the court guard against the danger that the “hired gun” expert may purposefully mold his/her views to fit their client’s vested interests? In the United States the systematic, statutory regulation of expert testimony dates back at least to the 1923 case in which a lower court ruled that an early-version polygraph test (systolic blood pressure deception test) could not be used in court because it had not received general acceptance within the scientific community. The court excluded expert testimony relying on polygraph results and the defendant was convicted of second degree murder. The appellate court upheld the lower court ruling and affirmed the conviction (*Frye v United States*, 1923). In the words of the court:

Just when a scientific principle or discovery crosses the line between the experimental and demonstrable stages is difficult to define. Somewhere in this twilight zone the evidential force of the principle must be recognized, and while the courts will go a long way in admitting experimental testimony deduced from a well-recognized scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs.

This relatively short opinion, which created the so-called Frye Standard, thus became the standard governing admissibility of expert testimony in federal criminal courts, though it did not find its way into federal civil courts for several more decades. The ruling did, nonetheless, plant the “generally accepted” seed in the minds of judges who served as gatekeepers regarding when and under what circumstances expert testimony would be admissible. In application the test centered on whether the contested testimony was considered to be generally accepted by a meaningful segment of the associated scientific community. This general acceptance criterion was considered to apply to procedures, principles and techniques that might be presented by the witness.

In general, both the strength and the weakness of Frye is that it requires not only that experts demonstrate expertise in their specific field of science, but also that the methods and theories used to support their opinions are generally accepted. And while the first factor normally can be established

through education, experience, publications and/or other recognitions of contributions to the relevant field of science, the second tends to be more problematic. While general acceptance may be demonstrated through peer-reviewed publications and/or other scientific forums showing consensus by the scientific community, a major criticism is that while an expert may be eminently qualified in their relevant field, their testimony may not be admissible if it is based on emerging, though perfectly sound, science that has not yet achieved general acceptance. Under such an admissibility test cutting-edge scientific knowledge tends to be excluded from the courtroom.

The Daubert Era

Though a number of states continue to apply the Frye standard relative to the admissibility of expert testimony, most states have by now replaced the Frye test with the Daubert standard. This new standard was established by the Supreme Court in 1993 in its landmark *Daubert v Merrell Dow Pharmaceuticals* decision. This case, a civil tort action, involved alleged birth defects associated with the drug Bendectin taken during pregnancy. The issue was whether the plaintiff's evidence linking Bendectin to birth defects could be admitted in court when the methodologies underlying the experts' testimony had not gained general acceptance within the scientific community. In deciding *Daubert* the court unanimously held that the Frye test had been superseded when the Federal Rules of Evidence were updated and adopted in 1975, meaning that the general acceptance standard should not have been applied by the lower court. That decision has been characterized as having established a new "relevance and reliability" standard. In effect, *Daubert* overrode general acceptance as the central criteria for admissibility. In the words of the court:

If scientific, technical or other specialized knowledge will assist the trier of fact to understand the evidence or determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise.

Currently, Rule 702 of the Federal Rules of Evidence and *Daubert*, as modified and refined by two subsequent court decisions, *General Electric v. Joiner* (1997) and *Kuhmo Tire Co v Carmichael* (1999), comprising the so-called "Daubert Trilogy," establish the prevailing standards by which judges determine the admissibility of expert testimony. (Relative to same, it is important to note that judges are considered the official "gatekeepers" in the expert testimony arena.) Under Federal Rule 702 persons that are qualified as experts based on knowledge, skill, experience, training or education are permitted to offer expert opinion testimony if the following conditions have been met:

1. The expert's scientific, technical or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue
2. The testimony is based on sufficient facts or data
3. The testimony is the product of reliable principles and methods
4. The expert has reliably applied the principles and methods to the facts of the case

In addition to some general observations and suggestions the Court (through *Daubert*) offered five concrete questions or tests that should serve as guidelines in determining the reliability, and thus admissibility, of expert testimony. These are: (a) "whether a theory or technique can be (and has been) tested"; (b) "whether the theory or technique has been subjected to peer review and publication"; (c) "the known or potential rate of error"; (d) "the existence and maintenance of standards controlling the technique's operation"; and (e) "whether the theory or technique has garnered 'widespread acceptance.'" The court did make clear, however, that this list is not exhaustive and that no single factor is dispositive. In the words of the court, "Many factors will bear on the inquiry, and we do not presume to set out a definitive checklist or test." But while the new *Daubert* standard and its non-exclusive factors did provide some needed flexibility, a troubling concern with the decision's unusually broad range of observations and suggestions was raised by Chief Justice William Rehnquist. In a partial dissent to the Blackmun-authored majority opinion, Rehnquist (joined by Justice Stevens) warned that the decision would require judges to become "amateur scientists." The concern was that the majority opinion was phrased in terms too general and abstract to guide the judges.

More Rule 702 and Daubert-Related Decisions

Daubert itself emphasized that the factors it set forth were neither exclusive nor dispositive. Other cases have recognized that not all of the specific Daubert factors can apply to every type of expert testimony. However, *Kumho Tire* made clear that even though the Daubert factors might not “neatly apply” to all expert testimony (e.g., a sociologist), its “gatekeeping” obligation applies not only to “scientific” testimony, but to all expert testimony. Specifically, the *Kumho Tire* court declared that “The Daubert factors may apply to the testimony of engineers and other experts who are not scientists.” Continuing, the Court opined that “A trial judge determining the admissibility of an engineering expert’s testimony may consider one or more of the specific Daubert factors.” Clearly, the “may consider” verbiage of *Kumho Tire* reflects and signals a degree of flexibility in the application of Daubert and Rule 702.

It is also necessary to point out that neither Daubert nor Rule 702 has been interpreted as intending “to provide an excuse for an automatic challenge to the testimony of every expert.” *Kumho Tire* specifically notes that the trial judge has the discretion “both to avoid unnecessary ‘reliability’ proceedings in ordinary cases where the reliability of an expert’s methods are properly taken for granted, and to require appropriate proceedings in the less usual or more complex cases where cause for questioning the expert’s reliability arises.” (*Kumho Tire*, 1999) Daubert itself did reaffirm the principle that “Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.” (Daubert, 1993) Perhaps a net effect of Rule 702, the Daubert Trilogy and subsequent related decisions is that even the traditional distinction between the concepts of admissibility of expert testimony and weight of testimony is no longer marked by a perfectly clear demarcation line.

Without doubt, and regardless of intent, the Supreme Court has imposed a heroic helping of responsibility as well as authority on the gatekeeper judge by ruling that “trial judges must ensure that any and all scientific testimony is not only relevant, but reliable.” That means that if the court deems that the methodology employed by the expert is reliable, it must also analyze the applicability of the methodology to the facts of the case. In other words, the expert’s theory, model, data and methodology must “fit” the facts of the case. And while the Court acknowledged (in *Kumho Tire*) that an exact fit is not required, it did rule that the facts must be connected by more than the “ipse dixit” of the expert. Relative to areas outside the traditional “scientific” fields, a problem as pointed out by Solow and Fletcher (2006) is that “economists [and other social scientists as well] have to look at the data we have, not the data we might want or wish to have...Variables that we would like to measure in order to test hypotheses are often unavailable, either because they are proprietary information or because they are nonobservable.” Without doubt, the Rehnquist-Stevens concern was well founded. In order to make an informed judgment about whether to admit the testimony of an expert the judge would necessarily have at least a modicum of expertise in that expert’s field.

The Daubert Challenge—Mechanics

Admissibility of an expert’s testimony can be challenged based on several different grounds—the expert’s qualifications, their methods, and/or the science they relied upon in forming their opinions. The challenge can come in any of several forms, including: as a separate motion; as part of a summary judgment, as a *motion in limine*, as an objection made at the time the testimony is given, or even as a post-trial motion. While either side in a legal proceeding may challenge the admissibility of testimony by the opposing side’s experts, the burden of proving that the expert is qualified and that their testimony is relevant and reliable rests upon the party seeking to enter it. The trial judge, as the official gatekeeper, determines what evidence may or may not be presented at trial. A Daubert hearing is a trial judge’s evaluation of whether or not an expert’s testimony and evidence are admissible. Daubert hearings are conducted out of the jury’s presence and more often than not are based on a *motion in limine* which occurs before the trial begins. The hearing determines which evidence or testimony will be presented to the jury. It should be noted, however, that Daubert hearings are not required for a determination of whether an expert’s testimony is admitted or excluded. In general, any method of review is permitted as long as the court performs an evaluation with sufficient record for appellate review, and articulates the reasons for its decision.

The Daubert Challenge—Strategies

The purpose of a Daubert challenge is, of course, to weaken the opposing side's case by depriving it the opportunity to present key testimony. And to the extent that one side can prevent the jury's hearing evidence that the other side would choose to present, that represents a significant blow in the legal battle. In a civil tort case where the burden of proof rests with the plaintiff, depriving that side the opportunity to present to the jury evidence that can only be provided by a key liability or damages expert can be tantamount to a virtual "checkmate." Since the plaintiff bears the burden of proof, that side has historically relied more heavily on the use of expert testimony than has the defense. And while defendants routinely employ expert testimony for the purpose of refuting evidence presented by plaintiff experts and/or to present alternative explanations for issues in contention, it is also common for the defense to employ experts strictly as consultants to assist in preparing to challenge and/or cross-examine plaintiff experts—with no intent of offering that expert as a witness. For these reasons, historically defendants have been more prone to initiate Daubert-type challenges than have plaintiffs. After all, if the plaintiff cannot prove his/her case, they have no case, but technically, the defendant has no burden to prove anything. Under the "preponderance of evidence" requirement in civil litigation the defendant must only prevent the plaintiff from convincing the jury that its evidence represents the more credible and probable explanation for the issue in question.

To Challenge or Not to Challenge—Economic Considerations

Because of the crucial role of expert testimony and the sometimes tricky and anything-but-straightforward Daubert hurdles involved in qualifying or disqualifying experts, something of a cottage industry has developed around the process. Countless workshops, blogs, articles and consultants are devoted to advising litigants regarding when, how and on what grounds most effectively to challenge opponents' experts, and alternatively on how to guard against and/or withstand such challenges. A relatively common theme among the "when-and-how-to-challenge" tutors and coaches is that put forth by Sampson, Remeden and Wiltanger (1999). Writing in *For the Defense* (a publication of the Defense Research Institute, which bills itself "The Voice of the Defense Bar"), the authors offer the advice, "Challenge early and often." The rationale behind such advice clearly stems from the asymmetric costs and impact associated with Daubert challenges. Absent judicial sanctions, it is possible to file a Daubert challenge, whether meritorious or not, at relatively minimal cost to the challenger. If the challenge is successful it can represent a strong competitive advantage to the challenging party, but there is little downside risk if it is unsuccessful. An unsuccessful challenge amounts to no great loss since the opposing expert would have been able to testify even if the challenge had not been filed. Additionally, if the challenging side works for the defendant it normally can bill for its time. Since plaintiff attorneys in tort litigation usually work on a contingent fee basis that latter benefit of filing a challenge normally is not available to them.

While filing the Daubert challenge often can be accomplished with relatively minimal cost, responding to such a challenge is a very different matter. Because Daubert standards are not particularly simple and straight-forward, but the potential harm inherent in losing access to one's expert testimony is great, all Daubert challenges must be taken seriously. The process of responding to the Daubert challenge can be expensive in terms of both the attorney's and the expert's time. So, while a perfunctory challenge can be mounted with little cost or downside risk, no such option exists when responding to a challenge, whether that challenge is strong or weak. Writing for SEAK, an expert witness training company, Alex Babitsky (2015) asserts that a consequence of the above is that defendants are increasingly filing "Hail Mary" Daubert motions, noting that while these motions have little or no chance of success, they impose a drain on the resources of counsel and the court.

The economics of filing low merit challenges (as well as other low merit motions, appeals and even superfluous discovery) is interesting. While the law firm representing a defendant often has an economic incentive to do so—they can bill for the time—the ultimate defendant, often an insurance company, still incurs a cost. So, why do they allow such? Partly, the answer may lie in the phenomenon of "asymmetric

information,” a condition in which the two sides of a transaction (decision) possess different amounts of pertinent information. Thus one explanation for the filing of a low merit challenge may be that while the law firm is aware of the low probability of success, the ultimate payer (defendant and/or its insurance company) may not be. A second possibility is that the filing may represent a form of “signaling.” The theory, developed by Nobel Prize winning economist Michael Spence, says that in some economic transactions in which inequalities of access to information upset the normal market outcome, one party could get around the problem of asymmetric information by sending a signal that would reveal some piece of relevant information to the other party. That party would then interpret the signal and adjust their behavior accordingly. Applying this theory, it is possible that the ultimate payer, perhaps the insurance company, understands the low probability of success of a particular motion or other action, but uses the action to signal the opposition (plaintiff side) of its intent to take whatever steps necessary to reduce the return for pursuing court action against the defendant.

It has also been pointed out, however, that there are significant benefits associated with filing even an unsuccessful Daubert challenge. Funk (2018) argues, for example, that even if the judge denies one’s Daubert challenge, the hearing at least provides the unsuccessful challenger with a “practice run” at challenging the evidence through cross examination. “It provides you with a roadmap for future cross examination as well as areas to avoid in front of the jury.” Also, “a Daubert challenge gives you a unique opportunity to evaluate the witness and their ability to testify.” And in line with “signaling” (as discussed above) Funk (2005) argues “A challenge also sends the other side a message you are willing to work this case to the fullest extent.” Guthell and Bersztajn (2005) argue that a Daubert challenge may be used simply as a delaying tactic. “A Daubert hearing may be requested...as a ...delaying tactic designed to secure some advantage by delay...In our experience, challenging the use of even absolutely standard psychological testing is a common ploy in this category.” A finding by Cooper (2015) seems to lend credibility to the notion that a Daubert challenge may be an effective delaying tactic. Based on a large sample of cases he finds that the average time that a Daubert motion remains pending before the court after all briefings are complete is 84 days. It is also noteworthy that the State of Florida, which abandoned Daubert and returned to the Frye expert standard in 2018, made a somewhat consistent argument. The Florida Supreme Court, through its 2018 DeLisle decision, implicitly accepted the argument that the Daubert factors naturally lead to lengthy motions and hearings, and cause plaintiffs “to conduct more testing and data collection to confirm details or scientific factors that are already generally accepted” thereby leading to more costs and time in litigation.

If a true goal of tort reform is to minimize lawsuits and related activities that involve inefficient and wasteful use of valuable court time and resources, it is axiomatic that the effort must center on the root causes of those maladies. As discussed above, tort reformers see the problem as stemming in significant measure from the failure of plaintiffs to fully internalize the social consequences of engaging in civil litigation. But that same omissive decision-making behavior also infects defendants’ courtroom actions and tactics. Both plaintiffs and defendants have the incentive to internalize only their own litigation costs and to neglect the costs of opposing parties and those of the public system generally. In an efficient market environment—one in which all parties were required to internalize all private and social costs associated with their actions—one would never see a credible and responsible agent offer advice such as “challenge early and often.” Instead, the advice (regarding a considered challenge or any other court action) would be couched in terms of expected value. This decision making process would involve a careful assessment of the probability of success of the challenge plus an estimate of the “savings” or dollar benefit expected to be derived from a successful challenge. Only if the expected value of the contemplated challenge exceeded the full cost of that challenge would a challenge be issued. An efficient market will not accommodate frivolous lawsuits, discovery, expert challenges, appeals, or other such inefficient uses of the court’s time and resources. An efficient market is not friendly to “Hail Mary” efforts.

Relative to Daubert expert challenges, if the challenging party could be forced to internalize the full private and social costs of their challenges, efficient market theory would lead one to expect (a) a decrease in the total number of challenges, (b) initially, a drop in the proportion of unsuccessful

challenges, and (c) over time, a relatively more even statistical distribution of successful to unsuccessful challenges. In an efficient market setting parties have an incentive to collect data, analyze, learn and adjust accordingly. Both sides would learn and adjust. Those considering whether to challenge an expert would avoid going ahead with those challenges having a low probability of success. And parties anticipating the use of expert testimony would exercise greater care in selecting experts and/or challenge-proofing their testimony. Conversely, if there is little or no personal cost attached to sloppy or inefficient decision making, then there is no incentive or other structural mechanism to bring about the desired behavioral adjustment. Without doubt the ultimate answer to injecting greater efficiency (less wasteful use of the legal system's scarce resources) into the legal system through tort reform lies with finding ways to force litigants to more fully internalize the private and social costs associated with litigation. The normative question of how that should be accomplished is outside the scope of this inquiry. The focus of this study is on the causes, consequences and trends associated with persistent and perceived inefficiencies—including “frivolous” Daubert challenges. And while tort reform advocates frequently propose various forms of “loser pays” schemes to deal with a wide range of perceived courtroom inefficiencies, no such grand scheme appears on the near-term horizon.

Data Will Tell

As part of an effort to analyze Daubert rulings using actual data, in 2011 PricewaterhouseCoopers (PwC) initiated a series of annual studies entitled “Daubert Challenge to Financial Experts: A Yearly Study of Trends and Outcomes.” While their study focuses on financial experts it also provides information on Daubert challenges in general. Their most recently published study, covering the period from January 1, 2000 through December 31, 2017, reveals some important trends over what it terms the “post-Kumho Tire” era. The study’s broadest finding, based on 10,393 cases involving 13,797 Daubert challenges to experts of all kinds, was that over the eighteen year period, contests over opposing parties’ experts not only increased, but did so with a strong upward trend. That trend suggests strongly that litigants have not been forced to internalize many of the costs associated with expert challenges, i.e., that efficient market conditions do not prevail in the expert challenge arena.

Also consistent with expectations (as discussed above) PwC reports that over the course of their study “there have consistently been approximately twice as many Daubert challenges to plaintiff-side financial experts as there have been to defendant-side financial experts.” (PwC, 2018) They note that in 2017 64% of challenges were to plaintiff-side experts. And while the tendency of plaintiffs to employ the services of expert witnesses (largely owing to the burden of proof) undoubtedly accounts for much of this discrepancy, could this also be reflective of the fact that Daubert expert challenges represent an opportunity to build up billable hours for defendant law firms but not for plaintiff firms? The study also revealed, however, that on average defendant-side financial experts experience a marginally higher exclusion rate than plaintiff-side financial experts, 54% versus 45%.

Employing a different (broader, involving 2,127 Daubert motions made in 1,010 private civil federal court cases) data set, James Cooper (2015) of the George Mason law school found that defendants are more likely to win their Daubert motions than are plaintiffs, 50% versus 40%. He also found that this directional pattern holds true “across almost all causes of action.” Cooper further found that whether the plaintiff wins a Daubert motion has a large impact on subsequent litigation outcomes, noting that the “win rate” is one-third lower for plaintiffs who lose their Daubert motions. On the other hand he comes to the conclusion that the outcome of defendant Daubert motions appears to have little impact on subsequent litigation success.

Focusing only on challenges involving financial experts (economists, accountants, appraisers, and “other financial” experts), the 2018 PwC update notes that for 2017 they found 206 challenges to financial expert witnesses, an increase of 11% over 2016. The study also reveals that the exclusion rate of financial expert testimony in 2017 was 48%, consistent with the 18-year average over the period 2000 through 2017. They do note, however, that that exclusion rate breaks down to only 19% being fully excluded, with 29% being only partially excluded—meaning that slightly more than half were ultimately permitted to testify in some form. The study further reveals that during 2017 cases involving intellectual property disputes resulted in the most challenges to financial expert witnesses, but personal injury cases,

the most frequent target of tort reformers, had the highest exclusion rate. PwC also found that in 2017 economists faced the highest number of challenges (followed by accountants and appraisers, in that order), but that accountants had the highest exclusion rate, with economists having the lowest exclusion rate both for 2017 and over the 18 year course of their studies.

Another noteworthy finding of the PwC annual outcomes reports is that lack of reliability has consistently been the main reason for financial expert witness exclusions, followed by lack of relevance, with exclusions due to sufficient qualification being a distant third reason. When excluding testimony due to lack of reliability the courts most frequently cited as the reason a lack of sufficient data or use of methods not generally accepted. And when financial experts were excluded on grounds of relevance it is most often caused by testimony that was beyond the scope of the financial expert's role or testimony deemed not helpful to the trier of fact.

PwC also found that exclusion rates varied significantly from one federal jurisdiction to another. Over the 18 years of their studies they found that the Second, Tenth and Eleventh Circuits had, on average, the highest exclusion rates, and the First and Eighth Circuits had the lowest. That finding suggests that even though the Supreme Court has "weighed in" on the expert admissibility issue on several occasions, when it comes to applicability, there still is no clear-cut, universal standard.

Summary and Conclusions

Critics and "tort reformers" have long argued that overcrowding of U.S. courts is due in large measure to "lawsuit abuse" and "frivolous lawsuits" foisted on the legal system by greedy plaintiff lawyers. And indeed, considering the number of lawsuits filed each year in U.S. courts it can hardly be disputed that the United States is a very litigious society. It is also clear that private litigation imposes costs on society that the individual litigant is able to avoid. That is, when initiating suit the plaintiff internalizes only their own litigation costs and neglect the costs to opposing parties and to the public system generally. That same charge can be made, however, relative to any wasteful use—excessive, superfluous discovery, unnecessary motions and appeals, spurious expert challenges—of the court's scarce time and resources. Relative to expert testimony and challenges regarding same, two maxims are self-evident. (1) The consistent application of a uniform set of clear, concise and unequivocal standards for admissibility would eliminate most such challenges, and (2) finding a way of forcing litigants to internalize all private and social costs associated with such challenges would greatly reduce the number of such challenges. Clearly Daubert did not accomplish the first, and tort reform and federal procedural rules have not accomplished the second. Available empirical data punctuates those conclusions. And given the breadth of the litigation landscape it seems unlikely that the development of uniform "clear, concise and unequivocal" standards for admissibility is even possible. In terms of policy, that means that the "cure" would most likely come from finding effective ways of forcing litigants to more fully internalize all relevant costs. Unfortunately, "tort reformers" and policy-makers seem more focused on protecting certain classes of defendants than on actually improving the efficiency of use of a valuable public resource.

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How Persuasive were Feingold and Mahoney (1975)? An Inquiry into a Within-Subject Research Design

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Abstract

In 1975, Feingold and Mahoney published a paper, “Reinforcement Effects on Intrinsic Interest: Undermining the Overjustification Hypothesis” in the journal *Behavior Therapy*. A frequently cited meta-analysis (Deci, Koestner, & Ryan, 1999) did not include the Feingold and Mahoney paper because it employed a repeated measure within-subject design. This article reviews the paper, inquires into the criticisms leveled against it, and makes recommendations for future single-subject and within-subject research.

Key words: within-subject research, motivation, reinforcement

Few debates in academic psychology have had as much practical significance as the argument over the effects of reinforcement on motivation. Instead of being confined to academic journals, this debate has come to the attention of the public through books such as *Punished by Rewards* (Kohn, 1995) and *Drive* (Pink, 2009). These books, in turn, have had effects on policy makers both in education and in industry.

The two poles of the debate can be summarized as 1) rewards have a negative effect on intrinsic motivation and creativity (Kohn, 1995), and 2) except in special circumstances, rewards do not have these deleterious effects (Powell, Symbaluk, & Honey, 2009).

Both sides of this debate have produced meta-analyses that purport to support their respective positions. It is ironic that meta-analysis, a set of techniques designed to settle debates by the quantitative review of the available evidence, has often, instead, produced dueling meta-analyses. In the controversy at hand, each side raised methodological concerns about the other.

The purpose of this paper is not to resolve the controversy over reward, but to examine one aspect of the disagreement, the evidentiary value of within-subject designs. To do this, I will focus on the adequacy of one study employing a within-subject methodology, a paper written by Feingold and Mahoney (1975).

Cameron and Pierce (1994) include this study in their meta-analysis, while Deci, Koestner, and Ryan (1999) excluded it from theirs. The latter gave the following reasons for exclusion:

1. The small number of subjects. Feingold and Mahoney (1975) studied only five children. Thus, no generalization is possible.

2. The study had no control group.

In a separate article, Kohn (1996) raised an additional criticism of the study, related to the outcome measure:

3. Feingold and Mahoney used a behavioral outcome measure that “confounds interest with skill, the latter being likely to have increased by the time the reward is withdrawn” (p. 2).

In other words, increases in performance on the outcome variable only measured learning of the skill, not increased motivation.

Finally, Bates (1979) also questioned the study’s conclusion:

4. The data reported by Feingold and Mahoney, when carefully examined, actually provides evidence for the undermining effects of extrinsic reward.

I begin with a short synopsis of the study, although readers might profit from consulting the original paper.

A Synopsis of Feingold and Mahoney (1975)

The study was published in the journal *Behavior Therapy* in 1975. It was one of many attempts to test the overjustification hypothesis. This hypothesis asserts that intrinsic interest is undermined when extrinsic rewards become available for activities previously performed without extrinsic support. Feingold and Mahoney were specifically interested in seeing if there were overjustification effects in classroom token economies. A token economy is a behavior management system where tokens are given for desirable behaviors and the tokens can be exchanged for backup reinforcers, such as toys (Kazdin, 1977). These systems have been widely used in schools and the existence of an overjustification effect might be sufficient reason to curtail their use. Feingold and Mahoney criticized previous research for low ecological validity, although they did not use that phrase. They argued that previous experiments “have been far from parallel to those typically encountered in classroom token economies” (p. 368).

Feingold and Mahoney selected five second grade children at random from the Philadelphia public schools. There were four girls and one boy and the authors tell us that “the classroom and the selected subjects reflected a wide range of academic achievement, socioeconomic status, and race” (p. 369). No other demographic information was given.

The outcome measure used in this study was the number of correctly connected dots in a dot-to-dot puzzle book. In a dot-to-dot puzzle, lines are drawn between points in either numerical or alphabetical order to create an image. Two judges independently assessed the number of correct connections. There was high inter-rater reliability ($r > .99$). The children could freely choose to complete the dot-to-dot puzzles or to play with an Etch-A-Sketch during 15 minute sessions.

The baseline data were collected over a two week period. In the reinforcement condition, the children were rewarded one point for every puzzle surpassing their highest baseline performance and an extra point for every 50 additional dots completed. Points could be exchanged for candy, toys, or books.

In the second baseline condition, the children were told that they could no longer earn points for prizes. This phase lasted for two weeks, followed by a two week break. After the break, 10 more sessions were held, constituting a third baseline condition.

Feingold and Martin, using a within-subject ANOVA, reported a statistically significant increase in dots completed during the reinforcement condition and a return to baseline rates when reinforcement was withdrawn. Since performance during the second and third conditions did not fall below baseline performance, there was no evidence that reinforcement undermines intrinsic motivation.

Validity of the Outcome Measure

As indicated above, Kohn (1996) argued that the outcome measure (correctly connected-dots) confounded interest with skill and did not really measure motivation. It is certainly true that learning could confound a within-subject experimental design. Perhaps the students simply became more skilled at the dot-to-dot task, and this increase in skill coincided with the reward condition. However, this objection does not match the reported findings. If it was simply a matter of skill development, the baseline phase would not have stabilized but would have shown an upward trend as the children had more practice. Nor would we expect to see the sudden jump in performance after the initiation of the reward contingency. One would expect skill development to follow a learning curve and that is not the case in these data.

It should also be noted that, in recent years, maze completion has been widely used as measure of the effects of incentives (e.g. Freeman, & Gelber, 2010; Gneezy, Niederle, & Rustichini, 2003). Dot to dot puzzles resemble mazes and, because they are less difficult, may be a more appropriate measure for children.

Thus, Kohn’s criticism is not supported.

Where is the Control Group?

Deci, Koestner, and Ryan (1999) claimed that all within and single subject experimental designs lack control groups. The fundamental idea of experimental control is to isolate the independent and dependent variables while holding all other variables constant. If these conditions are met, any change in the outcome variable can be said to be caused by changes in the independent variable. In psychology, these conditions are difficult to meet and two strategies are generally employed. In group comparison designs, participants are randomly assigned to a control group and an experimental group. The randomization is supposed to wash out differences between the two groups.

In both single-subject and within-subject research designs, each individual is tested across several conditions. Thus, individuals serve as their own controls or, put another way, the individual is held constant.

Sample Size and Generalization

By definition, a single-subject research designs use the smallest sample size possible. While Feingold and Martin studied a slightly larger group of only five children, Deci, Koestner, and Ryan (1999) found these small samples sizes fatal. For them, a small sample size guarantees low generalizability.

There is some force to this argument. How do we know that the putative findings of a single-subject investigation does not represent some idiosyncratic characteristic of that individual? The conclusion may be true in that one case, but do we have any justification in generalizing to a larger population?

In science, it is replicability of a finding that gives us confidence in its validity. It is fair to ask if a single-subject finding can be replicated both with the same participant and with other individuals. Thus, no one single-subject study can be seen as definitive, it must be replicated. However, this objection also applies to group-comparison studies. The crisis of replication that now plagues psychology shows us that the mere fact of a group-comparison design does not guarantee generalizability (Normand, 2016; Pashler, & Wagenmakers, 2012).

The situation is somewhat different for within-subject studies. While rare in group-comparison studies, within-subject designs frequently include replications in the same study (such as A-B-A-B designs). In this sense, a single within-subject study can have greater generalizability than a group-comparison study with a larger sample size. Unfortunately, the Feingold and Mahoney paper does not include a reapplication of the reward phase and, thus, does not include a replication.

We must be careful about our intuition about sample sizes. While within-subject studies often have smaller sample sizes, they also have greater statistical power than group-comparison experiments (Venter & Maxwell, 1999).

Finally, there are techniques for combining the results from many single-subject studies (e.g. Shadish et al., 2014) and these techniques constitute a test of the generalizability of the findings.

Statistical Issues

The small sample size in the Feingold and Mahoney does pose one other issue, not raised by Deci, Koestner, and Ryan (1999). Feingold and Mahoney test the overjustification hypothesis using a within-subject analysis of variance (ANOVA). But they never ask if the assumptions for this parametric tests are met. It seems unlikely that within-subject designs with small sample sizes could ever justify parametric statistics.

Fortunately there are nonparametric alternatives to the ANOVA. In this case the recommended statistical technique is the Quade Test, used for within subject designs with fewer than 8 treatments (Tardif, 1987). Using the table of mean connections per session from Feingold and Mahoney (1975), I have run the Quade Test in R and the results are consistent with the authors' original findings ($F = 7.9048$, $p = 0.004$). I also ran a post-hoc Nemenyi test with the Holm–Bonferroni correction. The results are displayed in Table 1. These more appropriate statistical procedures support Feingold's and Mahoney's original conclusions – reward increases performance and does not depress subsequent unrewarded behavior.

It should be noted that appropriate statistical procedure is also an issue for group-comparison research. There is a strong argument that nonparametric analysis should be the default approach and that parametric techniques should be reserved for situations where the relevant assumptions have been met (Leech & Onwuegbuzie, 2002).

Did Feingold and Mahoney Misinterpret their Findings?

In a review article on extrinsic reward and intrinsic motivation, Bates (1979) argued that Feingold and Mahoney misinterpreted their own findings. He wrote “although Feingold and Mahoney (1975) have stated that their results ‘cast doubts on the assertion that extrinsic reward necessarily undermines intrinsic motivation’ (p. 375) a careful look at their data may suggest otherwise” (p. 565). Let us review Bates' argument point by point.

Bates (1979) writes “of the five subjects participating, the two who showed the greatest increase from first to third baseline were those who had the lowest level of Baseline-1 activity” (p. 565). It is certainly the case that participants one and two both made the lowest number of mean dot connections at Baseline 1 and had the highest percentage of change from the first to the third baseline (217.3% and 173.1% respectively). While this observation might be important, it is hard to see how it negates the fact that *all* participants showed improved performance over Baseline 1 at Baseline 3. Moreover, one of the goals of Feingold and Mahoney was to test for the overjustification effect in a context more like a typical classroom. The fact that the five participants started at different levels and improved at different rates may be seen as evidence of greater ecological validity.

Bates continues “the subjects who had the highest level of Baseline-1 activity showed the least change on Baseline 3 and a trend toward activity decreasing below Baseline 1 if the third baseline period had been extended” (p. 565). Participant five had the highest level of baseline activity. The claim that this participant displayed a trend toward below Baseline 1 performance is the result of single terminal data point. However, the average performance of this participant at Baseline 3 still exceeded performance at Baseline 1, as it did for all participants. Bates seems here to have committed the extrapolation fallacy. He asserts that it possible to know the results the future based on the directionality of a single data point. If that were true it would apply more so to participant 4, whose final five data points at Baseline 3 are rising monotonically.

There is an additional irony in Bates’ criticism. It is only because Feingold and Mahoney present the data for each participant that he is able to note the individual differences. In group comparison designs this information is almost never available. Cronbach and Snow (1977) pointed out that group designs may conceal the fact that some individuals may do worse in the presence of a treatment while the majority of participants improve. Put another way, group comparisons give us information about changes in group averages, but is quite possible that some studied individuals did not conform to the average outcome.

It would be fair to say that the Feingold and Mahoney results indicate that there may be important individual differences in responses to reinforcement. Both sides of the debate may have underestimated the important of these differences. There are well developed theories, particularly Gray’s (1987) reinforcement sensitivity model, which might make important contributions to our understanding of the differential effects of reinforcement (Corr, 2004).

Conclusions

1. Single subject, within-subject, and group comparison designs all have strengths and potential confounders (Charness, Gneezy, & Kuhn, 2012). There can be no hard and fast rule that automatically excludes them from meta-analysis.
2. Better statistical approaches need to be more widely used. These included non-parametric analysis, modern methods, bootstrapping, and Bayesian analysis.
3. Replication is essential for all designs, both within the same study and between studies.
4. Rarely is a single paper completely persuasive. However, Feingold and Mahoney can reasonably be considered as evidence against the overjustification hypothesis.

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Table 1. Results of the post-hoc Nemenyi test with the Holm–Bonferroni correction.

	Baseline 1	Reward	Baseline 2
Reward	0.0013		
Baseline 2	0.4017	0.0047	
Baseline 3	0.0183	0.2152	0.0686

The Effects of Social Media on Mental Health

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Abstract

Social media has radically transformed the way people connect and relate with one another and may be the culprit behind rising mental health issues among users. Social media has a number of potential risks, including but not limited to loneliness, depression, cyberbullying, and suicidal thoughts or tendencies. These effects are applicable for all ages of social media users but have an even more profound impact on teens and pre-teens as they search for their identities through their friendships and social media sites. Researchers have found that spending more time on social media increases depression and thoughts of suicide. Suicide is a leading cause of death in Idaho and claims nearly 45,000 lives each year in the United States. The ability to be connected around the clock through social media can alter sleep patterns and result in sleep deprivation and fatigue, further perpetuating the cycle of depression. Similarly, researchers have shown that sitting in front of a computer or smart device on social media does not provide the same level of interaction as in-person experiences. This is due, in part, to the hormone oxytocin, which is the hormone that is released with physical touch. On the other hand, social media does have positive effects and can help to bridge the distance gap for families and relatives across the globe. Additionally, it can provide an outlet for like-minded individuals to connect with support groups or to make a positive impact in their communities.

Keywords: social media, mental health, adolescents, suicide

The various ways that individuals interact and communicate with one another have changed dramatically over the past 20 years. Technological advancements in communication devices and computer applications are accelerating at a rapid rate, with application downloads expected to exceed 197 billion in 2017 (Dogtiev, 2019). The historic practice of waiting days and weeks for written communication to travel from distant family members has been replaced with hand-held phone and computer devices that connect people in an instant through video chat and instant messaging applications.

With this new technology, the rise of social media has played a significant role in the transition to a new digital age of interaction and communication. Social media sites like Facebook, Instagram, and Snapchat make the ease of keeping in touch literally a tap away. Media campaigns and advertising tout the necessity of connection, and people have become so connected over time that social events like high school reunions and other annual social parties are poorly attended. The constant stream of information from this newly created lifestyle takes a toll on individuals due to information overload, and social media users must begin to analyze how this technology affects behavior and mental health. This paper investigated the following question: Is social media and the way we connect with one another linked to mental health issues? Through our research, we found that social media introduces a new dynamic to connection between individuals in a way that opens new avenues of opportunity, while also endangering other important modes of human connection.

Social media is now one of the most common ways for people to connect. Social media includes websites and applications that allow for social interaction online, such as Facebook, Twitter, Instagram, and Snapchat. In the past five years, the number of social media users among teenagers and preteens has grown substantially: “Seventy-five percent of teenagers now own cell phones, and 25% use them for

social media, 54% use them for texting, and 24% use them for instant messaging. ... 22% of teenagers log on to their favorite social media site more than 10 times a day” (Schurgin O’Keeffe & Clarke-Pearson, 2011). These numbers suggest that children’s psychological states will be heavily influenced by social media due to the number of hours they spend on it.

In 2005, 5% of American adults were utilizing social media; by 2017, that number had risen to 69% with the most used site being Facebook (Demographics, 2018). The recently-coined term-*selfie* has become synonymous with social media site usage. Concerning to the general population is the number of adverse mental health conditions that have presented since the increase in social media use. Among them are social media addiction and the fear of missing out (Graham, 2018), which correlates with teens and adults who experience social anxiety about missing out on gratifying experiences that their “friends” are experiencing (Robson, 2018). Depression is also linked to heavy social media use (Schurgin O’Keeffe & Clarke-Pearson, 2011).

These issues do not just affect teens and adults: younger children are also impacted. The Children's Online Privacy Protection Act (COPPA) states that the legal age that a youth can join social media is 13 years old. The reason behind this is to protect children from predatorial marketing practices (Children’s, 2018). However, many young children, often with parental knowledge, easily work around this regulation by entering a fake birth date. The consequences to early exposure to social media can be devastating to the young brain that is still maturing.

An analysis of the way researchers and developers at computer software companies and app designers attract users indicates that the driving force is financial. Higher volumes of users of an app or website correlate to income revenue through advertising dollars (Kugler, 2018.) Apps like Facebook and Google manipulate the information that users browse, share, and access by analyzing it and placing it into algorithms and utilizing the data for marketing preferences. Tech companies are also employing psychological tactics to exploit those who use their apps and programs. Every “like” executed by another person or “friend” tethers the individual to the social media site by accessing areas of the brain that induce happiness. Heavy use of social media sites has led to new forms of internet addiction (Iskender & Akin, 2011). Additionally, a new disorder known as “Facebook Depression” has substantially impacted the teen and pre-teen communities and affected users at all other age levels (Schurgin O’Keeffe & Clarke-Pearson, 2011).

For example, selfie-driven posting to many social media sites has encouraged researchers to look at self-satisfaction among teens and women and to attempt to measure the effects of using social networking sites (SNSs) on a person’s self-esteem, body image and self-objectification. Body image was found to serve as a motivating factor for liberal selfie posting (Veldhuis, Alleva, Bij de Vaate, Keijer and Konijn, 2018). Lowered self-esteem and body image can be leading causes of reckless behavior in teens.

Sexting, the sending or receiving of sexual images by phone or computer, is an associated risk of easy access to social media. Once sent, a digital image can quickly and easily spread all over the Internet, victimizing the original sender. According to researchers, “20% of teens have sent or posted nude or seminude photographs or videos of themselves” (Schurgin O’Keeffe & Clarke-Pearson, 2011). This often results in emotional distress in the victim, which can start a cycle of negative thoughts, patterns, and behaviors. In addition to social and emotional consequences, there are severe legal consequences for this kind of activity. One potential result is being charged with child pornography, with punishments ranging from a felony to a misdemeanor in some states and requirements to register as a sex offender for the rest of their lives.

Adolescents are particularly vulnerable. Prone to the need for acceptance by their friends, many teenagers spend long periods of time on social media and the desperate need for acceptance can lead them to network with individuals who may encourage them to use drugs and alcohol and lead them to potentially destructive behavior. (Schurgin O’Keeffe & Clarke-Pearson, 2011). Accessing self-harm websites becomes less taboo when using a personal device. Youth and teens are more comfortable with sharing personal distress with friends and peers via social media, but the possibility of spreading contagion in thought and action is heightened, too (Marchant, et al., 2018).

The contagion that can be spread includes suicidal ideation. According to the American Foundation for Suicide Prevention, suicide is the 10th leading cause of death in the United States, where each year 44,965 Americans die by completing suicide. When we look at Idaho specifically; the numbers are alarming. Idaho is the 7th state where the leading cause of death is suicide. For ages 15-44 we rank as 2nd and ages 45-54 we rank as 4th, where “more than 12 times as many people die by suicide in Idaho annually than by homicide” (AFSP, 2016).

A study was conducted on the correlation of teens between the ages of 13 and 18 years of age and the coincidence of suicide. The study’s authors found that one-third of the adolescents who used devices such as cellphones and tablets at least two hours per day acknowledged having thoughts or making plans to commit or even have attempted suicide (Twenge, Joiner, Rogers & Martin, 2019). This study continues that this number increased if the time that they spent on their devices was five or more hours daily. When compared to teens who did not use social media daily, teens that had a habit of using their devices every day were 13% more likely to admit that they were depressed. Researchers noticed that in 2012 there was a significant increase in depression rates. At the same time, there was a big increase in the usage of smartphones, with data indicating that over 50% of Americans owned a smartphone that year. (Twenge, et al., 2019).

Interestingly enough, by 2015 nearly 85% of teens owned smartphones and have been using them as a main source of communication with each other. Even more, social media has become the locus of their social life. One of the teens explains, “[Y]ou just want everyone to like you and not think bad of you, so you try your best to do that. When that fails, you feel like giving up on yourself, and you just don’t want to live anymore” (Twenge, et al., 2019).

Social media has become an outlet for people to connect with one another; they search for the approval of their peers and when that fails, they don’t see a reason to continue in their lives. Additionally, Twenge, et al., observed that sleep-deprived individuals have more of a predisposition to become depressed. The blue light illuminating from our devices stimulates us in such a way that we don’t feel tired. We stay busy at night by comparing ourselves to our peers, staring mindlessly into our devices, which can lead to depression (Twenge, et al., 2019).

Despite its ease, connection through social media or any other internet-based media is not the same as making a physical human connection. The crucial difference seems to be in the neuropeptide known as oxytocin. Oxytocin is a hormone that is released by the brain and helps regulate social interaction and positive social behavior (Olf, et al., 2013). For example, after studying film of basketball teams in the NBA, scientists found that the teams that touched the most— high fives, butt taps, pats, etc.— had the most wins. Touch releases oxytocin and instills deeper feelings of trust, and “it contagiously spreads goodwill” (Kraus, Huang & Keltner, 2011). Oxytocin is credited with being the “prosocial” hormone (Macdonald & Macdonald, 2010) in studies that were conducted to find out just how effective oxytocin is in determining relationships and deeper connections. Relying on social media to meet our social needs by spending hours isolated or secluded with an electronic device can cut off the opportunities for human interaction and attendant oxytocin release, leaving individuals feeling lonelier and more depressed. This perfect storm of behavior and isolation in a growing, changing, maturing, hormonally imbalanced teenager or adult could be the tipping of scale into depression – or worse.

Another significant concern with social media and the ability to “like” a post or a picture is that many people feel experience negative feelings when the things that they share—things that are often very personal and meaningful—are not liked enough or may even be mocked. Fragile self-esteem and uncertain personal feelings can be further traumatized by a lack of support from this shared personal information which can result in deep, emotional problems. Status updates are literally an indication of self-love and esteem, and participants are begging people to find them worthy or good enough. Teens are exchanging face-to-face time with their friends for chat groups and social media, and report feeling lonely at a higher rate (Twenge, et al., 2019).

While there are undoubtedly negative effects, social media is not all bad; in fact, there are many benefits to social media use. From the use of Morse code to Skype, technology has changed how family members can communicate with deployed military members and far-off relatives. The ability to see each

other face to face from far off places allows deployed fathers and mothers to watch their children grow while helping to keep their country safe. Grandparents can keep in touch with grandchildren, by watching their football games, and live-streaming graduation ceremonies they otherwise would have missed.

Children are able to be involved with their community and to share their artistic abilities and ideas via videos and blog posts. They can also socialize with their peers. Even more so, many schools are using blogs as teaching tools; students are able to meet online and work together on group projects (Schurgin O’Keeffe & Clarke-Pearson, 2011). Social media and smartphone applications are the primary communication choices for teens. When teens communicate with their parents either digitally or in person, the experience can be either positive or negative, but if met on their level with their phones, the experience can be completely different.

Connecting with children by texting with them conveys that the parent is trying to enter their world and get closer to them, which could literally strengthen family bonds. Fuller Youth Institutes notes:

Beyond texting, using the Internet to communicate or play online games with family and friends increases social capital among users (“social capital” is the strength of human connections that contributes to a personal sense of wellbeing). The benefit seems to lie in doing something together, even if the activity itself seems somewhat pointless to us as parents (Howell, n.d.).

Social media outlets are how teens are willing to communicate with anyone. Teens use social media to obtain advice and consult adults they know, and whom they value their opinion.

According to Twenge, et al., (2019), it can often be difficult to find others that struggles with the same issues, and that is where social media can be a shining beacon of hope. Social networking sites do not just include the friends a teen already knows in the real world; they help young people to reach out to new people with the same interests and values. People with issues, struggles, or diseases can now much more easily find groups of support, exchange experiences and connect with others (Twenge, et al., 2019). Furthermore, many suicide prevention groups are working to utilize social media sites and apps for better communication of the help that is available through virtual online mental health groups and other virtual avenues (Rice, Robinson, Bendall, Hetrick, Cox, Bailey, Gleeson, and Alvarez-Jimenez, 2016).

Social media and current technology can help close the distance gap, allowing individuals to stay in touch with one another throughout the world. Families that live miles apart can “connect” online to keep in touch with each other’s lives at the touch of a button. The ability to video chat thousands of miles apart is a wonderful thing when one person lives in the United States and another in Thailand, for example. Sharing funny memes, anecdotes or even silly pictures through different social platforms allows for personal self-expression. Service members stationed on aircraft carriers and in lands faraway can utilize social media to bridge the distance gap. While social media has its challenges, when used thoughtfully and with intention, it can provide positive benefits in our lives.

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College Students and Caffeine: The Marketing Carnival Approach

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Abstract

Introduction: We did a study on Gallery Row, a coffee shop in Carrollton, Georgia. Our objective was to determine which features students prioritize when selecting a coffee shop, and recommend attributes that managers at Gallery Row can improve.

Methodology: To satisfy the information needs of the study, we designed a 23-question questionnaire to gather information about demographics of students, their coffee consumption habits/preferences, and importance/performance factors of Gallery Row. We used a methodology involving data collection through the playing of carnival-style games, such that we were able to collect data from 400 students in one day.

Analysis: We used one-sample and independent-samples hypothesis tests to determine the importance of variables such as convenience, atmosphere, quality of coffee, selection, and price. Based on Gallery Row's performance on those same variables we completed an importance-performance analysis to make recommendations to Gallery Row to improve its appeal to college students. We analyzed the data using regression analysis, hypothesis testing, and Chi-Square testing to recommend management strategies to increase Gallery Row's appeal to college students.

Conclusions/Recommendations: Our findings suggested that Gallery Row's overall performance in barista friendliness, atmosphere, and quality of coffee is significantly important, and they are reasonably meeting those needs. However, they need to work on those variables which have high importance but low performance: price and convenience.

Regression analysis shows four variables (in order of importance) are most significant in determining overall impression: barista friendliness, selection of coffee, atmosphere, and convenience (Adjusted $R^2 = 0.51$). We recommend management focus on these.

Gallery Row Coffee: College Students and Caffeine

Introduction

We did a research study on Gallery Row Coffee, a local coffee shop that is located on Adamson Square in downtown Carrollton, Georgia, which University of West Georgia (UWG) students frequent. We were initially drawn to this business because coffee and caffeine seem to be the gasoline that particularly fuels Americans, college students. Not only is coffee viewed as a beverage of enjoyment or source of energy, but going out for a cup of coffee has evolved into a social gathering hub. Coffee shops such as Gallery Row are utilized by students for studying in a quiet atmosphere while enjoying one of the most popular beverages in the world. Our main objective is to determine which features UWG students look for when selecting a coffee shop, and with that knowledge, we recommend which areas managers at Gallery Row can improve according to the results from data. We test the importance of variables such as convenience, atmosphere of the coffee shop, quality of the coffee, selection, and price. Additionally, we collected information about the respondents such as gender, whether they live on campus, or commute, and if they are heavy or light users of coffee in order to compare the results of heavy users in comparison to light users. We surveyed 400 students and analyzed the data using regression analysis, hypothesis testing, and chi-square testing to recommend strategies to the managers to increase Gallery Row Coffee's appeal to UWG students.

Methodology

Questionnaire

To satisfy the information needs of Gallery Row, we designed a questionnaire consisting of 23 questions to analyze the demographics of UWG students, their coffee consumption habits, and importance and performance factors of Gallery Row. One part of the research instrument focused on the importance of variables such as atmosphere of the coffee shop, noise level, price, selection, quality of coffee, convenience, and barista friendliness. Additionally, we utilized Likert scale questions to analyze Gallery Row's performance ratings on each of these dimensions. We also included questions that proposed changes that could potentially attract the business of more college students such as college student discounts, BOGO deals, or free samples. Lastly, we concluded the questionnaire with two dependent variable questions that enabled us to run regressions, correlations, and chi-square testing to help understand which variables have an impact.

The Marketing Carnival Methodology

To engage our survey respondents and thus attract more of them to participate in our study, we implemented two coffee themed games in tandem with our questionnaire. The first game focused on the noise level aspect of question 8 on the questionnaire: how important is noise level when choosing a coffee shop? We lined up Gallery Row coffee cups according to a five-point interval scale (unimportant, somewhat unimportant, neither, somewhat important, and very important). Each player was given three attempts to knock down the coffee cup that corresponded to their response to the question using a sponge

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ball shooter gun. To make it more challenging and engaging, the shooter had to stand at a marked line away from the cups.

The second game focused on the quality of coffee aspect of question 8: how important is the quality of coffee when choosing a coffee shop? We had five large coffee cups constructed out of old car tires and designed to resemble coffee cups. Each of the tires were labeled with one of the answer choices corresponding to the interval scale (unimportant, somewhat unimportant, neither, somewhat important, and very important). The respondents had to stand behind a marked line where they were given three attempts to toss a ball into labeled “coffee cup”. If the players successfully played either of the games, they were awarded a prize of their choice (coupon to Gallery Row/candy).

Carnival Pictures



Figure 1: Poster board of Gallery Row made with real coffee beans



Figure 2: Respondent playing Shoot the Cup.



Figure 3: Coffee cups made from recycled tires for the second game.



Figure 4: The overall environment of the carnival.

The Marketing Carnival approach described above is designed to increase respondent engagement and thus their willing participation in responding to a questionnaire. Using this methodology enabled us to achieve the target sample size of 400 respondents within a 6-hour period. For comparison, another similar course at the university allocates one month to achieve the same target sample size of 400 respondents. See Sethna (2005) for a description of the Marketing Carnival methodology used in this and other studies.

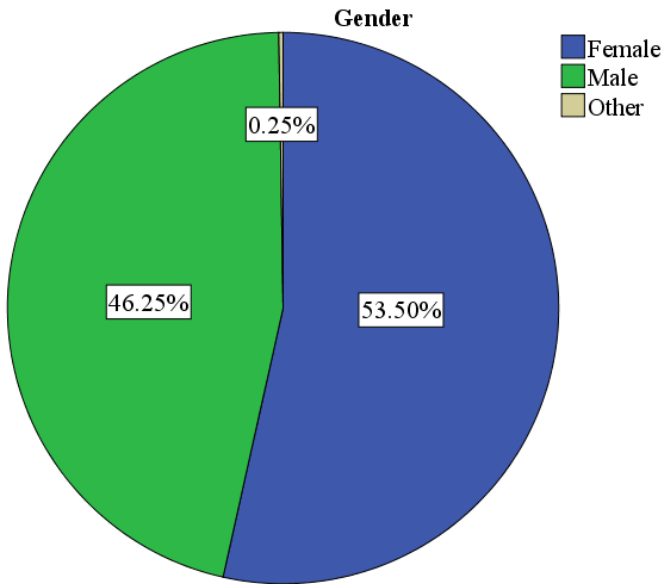
Analysis

We analyzed the 400 responses using the Statistical Package for the Social Sciences (SPSS). This Analysis section is organized into the following sub-sections:

1. Data Summary
2. Hypothesis Tests or T-Tests of: (i) One Mean and (ii) Differences Between Means
3. Tests of Association: (i) Chi-Square tests, (ii) Correlations, and (iii) Regression Analysis

Data Summary

Gender



Our sample was reasonably balanced between both genders. We found that 53.5 percent of our sample was female, and 46.25 percent of our sample was male. This finding will give us a better understanding of gender roles when making decisions. We did a test of one proportion to examine if

our female proportion was consistent with that of undergraduate students at UWG, which is 63.2 percent, and found that it was significantly different. The hypothesis test is shown below:

$$H_0: P = 0.632 \quad H_a: P \neq 0.632$$

$$z_c = \frac{p - P_0}{s_p} \quad \text{where } s_p = \sqrt{\frac{P_0 * (1 - P_0)}{n}}$$

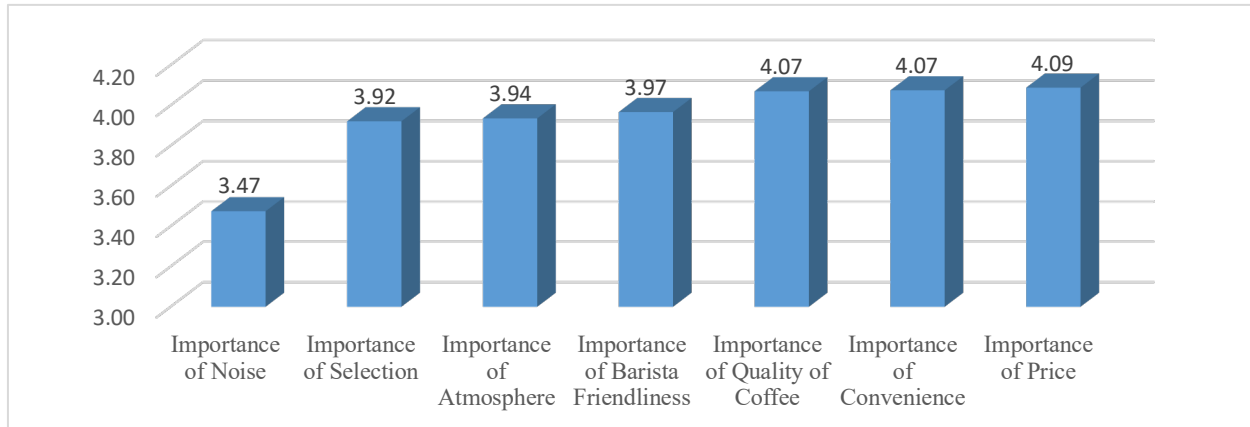
$$z_t \text{ from table} = \pm 1.96 \text{ (if } \alpha = 0.05 \text{) or } \pm 2.58 \text{ (if } \alpha = 0.01 \text{)}$$

$$s_p = \sqrt{\frac{0.632 * (1 - 0.632)}{400}} = 0.024$$

$$\text{So, } z_c = \frac{0.535 - 0.632}{0.024} = -4.04$$

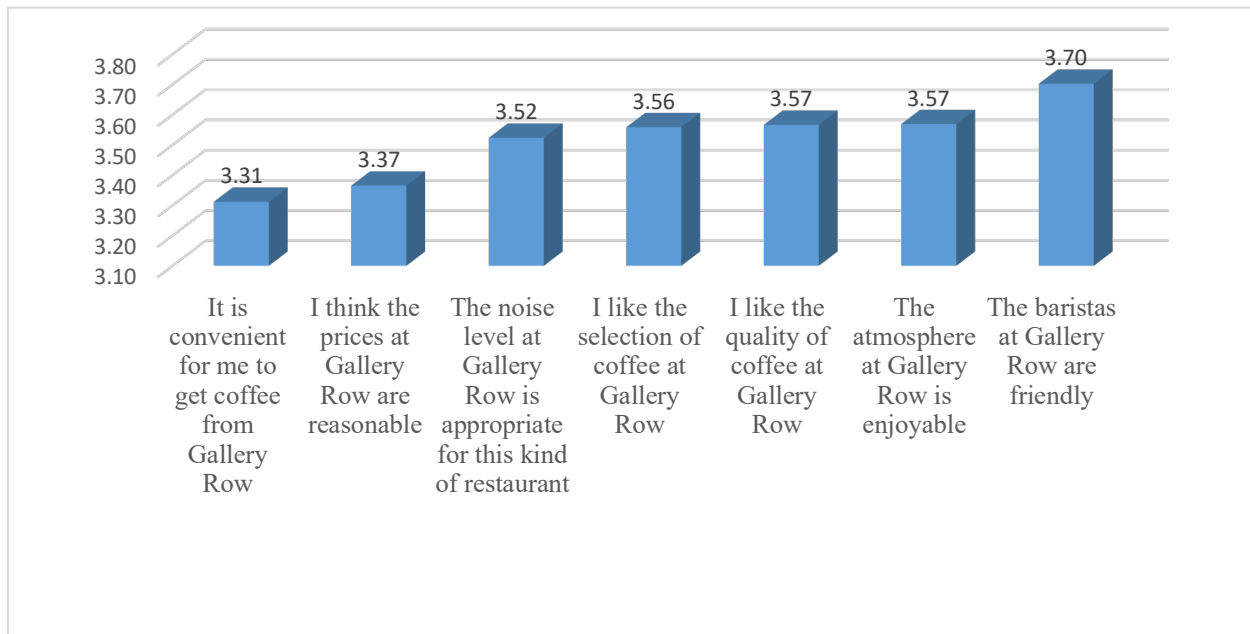
Conclusion: Reject H_0 . The proportions of females is significantly different from those of the UWG undergraduate population. Therefore, the sample is not representative of the UWG undergraduate population in terms of gender. However, it does provide a reasonably balanced gender sample.

Importance Variables



The variable Importance of Noise Level showed the least importance to respondents. All the other variables have a high importance level (4 on a 5-point scale). Tests of one mean / one-sample t-tests showed that all the above variables except for noise level are not significantly different from 4.

Performance Variables

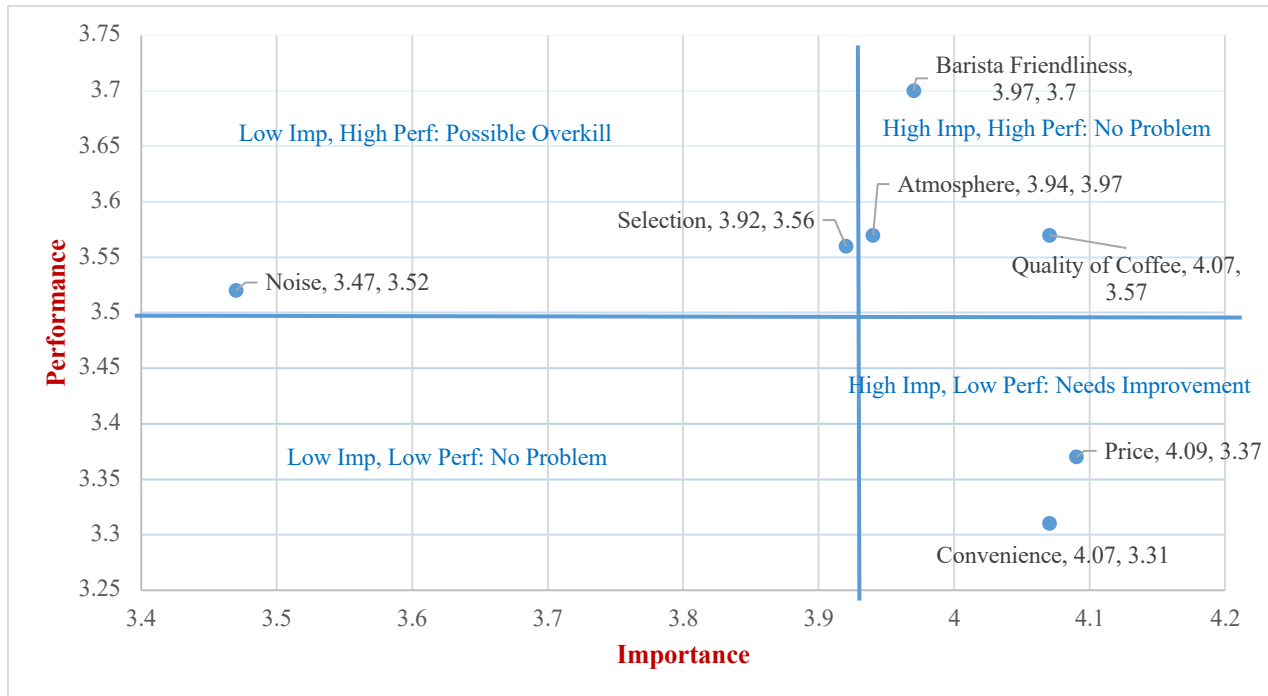


According to the data, barista friendliness is the highest rated of the Gallery Row performance variables. The performance variables of convenience and price were rated lowest.

Importance Performance Analysis

Importance-Performance Analysis is a useful method for analyzing dimensions of a product or service, to identify those dimensions in which the performance is consistent with the importance of the dimension (both high or both low) – these typically do not need major corrective action, versus those dimensions in which the performance is not consistent with the importance of the dimension – in this case, particular in the case where the dimension has high importance but low performance, the management implication is that corrective action is necessary. This approach was first proposed by Martilla and James (1977) extensions and testing of importance-performance analysis were published by Sethna (1982). As recently as 2017, Burch et al (2017) used the work of the preceding authors in their own work.

The results of Importance-Performance analysis as applied to Gallery Row are shown in the following figure.



After analyzing the importance variables in relation to the performance variables, we recommend that managers focus on improving the price and convenience to appeal to UWG students. The areas of barista friendliness, atmosphere, and quality of coffee are considered high importance and high performance. Therefore, these are the areas Gallery Row is strongest. However, the noise level of the restaurant and the selection of coffee at Gallery Row were discovered to be aspects of low importance but high performance by the restaurant. The main concern that shows up from this Importance-Performance Analysis is that Gallery Row needs to address those areas that are considered highly important but have low performance: price and convenience.

2. Hypothesis Tests: Difference between Means

We performed tests of difference between means / independent samples t-tests among gender segments for both the importance and performance variables.

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	Gender	N	Mean	Equal Variances	Sig. (2-Tailed) / p-value
Importance of Atmosphere	Female	204	4.17	assumed	.000
	Male	181	3.68	not assumed	.000
Importance of Noise Level	Female	206	3.56	assumed	.139
	Male	181	3.37	not assumed	.140
Importance of Price	Female	207	4.30	assumed	.000
	Male	180	3.84	not assumed	.000
Importance of Selection	Female	199	4.15	assumed	.000
	Male	178	3.66	not assumed	.000
Importance of Quality of Coffee	Female	207	4.28	assumed	.001
	Male	180	3.83	not assumed	.002
Importance of Convenience	Female	207	4.29	assumed	.000
	Male	182	3.84	not assumed	.000
Importance of Barista Friendliness	Female	207	4.19	assumed	.000
	Male	182	3.71	not assumed	.000

For the importance variables test, we found the Importance of Noise Level variable to show no significant difference between males and females. All other importance variables showed significant higher scores for females.

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	Gender	N	Mean	Equal Variances	Sig. (2-Tailed) / p-value
The atmosphere at Gallery Row is enjoyable	Female	213	3.64	assumed	.056
	Male	185	3.49	not assumed	.059
The noise level at Gallery Row is appropriate	Female	209	3.55	assumed	.481
	Male	176	3.49	not assumed	.486
I think the prices at Gallery Row are reasonable	Female	209	3.35	assumed	.738
	Male	176	3.38	not assumed	.740
I like the selection of coffee at Gallery Row	Female	209	3.58	assumed	.574
	Male	175	3.54	not assumed	.574
I like the quality of coffee at Gallery Row	Female	208	3.56	assumed	.783
	Male	176	3.58	not assumed	.783
It is convenient for me to get coffee from Gallery Row	Female	209	3.22	assumed	.019
	Male	175	3.42	not assumed	.018
The baristas at Gallery Row are friendly	Female	209	3.71	assumed	.804
	Male	176	3.69	not assumed	.804

For the performance variables test, we found significant higher scores for males for the variable: It is convenient for me to get coffee from Gallery Row. All other performance variables showed no significant difference between males and females.

We also performed tests of differences between means among heavy and light users of coffee for both the importance and performance variables. We characterized heavy users as respondents who visit coffee shops daily or weekly and light users as respondents who visit coffee shops monthly or less than once per month.

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Frequency of Coffee Shop Visits		N	Mean	Equal Variances	Sig. (2-Tailed) / p-value
Importance of Atmosphere	Heavy User	167	4.14	assumed	.004
	Light User	214	3.76	not assumed	.003
Importance of Noise Level	Heavy User	167	3.64	assumed	.026
	Light User	216	3.35	not assumed	.023
Importance of Price	Heavy User	169	4.30	assumed	.003
	Light User	214	3.91	not assumed	.002
Importance of Selection	Heavy User	163	4.18	assumed	.000
	Light User	211	3.71	not assumed	.000
Importance of Quality of Coffee	Heavy User	168	4.62	assumed	.000
	Light User	215	3.62	not assumed	.000
Importance of Convenience	Heavy User	169	4.37	assumed	.000
	Light User	216	3.83	not assumed	.000
Importance of Barista Friendliness	Heavy User	169	4.24	assumed	.000
	Light User	216	3.74	not assumed	.000

We found that all the above variables showed heavy users place a significantly greater importance than light users on these factors when selecting a coffee shop. This implies that management should particularly emphasize these variables.

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Frequency of Coffee Shop Visits		N	Mean	Equal Variances	Sig. (2-Tailed) / p-value
The atmosphere at Gallery Row is enjoyable	Heavy User	169	3.70	assumed	.007
	Light User	225	3.48	not assumed	.007
The noise level at Gallery Row is appropriate	Heavy User	167	3.68	assumed	.001
	Light User	214	3.41	not assumed	.001
I think the prices at Gallery Row are reasonable	Heavy User	167	3.49	assumed	.009
	Light User	214	3.28	not assumed	.010
I like the selection of coffee at Gallery Row	Heavy User	166	3.77	assumed	.000
	Light User	214	3.39	not assumed	.000
I like the quality of coffee at Gallery Row	Heavy User	166	3.79	assumed	.000
	Light User	214	3.39	not assumed	.000
It is convenient for me to get coffee from Gallery Row	Heavy User	166	3.33	assumed	.668
	Light User	214	3.29	not assumed	.671
The baristas at Gallery Row are friendly	Heavy User	167	3.86	assumed	.000
	Light User	214	3.58	not assumed	.001

For the performance variable test between heavy users and light users we found one variable that showed no significant difference between heavy users and light users: It is convenient for me to get coffee from Gallery Row. All of the other above variables suggest that more heavy users than light users agree that Gallery Row is doing well on the factors of enjoyable atmosphere, noise level, prices, selection of coffee, quality of coffee, and barista friendliness.

3. Tests of Association

Chi-Square

We did a chi-square test on the relationship between ethnicity and being a heavy user or light user. The Chi-Square test showed that this ethnicity difference was statistically significant. There is a relationship between race and being a heavy or light user. A greater percentage of Caucasians (approximately 52%) are heavy users of coffee relative to African Americans (about 33%).

Recoded Ethnicity	Frequency of Coffee Shop Visits	Heavy User	Light User	Total
African American	Count	57	116	173
	% within Recoded Ethnicity	32.90%	67.10%	100.00%
	% within Frequency of Coffee Shop Visits	33.50%	51.60%	43.80%
Caucasian	Count	85	78	163
	% within Recoded Ethnicity	52.10%	47.90%	100.00%
	% within Frequency of Coffee Shop Visits	50.00%	34.70%	41.30%
Other	Count	28	31	59
	% within Recoded Ethnicity	47.50%	52.50%	100.00%
	% within Frequency of Coffee Shop Visits	16.50%	13.80%	14.90%
Total	Count	170	225	395
	% within Recoded Ethnicity	43.00%	57.00%	100.00%
	% within Frequency of Coffee Shop Visits	100.00%	100.00%	100.00%

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	13.172 ^a	2	0.001
Likelihood Ratio	13.301	2	0.001
N of Valid Cases	395		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 25.39.

Regression Analysis

We performed a stepwise regression to diminish the impact of multicollinearity within the performance variables using the independent variable My overall impression of Gallery Row is very positive, and the following independent variables:

- The baristas at Gallery Row are friendly
- I like the selection of coffee at Gallery Row
- It is convenient for me to get coffee from Gallery Row
- The atmosphere at Gallery Row is enjoyable

In the following regression, the set of independent variables shown in the table below successfully explained 51.3 percent of the variance in the dependent variable, My overall Impression of Gallery Row is very positive.

Model Summary

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
4	.720 ^d	0.518	0.513		0.583

d. Predictors: (Constant), The baristas at Gallery Row are friendly, I like the selection of coffee at Gallery Row, It is convenient for me to get coffee from Gallery Row, The atmosphere at Gallery Row is enjoyable.

The F-value (or the ANOVA) shows that the regression is significant at the 0.0001 level.

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Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.531	0.177		3.008	0.003
The baristas at Gallery Row are friendly	0.498	0.056	0.459	8.888	0
I like the selection of coffee at Gallery Row	0.223	0.06	0.193	3.723	0
It is convenient for me to get coffee from Gallery Row	0.093	0.041	0.092	2.266	0.024
The atmosphere at Gallery Row is enjoyable	0.11	0.049	0.107	2.242	0.026

a. Dependent Variable: My overall impression of Gallery Row is very positive

Final Equation: Overall Impression = 0.459*barista friendliness + 0.193*selection + 0.092*convenience + 0.107*enjoyable atmosphere

Our recommendation to Gallery Row management is to concentrate on these four variables in order of importance from Barista Friendliness, Selection of Coffee, Atmosphere, and Convenience.

Conclusions

The first set of questions (Qs. 1-6) on the survey provided insight into how the demographics of students impact their responses in terms of the importance and performance variables for Gallery Row. The hypothesis tests of difference between means of males and females revealed how certain genders exhibit characteristics corresponding to certain variables such as being a heavy or light user. Although our proportion of female respondents was not representative of the UWG population in terms of gender, we were still able to draw important conclusions regarding male/female preference. The variable noise level showed no significant difference between males and females. However, the variables Importance of Atmosphere, Importance of Price,

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Importance of Selection, Importance of Quality of Coffee, Importance of Convenience, and Importance of Barista Friendliness exhibited a significantly greater importance to females than males. Out of the performance variables, the atmosphere at Gallery Row is enjoyable, the noise level at Gallery Row is appropriate for this kind of restaurant, I think the prices at Gallery Row are reasonable, I like the selection of coffee at Gallery Row, I like the quality of coffee at Gallery Row, and the baristas at Gallery Row are friendly displayed no significant difference between males and females. Interestingly, the convenience performance variable showed a significantly higher score for males than females. Taking this into consideration, we are able to conclude that those particular importance variables are more meaningful to females to have performed at Gallery Row. This is an important finding because a significantly higher percentage of females were found to be heavy users. Therefore, by satisfying the females, Gallery Row would be satisfying more of its heavy users.

Question 7 on the questionnaire enabled us to classify respondents as heavy users or light users. Using those classifications, we compared the variables using chi-square testing to understand which aspects are most important to heavy users of coffee. Interestingly, this form of classification showed some importance to noise level. Earlier analyses showed noise level not to be a very important variable relative to the other dimensions of evaluation, but we cannot ignore it, because it is important to about 56 percent of heavy users. All of the importance and performance variables, except for variables It is convenient for me to get coffee from Gallery Row and The atmosphere at Gallery Row is enjoyable, indicated a greater importance by a significantly larger percentage of heavy users compared to light users.

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Question 8 was utilized to study the *importance* variables. We used the variables of enjoyable atmosphere, noise level, price, selection, quality of coffee, convenience and barista friendliness to analyze the importance that respondents placed on each variable. Through the means of hypothesis testing, chi-square, and regression analysis we could analyze the importance variables in terms of mean, gender, and heavy or light users. Noise level showed up to be of the least importance to respondents. All of the other variables have a high importance level, 4 on a 5-point scale. Hypothesis tests of one mean showed that all the variables in question 8 except for noise level are not significantly different from 4. However, chi-square testing of the importance of noise level showed that heavy users place a significantly greater importance on noise level (approximately 55%) than light users (approximately 47%). Therefore, this variable is still one to consider in terms of significance because approximately 56 percent of heavy users think it is of importance.

Question 9 helped us understand the dynamic of the respondents in terms of coffee purchasing frequency. Interestingly and surprisingly, we see that approximately 52 percent of respondents disagree or strongly disagree that they buy coffee once a week. Therefore, our sample does not appear to consist of heavy drinkers of coffee. Only about 39 percent of respondents agree or strongly agree that they buy coffee once a week. This was unexpected, as we anticipated that college students would represent a larger percentage of weekly coffee purchasers.

Question 10 provided useful information, as we found that caloric information is of relatively low importance to respondents. Interestingly, only 21.50 percent of respondents agree or strongly agree that they use caloric information to influence their decision when

ordering a beverage. This is useful in making recommendations to Gallery Row that the majority of consumers do not use this information. Therefore, including this information is not likely to increase beverage sales to college students, so they can focus their efforts in different areas to reap the highest impact.

Question 11 was the first of the series of questions that were specific to Gallery Row. Therefore, if respondents had never been to Gallery Row, the questions were based on their best impressions. This finding was interesting because we see that 52.63 percent of respondents neither agree nor disagree with the ease of ordering from Gallery Row's menu. The second largest percentage of respondents (33.08%) agreed with the statement. Because there was only a very small percentage of respondents who disagree or strongly disagree, the menu at Gallery Row does not seem to be an inhibitor to ordering.

Questions 12-18 targeted the *performance* of the variables of atmosphere, noise level, prices, selection, quality of coffee, convenience, and barista friendliness specific to Gallery Row. We used the responses for these performance variables in comparison to the importance that respondents placed on each importance variables to evaluate how well Gallery Row satisfied each variable. The importance-performance analysis led to our recommendation that managers focus on improving the price and convenience in order to appeal to UWG students. Barista friendliness, atmosphere, and quality of coffee are considered high importance and high performance. Therefore, these are the areas Gallery Row is strongest. However, the noise level of the restaurant and the selection of coffee at Gallery Row were discovered to be aspects of low importance but high performance by the restaurant. The primary concern we drew from the Importance-

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Performance Analysis is that Gallery Row needs to address those areas that are considered highly important but have low performance: price and convenience.

Questions 19-21 sought to determine how the number of customers would be affected if Gallery Row began to implement the following: college student discount, BOGO deals, or free samples. Hypothesis testing of differences between means of heavy users and light users revealed that the following variables showed significant higher scores for heavy users: college student discounts, promotional nights for college students (such as BOGO deals), overall impression of Gallery Row, I am likely to be a frequent customer at Gallery Row; while the variable free samples would encourage me to purchase coffee from Gallery Row showed no significant difference between heavy and light users. Hypotheses tests of one mean indicated that Gallery Row should offer a college student discount to encourage college students to be frequent customers, as this variable had a mean significantly greater than 4 on a 5-point Likert scale. Promotional nights, BOGO deals, and free samples are also shown to be good approaches.

Questions 22 and 23 were dependent variables that were used to conduct regression tests. Regression analysis indicated that the four variables of barista friendliness, selection, convenience, and enjoyable atmosphere were most important in determining the overall impression of the restaurant. Our recommendation to management would be to focus on these four variables in order of importance from Barista Friendliness, Selection of Coffee, Atmosphere, and Convenience as they explain over 51 percent of the impression of Gallery Row. According to respondents, only 36.1 percent of respondents Strongly Agree or Agree that they are likely to be a frequent customer at Gallery Row. That being considered, focusing on those four variables of the regression