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Consumer Racial Discrimination in Tipping: A Replication and Extension

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Keywords

tipping, racial discrimination, consumer behavior

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Comments

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Running Head: CONSUMER RACIAL DISCRIMINATION

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Abstract

This study examines the effects of server race, customer race and their interaction on restaurant tips while statistically controlling for the customers' perceptions of service quality and other variables. The findings indicate that consumers of both races discriminate against black service providers by tipping them less than white service providers. Furthermore, this server race effect on tipping is moderated by perceived service quality and dining party size. The theoretical and practical implications of these findings are discussed. Particularly noteworthy is the possibility that the server race effect on tipping represents an adverse impact against black servers that makes the use of tipping to compensate employees a violation of employment discrimination law in the United States.

Consumer Racial Discrimination in Tipping:

A Replication and Extension

The role of racial discrimination in consumer behavior has received attention in economics, marketing, psychology, sociology, and law. On the whole, the evidence suggests that consumers prefer members of their own race across many commercial contexts. For example, researchers have found that: (a) people tend to buy into neighborhoods whose racial composition matches their own racial background (Adelman, 2004; Wilkes & Iceland, 2004), (b) children prefer dolls of their own race over dolls of another race (Fox & Jordan, 1973; Hraba & Grant, 1970), (c) consumers are more likely to choose cashiers of their own race over cashiers of a different race (Juni, Brannon & Roth, 1988), (d) consumers respond more positively to advertisements featuring same race actors than to ads featuring opposite race actors (Qualls & Moore, 1990; Whittler, 1989, 1991; Whittler & Dimeo, 1991), and (e) viewers of the television show American Idol are more likely to vote for same race contestants than for opposite race contestants (Lee, 2006). These findings are consistent with, and probably attributable to, the fact that many people in the United States have an explicit preference for their own race over other races (Ashburn-Nardo, Knowles & Monteith, 2003; Nosek, Banaji & Greenwald, 2002).

In a recent contribution to this literature, Ayres, Vars and Zakariya (2005) found evidence of consumer racial discrimination in tipping as well. However, they found that both white and black taxicab passengers tipped white drivers more than black drivers. This bias favoring white service providers rather than same race service providers deviates from the typical pattern of racial discrimination exhibited by consumers and needs to be both replicated explained. Ayres et. al. attributed their finding to both conscious and unconscious motivations or

prejudices on the part of consumers, but acknowledged that their explanatory conclusions were weak and pushed the limits of their data. They also acknowledged that their finding could be attributable to differences in the service quality provided by drivers of different races.

In this paper, we re-examine the effect of server race on tipping reported by Ayres et. al. (2005). First, we discuss potential explanations for this effect and draw upon the theory of aversive racism (Dovidio & Gaertner, 2004) to identify two potential moderators of the effect. Then we report on a study that attempts to replicate Ayres et. al.'s finding in a new service context, tests the differential service explanation for the effect, and tests the interaction of server race with the two hypothesized moderators. Finally, we discuss the limitations of our study along with the theoretical and practical implications of our findings.

POTENTIAL EXPLANATIONS

There are many potential explanations for Ayres et. al.'s (2005) finding that both black and white customers tipped white service providers more than black service providers, but two are particularly salient. First, this race difference in tip income could reflect race differences in service delivery, because tipping is supposed to be a reward for service. Although researchers have found only a modest effect of service on restaurant tipping (Lynn & McCall, 2000), service may have a stronger effect in other service contexts such as taxicab services (see Lynn & Gregor, 2001). This explanation suggests that server race may not affect tipping in restaurants, where service effects are weak, and that any observed server race effects on tipping will disappear after controlling for service quality.

A second potential explanation for a white server bias in tipping may be found in the concepts of aversive racism and implicit racial attitudes. Dovidio and Gaertner (2004) argue that

as racism has become less socially acceptable, many people consciously endorse egalitarian values while unconsciously harboring negative feelings about Blacks. The egalitarian values of these aversive racists mean that they do not discriminate "directly and openly in ways that can be attributed to racism" (Dovidio et. al. 2002, pg.90). However, their unconscious prejudices mean that they "will discriminate, often unintentionally, when their behavior can be justified on the basis of some factor other than race" (Doviodio et. al, 2002, pg. 90).

Consistent with these ideas about aversive racism, research on the Implicit Association Test (IAT) suggests that many Whites and Blacks have an *implicit* (i.e., automatic and often unconsious) preference for Whites over Blacks (Ashnurn-Nardo, Knowles & Monteith, 2003; Nosek, Banaji & Greenwald, 2002). Furthermore, implicit racial attitudes have been found to predict spontaneous behaviors (i.e., those outside of conscious control) toward Blacks as well as deliberative behaviors toward Blacks that can be justified on other grounds. For example, Dovidio et. al. (1997) found that implicit racial attitudes predicted White's nonverbal behavior in interactions with Blacks. Sargent (forthcoming) found that implicit racial attitudes predicted choice of a black vs white work partner when that choice also determined the task to be performed and could be interpreted as reflecting a preference for one task over another rather than a preference for one partner over another.

Tipping decisions have both a deliberative and a spontaneous component. On one hand, people comply with the 15 to 20 percent tipping norm (Lynn and Grassman, 1990; Lynn and McCall, 2000), which requires a conscious and deliberate calculation of the appropriate percentage. On the other hand, people often adjust their actual tips up or down from the calculated tip percentages, and those adjustments appear to be spontaneous and at least partially outside of conscious control. For example, researchers have found that tips are affected by how

sunny it is outside (Cunningham 1979; Rind 1996), whether or not the server touches the customer (Crusco and Wetzel 1984; Lynn, Le, and Sherwyn 1998) and whether or not the server repeats the customer's order (van Baaren et. al. 2003). These factors are unlikely to be part of customers' conscious deliberations about how much to tip (see van Baaren et. al. 2003), so tipping is affected by unconscious as well as conscious processes.

To the extent that tipping is spontaneous and outside of conscious control, then negative implicit attitudes toward Blacks should result in lower tips for black servers regardless of the circumstances. However, to the extent that tipping is deliberative, then negative implicit attitudes toward Blacks should result in lower tips for black servers only when those lower tips can be justified on some other grounds. This latter reasoning suggests that if the server race effect on tipping is attributable to aversive racism, or negative implicit attitudes toward Blacks, then it will be stronger when the service is moderate than when it is good, because the low tips given to black servers can then be attributed to the service.

This hypothesis is similar to one tested by Dovidio and Gaertner (2000). They found that white students assessed the qualifications of black candidates for a position as lower than those of equally qualified white candidates, but only when the candidates' qualifications were ambiguous and the assessments could be justified on non-racial grounds. Subjects did not display racial preferences when those preferences would be transparent because the candidates were either clearly qualified or clearly unqualified. This logic suggests that tippers will not discriminate when the service is obviously very good or very bad, but may discriminate against black servers when the service is ambiguously moderate. Ninty-three percent of the service ratings in this study ranged from three to five on a five point scale, so the low ratings in this

study do reflect moderate service levels. This means that server race should have a stonger effect on tipping, the lower the service rating in this study.

The aversive racism explanation also suggests that the server race effect on tipping may be stronger among large dining parties than among smaller dining parties. Gaertner and Dovidio (1977) predicted that the presence of bystanders would diminish helping of a black emergency victim because diffusion of responsibility would provide the needed non-racial justification for failing to help. Moreover, they found empirical support for this prediction. Researchers have argued that the responsibility for tipping is also diffused in large groups (see Freeman et. al. 1975), so dining out in a large group could enhance the tendency to discriminate against black servers by providing a non-racial justification for tipping less.[1]

The study reported below tests the generalizability of Ayres et. al.'s (2005) finding that consumers tipped black cab drivers less than white cab drivers to a new service context. Furthermore, it provides tests of the previously described explanations for this effect. Specifically, it examines the effects of server race, customer race and their interaction on restaurant tips, as well as the interactions of server race with service ratings and with group size, while statistically controlling for the customers' perceptions of service quality and other variables.

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[1] Unfortunately, it is not clear how much the responsibility for tipping is diffused in large parties. The negative group size effect on tipping, which Freeman et. al. (1975) attributed to diffusion of responsibility, can instead be a statistical artifact common to correlations of ratio variables like percent tip (Lynn & Bond, 1992). Thus, group size may or may not interact with server race to affect tipping.

METHOD

Data Collection

The data for this study was collected during three lunch shifts (11:00AM – 4:00PM) at a

restaurant located in the southern United States. The restaurant was one outlet of a large national

chain. Researchers approached dining parties that had just been seated and asked them to

complete a survey. Dining parties were asked to have the person who paid the bill complete the

questionnaire, which was either returned directly to the researcher or placed in a box in the

lobby. Approximately ninety percent of dining parties returned at least partially completed

questionnaires. After discarding 18 respondents who failed to indicate their tip and/or bill size,

18 respondents who failed to indicate their or their servers' race, and 4 respondents who reported

their race as other than white or black, a total of 140 useable observations were obtained and

retained for analysis. Of the 140 observations in this data set, 80 involved white customers and

white servers, 16 involved black customers and white servers, 34 involved white customers and

black servers, and 10 involved black customers and black servers.[2]

Measures

The restaurant's patrons were asked to provide information on their servers' performance,

the meal, the restaurant, and themselves. The specific items collected in the survey are detailed

below.

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[2] This data was collected several years ago. We did not record, and therefore do not know, how customers were
assigned to servers – whether a hostess seated them or they seated themselves. Certainly, customers were not
assigned to servers using a coin toss or other clearly random process. However, whatever seating process was used,
it appears to have assigned customers to servers independently of their racial or sexual similarity to one another.
Seventeen percent of the customers assigned to white servers were black while 23 percent of the customers assigned
to black servers were black. These percentages were not significantly different (X^2 (1) = .73, n.s.). Similarly, 45
percent of the customers assigned to waiters were male while 50 percent of the customers assigned to waitresses
were male. These percentages were not significantly different either (X^2 (1) = .29, n.s.). Thus, for our purposes,
assignment appears to have been essentially (if not formally) random.

Service quality was assessed by asking customers to rate how much they liked the server's (1) appearance, (2) friendliness, (3) attentiveness, and (4) promptness. The four ratings, on a five point scale ranging from 1 "Dislike Very Much" to 5 "Like Very Much," we averaged to provide a single index of perceived service quality. The index had a coefficient alpha of .90.

Food quality was assessed by asking customers to rate how much they liked the food's (1) taste and (2) appearance. The two ratings, on a five point scale ranging from 1 "Dislike Very Much" to 5 "Like Very Much," were averaged to provide an index of food quality. This index had a coefficient alpha of .84.

Atmosphere quality was measured by asking customers to specify how much they liked the dining room's lighting and temperature. The two ratings, on a five point scale ranging from 1 "Dislike Very Much" to 5 "Like Very Much," were averaged to provide the index of atmosphere quality, which had a coefficient alpha of .71.

Server demographics were assessed by asking customers to indicate their server's sex (male = 0, female = 1) and race (Caucasian = 0, African American = 1). Note that the restaurant's wait-staff included multiple servers of each race.

Customer demographics were assessed by asking customers to indicate their sex (male = 0, female = 1) and race (Caucasian = 0, African American = 1; customers could also indicate "Other" for race, but as previously mentioned these surveys were eliminated from the study due to a lack of observations in this category).

Patronage frequency was measured by asking customers to indicate how many times per week, month or year they dined at the restaurant. This data was used to calculate the number of times per year the customer frequented the restaurant and that value was converted into quartile scores to produce an outlier-free measure.

F*ood service experience* was assessed by asking customers whether or not they had worked in food service before (no = 0, yes=1).

Data was also collected on *dining party size* (the number of adults, teenagers and children in the dining party, summed together), *bill size* (including tax), and *tip amount*. We created the variable, *tip percent*, by dividing tip amount by bill size. An examination of this rank ordered measure revealed a large discontinuity after a value of 45 % – the next values were 56%, 120% and 125%. To avoid problems with outliers, these three extreme values were recoded as 46%, 47% and 48% respectively.[3]

Missing Values for Control Variables

Some subjects failed to answer every question, so there were missing values for several control variables. Because of the problems with listwise deletion (Roth and Switzer, 1995; Roth, Switzer, and Switzer, 1999), we used various missing data techniques to preserve power. For multi-item scales with some (but not all) items missing, we used the remaining items as the representation of the construct. This technique (Mean Substitution$_{Person}$) has been shown to be a highly effective missing data technique, and is therefore appropriate given our desire to maintain power and variability of the measures (Roth et al., 1999). For the remaining missing values, we substituted either the mean or median value for that variable as appropriate. Seven missing values for the food index and two missing values for the atmosphere index were replaced with their respective means. In addition, thirteen missing values for patronage frequency (before

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[3] This re-coding did not unduly bias our analyses, because Robust MM Regression analyses on the unaltered data produced results for customer race, server race and their interaction that are similar to those reported in the main text. A robust regression of percent tip on service quality, food quality, atmosphere quality, dining party size, bill size, patronage frequency, food-service experience, customer sex, server sex, customer X server sex, customer race and server race produced significant effects for customer race (B = -3.49, t (127) = -2.66, $p < .01$) and server race (B = -3.17, t (127) = -3.36, $p < .01$). Furthermore, adding the product of server and customer race to the regression model indicated that the interaction of these variables (B = -1.03, t (126) = -.43, $p = .67$) was not statistically significant.

converting to quartile scores) and one missing value for server sex were replaced with the

medians of those variables. Because these are control variables, the loss of variability due to

mean (or median) substitution should not influence the tests of our hypotheses. Furthermore,

because our sample size is above 100 and the percent of missing data is relatively low (less than

10% for all control variables), mean substitution should serve quite adequately (Roth and

Switzer, 1995).

RESULTS

Summary statistics of the study's variables are shown in Table 1. The data were analyzed

using hierarchical linear regression. First, percent tip was regressed on service quality, food

quality, atmosphere quality, group size, bill size, patronage frequency, food service experience,

server sex, customer sex, the product of server and customer sex, patron race, and server race.

Then the products of server race and customer race, service quality, and group size were each

added to the model in three separate analyses. The results are summarized in Table 2.

Like Ayres et. al. (2005), we found that that customers tipped black servers less than white

servers, $B = -3.25$, $t(127) = -2.39$, $p < .02$; and that this effect was not moderated by customer

race, $B = .44$, $t(126) = .13$, $p > .89$. However, the server race effect was moderated by service

quality, $B = -4.41$, $t(126) = -2.19$, $p < .03$; and group size, $B = -2.55$, $t(126) = -1.99$, $p < .05$; as

described below.

Forty-seven percent of our subjects rated the service a perfect score of five, so we divided

the sample into those who gave perfect service ratings and those who did not and then crossed this

binomial variable with server race in order to breakdown the server race by service quality

interaction. For white servers, tips increased from 16.8 percent of the bill size when service was

rated less than perfect to 23.4 percent of bill size when service was given a perfect rating, but for

black servers, tips were 16.6 percent of bill size for both perfect and less than perfect service ratings. Thus, contrary to our hypothesis, the server race effect was stronger at higher levels of perceived service quality than at moderate levels of perceived service quality. [4]

Over 50 percent of our subjects were in dining parties of two, so we divided the sample into those parties with one or two people and those with three or more people and crossed this binomial variable with server race in order to breakdown the server race by group size interaction.[5] Groups of one or two diners tipped white servers an average of 20.7 percent of the bill and tipped black servers an average of 17.5 percent of the bill; while parties of three or more tipped white servers an average of 19.4 percent of the bill and tipped black servers an average of 14.6 percent of the bill. Thus, as expected, the server race effect was stronger the larger the size of the dining party.

In addition to the effect of server race, tips in this study were affected by service quality, bill size, dining frequency, food service experience, and customer race. Percentage tips decreased with bill size, $B = -.17$, $t(127) = -3.33$, $p < .002$; and increased with service quality, $B = 2.07$, $t(127) = 1.90$, one-tailed $p < .031$; dining frequency, $B = 1.42$, $t(127) = 2.40$, $p < .018$; and food service experience, $B = 4.11$, $t(127) = 3.28$, $p < .002$. Furthermore, Blacks tipped less than Whites, $B = -4.27$, $t(127) = -2.40$, $p < .018$. Finally, there was a marginally significant server by customer sex interaction, $B = -4.12$, $t(127) = -1.46$, one-tailed $p < .08$; indicating that tips were larger when the server and customer were of opposite sex than when they were the same sex. All of these later findings are consistent with previous research on tipping (see Lynn 2006 for a review).

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[4] As previously noted, only seven percent of the values on the service index fell below the scale midpoint of 3, so this index contrasts extremely high levels of service quality with moderate (rather than low) levels of service quality.
[5] Sixty-six percent of our sample came from groups of one or two people and thirty four percent came from groups of three or more people.

DISCUSSION

The principle finding in this study is that both black and white consumers tipped white restaurant servers more than black restaurant servers. Admittedly, this finding comes from only one restaurant in the south. Additional research in other restaurants and geographical regions of the country is needed. However, this result does replicate an earlier finding by Ayres et. al. (2005) that both white and black taxicab passengers in New Haven, Connecticut tipped white cab drivers more than black cab drivers. Thus, the server race effect on tipping does appear to generalize across at least some service contexts and geographic regions. In addition to extending Ayres et. al.'s finding to a new service context and region of the country, our results demonstrate that the server race effect on tipping is not attributable to race differences in service delivery because it was found after statistically controlling for customers' ratings of service – something which Ayres and his colleagues were unable to test. Our results also extend Ayres et. al.'s finding by demonstrating that the server race effect on tipping is moderated by both perceived service quality and group size. The theoretical and practical implications of these findings are discussed below.

Theoretical Implications

Our finding that both black and white customers tipped black servers less than white servers is noteworthy because it differs from the typical pattern of consumer racial discrimination in the existing literature. Most studies find that consumer racial discrimination favors members of the consumers' own racial group. This typical pattern of racial discrimination is consistent with, and probably attributable to, the fact that many people in the United States possess a conscious or explicit preference for their own race over other races (Ashnurn-Nardo,

Knowles & Monteith, 2003; Nosek, Banaji & Greenwald, 2002). In contrast, the racial

discrimination in the current study favors Whites regardless of the discriminator's race. This

finding is consistent with patterns observed in implicit racial attitudes. Research using the

implicit association test suggests that many Blacks and Whites in this country have an implicit

preference for Whites over Blacks (Ashnurn-Nardo, Knowles & Monteith, 2003; Nosek, Banaji

& Greenwald, 2002), so perhaps tipping is affected by these implicit racial attitudes. It was not

possible to administer the implicit association test to the customers in our restaurant setting, so

we cannot prove that implicit attitudes mediated the effects of server race on tipping.

Nevertheless, this is the most plausible explanation for our findings and it is consistent with what

we know about implicit racial attitudes in the general population.

The idea that the server race effect is attributable to implicit racial attitudes is also

consistent with our finding that this effect is moderated by group size. People's conscious

endorsement of egalitarian values mean that they strive to avoid obvious discrimination, so

implicit racial attitudes affect deliberative behaviors only when those behaviors can be attributed

to other causes. Gaertner and Dovidio (1977) argued that the presence of others would increase

racial discrimination in emergency helping behavior by providing a non-racial justifiaction for

failing to help. Aversive racists can explain their failure to help a minority target on the grounds

that others bystanders were available to provide the needed help. Consistent with this reasoning,

they found that people did help a black target less than a white target when other potential

helpers were present, but not when they are the only potential helpers. Perhaps the presence of

other potential tippers in the dining party had a similar effect on racial discrimination in tipping.

Members of large dining parties may have felt less need to leave a large tip because others at the

table would also leave a tip. [6] If so, this diffusion of responsibility would provide a non-racial basis for leaving small tips and would, thus, free tips to reflect the tipper's negative implicit attitudes toward black servers.

At first glance, our finding that the server race effect was stronger among those who rated the service extremely positively than among those who rated the service moderately appears inconsistent with the aversive racism explanation we are advancing. We expected the opposite effect because moderate service ratings make the appropriate tip ambiguous, which should allow aversive racists to explain discriminatory tipping on non-racial grounds. In retrospect, however, moderate ratings of service quality do not provide as clear a non-racial justification for tipping as we had originally thought. Perceptions that a black server delivered only moderate service is consistent with negative stereotypes of black workers, so saying that you gave a black server a small tip because the service was not excellent does not diminish the appearance of racism. Thus, tippers seeking to avoid the appearance of racism may have been reluctant to lower tips to black servers when the service was less than excellent. Similar concerns would not have protected white servers delivering less than excellent service. Consistent with this possibility, our server race by service quality interaction indicated that tipping was related to perceived service quality for white servers but not black servers. This server race effect on consumers' willingness to base tips on service is consistent with the aversive racism framework and together with a main effect of server race on spontaneous adjustments to tips provides a plausible explanation for the server race by service quality interaction we observed. Of course, this explanation is post-hoc and needs to be further tested in future research.

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[6] The fact that data was collected at lunch may have increased the likelihood of diffusion of responsibility, because lunch meals are shared with co-workers and friends more (and family members less) than dinner meals. This means that each member of large dining parties was more likely to share responsibility for the bill and tip than would typically be the case at dinner.

Practical Implications

On a practical level, our finding of a statistically reliable main effect of server race on tipping calls into question the legality of tipping in the United States. Specifically, the results suggest that the use of tips as a means of compensating workers may violate the Civil Rights Act of 1964, which prohibits employment discrimination on the basis of race, color, religion, sex or national origin. The idea that employers might be held liable for the discrimination of their customers will come as surprise to many, so it deserves elaboration. In Griggs v. Duke Power Company (1971), the Supreme Court ruled that the Civil Rights Act of 1964 prohibits business policies and practices that have a disparate impact on protected classes of applicants and employees even if those policies and practices appear at face value to be neutral and are not intended to discriminate (c.f., Arvey and Faley, 1988; Twomey, 1998). Customer tipping that favors white service providers over black service providers may qualify as such an apparently neutral business practice that has an unintended disparate impact on employees of different races.

Business necessity is a legitimate defense against disparate impact claims, so tipping must be an unnecessary business practice in order to violate the law. However, the burden of proof for a business necessity defense falls on the defendant. While there are legitimate business reasons for preferring tipping over service charges or service-inclusive pricing (see Lynn, forthcoming), it is unclear if those reasons rise to the level of business necessities. At the very least, trying to prove that tipping is a business necessity is likely to be difficult and expensive. Moreover, tipping can be retained without having a disparate impact if tips are pooled and distributed equitably among the service staff regardless of race, color, religion, sex, national

origin, or age. Thus, employers who permit servers to keep their own tips must prove that the distribution system, not just tipping itself, is a business necessity.

We know the interpretation of the law described above is new and seems radical. Certainly, it has not yet been tested in the courts. However, the idea that a restaurant would lose a multi-million dollar judgment when a customer spilled coffee on herself also came as a surprise to many (Enghagen & Gilardi, 2002). Given the potential costs to a large restaurant chain of a class action lawsuit alleging adverse impact from tipping, we believe restaurant chains would be foolish to ignore the possibility of such a legal action. To protect themselves against such a lawsuit, restaurant chains and other employers of tipped workers should test to see if tipping has a disparate impact on their employees. If it does, they should consider either pooling tips or eliminating tipping altogether at their establishments.

To be clear, we are not arguing that tipping violates discrimination employment law everywhere it is used. Our data is too limited in diversity of servers and settings to support such broad generalizations. However, our data does indicate that tipping has an adverse impact on black servers in this restaurant. Furthermore, there are no a-priori reasons for expecting this unit of a national restaurant chain to be unique and our findings at this restaurant were consistent with prior research with respect to other determinants of tipping (see Lynn 2006a), so the server race effect should generalize to at least some other restaurants. Moreover, our finding of a server race main effect on tipping replicated and extended previous findings about taxicab tipping (Ayres et. al., 2005), so our finding generalizes to some other service contexts. These considerations lead us to believe that tipping is likely to have an adverse impact on black service workers in many settings, but additional research is needed to verify that expectation. Finding a setting for field research that has racially diverse employees and customers is challenging, but we hope the

serious nature of our findings encourages more researchers to undertake this task and more companies to cooperate in the investigation of this important issue.

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Table 1

Summary Statistics

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Tip Percent	19.09	8.63	1.00											
2. Service Quality	4.47	. 69	.25	1.00										
3. Food Quality	4.42	.63	.08	.51	1.00									
4. Atmosphere Quality	4.22	.72	.17	.39	.42	1.00								
5. Dining Party Size	2.59	1.43	-.08	-.06	-.06	-.07	1.00							
6. Bill Size	19.97	13.33	-.34	.06	.11	.01	.4	1.00						
7. Dining Frequency	2.34	1.07	.16	.19	.10	.04	-.05	.00	1.00					
8. Food Service Experience	.47	.50	.21	-.02	-.14	-.06	-.03	-.05	.07	1.00				
9. Server Sex	.71	.45	-.15	-.02	.05	-.14	-.44	.05	.10	.03	1.00			
10. Customer Sex	.51	.50	-.12	-.08	.11	.05	.08	-.10	.14	.00	-.05	1.00		
11. Server Race	.31	.47	-.19	-.08	-.06	-.04	-.11	.07	.06	.13	.09	-.08	1.00	
12. Customer Race	.19	.39	-.32	-.01	.01	-.06	-.09	.29	.12	.03	.26	.21	.07	1.00

Notes: N = 140. In all cases above, correlations equal to or greater than .17 are significant at $p < .05$.

Table 2

Coefficients (and standard errors) from regressions of percent tip on various predictors (n = 140).

Source	Model 1	Model 2	Model 3	Model 4
Intercept	8.43	8.54	2.58	7.31
	(5.85)	(5.93)	(6.35)	(5.81)
Service Quality	2.07*	2.05*	3.52***	2.43**
	(1.09)	(1.10)	(1.26)	(1.09)
Food Quality	-.11	-.10	-.09	-.41
	(1.23)	(1.24)	(1.21)	(1.22)
Atmosphere Quality	.98	.97	.92	.94
	(.98)	(.99)	(.97)	(.97)
Group Size	-.43	-.43	-.31	-.11
	(.51)	(.51)	(.50)	(.53)
Bill Size	-.17***	-.17***	-.17***	-.17***
	(.05)	(.05)	(.05)	(.05)
Patronage Frequency	1.42**	1.42**	1.10*	1.45**
	(.59)	(.60)	(.60)	(.59)
Food Service Experience	4.11***	4.12***	4.22***	3.65***
	(1.25)	(1.26)	(1.24)	(1.26)
Server Sex	-.03	-.04	-.39	.09
	(2.15)	(2.16)	(2.13)	(2.13)
Customer Sex	.70	.67	.43	1.13
	(2.41)	(2.42)	(2.37)	(2.39)

Server X Customer Sex	-4.12	-4.11	-3.62	-4.40
	(2.82)	(2.83)	(2.78)	(2.79)
Server Race	-3.25**	-3.35**	16.29*	3.03
	(1.36)	(1.56)	(9.03)	(3.43)
Customer Race	-4.27**	-4.44**	-3.65**	-4.70***
	(1.78)	(2.20)	(1.78)	(1.77)
Server X Customer Race[a]		.44		
		(3.37)		
Server Race X Service[a]			-4.41**	
			(2.01)	
Server Race x Group Size[a]				-2.55**
				(1.28)
R^2	.37	.37	.39	.39

*$p < .10$, **$p < .05$, ***$p < .01$