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An Exploration of Factors Influencing Ethical and Unethical Behavior in Negotiations

Gregory M. Perry, Patricia A. Duffy, Clair J. Nixon, and Lindon J. Robison

The issue of ethics has received little notice in agricultural economics journals. This study utilized a survey technique to reveal the ethical attitudes among some 500 students at four Land Grant Universities. The data were analyzed using multiple regression techniques. Individuals negotiating with strangers were more willing to use questionable ethical tactics. Women, individuals who were cooperative rather than competitive in negotiation situations, and those who regularly attended religious services were consistently less willing to use questionable ethics in negotiation. The size of the individual's hometown and family income had no clear impact on ethical attitudes in negotiations.

Key Words: ethics, negotiation, religion, small-town values, women

JEL Classifications: K4, M1, Z0

In the past decade, U.S. citizens have witnessed a number of ethical and moral scandals among leaders in both the public and private sectors. Often, the individuals involved in these activities seem to have little regard for even the basic standards of honesty. The examples in the business sector are numerous. World Com hid almost \$4 billion of costs from creditors and shareholders, forcing the largest bankruptcy on record. Enron Corporation's filing for bankruptcy also revealed a string of moves designed to deceive shareholders and

the public about the company's true financial status, while protecting and enriching its corporate leadership. According to the Center for Public Integrity, about two thirds of the American people believe that the questionable accounting practices employed by Enron are common among U.S. corporations (Lewis). Further, the once largest public accounting firm in the United States, Arthur Andersen, disintegrated because of scandals surrounding its business practices involving Enron and other firms. In a recent speech, Richard Walker, until July 2001 the director of enforcement for the U.S. Securities and Exchange Commission, noted that young people's lack of an ethical compass came up again and again as he enforced cases of security fraud.

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The scandals have brought about an increased interest in the whole matter of business ethics and, more generally, in the way that ethical values are inculcated into individuals and the corporate culture. Negotiation sit-

uations, in particular, provide an interesting context to study ethical decision making. Negotiation is defined as an interaction between two or more parties seeking agreement. By this definition, all individuals are involved in negotiation situations on a daily basis, whether at work, in family relationships, or in dealings with other members of the community. Lax and Sebenius argue that negotiating is at the core of a manager's job, with ultimate success or failure largely determined by how proficient they are as negotiators. Further, Burr argues that there is much more legal freedom to behave unethically in the negotiation process in contrast with after an agreement has been reached.

There is, however, no consensus among scholars as to what constitutes ethical behavior in negotiations. For example, Henderson argues that rather than engaging in reciprocal deception, one party should terminate a negotiation if he or she believes the other party is not behaving honestly, fairly, and in good faith. Dees and Cramton, by contrast, argue that, when it is not feasible to establish grounds for trust, one is justified in using otherwise immoral practices. Some ethicists view bluffing as acceptable under certain circumstances; others say such behavior should never be condoned (Provis).

A major component influencing the acceptability of negotiation tactics is the level of trust between the parties involved. Trust can occur if one recognizes that the penalties associated with dishonesty are sufficient to preclude anything but trustworthy behavior. This type of trust seldom occurs within negotiations, however, because only the most blatant misrepresentations can be subject to legal action. Still, if negotiators, in developing their social capital, have internalized each other's well being, they are more likely to trust one another when negotiating. Also, trust can occur if there is some assurance that one or both parties live by moral codes that make them trustworthy individuals. These moral codes, in turn, may also be products of social capital, as the individuals realize the benefits to both society and themselves of adopting these codes of conduct.

Many researchers have attempted to categorize various types of questionable ethical practices and investigate how various demographic, personality, and situational characteristics influence ethical behavior. Lewicki and Robinson, for example, found that traditional bargaining techniques enjoy widespread acceptance among the individuals they surveyed, whereas bluffing was generally not something most individuals were willing to do. In addition, they found that males were more willing than females to engage in most unethical behaviors. Nationality and cultural background also had some impact on reported ethical behavior. Further, individuals who rated themselves as aggressive in negotiation situations were more likely to engage in more questionable tactics.

Although the research just cited provides a foundation for understanding some characteristics that may influence ethical behavior among individuals, a number of other characteristics have yet to be explored. For example, small-town values commonly infers that small towns contain people who are family-oriented, honest, law-abiding citizens. But are people from small towns actually more ethical than the general population? Also, with student studies using business majors, do these results change as one examines a population dominated by majors from the life sciences?

At first glance, it may appear that negotiation ethics is far from the basic topics in economics. Yet, there is, in fact, substantial common ground. Much of game theory in economics, like negotiation situations, revolves around understanding the other person's situation and predicting how that person will respond in a given situation. How many times two individuals will negotiate for goods and services, the level of trust between them, and the nature of their relationship become important factors influencing the predicted outcomes from game theory and common business negotiations. Experimental economic analysis suggests that individuals frequently settle for inefficient outcomes relative to those predicted by game theory (Roth). Researchers in various fields conclude that negotiators consistently do not maximize their own outcomes

for various reasons. Sober and Wilson, for example, argue that self-sacrificing (altruistic) behavior is common among many animal species, even though these same animals may also exhibit more selfish behavior. Experimental psychologists have shown that many negotiators not only focus on their own self interest but are also concerned about the well-being of others (Kahneman, Knetsch, and Thaler).

A key piece in a negotiation situation is the nature of relationships between the involved parties. If an individual has a positive relationship with another party and desires to maintain that relationship, he (she) is likely to not behave in a self-interested manner as is commonly assumed in game theory settings. Instead, the individual may want to negotiate in a manner that allows both parties to gain from the experience. Bazerman et al. argue that, in these cases, negotiated outcomes will actually be integrative (win-win) and superior to those identified using the limiting assumptions of game theory.

Fells observed that

Trust between parties is viewed as an integral—if not central—feature of the effective and productive work relationships; a lack of trust between management and unions, or between employer and employee, is often suggested as the cause of disputation and of an inability to work through problems to satisfactory solutions. (p. 245)

Highly ethical behavior can build relationships and reduce transaction costs between parties. On the other hand, when one party is completely open and honest and the other party is totally dishonest, the honest party can experience significant transaction costs.

Most quantitative analysis in this area has been relatively simple, involving analysis of variance based on particular characteristics. For example, Lewicki and Robinson found that Harvard MBA students were more likely than Ohio State University MBA students to use a number of unethical bargaining tactics and that males were more likely to be unethical than females. No mention was made as to the relative proportion of male versus female students at the two universities. It is entirely

possible that the differences between the two universities occurred because Harvard had a greater proportion of male students. One way to sort out this type of cross-variable effect is to use multivariate regression techniques.

The primary objective of this study is to extend the work of Robinson, Lewicki, and Donohue in three significant ways: (1) to survey a student population that contains many more students with rural backgrounds, (2) to examine a number of additional factors that may or may not influence negotiation ethics, and (3) to use multivariate regression analysis to better quantify the influence of various factors on ethics in negotiation situations.

Data Set and Variables Considered

The population to be analyzed in this study involved students enrolled at four Land Grant universities representing different regions of the United States. Besides being a relatively easy population to survey, they are also an interesting group to study. Most college students are making the transition to personal and economic independence, which includes living on their own and working to support themselves. Few are currently employed full time in a career path, but most anticipate launching into a career within a few years.

The actual survey instrument was developed by Robinson, Lewicki, and Donahue. A copy of the questionnaire is available on request from the authors. It poses 16 situations in which questionable ethical behavior may be employed in negotiating a solution. Each respondent is asked to use a 1–7 Likert Scale to indicate how appropriate it would be to use these negotiating tactics. A score of one means that the individual would never choose to engage in this type of behavior, whereas a score of seven means the individual finds this type of behavior perfectly acceptable. The questions are designed to evaluate five key factors (or categories) of unethical bargaining tactics: (1) traditional, competitive bargaining; (2) attacking an opponent's network; (3) misrepresentation/lying; (4) misuse of information; and (5) false promises. To this list of questions were added a number of demographic and per-

sonal attitude questions designed to reveal factors that might influence the negotiation ethics of each respondent.

The survey was administered to undergraduates at Auburn University, Michigan State University, Oregon State University, and Texas A&M University. So that students would feel comfortable in being candid in their responses, the surveys were not numbered and no attempt was made to associate responses with particular students. The survey required about 10 minutes to complete. Because of interest in the issue of agrarian ethics, the focus was on students in agricultural fields. However, some students with majors in business and environmental sciences were also included in the survey population to capture differences between career paths.

A number of attitudes, behaviors, and demographic characteristics were proposed to explain why the survey population might choose to behave in an ethical or unethical manner. The following were included in the questionnaire.

Relationship Between Parties

As noted before, relationships are a key component in trust between parties and, in turn, influence how unethical parties are willing to be. In the survey, respondents were asked to evaluate each negotiating dilemma in two settings. The first involved negotiating with a stranger, e.g., someone with whom the person did not expect future negotiations (such as a salesman). The second involved negotiating with a colleague that he/she has dealt with before and expects to deal with again. It was expected that individuals would be less willing to engage in marginally ethical practices with a colleague than with a stranger.

Age and Work Experience

Several studies have shown that older individuals are, in general, significantly less likely to use marginally ethical tactics than their younger counterparts (Dawson; Robinson, Lewicki, and Donahue). Anton suggested, for example, that older individuals tended to view bluffing

as more acceptable and deception as less acceptable. The relationship of age to work experience has also been found to have a positive correlation with reported ethical behavior (Robinson, Lewicki, and Donahue). Age was hypothesized in this study to be directly related to higher ethical standards.

Gender

This is probably the characteristic that has received the most attention in previous studies. Previous research suggests that, in negotiating situations, women tend to behave more ethically than men. Dawson, for instance, found that the difference between men and women in this regard tended to be higher when negotiations involved relationship issues. Research by Robinson, Lewicki, and Donohue revealed that women tended to behave more ethically than men in all areas except traditional competitive bargaining, where there were no statistical differences in behavior. Consistent with previous research, women in this study were expected to report a higher level of ethical behavior than men.

Aggressive Versus Cooperative Attitudes

Lewicki and Robinson found that students who rate themselves as more cooperative were less willing to engage in questionable ethical practices. A question regarding aggressive/cooperative attitudes was added to the survey used in this study. It followed the same format used in previous studies (i.e., students were asked to rate themselves on a 1–7 scale, where one indicated a very aggressive attitude in negotiation situations and seven indicated a very cooperative attitude). The hypothesis was that more aggressive behavior translates into greater willingness to use marginally ethical approaches in negotiations.

Field of Study

Lewicki, Saunders, and Minton suggest that students with backgrounds in engineering, science, and mathematics are more likely to engage in unethical negotiation behaviors when

compared with those majoring in arts, business, and the social sciences. The target population of this study was students in the agricultural sciences, a population not considered in previous studies. For example, students in agricultural-economics programs typically receive significant training in economics and one or more agricultural sciences, such as horticulture, agronomy, or animal science. Another important population to be considered includes those in the environmental sciences. It is unclear what attitudes students in these fields are likely to report regarding ethical behavior in negotiation situations. Further, a group of business students was also included to provide a point of comparison between this pool of students and the business students who largely dominate previous studies in this area.

Hometown

As was noted before, the idea of small-town values suggests individuals from small towns would exhibit a higher ethical standard of behavior. To address this issue, students were asked to indicate the size of the town where they attended high school. Possible answers were (a) less than 1,000 people, (b) 1,000–10,000 people, (c) 10,000–50,000 people, (d) 50,000–250,000 people, and (e) more than 250,000 people. Consistent with the idea of small-town values, it was hypothesized that students from very small towns would exhibit the highest ethical standards and that these standards would decline with increases in the size of their hometown.

Religious Commitment

Hassett found that individuals who had a stronger commitment to a particular religious philosophy were less likely to behave unethically. Dirks hypothesized that the ethical standards of evangelical Christians should be higher than nonevangelicals, but his review of the literature exhibited mixed results. Kennedy and Lawton, on the other hand, did find that students at an evangelical college were less likely to indicate that they found unethical be-

havior acceptable than students at Catholic or public colleges.

Measuring religious commitment is also not as straightforward as it appears. For example, an individual may profess to be a very religious person and yet not participate in any kind of organized religion. Can commitment to a religious standard suffice in setting and strengthening an ethical standard in individuals, or does it need to be accompanied by regularly participating in meetings with others who share a common set of religious beliefs? While our study was not designed to answer this question, it was thought that frequent participation in religious services might well motivate individuals to behave more ethically in negotiation situations. Students were, therefore, given five choices when indicating how often they participate in religious services: (a) 8 or more times per month, (b) 4–7 times per month, (c) 2–3 times per month, (d) about once per month, and (e) less than once per month.

Other Charitable Activity

It is highly probable that many individuals have a desire to be kind and caring to others, which may or may not be the result of religious convictions. Those with such attitudes toward humanity may well have higher ethical standards and be less willing to use unethical negotiating techniques. This attitude of compassion toward humanity may be demonstrated by giving to those who are less fortunate, either financially in charitable donations or through in-kind community service. To test this hypothesis, students were asked to estimate, over the past year, the percent of income they gave to charitable causes and hours of community service.

Youth Activities

There are a number of activities and programs offered to youth in an attempt to build character and prepare them for adulthood. Some of these may well influence ethical standards, including those guiding negotiating behavior. For example, the pledge of the Boy Scouts of

America commits its members to "obey the scout law," which includes being trustworthy, helpful, friendly, and courteous. Girl Scouts have similar wording in their law, or code of conduct. Students were asked to indicate whether they had participated in one or more of the common activities offered in high school. The following were included in the econometric analysis: (a) 4-H/Future Farmers of America (FFA), (b) high-school sports, (c) Boy Scouts/Girl Scouts, (d) high-school honor society, (e) high-school service club (such as DARE, Key Club, etc.), and (f) high-school student leadership. Each activity was hypothesized to motivate students to increase their ethical standards.

Family Income

Another characteristic that has been overlooked in previous studies is the influence of income on reported ethical behavior. The underlying hypothesis is straightforward. Students from high-income families might be expected to have different ethical values from those in low-income families. The expected impact is unclear. Students from high-income families may feel it is less important to negotiate in unethical ways because they have more discretionary income and time to commit to agreements. On the other hand, wealth may create a greed ethic, where more wealth is desired by whatever manner necessary to acquire it.

Statistical Summary of Results

A total of 584 responses were received from students at the four universities. The results are summarized in Table 1. Undergraduates were the dominant group surveyed at all four universities and, consequently, average student age was nearly the same for all four populations surveyed. Work experience was also very similar at all schools except Texas A&M, where students had very little full-time work experience. Survey populations at Auburn and Michigan State were heavily weighted toward students majoring in agricultural economics, agribusiness management, or closely allied

fields, with a few students in other agricultural sciences, business, or the environmental sciences. Students at Texas A&M were exclusively business students. Oregon State students came from a broader set of fields in agriculture and environmental sciences.

As expected, students at Auburn and Texas A&M participated at much higher levels in religious services. About half of all students at these two universities attended religious services at least once per week. By contrast, about half of the students at Oregon State and Michigan State essentially never attended religious services. A similar contrast existed in the area of home-town size. About half of all students at Auburn and Oregon State graduated from high school in towns of 10,000 or fewer. About half of the Michigan State and Texas A&M students, by comparison, were from cities of 50,000 or more.

Regarding youth activities, the results were generally consistent across schools in the areas of Boy/Girl Scouts, high-school sports, high-school leadership, and participation in high-school service groups. A much higher percentage of Auburn and Oregon State students were involved in 4-H or FFA, consistent with the higher percentage of students from small towns. Membership in the high-school scholastic honor society is a good indicator of the average academic caliber of students surveyed at each school. Over 80% of the Texas A&M students participated in a high-school honor society compared with only 34% for the Michigan State students.

Charitable giving was found to strongly correlate with participation in church services. Charitable giving also tended to increase with student age and community service. Community-service results exhibited somewhat different relationships. Students at Oregon State gave an average of about 40 hours of service per year, or more than twice the rate of service among students at Auburn and Michigan State. Service was most strongly related to participation in 4-H/FFA, Boy/Girl Scouts, high-school service clubs, and charitable contributions.

Overall, students at all four universities rated themselves about neutral on the aggressive/

cooperative scale. Students at Oregon State were a bit more likely to be cooperative (4.4) than students at Auburn. Further investigation revealed no clear reason for differences in the aggressive/cooperative ratings, although students tended to rate themselves as more cooperative if they came from smaller communities or frequently participated in religious services. Students who participated in 4-H/FFA tended to be more aggressive.

There were also substantial differences in family-income levels among the various universities. Nearly half of the Oregon State students came from families earning less than \$50,000 per year. At the other extreme, nearly 70% of all students surveyed at Texas A&M came from families earning \$75,000 or more per year. These results at least partially explain the differences in years of work experience between students from the two schools.

Students at Michigan State, Oregon State, and Texas A&M were asked to identify those individuals who have had significant influence in shaping their ethical standards in negotiation. Parents were influential with 90% of respondents. Teachers were the next most influential, impacting the lives of about two thirds of all respondents. Other relatives, employers, and coaches also were influential with a substantial segment of the survey group.

Summary of Ethics Results

A summary of the average scores by university for the 16 negotiation scenarios posed in the survey are provided in Table 2. In general, Texas A&M students reported that they were less willing to engage in unethical behavior, with Michigan State students generally being most willing to behave in less than ethical ways. Specific results are summarized by the five groupings used to categorize the 16 survey questions.

Attacking the Opponent's Network

Questions in this category involved trying to get an opponent fired, making an opponent look foolish in front of his/her boss, or trying to undermine an opponent with his/her super-

riors. Respondents found these techniques to be the most inappropriate when dealing with strangers, with an average score of 2.11. They were even more undesirable when dealing with colleagues, with an average score of 1.56. The difference between these two scores, 0.55, was statistically significant (t -statistic 19.76). The MBA students surveyed by Robinson, Lewicki, and Donahue found this factor to be much more acceptable, with an average score of 3.03.

Making False Promises

Questions here include making false promises in exchange for cooperation, offering future concessions he/she will not actually give, or promising to uphold a settlement he/she will likely be violating in the future. This was the most undesirable technique when dealing with colleagues, with an average score of 1.55. The average score when dealing with strangers was 2.22, for a difference of 0.67 (t -statistic 22.26). This was a relatively large difference between the two scores, suggesting that individuals are less willing to directly lie to colleagues than they are to use other marginally ethical techniques. The average score for the MBA students was 2.06.

Inappropriate Information Gathering

Gaining information about another person's negotiating position by paying others to gather this information, by using gifts or personal favors to cultivate a friendship with the opponent, or by hiring an associate of the opponent that brings valuable information are examples of inappropriate information gathering. Respondents scored this factor as more acceptable than making false promises or attacking an opponent's network, but only when dealing with strangers (2.54). The score when dealing with colleagues was 2.06, for a difference of 0.48 (t -statistic 17.39). The average score in previous studies for MBA students was 2.36.

Misrepresentation

This factor category includes misrepresenting information to strengthen a negotiating posi-

Table 1. Summary Statistics by Student Population for Survey Results

| | Auburn | Michigan State | Oregon State | Texas A&M |
|--|-----------------------------|-------------------------------|------------------------------|----------------|
| Sample size | 103 | 96 | 219 | 166 |
| Average age | 21.9 | 22.3 | 21.7 | 20.9 |
| Percent male | 66 | 63 | 50 | 46 |
| Average years work experience | 2.40 | 2.76 | 3.18 | 0.67 |
| Common majors | Agricultural economics, 45% | Food industry management, 52% | Agribusiness management, 18% | Business, 100% |
| | Animal science, 18% | Agribusiness management, 12% | General agriculture, 18% | |
| | Horticulture, 11% | Business, 4% | Animal science, 15% | |
| Church attendance (% of respondents) | | | | |
| 8+ times/month | 10.4 | 7.6 | 8.2 | 16.3 |
| 4-7 times/month | 33.3 | 10.9 | 17.3 | 36.1 |
| 2-3 times/month | 26.0 | 19.6 | 14.9 | 18.7 |
| 1 time/month | 10.4 | 15.2 | 11.5 | 13.9 |
| <1 per month | 19.9 | 46.7 | 48.1 | 15.1 |
| Size of hometown (% of respondents) | | | | |
| <1,000 people | 9.1 | 3.3 | 13.5 | 4.2 |
| 1,000-10,000 | 36.4 | 20.9 | 37.7 | 12.7 |
| 10,000-50,000 | 27.3 | 27.5 | 24.7 | 21.2 |
| 50,000-250,000 | 16.2 | 29.7 | 13.0 | 23.0 |
| +250,000 | 11.0 | 18.6 | 11.1 | 39.4 |
| Participation in youth activities (% of respondents) | | | | |
| 4-H/FFA | 51.5 | 18.5 | 62.8 | 15.1 |
| High school sports | 69.7 | 73.9 | 78.6 | 79.5 |
| Boy/Girls Scouts | 36.4 | 34.8 | 29.3 | 36.1 |
| High-school honor society | 52.5 | 34.8 | 57.7 | 81.9 |
| High-school service club | 52.5 | 25.0 | 40.0 | 47.6 |
| High-school leadership | 42.4 | 38.0 | 45.6 | 54.8 |
| Percentage of income given to charity | 3.1 | 1.8 | 2.3 | 2.5 |
| Hours of service last year | 18.4 | 12.1 | 39.6 | 28.6 |
| Cooperative-aggressive rating (1 = aggressive, 7 = cooperative) | 4.0 | 4.2 | 4.4 | 4.2 |
| Family-income last year (\$; % of respondents) | | | | |
| <1,000 | 3.3 | 4.5 | 6.0 | 1.3 |
| 10,000-30,000 | 6.5 | 7.9 | 12.6 | 5.0 |
| 30,000-50,000 | 18.5 | 20.2 | 25.6 | 10.0 |
| 50,000-75,000 | 20.7 | 20.2 | 30.2 | 15.6 |
| 75,000-125,000 | 31.5 | 34.8 | 17.1 | 35.6 |
| +125,000 | 19.5 | 12.4 | 8.5 | 33.1 |
| Individuals with significant influence in shaping ethical standards (% of respondents) | | | | |
| Parents | NA | 89.6 | 92.3 | 98.2 |
| Other relative | NA | 40.6 | 51.6 | 55.4 |
| Clergy | NA | 18.8 | 16.5 | 39.2 |
| Teachers | NA | 58.3 | 65.9 | 67.5 |
| Employers | NA | 39.6 | 37.4 | 43.4 |

Table 1. (Continued)

| | Auburn | Michigan State | Oregon State | Texas A&M |
|---------------------|--------|----------------|--------------|-----------|
| Business associates | NA | 22.9 | 14.3 | 13.9 |
| Youth leaders | NA | 3.1 | 17.6 | 22.9 |
| Coaches | NA | 31.3 | 30.8 | 36.1 |
| Media | NA | 12.5 | 7.7 | 4.2 |
| Other | NA | 14.6 | 24.2 | 16.3 |

tion, misrepresenting the progress of negotiations to superiors, denying the validity of information an opponent has even when that information is valid, or misrepresenting the progress of negotiations to make a position appear stronger than it is. The MBA students surveyed by Robinson, Lewicki, and Donahue found this factor to be the least acceptable, with an average score of 1.91. By contrast, the students surveyed in this study found misrepresentation to be more acceptable than the previously mentioned tactics, with an average score of 2.61 for strangers and 2.02 for colleagues. The difference (0.59) was statistically significant (t -statistic 23.69).

Traditional Competitive Bargaining

Tactics included in this category include making an opening demand that is far greater than the expected settlement point, pretending to be in no hurry to reach a negotiated agreement, and making an opening demand that is so high/low that it seriously undermines the opponent's ability to reach a satisfactory settlement. These tactics were the only group that was considered somewhat appropriate on average, with an average score of 4.70 for strangers and 3.92 for colleagues. Nevertheless, these scores were well below the average scores for the MBA students at Harvard and Ohio State (5.50). In addition, the difference between stranger and colleague scores was the highest for this factor group (0.79), suggesting significant reluctance to utilize these techniques on colleagues (t -statistic 24.83). Although Oregon State students in general were less willing to accept other negotiating tactics than were students at other universities, they

were most willing as a group to employ traditional competitive bargaining tactics.

Regression Results

The mean scores, discussed in the previous section, clearly show differences in scores for the 16 negotiation scenarios presented to students at the four universities. The next step in the study was to sort out these differences and identify those characteristics that seemed to influence ethical negotiating attitudes. Regression models were created for each of the 16 questions, using rankings for negotiations with strangers¹ as the dependent variable. Independent variables originally considered for the model included age, work experience, frequency of church attendance, size of hometown, activities involved in as a youth, college major, hours of service, percent of income donated to charity, participation in an internship, family-income level, approach to negotiations, and university attending.

Initial analysis revealed a high (0.645) level of correlation between age and work experience. Because age was thought to be a better variable to capture the impact of experience on negotiation ethics, the work experience variable was dropped prior to estimation. Charitable giving was also relatively highly correlated with the frequency of church attendance (-0.397), so charitable giving was also excluded from the models to be estimated. Intercept and slope variables for each university were inserted into the models to see if there

¹ Results for colleagues were much the same as those for strangers on any given question except that models for colleagues consistently had lower measures of fit and fewer significant coefficients.

Table 2. Average Scores Regarding Appropriateness of Negotiation Tactics

| Tactic Description | Relationship | Auburn | Michigan State | Oregon State | Texas A&M |
|---|--------------|--------|----------------|--------------|-----------|
| Making false promises | | | | | |
| 1. Promise that good things will happen to your opponent if he/she gives you what you want, even if you know that you can't (or won't) deliver these things when the other's cooperation is obtained. | Stranger | 2.06 | 2.86 | 2.28 | 2.01 |
| | Colleague | 1.66 | 2.14 | 1.33 | 1.34 |
| 8. In return for concessions from your opponent now, offer to make future concessions that you know you will not follow through on. | Stranger | 2.32 | 2.54 | 2.22 | 1.88 |
| | Colleague | 1.59 | 1.72 | 1.41 | 1.39 |
| 15. Guarantee that those you work for will uphold the settlement reached, although you know that they will likely violate the agreement later. | Stranger | 2.50 | 2.57 | 2.16 | 1.92 |
| | Colleague | 1.92 | 1.98 | 1.57 | 1.37 |
| Misrepresentation | | | | | |
| 2. Intentionally misrepresent information to your opponent in order to strengthen your negotiating arguments or position. | Stranger | 2.44 | 3.11 | 2.46 | 1.96 |
| | Colleague | 1.75 | 1.98 | 1.43 | 1.40 |
| 4. Intentionally misrepresent the nature of negotiations to those you work for in order to protect delicate discussions that have occurred. | Stranger | 2.88 | 3.27 | 2.84 | 2.52 |
| | Colleague | 2.58 | 2.88 | 2.37 | 2.26 |
| 10. Deny the validity of information that your opponent has that weakens your negotiating position, even though that information is true and valid. | Stranger | 2.83 | 2.94 | 2.64 | 2.42 |
| | Colleague | 2.39 | 2.22 | 1.96 | 1.88 |
| 11. Intentionally misrepresent the progress of negotiations to your constituency in order to make your own position appear stronger. | Stranger | 2.60 | 2.94 | 2.53 | 2.23 |
| | Colleague | 2.33 | 2.32 | 1.83 | 1.86 |
| Attack opponent's network | | | | | |
| 3. Attempt to get you opponent fired from his/her position so that a new person will take his/her place. | Stranger | 1.80 | 2.09 | 1.76 | 1.61 |
| | Colleague | 1.39 | 1.62 | 1.37 | 1.38 |
| 9. Threaten to make your opponent look weak or foolish in front of a boss or others to whom he/she is accountable, even if you know that you won't actually carry out the threat. | Stranger | 2.68 | 2.44 | 2.09 | 2.07 |
| | Colleague | 2.01 | 1.65 | 1.37 | 1.56 |
| 12. Talk directly to the people who your opponent reports to or is accountable to and tell them things that will undermine their confidence in your opponent as a negotiator. | Stranger | 2.39 | 2.47 | 2.45 | 1.98 |
| | Colleague | 1.90 | 1.71 | 1.72 | 1.55 |
| Inappropriate information gathering | | | | | |
| 5. Gain information about your opponent's negotiating position by paying your friends, associates, and contacts to get this information for you. | Stranger | 2.64 | 3.07 | 2.67 | 2.25 |
| | Colleague | 2.17 | 2.40 | 2.11 | 1.79 |
| 13. Gain information about your opponent's negotiating position by cultivating his/her friendship through expensive gifts, entertaining, or personal favors. | Stranger | 2.61 | 2.89 | 2.21 | 2.60 |
| | Colleague | 2.35 | 2.48 | 1.89 | 2.21 |

Table 2. (Continued)

| Tactic Description | Relationship | Auburn | Michigan State | Oregon State | Texas A&M |
|---|--------------|--------|----------------|--------------|-----------|
| 16. Gain information about an opponent's negotiating position by trying to recruit or hire one of your opponent's coworkers (on the condition that the coworker bring confidential information with him/her). | Stranger | 2.78 | 2.89 | 2.36 | 2.31 |
| | Colleague | 2.40 | 2.20 | 1.73 | 1.83 |
| Traditional competitive bargaining | | | | | |
| 6. Make an opening demand that is far greater than what you really hope to settle for. | Stranger | 5.03 | 5.43 | 5.38 | 5.22 |
| | Colleague | 4.53 | 4.41 | 4.54 | 4.46 |
| 7. Convey a false impression that you are in absolutely no hurry to come to a negotiated agreement, thereby trying to put time pressure on your opponent to concede quickly. | Stranger | 4.74 | 4.69 | 5.00 | 4.69 |
| | Colleague | 3.97 | 3.77 | 4.23 | 3.89 |
| 14. Make an opening demand so high/low that it seriously undermines your opponent's confidence in his/her ability to negotiate a satisfactory settlement. | Stranger | 4.16 | 3.88 | 4.15 | 3.81 |
| | Colleague | 3.57 | 3.23 | 3.22 | 3.09 |

were any regional differences in the results. All tests conducted suggested that no regional differences existed. The final model for each question was of the form

$$\begin{aligned}
 SR_t = & \beta_0 + \beta_1 AGE + \beta_2 MALE \\
 & + \sum_i \gamma_i CHATT_i + \sum_j \delta_j HOME_j \\
 & + \sum_k \lambda_k MAJOR_k + \sum_l \alpha_l ACTIVITY_l \\
 & + \beta_3 SERVICE + \beta_4 APPROACH \\
 & + \sum_m \eta_m INCOME_m,
 \end{aligned}$$

where SR_t is the Likert Scale ranking for the t th negotiation scenario involving a stranger, AGE is the age of the student, and $MALE$ is a dummy variable equal to one if the student is male. $CHATT_i$ is a series of dummy variables representing the five religious-service-participation options, with $i = 1$ for students attending religious services 8+ times per month and $i = 5$ for students who attend less than once per month. $HOME_j$ is a series of dummy variables representing the size of the town where the student attended high school, with $j = 1$ representing a town of less than 1,000 people and $j = 5$ representing a city of over 250,000

people. $MAJOR_k$ is a series of dummy variables representing the various majors of the students. More than two dozen majors were represented in the study, but these were combined into six groups: (1) agricultural economics, agribusiness management and allied majors (ABM); (2) other majors in agricultural sciences, particularly general agriculture, animal science, horticulture, and crop science/agronomy (AG); (3) business (BUS); (4) environmental sciences, including natural resources, fish and wildlife, and forestry (ENV); (5) engineering and allied majors (ENG); and (6) a miscellaneous category of about two dozen observations, most of which are students not pursuing any major (MISC).

$ACTIVITY_l$ is a series of dummy variables representing the various youth activities that students may have participated in as outlined earlier. $SERVICE$ is the estimate of community service hours each student reported. $APPROACH$ is the student's self-assessment of how aggressive/cooperative he/she is in negotiations. $INCOME_m$ is a series of dummy variables representing various income levels, with $m = 1$ representing the less than \$10,000/year level and $m = 6$ representing the over \$125,000/year level.

Table 3. Regression Results for Questions that Involve Attacking the Opponent's Network

| Variable | Q3. Attempt to Get Opponent Fired | | Q9. Threaten to Make Opponent Look Weak in Front of Boss | | Q12. Undermine Opponent with His/Her Superiors | |
|---------------------|--------------------------------------|-------------|--|-------------|--|-------------|
| | Coefficient | t-Statistic | Coefficient | t-Statistic | Coefficient | t-Statistic |
| CONSTANT | 2.7977*** | 3.9925 | 4.4148*** | 5.6065 | 3.2093*** | 3.9944 |
| AGE | -0.0330 | -1.6141 | -0.0497** | -2.1673 | -0.0256 | -1.0923 |
| GENDER | 0.5077*** | 3.8615 | 0.5910*** | 3.9978 | 0.4267*** | 2.8303 |
| CHATT ₂ | -0.0165 | -0.0754 | 0.2533 | 1.0331 | 0.1390 | 0.5546 |
| CHATT ₃ | 0.1529 | 0.6646 | 0.4884* | 1.8977 | 0.2668 | 1.0892 |
| CHATT ₄ | 0.0704 | 0.2816 | 0.2679 | 0.9538 | 0.2779 | 0.9689 |
| CHATT ₅ | 0.1503 | 0.7035 | 0.5238** | 2.1898 | 0.5449** | 2.2309 |
| HOME ₂ | -0.0472 | -0.1955 | -0.1257 | -0.4643 | -0.0125 | -0.0454 |
| HOME ₃ | -0.1156 | -0.4536 | -0.0307 | -0.1071 | -0.4184 | -1.4377 |
| HOME ₄ | -0.0368 | -0.1350 | -0.1729 | -0.5646 | -0.0748 | -0.2395 |
| HOME ₅ | -0.1500 | -0.5502 | -0.4171 | -1.3608 | -0.3653 | -1.1721 |
| ENGINEERING | 0.4736 | 1.0011 | 0.5780 | 1.0876 | 0.6096 | 1.1285 |
| ABM | 0.0176 | 0.0552 | -0.1907 | -0.5328 | 0.4272 | 1.1743 |
| AGRICULTURE | -0.0527 | -0.1604 | -0.4698 | -1.2736 | 0.2834 | 0.7552 |
| BUSINESS | -0.1776 | -0.5575 | -0.3858 | -1.0773 | 0.2417 | 0.6647 |
| ENVIRON SCIENCE | -0.3148 | -0.7860 | -0.8323* | -1.8493 | -0.1301 | -0.2846 |
| 4-H/IFFA | 0.1132 | 0.7180 | 0.1050 | 0.5933 | -0.0310 | -0.1713 |
| SPORTS | -0.0665 | -0.4397 | -0.0982 | -0.5750 | -0.1309 | -0.7571 |
| SCOUTS | 0.0359 | 0.2757 | 0.0438 | 0.2986 | -0.0134 | -0.0894 |
| HONOR SOCIETY | 0.1369 | 0.9554 | 0.1416 | 0.8811 | 0.0858 | 0.5248 |
| SERVICE CLUB | -0.0369 | -0.2658 | -0.0794 | -0.5075 | -0.0429 | -0.2689 |
| LEADERSHIP | -0.0976 | -0.7186 | -0.2108 | -1.3779 | -0.1778 | -1.1446 |
| SERVICE | 0.0001 | 0.1264 | -0.0012 | -0.8979 | -0.0012 | -0.9357 |
| APPROACH | -0.1050** | -2.1343 | -0.1953*** | -3.5391 | -0.2192*** | -3.9045 |
| INCOME ₁ | 0.0271 | 0.0735 | -0.2183 | -0.5265 | -0.0501 | -0.1189 |
| INCOME ₂ | -0.1639 | -0.6472 | -0.3175 | -1.1146 | 0.2918 | 1.0054 |
| INCOME ₃ | -0.2017 | -0.9931 | -0.3961* | -1.7372 | 0.2991 | 1.2880 |
| INCOME ₄ | -0.1402 | -0.7339 | -0.5774*** | -2.6829 | 0.0619 | 0.2825 |
| INCOME ₅ | -0.0565 | -0.3183 | -0.4744** | -2.3656 | 0.1803 | 0.8831 |
| R ² | 0.0757 | | 0.1473 | | 0.1138 | |
| F-statistic | 1.4516* | | 3.0527*** | | 2.2651*** | |

* Significant at the 90% confidence level.

** Significant at the 95% confidence level.

*** Significant at the 99% confidence level.

To avoid singularity problems in the estimation process, one category dummy variable in each series of dummy variables was dropped in estimation: The dummy variables CHATT₁, HOME₁, MISC, and INCOME₆ were dropped from the model prior to the estimation process. This means that the default scenario was a female student pursuing a miscellaneous major, attending religious services 8+ times per month, from a town of less than 1,000 people, participating in no activities as a

youth, and from a family with an income above \$125,000 per year. Each model was estimated using the EVIEWS statistical software package. Because of incomplete surveys, the actual sample size used in the regression models was 526 observations.

The regression results are summarized and reported based on the five factor groupings. Table 3 contains the regression results for scenarios 3, 9, and 12 (attacking the opponent's network). Men were more likely to engage in

all three of these marginal tactics by a statistically significant margin. Also significant in two of these three cases was the approach of the individual, with more cooperative individuals indicating that they were less willing to engage in unethical behavior. A number of other variables seemed to have no impact on the negotiation ethics of students. Specifically, the student's hometown and community service were not statistically significant variables in any of the three equations. It is noteworthy, however, that students involved in an honor society reported that they were consistently more willing to engage in unethical behavior, whereas students involved in sports, service clubs, and high-school leadership were less likely to engage in said behavior. None of these relationships were statistically significant, however.

Consistent with Lewicki, Saunders, and Minton, engineers tended to be more willing to embrace marginally ethical tactics than did business students. The agribusiness students were a bit more willing to accept marginal ethical approaches than the business students. The environmental-science students were the least willing among the major categories to use techniques to attack an opponent's network.

Age exhibited a negative relationship in all three equations, although only in question nine was it statistically significant. Given that 90% of the respondents were ages 18–23, more surveys of older individuals are needed before suggesting confidence in the magnitude and statistical significance of these coefficients.

Attendance at religious services was influential in questions 9 and 12, i.e., students who attended services less than once per month were significantly more likely to engage in these marginally ethical tactics than students who attended 8 or more times per month. Attendance had no impact in question 3, suggesting that ethical standards at work when a person tries to get someone else fired transcend any kind of religious instruction. Although income had no influence in questions 3 and 12, it was very influential in question 9. Specifically, students from families making more than \$125,000 per year found it more

acceptable to threaten to embarrass a fellow employee in front of his/her boss than those from lower income categories.

Questions 1, 8, and 15 fall under the grouping of making false promises. These three regression results are provided in Table 4. Again, gender was statistically significant and of the same sign as the equations reported in Table 3. Religious attendance was also very significant in all three equations. For these three questions, reported ethical behavior was essentially the same for attending services 4–7 times per month versus attending 8 or more times per month. Also, attitudes seemed to differ little between those who attended about one time per month and those attending less than once per month. Further, the size of the student's hometown, service hours, and family income had no impact on responses in this category. The relationship between majors was similar to that reported in Table 3. 4-H/FFA students reported that they were consistently more likely to indicate a willingness to engage in these marginally ethical behaviors, although the results were not statistically significant. Honor Society members also found approaches outlined in questions 1 and 15 to be more acceptable, with question 15 being statistically significant. Students involved in high-school service clubs and leadership activities were less interested in engaging in these behaviors, with one coefficient exhibiting statistical significance.

Table 5 contains a summary of regression results for the three questions involving inappropriate information gathering (questions 5, 13, and 16). The gender variable was statistically significant in all three equations and similar in sign and magnitude to the previous results. The coefficients for age were also negative and significant in two of the three equations. The results for the negotiation-approach variable were also consistent with previous estimates, although the coefficient was relatively small and insignificant for question 5. The size of hometown and income variables again generated very mixed coefficients, none of which were significant. The youth activities only generated consistent signs for service

Table 4. Regression Results for Questions that Involve Making False Promises

| Variable | Q1: Promise Good Things Will Happen in Future in Exchange for Cooperation Now | | Q8: Promise Future Concessions for Concessions Now | | Q15: Promise to Uphold Settlement Reached | |
|----------------------------|---|-------------|--|-------------|---|-------------|
| | Coefficient | t-Statistic | Coefficient | t-Statistic | Coefficient | t-Statistic |
| <i>CONSTANT</i> | 3.8264*** | 5.2793 | 3.6954*** | 4.8725 | 2.0878*** | 2.7008 |
| <i>AGE</i> | -0.0619*** | -2.9308 | -0.0693*** | -3.1495 | -0.0245 | -1.0869 |
| <i>GENDER</i> | 0.3462** | 2.5480 | 0.4917*** | 3.4675 | 0.4168*** | 2.8740 |
| <i>CHATT</i> ₂ | 0.1032 | 0.4569 | 0.1195 | 0.5078 | 0.0001 | 0.0006 |
| <i>CHATT</i> ₃ | 0.4988** | 2.1048 | 0.5611** | 2.2725 | 0.2111 | 0.8351 |
| <i>CHATT</i> ₄ | 0.8688*** | 3.3734 | 0.5012* | 1.8595 | 0.4544 | 1.6472 |
| <i>CHATT</i> ₅ | 0.6527*** | 2.9672 | 0.4907** | 2.1402 | 0.5193** | 2.2134 |
| <i>HOME</i> ₂ | -0.0339 | -0.1359 | -0.2042 | -0.7860 | 0.1346 | 0.5063 |
| <i>HOME</i> ₃ | 0.1106 | 0.4198 | 0.0003 | 0.0011 | 0.1457 | 0.5184 |
| <i>HOME</i> ₄ | -0.1113 | -0.3949 | -0.1711 | -0.5827 | 0.0943 | 0.3138 |
| <i>HOME</i> ₅ | 0.1062 | 0.3764 | -0.1067 | -0.3628 | 0.0431 | 0.1431 |
| <i>ENGINEERING</i> | 1.0205** | 2.0855 | 0.6221 | 1.2109 | 0.7912 | 1.5159 |
| <i>ABM</i> | 0.3926 | 1.1912 | 0.2765 | 0.7882 | 0.9372*** | 2.6666 |
| <i>AGRICULTURE</i> | -0.2367 | -0.6970 | -0.0836 | -0.2314 | 0.4332 | 1.1962 |
| <i>BUSINESS</i> | -0.1833 | -0.5564 | -0.1270 | -0.3626 | 0.4258 | 1.2123 |
| <i>ENVIRON SCIENCE</i> | 0.1033 | 0.2494 | -0.2599 | -0.5935 | 0.2929 | 0.6629 |
| <i>4-H/IFFA</i> | 0.0154 | 0.0943 | 0.1134 | 0.6663 | 0.1923 | 1.1060 |
| <i>SPORTS</i> | -0.0578 | -0.3694 | 0.0430 | 0.2633 | -0.2078 | -1.2455 |
| <i>SCOUTS</i> | -0.0663 | -0.4923 | -0.0512 | -0.3645 | 0.0314 | 0.2181 |
| <i>HONOR SOCIETY</i> | 0.1564 | 1.0597 | -0.0362 | -0.2348 | 0.3153** | 2.0025 |
| <i>SERVICE CLUB</i> | -0.3103** | -2.1584 | -0.1609 | -1.0724 | -0.0409 | -0.2665 |
| <i>LEADERSHIP</i> | -0.0990 | -0.7069 | -0.1251 | -0.8539 | -0.1761 | -1.1764 |
| <i>SERVICE</i> | 0.0004 | 0.3155 | -0.0014 | -1.1448 | -0.0018 | -1.3903 |
| <i>APPROACH</i> | -0.1430*** | -2.8151 | -0.0645 | -1.2175 | -0.0953* | -1.7597 |
| <i>INCOME</i> ₁ | -0.2950 | -0.7735 | -0.5331 | -1.3406 | -0.1395 | -0.3429 |
| <i>INCOME</i> ₂ | -0.3731 | -1.4246 | -0.2080 | -0.7601 | -0.2272 | -0.8130 |
| <i>INCOME</i> ₃ | -0.2417 | -1.1545 | -0.0891 | -0.4066 | -0.0354 | -0.1585 |
| <i>INCOME</i> ₄ | -0.0383 | -0.1937 | -0.2641 | -1.2770 | -0.2203 | -1.0434 |
| <i>INCOME</i> ₅ | -0.2807 | -1.5281 | -0.1658 | -0.8620 | -0.0359 | -0.1827 |
| <i>R</i> ² | 0.1742 | | 0.1303 | | 0.1157 | |
| <i>F</i> -statistic | 3.7448*** | | 2.6497*** | | 2.3184*** | |

* Significant at the 90% confidence level.

** Significant at the 95% confidence level.

*** Significant at the 99% confidence level.

clubs and leadership activities, but all coefficients were insignificant.

Attendance at religious services again had an impact on the student's willingness to engage in marginally ethical negotiation practices, particularly between those attending services at least once per week and those who seldom or never attended. Gathering information about an opponent by paying friends and associates to provide information seemed

to raise fewer objections among those frequently attending religious services.

The results for questions 2, 4, 10, and 11, which deal with misrepresentation, are provided in Table 6. The individual's approach to negotiation was significant in three of the four equations. Attendance at religious services was also significant in all four equations and the coefficients for *CHATT*₅ (attendance less than once per month) were relatively large.

Table 5. Regression Results for Questions that Involve Inappropriate Information Gathering

| Variable | Q5: Pay Friends and Associates of Opponent to Gather Information | | Q13: Cultivating Opponent's Friendship Through Gifts or Favors | | Q16: Hire an Associate of Opponent if He/She Brings Confidential Information | |
|---------------------|--|-------------|--|-------------|--|-------------|
| | Coefficient | t-Statistic | Coefficient | t-Statistic | Coefficient | t-Statistic |
| CONSTANT | 3.7997*** | 4.2041 | 3.4963 | 3.5620 | 3.4707*** | 3.7969 |
| AGE | -0.0592** | -2.2471 | -0.0365 | -1.2772 | -0.0716*** | -2.6911 |
| GENDER | 0.8005*** | 4.7248 | 0.7126*** | 3.8742 | 0.6981*** | 4.0607 |
| CHATT ₂ | -0.1277 | -0.4536 | 0.1855 | 0.6053 | 0.2195 | 0.7663 |
| CHATT ₃ | 0.1884 | 0.6375 | 0.8644*** | 2.6868 | 0.3056 | 1.0180 |
| CHATT ₄ | 0.0595 | 0.1853 | 0.4024 | 1.1452 | 0.6950** | 2.1234 |
| CHATT ₅ | 0.3561 | 1.2981 | 0.8353*** | 2.7909 | 0.7589*** | 2.7227 |
| HOME ₂ | 0.2880 | 0.9266 | 0.4718 | 1.4005 | 0.2464 | 0.7846 |
| HOME ₃ | 0.1245 | 0.3790 | -0.0117 | -0.0330 | 0.4349 | 1.3096 |
| HOME ₄ | 0.2150 | 0.6120 | 0.4952 | 1.2998 | 0.3032 | 0.8539 |
| HOME ₅ | 0.0421 | 0.1198 | 0.3645 | 0.9539 | 0.2515 | 0.7070 |
| ENGINEERING | 0.2846 | 0.4664 | 2.1285*** | 3.1597 | 0.7790 | 1.2634 |
| ABM | -0.0533 | -0.1296 | 1.2370*** | 2.7766 | 0.6413 | 1.5442 |
| AGRICULTURE | -0.5211 | -1.2306 | 1.1024 | 2.4012 | 0.3751 | 0.8766 |
| BUSINESS | -0.3850 | -0.9375 | 1.1285** | 2.5337 | 0.4522 | 1.0894 |
| ENVIRON SCIENCE | -0.3319 | -0.6425 | 0.9131 | 1.6308 | -0.1641 | -0.3144 |
| 4-H/FFA | -0.0426 | -0.2096 | -0.1043 | -0.4735 | 0.0765 | 0.3726 |
| SPORTS | 0.2464 | 1.2628 | -0.0133 | -0.0628 | 0.0640 | 0.3227 |
| SCOUTS | 0.0764 | 0.4544 | -0.1932 | -1.0598 | 0.1919 | 1.1281 |
| HONOR SOCIETY | -0.0095 | -0.0518 | 0.3037 | 1.5191 | 0.0303 | 0.1630 |
| SERVICE CLUB | -0.3024* | -1.6870 | -0.3153 | -1.6192 | -0.1158 | -0.6380 |
| LEADERSHIP | 0.1883 | 1.0780 | 0.0730 | 0.3843 | 0.0818 | -0.4620 |
| SERVICE | 0.0000 | 0.0434 | -0.0006 | -0.3535 | -0.0025 | -1.6206 |
| APPROACH | -0.1445** | -2.2817 | -0.2960*** | -4.3094 | -0.2571*** | -4.0163 |
| INCOME ₁ | -0.0619 | -0.1301 | 0.0682 | 0.1323 | 0.4944 | 1.0280 |
| INCOME ₂ | -0.1428 | -0.4374 | 0.1518 | 0.4286 | -0.1665 | -0.5039 |
| INCOME ₃ | 0.2484 | 0.9512 | 0.3536 | 1.2477 | 0.1862 | 0.7036 |
| INCOME ₄ | -0.0049 | -0.0198 | 0.3729 | 1.3916 | -0.0443 | -0.1773 |
| INCOME ₅ | 0.1970 | 0.8599 | 0.3463 | 1.3908 | -0.0620 | -0.2664 |
| R ² | 0.1360 | | 0.1665 | | 0.1499 | |
| F-statistic | 2.7951*** | | 3.5322*** | | 3.1182*** | |

* Significant at the 90% confidence level.

** Significant at the 95% confidence level.

*** Significant at the 99% confidence level.

This result suggests that the lack of religious activity seems to significantly influence a student's willingness to engage in misrepresentation in negotiation activities.

The importance of age and gender seemed less important in this category than in those previously reported. Students in the environmental sciences were, in all four equations, the group of majors indicating less willingness to engage in these forms of misrepresentation.

The hometown results were again a very mixed bag of insignificant variables, although the signs in general seemed to suggest that students from towns with less than 1,000 people were more likely to engage in questionable ethics in negotiation situations.

Youth activities again generated very mixed results. The exception was participation in an honor society, which increased the willingness of students to engage in questionable

Table 6. Regression Results for Questions that Involve Misrepresentation

| Variable | Q2: Misrepresent information to Strengthen Position | | Q4: Misrepresent Negotiations to Protect Delicate Discussions | | Q10: Deny Validity of Information that Is Actually True | | Q11: Misrepresent Progress to Strengthen Position with Allies | |
|---------------------|---|-------------|---|-------------|---|-------------|---|-------------|
| | Coefficient | t-Statistic | Coefficient | t-Statistic | Coefficient | t-Statistic | Coefficient | t-Statistic |
| CONSTANT | 3.9335*** | 5.2558 | 3.9087*** | 4.4771 | 3.5882 | 3.9447 | 3.6270*** | 4.2849 |
| AGE | -0.0678*** | -3.1097 | -0.0551** | -2.1872 | -0.0080 | -0.3041 | -0.0366 | -1.4858 |
| GENDER | 0.6253*** | 4.4572 | 0.2601 | 1.6011 | 0.4787*** | 2.8162 | 0.2198 | 1.3837 |
| CHATT ₂ | 0.1020 | 0.4376 | -0.0818 | -0.3041 | 0.1844 | 0.6539 | 0.2031 | 0.7701 |
| CHATT ₃ | 0.3224 | 1.3176 | 0.2972 | 1.0492 | 0.2333 | 0.7876 | 0.3052 | 1.1027 |
| CHATT ₄ | 0.6954*** | 2.6149 | 0.5113* | 1.6654 | 0.2490 | 0.7710 | 0.4965 | 1.6436 |
| CHATT ₅ | 0.7714*** | 3.3958 | 0.6370** | 2.4250 | 0.6816** | 2.4810 | 0.8993*** | 3.4956 |
| HOME ₂ | -0.2429 | -0.9438 | -0.1974 | -0.6569 | -0.2822 | -0.8968 | -0.0718 | -0.2467 |
| HOME ₃ | 0.0360 | 0.1323 | -0.0636 | -0.1994 | -0.1387 | -0.4151 | -0.2160 | -0.7018 |
| HOME ₄ | 0.1410 | 0.4847 | -0.0395 | -0.1159 | -0.3395 | -0.9509 | -0.0618 | -0.1879 |
| HOME ₅ | 0.0562 | 0.1929 | -0.1114 | -0.3270 | -0.7011* | -1.9634 | -0.4106 | -1.2455 |
| ENGINEERING | 0.6773 | 1.3404 | 0.5263 | 0.8952 | 1.3134** | 2.1495 | 0.2809 | 0.4915 |
| ABM | 0.1390 | 0.4084 | 0.1783 | 0.4423 | 0.4171 | 1.0129 | 0.2884 | 0.7494 |
| AGRICULTURE | -0.4881 | -1.3919 | 0.0067 | 0.0161 | -0.1215 | -0.2866 | -0.1232 | -0.3105 |
| BUSINESS | -0.5974* | -1.7565 | -0.0856 | -0.2132 | 0.0818 | 0.1990 | -0.1870 | -0.4858 |
| ENVIRON SCIENCE | -0.8519** | -1.9917 | -0.7906 | -1.5784 | -0.3884 | -0.7508 | -0.8241* | -1.7036 |
| 4-H/FFA | 0.0795 | 0.4722 | 0.0925 | 0.4724 | -0.0386 | -0.1890 | -0.1148 | -0.6032 |
| SPORTS | -0.0813 | -0.5030 | 0.0323 | 0.1712 | 0.2101 | 1.0721 | -0.1074 | -0.5866 |
| SCOUTS | -0.1271 | -0.9137 | 0.0618 | 0.3824 | 0.0202 | 0.1200 | -0.1145 | -0.7273 |
| HONOR SOCIETY | 0.1552 | 1.0185 | 0.1458 | 0.8242 | 0.1484 | 0.8027 | 0.3403** | 1.9628 |
| SERVICE CLUB | -0.0580 | -0.3910 | -0.2944* | -1.7140 | -0.0281 | -0.1560 | -0.1226 | -0.7283 |
| LEADERSHIP | 0.0701 | 0.4848 | 0.0359 | 0.2135 | -0.2563 | -1.4609 | 0.0471 | 0.2868 |
| SERVICE | -0.0003 | -0.2451 | -0.0005 | -0.3523 | -0.0029* | -1.9111 | -0.0023* | -1.6859 |
| APPROACH | -0.1279** | -2.4378 | -0.1589*** | -2.6116 | -0.2320*** | -3.6562 | -0.1667*** | -2.8043 |
| INCOME ₁ | 0.3622 | 0.9199 | 0.1058 | 0.2323 | -0.7397 | -1.5525 | -0.0812 | -0.1822 |
| INCOME ₂ | -0.2455 | -0.9077 | 0.6391** | 2.0392 | -0.2931 | -0.8957 | -0.1892 | -0.6182 |
| INCOME ₃ | 0.1684 | 0.7787 | 0.4674* | 1.8608 | -0.1442 | -0.5508 | 0.0814 | 0.3323 |
| INCOME ₄ | 0.0526 | 0.2577 | 0.3979* | 1.6782 | -0.2932 | -1.1863 | 0.0621 | 0.2686 |
| INCOME ₅ | -0.0775 | -0.4087 | 0.6017*** | 2.7265 | -0.2846 | -1.2353 | 0.1825 | 0.8477 |
| R ² | 0.2007 | | 0.1113 | | 0.1454 | | 0.1247 | |
| F-statistic | 4.4581*** | | 2.2043 | | 3.0082*** | | 2.5191*** | |

* Significant at the 90% confidence level.

** Significant at the 95% confidence level.

*** Significant at the 99% confidence level.

Table 7. Regression Results for Questions that Involve Traditional Competitive Bargaining

| Variable | Q6. Make Opening Demand Much Higher than Expected Settlement | | Q7. Convey Impression Your Are in No Hurry to Come to an Agreement | | Q14. Make a High Opening Demand to Undermine Confidence of Opponent | |
|----------------------------|--|-------------|--|-------------|---|-------------|
| | Coefficient | t-Statistic | Coefficient | t-Statistic | Coefficient | t-Statistic |
| <i>CONSTANT</i> | 6.4024*** | 7.3788 | 4.8306*** | 5.3699 | 3.4963*** | 3.5620 |
| <i>AGE</i> | -0.0466* | -1.8434 | -0.0056 | -0.2146 | -0.0365 | -1.2772 |
| <i>GENDER</i> | 0.2624 | 1.6132 | 0.4209** | 2.4950 | 0.7126*** | 3.8742 |
| <i>CHATT</i> ₂ | 0.2830 | 1.0469 | -0.1862 | -0.6648 | 0.1855 | 0.6053 |
| <i>CHATT</i> ₃ | 0.4168 | 1.4693 | 0.3315 | 1.1275 | 0.8644*** | 2.6868 |
| <i>CHATT</i> ₄ | 0.5110* | 1.6574 | 0.0686 | 0.2146 | 0.4024 | 1.1452 |
| <i>CHATT</i> ₅ | 0.6306** | 2.3945 | 0.4545 | 1.6640 | 0.8353 | 2.7909 |
| <i>HOME</i> ₂ | 0.3888 | 1.3031 | 0.3851 | 1.2453 | 0.4718 | 1.4005 |
| <i>HOME</i> ₃ | 0.0946 | 0.3000 | -0.1630 | -0.4986 | -0.0117 | -0.0330 |
| <i>HOME</i> ₄ | 0.2525 | 0.7486 | 0.0251 | 0.0718 | 0.4952 | 1.2998 |
| <i>HOME</i> ₅ | 0.1029 | 0.3048 | 0.0733 | 0.2089 | 0.3645 | 0.9539 |
| <i>ENGINEERING</i> | 0.1172 | 0.2000 | 0.9490 | 1.5633 | 2.1285*** | 3.1597 |
| <i>ABM</i> | 0.0253 | 0.0640 | 0.7419* | 1.8148 | 1.2370*** | 2.7766 |
| <i>AGRICULTURE</i> | -0.0224 | -0.0551 | 0.7918* | 1.8796 | 1.1024** | 2.4012 |
| <i>BUSINESS</i> | 0.0020 | 0.0050 | 0.8814** | 2.1571 | 1.1285** | 2.5337 |
| <i>ENVIRON SCIENCE</i> | 0.0965 | 0.1946 | 0.6852 | 1.3229 | 0.9131 | 1.6308 |
| <i>4-H/FFA</i> | -0.3467* | -1.7771 | -0.0564 | -0.2790 | -0.1043 | -0.4735 |
| <i>SPORTS</i> | 0.1935 | 1.0332 | 0.2398 | 1.2344 | -0.0133 | -0.0628 |
| <i>SCOUTS</i> | 0.1826 | 1.1317 | 0.0560 | 0.3345 | -0.1932 | -1.0598 |
| <i>HONOR SOCIETY</i> | 0.2547 | 1.4420 | 0.2319 | 1.2665 | 0.3037 | 1.5191 |
| <i>SERVICE CLUB</i> | -0.3649** | -2.1207 | 0.0023 | 0.0127 | -0.3153 | -1.6192 |
| <i>LEADERSHIP</i> | 0.0240 | 0.1429 | -0.0071 | -0.0406 | 0.0730 | 0.3843 |
| <i>SERVICE</i> | -0.0002 | -0.1708 | -0.0024 | -1.6311 | -0.0006 | -0.3535 |
| <i>APPROACH</i> | -0.2306*** | -3.7915 | -0.3315*** | -5.2524 | -0.2960*** | -4.3094 |
| <i>INCOME</i> ₁ | -0.2797 | -0.6127 | -0.3040 | -0.6423 | 0.0682 | 0.1323 |
| <i>INCOME</i> ₂ | -0.3548 | -1.1317 | -0.1364 | -0.4198 | 0.1518 | 0.4286 |
| <i>INCOME</i> ₃ | 0.1444 | 0.5760 | 0.1285 | 0.4927 | 0.3536 | 1.2477 |
| <i>INCOME</i> ₄ | 0.1161 | 0.4905 | -0.1277 | -0.5208 | 0.3729 | 1.3916 |
| <i>INCOME</i> ₅ | 0.225 | 0.1022 | 0.0872 | 0.3825 | 0.3463 | 1.3908 |
| <i>R</i> ² | 0.1006 | | 0.1354 | | 0.1665 | |
| <i>F</i> -statistic | 1.9854*** | | 2.7741*** | | 3.5322*** | |

* Significant at the 90% confidence level.

** Significant at the 95% confidence level.

*** Significant at the 99% confidence level.

ethical behavior for all four questions, although the coefficient was only significant for question 11. Community service consistently decreased the willingness to participate in questionable behavior, with two of the estimated coefficients being statistically significant. Family income had no impact in three of the four questions but generated an interesting result for question 4. Students from the \$125,000 and above income group were sig-

nificantly less willing to deny the validity of information that an opponent had about their negotiation position, even when that information was true.

The last category of results involves traditional competitive bargaining, reflected in questions 6, 7, and 14. The regression results for these three questions are provided in Table 7. Although all three questions were categorized as traditional competitive bargaining, the

respondents did not seem to view them as equally acceptable. Question 6 (make an opening demand much higher than the expected settlement) seemed to be readily accepted by all students, regardless of gender, hometown, major, or family income. Participation in religious services did significantly reduce the acceptability of this technique, as did participation in 4-H/FFA or high-school service clubs. As expected, the student's negotiation approach was again quite influential.

By contrast, question 14 (making a high opening demand designed to undermine the opponent's confidence) generated much stronger reactions among the various groups. Men were significantly more willing to find this an acceptable tactic than women. Consistent across all these competitive tactics was the unimportance of hometown, family income, and most youth activities.

Conclusions and Further Research

This analysis extends the previous work of Robinson, Lewicki, and Donahue by examining a number of demographic and experience attributes in a multivariate regression framework. In addition to opening new avenues of further research, a number of interesting results were obtained.

- Men were significantly more likely than women to find marginal negotiation techniques acceptable. The differences seemed to be greatest in the area of inappropriate information gathering. Unlike the findings in the study by Robinson, Lewicki, and Donahue, our results suggest women are adverse even to using traditional competitive bargaining techniques.
- As expected, students reported that they were less willing to engage in marginal ethical behavior with colleagues than with friends. There were notable differences in this gap between treatment of colleague versus strangers, however. The gap was widest for traditional competitive bargaining, suggesting students were much more willing to use these techniques on strangers than on colleagues. The gap was narrowest for the

area of information gathering, indicating that a more universal standard was being applied across all individuals.

- Age always had a negative impact on willingness to engage in marginal tactics, suggesting that older students tended to be less willing to behave unethically in negotiations. The coefficients were only significant in half of the estimated models, however. Given the tight range of ages among the major part of the survey population, it is difficult to draw strong conclusions about the impact of age on negotiation ethics.
- Consistent with Robinson, Lewicki, and Donahue's findings, the cooperativeness/competitiveness of students was statistically significant in 12 of the 16 questions. The coefficients were also consistently negative, as hypothesized.
- Attendance at religious services was a statistically significant variable in 13 of 16 questions. The reported tendency in this study to engage in marginal ethical behavior always increased as attendance declined. Further insight on future surveys may be gained by adding several questions that measure religiousness (see Gorsuch and Smith).
- The size of a student's hometown had essentially no impact on the ethical attitudes of the students involved in this study. Based on this measure, there seems to be no merit to the idea that a higher rural ethic exists, at least among the students surveyed in these four states.
- In general, youth activities seemed to have little or no impact on ethical standards. However, in some cases, there are some interesting insights that merit further exploration. In 14 of 16 questions, students who participated in an honor society indicated that they were more willing to engage in less than ethical behavior than nonparticipants, although this result was only statistically significant for 2 questions. It seems likely that the honor-society variable is really functioning as a proxy for a student's academic ability. This result definitely merits further exploration, perhaps through inclusion of a question in future surveys to ask the student's GPA or standardized test scores.

- Community service seems to encourage higher ethical standards in negotiation situations. For all 16 questions, participation in a high-school service club had a negative effect on willingness to behave unethically, although the impact was statistically significant in only four cases. Hours of community service also had a negative impact for 13 of the 16 questions, although it was only significant in two cases.
- In general, engineers were the group of college majors most willing to engage in marginal ethical tactics. This result should be interpreted in light of the relatively small sample size upon which it is based, but also recognizing that it is in line with results of previous studies. Environmental-science students seemed the least likely set of majors to engage in questionable ethical behavior.
- Family income generally was of no consequence in explaining ethical attitudes in most cases. There were two notable exceptions, however. Students coming from the \$125,000 and above income bracket were significantly more accepting of question 9 (making an opponent look weak in front of his/her boss) and less accepting of question 4 (misrepresenting negotiations to protect delicate discussions).

Overall, results show that certain characteristics, notably age and gender, have the strongest impact on willingness to use ethically questionable tactics in negotiation. Other characteristics appear to affect willingness to engage in some, but not all, of these practices. Of particular interest is the impact of academic preparation and career path on ethical behavior. Further research is clearly needed to discover how robust these differences are across other sets of respondents.

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