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## Choosing ISDS as a Major: Predictive Analysis

Sarah Johnson

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Choosing ISDS as a Major: Predictive Analysis

by

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Undergraduate honors thesis under the direction of

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Division Honors Program.

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Louisiana State University

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Baton Rouge, Louisiana

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## ABSTRACT

After the dot com crash in the early 2000s, there has been a drop in the number of Information Technology (IT) and Information Systems (IS) students at universities. The purpose of this analysis is to study the different factors that influence students' decisions to study Information Systems and Decision Sciences (ISDS) at LSU. The data for this analysis was collected by a survey given to students enrolled in the ISDS 2000 course in the Fall semester of 2020. The survey inquired about several potential reasons why students were or were not averse to studying ISDS. These potential reasons include uncertainty surrounding the meaning of ISDS, a lack of confidence in using computers, and a lack of knowledge about careers in IT and IS.

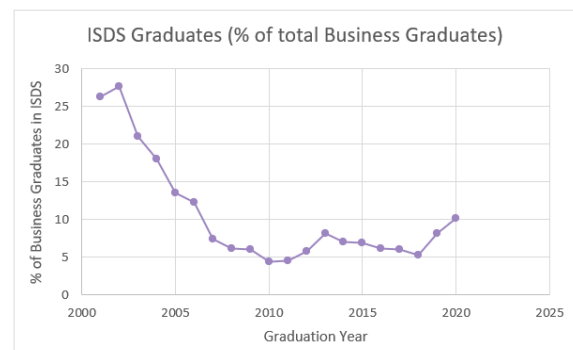
**Keywords:** Information Systems, Louisiana State University, Predictive Analysis, Business Analysis

## INTRODUCTION

Since the start of the 21<sup>st</sup> century, the number of students studying Information Systems (IS) and related fields have dropped, despite the growing popularity of careers in Information Technology (IT) and related jobs such as Systems Analyst, Database Administrator, and Developer positions. This paradox creates a problem for university academic departments who would like to increase the number of students enrolled in Information Systems related programs.

The Stephenson Department of Entrepreneurship & Information Systems' ISDS program at Louisiana State University (LSU) has been established for several decades, and for many years, saw great success. In 2002, the program produced nearly 28% of all graduates from the E.J. Ourso College of Business baccalaureate program, but after this peak, LSU ISDS saw a sharp decline in its percentage of majors, falling to only 4.4% of undergraduate business diplomas in 2010 (See Figure 1). The ISDS program has since been able to gradually increase its number of graduates, but as of the Spring semester of 2020, the percentage of business graduates with an

ISDS degree was 10%: still 17% lower than the 2002 peak. Knowing this true potential for growth, it is important to discover what factors are associated with a student's choice in academic major, and how to improve circumstances to restore the previous levels of interest in the ISDS program.



**Figure 1:** Percent of ISDS graduates in the College of Business by year.

This paper reports the results of a survey administered to 702 students enrolled in ISDS 2000 in the Fall semester of 2020 at LSU and analyzes the responses to discover factors which may determine whether or not a student would want to choose a major field of study in ISDS. The survey asked a series of questions concerning students' demographic information, academic studies, and any academic advice the students may have received from family, high school

teachers, or high school advisors. These questions were followed by a series of statements to which students selected options ranging from “Strongly Disagree” to “Strongly Agree.” These statements gaged students’ opinions of the ISDS curriculum at LSU, careers in IT, and what was important to them when choosing an academic major or future career (See Appendix for a detailed data dictionary).

The survey was sent to students enrolled in the ISDS 2000 course, a core class for business students, which was selected because it is required of all academic majors in the College of Business. Most of the students were undergraduate business majors, but only 10% of the students were ISDS majors, and nearly 8% of the survey participants did not have a major in the College of Business.

52.8% of the respondents were male, while 47.2% were female. 51% were sophomores, 33% were juniors, 15% were seniors, and 1% were freshmen. The average age of the entire group of participants was 20.2.

## DATA PREPARATION

A similar survey has been administered to students for several years. A part of this new study was adjusting that original survey to optimize information learned from past participants as well as incorporating results from other similar studies from the *Journal of Information Systems Education*. Because of changing terminology over the last few years, one of the first adjustments made to the data was to use language such as “laptop” or “apps” instead of “PC” or “software” respectively so that the maximum number of survey participants would understand the questions asked. Questions were also formulated to help understand first what was important to them when choosing a career or academic major,

and secondly, whether they thought they could meet those needs and wants with a major in ISDS or career in IT.

Once all the survey responses had been gathered, any duplicate responses (determined by a student name field) were removed. After duplicates were removed, all names given in the responses were removed to protect participants’ privacy. Then, responses to the question about academic major were standardized, using the school course prefixes (i.e. MKT instead of Marketing). In order to clearly differentiate between ISDS majors’ and non-ISDS majors’ behaviors, a new variable (ISDS) was created using the value 1 for records in which the participant indicated majoring in ISDS, and 0 for all other records. All questions with multiple choice responses “yes” or “no” were recoded so that yes=1 and no=0. For the Rating questions, Q01 through Q52, participants rated statements on a 5-choice scale from “Strongly Disagree” to “Strongly Agree.” For these questions, participant answers were recoded so that “Strongly Disagree” was equal to -2, and “Strongly Agree” was equal to +2 in order to show neutrality, polarity, and magnitude. Lastly, to assess the effects of the attitudes toward computer usage, using a computer anxiety scale formulated in the empirical research paper *Why Don’t More Students Major in IS?* (Kuechler), a new variable, TECH\_ATTITUDE, was created as a sum of a respondent’s scores for the variables Q40-Q45.

Of the 702 responses, 690 were retained because they provided responses to the entire survey and had no missing information. As a result, 1.7% of the initial responses were deleted from subsequent analysis. Further analysis showed that there were no significant changes in the

proportions, means, or standard deviations of the variables as a result of deleting those observations, justifying the deletion of these incomplete cases.

## RESULTS AND ANALYSIS

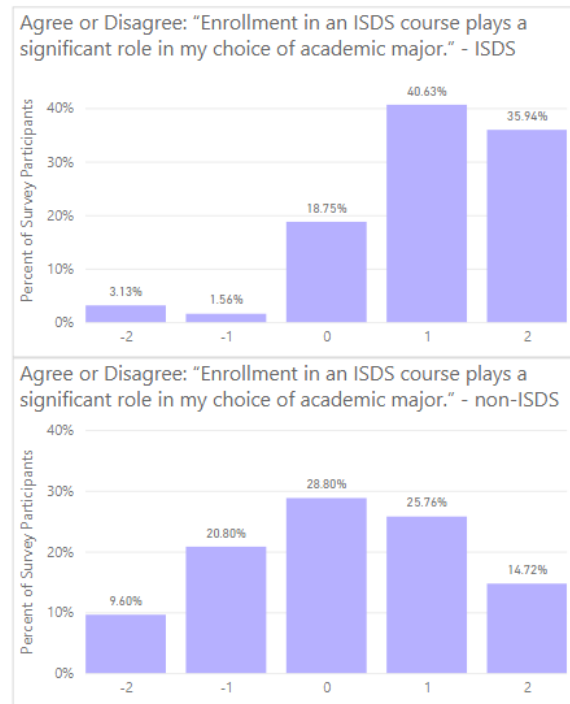
Averages of each numerical data column were taken for ISDS majors and non-ISDS majors in order to describe how the two groups differ. The results showed a significant difference between the two groups on several variables, while for other variables, the two groups gave almost identical responses. This observation provided an initial hypothesis of which determinants would have the highest influence on students when choosing whether or not to major in ISDS.

For the purpose of improving deeper analysis, the survey questions were divided into four different groups: Preferences and Priorities, Perceptions of the ISDS Course Curriculum, Perceptions of IT Careers, and Demographics. Each group of questions will be analyzed separately to break down different factors which contribute to students' choices of academic major.

### PREFERENCES AND PRIORITIES

The Preferences and Priorities group consists of 15 questions aimed at understanding the factors which students consciously consider when choosing an academic major. Questions in this group include the phrase "X plays a significant role in my choice of academic major." This specific language was used to ensure that participants indicate the direct influence that the given factor has over their choice of major, as opposed to questions of perception, which identify only attitudes and beliefs that indirectly affect students' decisions.

For this group of questions, one of the largest disparities in the differences between ISDS majors and non-ISDS majors was the apparent influence of enrollment in an ISDS course described by the variable Q13, which states "Enrollment in an ISDS course plays a significant role in my choice of academic major."



**Figure 2:** Participants were asked to rate their agreement on the statement "Enrollment in an ISDS course plays a significant role in my choice of academic major."

ISDS majors seemed to decidedly agree with 76.6% selecting "agree" or "strongly agree", compared to 40.5% of the non-ISDS majors. The ISDS group scored an average of 1.05 on the scale of -2 to +2 (Strongly Disagree and Strongly Agree, respectively). The non-ISDS group of participants, however, was relatively neutral, scoring an average of 0.15 (See Figure 2). A two-sample t-test on the mean responses confirmed that there was a significant difference in the mean scores of the two groups (the p-value was less than 0.0001). This is evidence that students who have chosen ISDS as an academic major differ

significantly in their stated impact of enrollment in an ISDS course from the non-ISDS group, supporting the idea that decisions are influenced by exposure to the program.

When comparing the two groups on the other variables on the Preferences and Priorities group, there were no significant differences. In fact, the responses of all participants in the survey were generally positive when asked about the roles of salary/earnings, job satisfaction, job security, and flexibility in career paths when choosing an academic major. For the LSU ISDS Department, this means that generally, students want the same things in a career; therefore, the ISDS department should increase efforts to show that with IT careers and an ISDS degree these various aspirations are attainable.

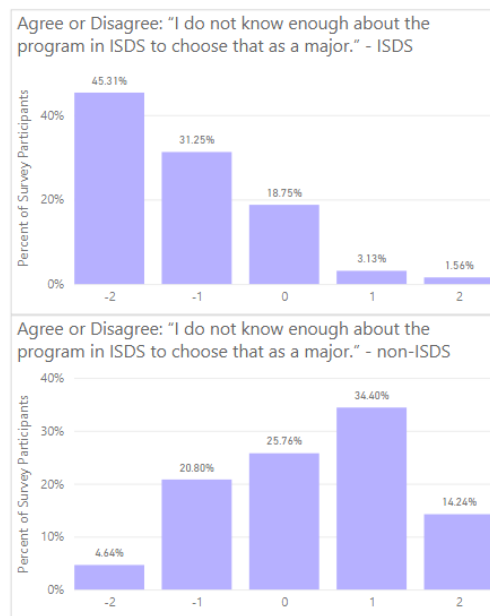
Furthermore, the United States Bureau of Labor statistics shows that the median annual income of for computer and technology occupations was \$88,240 as of May 2019, compared to the median annual income of \$39,800 for all occupations. Also, there continues to be a demand for people with these skills, and as a result, employment in IT-related fields is projected to grow 11% through the year 2029—much faster than other occupations. On the U.S. News “100 Best Jobs” list of 2021, 5 of the top 15 careers were technology-related, indicating excellent job security and high job satisfaction. These statistics and facts could be used to recruit more students to study ISDS because they show students that they can find their most important career values in an IT-related career.

#### PERCEPTIONS OF THE ISDS CURRICULUM

To understand how to increase enrollment in the ISDS program at LSU, it is imperative to understand the way students perceive the ISDS course curriculum. If misperceptions

of the ISDS program are causing students to have less interest in the ISDS program, this would indicate to department recruiters that an effective way to attract more students to the program would be increasing student awareness of what ISDS is. Questions pertaining to this issue have been classified into the Perceptions of the ISDS Course Curriculum part of the survey, labeled as Q16 through Q23, Q34 through Q36, Q38, and Q39.

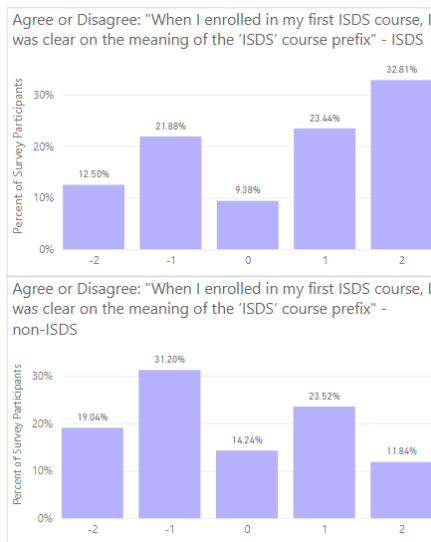
Participants’ responses confirmed the hypothesis that a lack of understanding may be a major reason for students to be hesitant in choosing to major in ISDS at LSU. Variables Q16 (See Figure 3) and Q21 (See Figure 4) were important discriminating variables when comparing ISDS majors and non-ISDS majors. For these variables, survey participants were asked to rate the statements “I do not know enough about the program in ISDS to choose that as a major” and “When I enrolled in my first ISDS course, I was clear on the meaning of the ‘ISDS’ course prefix,” respectively.



**Figure 3:** Responses to variable Q16 according to ISDS or non-ISDS grouping.

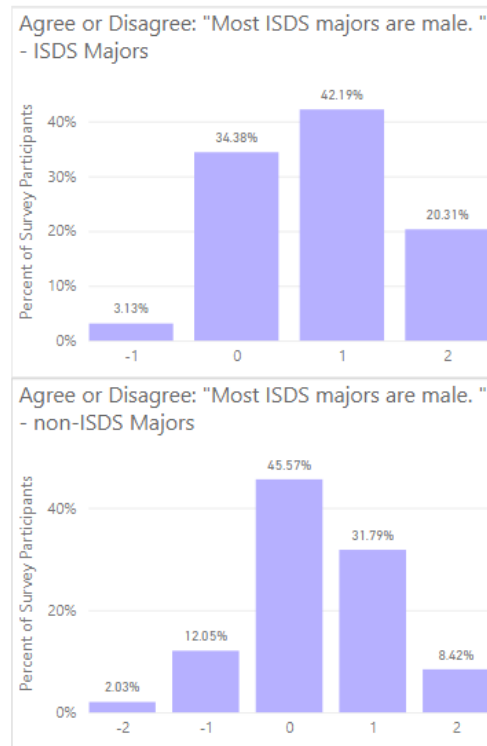
For variable Q16, 48.5% of non-ISDS majors reported not knowing enough about the ISDS program to choose ISDS as an academic major compared to 4.7% for ISDS majors. The ISDS group had a mean of 1.16 while the non-ISDS group had a mean of 0.33. A two-sample t-test that was conducted on the mean responses confirmed that there was a significant difference in the mean scores of the two groups (the p-value was less than 0.0001).

Similarly, for variable Q21, 56.3% of ISDS majors reported that they had a clear understanding of the meaning of the ISDS prefix, compared to 35.4% of non-ISDS majors. A two-sample t-test was conducted on the mean responses confirming that there was a significant difference in the mean scores of the two groups (the p-value was less than 0.0003). If all of these non-ISDS students had a more adequate understanding of the ISDS program, and only 5% of those students decided to switch their major to ISDS, the ISDS program would gain 31 new students. Considering the 97 ISDS graduates from Summer 2019 and Spring 2020, this would mean increasing the size of the ISDS program by 30%.



**Figure 4:** Responses to variable Q21 according to ISDS or non-ISDS grouping.

Another interesting takeaway from this group of questions came from variable Q36. For this part of the survey, participants rated their agreement with the statement that “most ISDS majors are male.” 56.3% of ISDS majors selected “agree” or “strongly agree” for this statement, while 35.4% of non-ISDS majors selected these options. For ISDS majors, the average rating on the -2 to +2 scale was 0.80 while non-ISDS majors averaged a score of 0.27 (See Figure 5). This variable cannot help the LSU ISDS department with recruiting students to the program because of diversity and targeting issues, but it does seem to be indicative of a student’s perception of the ISDS program. For this reason, this variable could be considered as a contributing factor in a predictive model meant to determine the probability of a student majoring in ISDS simply for the purpose of analyzing and characterizing the ISDS department and its students.



**Figure 5:** Responses to variable Q36 describing differences between the ISDS and non-ISDS groups.



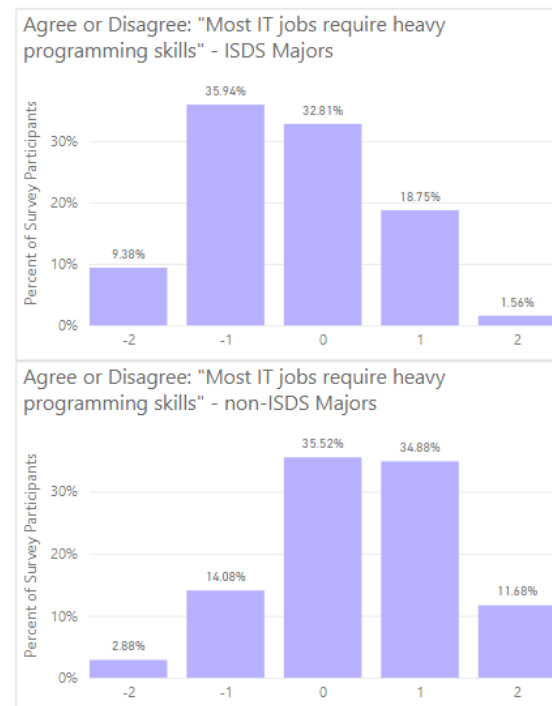
## PERCEPTIONS OF IT CAREERS

Considering the number of students at LSU who did not choose to major in ISDS because of misperceptions, it was important to investigate whether any other misperceptions unrelated to the degree program could have been deterring students from pursuing an ISDS academic major. As stated previously, tech-related careers are some of the most desirable jobs in the country, according to several published lists. If students are not aware of any of these lists, however, they may be relying on their own perceptions of careers in the IT field of work. The Perceptions of IT Careers group of questions (variables Q24 through Q33, Q37, and Q46 through 52) from the survey addresses this hypothesis by asking students to rate their level of agreement with several opinions about IT positions and careers.

One variable highlighted an important perception of IT careers that effectively discriminated between ISDS participants and non-ISDS participants. Variable Q31 stated the opinion that “most IT jobs require heavy programming skills.” More than 30% of participants in both groups signified that they neither agreed nor disagreed with the statement, likely indicating that they do not know enough about jobs in IT to know the level of skills required. Still, many of the survey participants did indicate agreement or disagreement. In the ISDS group, 20.3% of participants agreed with the statement. In the non-ISDS group, however, 46.4% of participants indicated agreeing with the statement (See Figure 6). A two-sample t-test conducted on the mean responses confirmed that there was a significant difference in the mean scores of the two groups (the p-value was less than 0.0001). This significance in difference makes the Q31 variable an excellent factor to consider in a predictive model of ISDS or non-ISDS

majors, but it also provides the LSU ISDS department with information that would help them recruit more students to the ISDS program.

If the understanding that IT careers need heavy programming skills is a misperception, the LSU ISDS department should pursue ways to inform students of different types of IT careers in early-level ISDS classes. If students’ misperceptions about IT careers are clarified, this could potentially eradicate a factor which seems to play an important role in deterring students from majoring in ISDS.

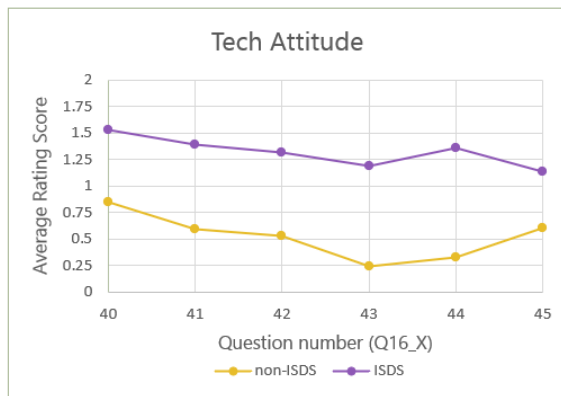


**Figure 6:** ISDS majors and non-ISDS majors showed significant differences in their perceptions of the amount of programming skills are required for IT jobs.

The variables that make up TECH\_ATTITUDE, were intended to gauge participants’ confidence level with technology, uncovered a significant disparity between the ISDS and non-ISDS groups. The ISDS group scored an average between .75 and 1 points higher than the non-ISDS group, signifying a much higher

confidence level concerning computers, software, and computer languages (See Figure 7).

Because non-ISDS students generally feel less confident around computers, it is possible that they would be more likely to choose ISDS as a major if they understood that heavy programming skills are not completely necessary for all IT jobs. The non-ISDS students still scored an average of 0.85 when asked about their comfort level using a computer or laptop, which is slightly higher than past years. This indicates that the overall comfort with IT is improving in a world that is increasingly dependent on technology. A two-sample t-test that was conducted on the mean responses confirmed that there was a significant difference in the mean scores of the two groups (the p-value was less than 0.0001).



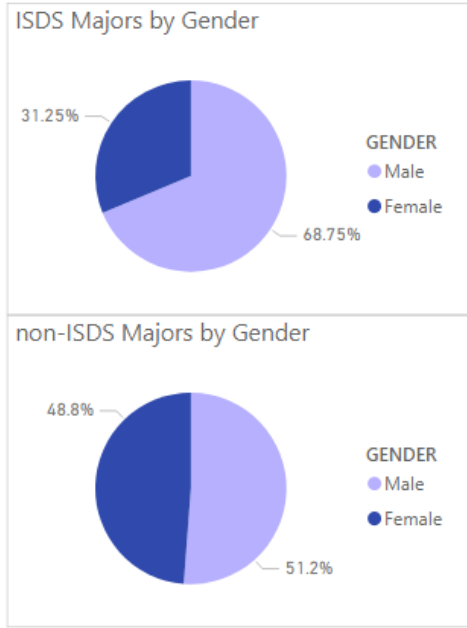
**Figure 7:** The difference between the two groups in confidence levels concerning use of different types of technology.

## DEMOGRAPHICS

For this study, the Demographics variables are defined as questions aimed to describe participants according to personal identity, academic background and description, and familiarity with technology. Knowledge of these traits help to create a more accurate

predictive model, using consistent, tangible or historical facts as opposed to opinions, which may change over time. In the survey, this group consisted of all questions leading up to the Ratings question Q01.

After comparing the demographics of ISDS majors to those of non-ISDS majors, gender stood out as a significantly different variable between the two groups of participants. The group of non-ISDS majors included nearly 20% more female students than the ISDS group of participants (See Figure 8). According to the Journal of Information Systems Education, these results accurately represent the proportions of male and female Information Systems graduates nationwide, which estimates that only 33% of Information Systems graduate degrees are earned by female students. This lack of female representation may contribute greatly to the low number of ISDS majors at LSU and other universities if those universities' Information Systems programs are not adequately appealing to women as much as they are to men. Female students at LSU who may meet other factors common to ISDS majors could be an excellent resource to the LSU ISDS department. By attracting more women to the program, this would further optimize the number of students studying ISDS.

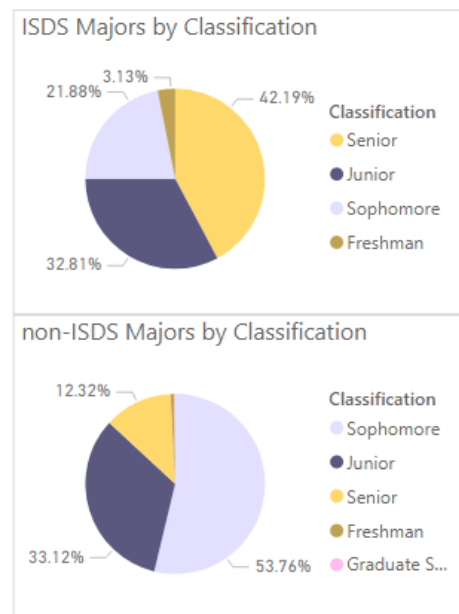


**Figure 8:** The difference in percentage of male and female survey participants was drastically different when comparing ISDS majors to non-ISDS majors.

Participants' classification of year of study at LSU also showed significant difference between the ISDS and non-ISDS majors. This difference is most likely a *result* of how students choose to major in ISDS rather than a *cause* for students to choose to major in ISDS. The survey results showed that 42.2% of the ISDS majors enrolled in this sophomore-level ISDS course were classified as Seniors in their studies at LSU and 21.9% were classified as Sophomores. For non-ISDS majors, Sophomores were the majority in the group, making up 53.8% of these participants while only 12.3% were Seniors (See Figure 9).

Why were so many of the ISDS majors in the sophomore-level class Seniors? The reason is most likely that while many non-ISDS majors pick a degree they are familiar with after graduating high school, most high school graduates are not familiar with the meaning of ISDS or the kinds of careers they may have with a degree in this field. Older students are more likely to have experience with a lower-level

ISDS course, and therefore are more likely to pick ISDS as a major later in their college career, after learning more about the curriculum from their own experiences. Another possible reason for the trend of older ISDS students could be that many students who found engineering or science courses too difficult or unappealing may have switched to ISDS in order to incorporate their technological interests while taking business courses which have higher rates of passing than science and engineering courses.



**Figure 9:** There is a significant difference in year Classification when comparing ISDS majors to non-ISDS majors enrolled in ISDS 2000.

Since grade classification and lack of understanding of the ISDS course curriculum seem to be a major influence on students' choice of whether or not to major in ISDS, it was hypothesized that students who spent more time visiting advisors either in high school or in college would be more likely to know more about the ISDS program and therefore slightly more likely to major in ISDS. However, when analyzing the variable ADVISOR\_YN, there seemed to be virtually no difference between the

ISDS and non-ISDS groups. Around 9.1% of respondents in both groups reported having an academic advisor. There are several speculations as to why this may be the case. First, it is possible that advisors in high schools and at universities may not be adequately knowledgeable about the variety of careers available to students who graduate with a degree in ISDS at LSU. Secondly, and perhaps more likely, is that students do not ask the questions that would lead them to get adequate information about careers they could have with an ISDS degree. These results further support the idea that the ISDS department must be more proactive in informing students about the opportunities available with an ISDS degree and careers in IT.

Another disparity between ISDS majors and non-ISDS majors was the difference in the PARENT\_IT field, which asks participants if they have a parent who has worked in IT. ISDS majors were 1.64 times more likely to have reported having a parent working in an IT career, making this a discriminating factor. As a result, there is an association between students' choice of academic major and their parents' careers. This association supports the idea that students who were exposed to IT careers at home were more likely to be interested in studying ISDS at LSU.

## CONCLUSION

### PREDICTIVE MODEL

This study has gathered different factors that were used to create a model that calculates the probability that a student is pursuing a major in IT. Using this model, the ISDS department and college of business advisors could identify students who would be a good fit for the ISDS program. The variables from the survey that were used in the model are Q13, Q16, Q31, Q36, and variables Q40

through Q45, TECH\_ATTITUDE (See Figure 10). If a student answers each question associated with these variables, the model can predict with 93.4% accuracy whether he or she has a major in ISDS or not.

Variable	States
Q13	Enrollment in an ISDS course plays a significant role in my choice of academic major.
Q16	I do not know enough about the program in ISDS to choose that as a major.
Q31	Most IT jobs require heavy programming skills.
Q36	Most ISDS majors are male.
TECH_ATTITUDE	Computer anxiety scale

**Figure 10:** Definitions of variables used in the predictive model.

The higher a student scores for the variable Q13, which asks if enrollment in an ISDS course plays a role in a student's choice of academic major, the higher the probability is that they are an ISDS major; a student who agrees (+1) is 2.24 times more likely to be an ISDS major when compared to someone who is neutral (0). A student who scores higher on the variable Q36, is 2.23 times as likely to become an ISDS major. If the sum of a student's scores on variables Q40 through Q45, TECH\_ATTITUDE increases by 25%, they are twice as likely to choose a major in ISDS. A higher score for the variable Q31 (which asks students if they agree with the statement "Most IT jobs require heavy programming skills.") makes a student 1.63 times as likely *not* to major in ISDS, and a higher score for the variable Q16 ("I do not know enough about ISDS to choose that as a major.") means a student is 3 times as likely *not* to choose a major in ISDS.

## DISCUSSION

The results of this study could potentially help the LSU Stephenson Department of Entrepreneurship & Information Systems department recruit more students to the ISDS program. The most important step the department needs to take in order to gain more students would be to increase exposure of business students to information regarding potential careers that can be pursued with a degree in ISDS. If students are exposed to this information earlier in their college career, they may feel more confident in their abilities relating to IT positions. Secondly, LSU students should have a better understanding of the benefits of working in IT. Many of the students' priorities for their careers seem to align with the characteristics of jobs in IT, but if they are ignorant of this alignment, they will not have the initial intrigue in IT to attract them to the ISDS program.

A third important step that can attract more students to the ISDS program could be to inform incoming students of the meaning of the ISDS course prefix. Many high school students are less informed about information systems and business analysis than they are about marketing, management, and accounting. Since students indicated neutral opinions about the affect of department website on their choice of academic major, the ISDS department should focus more on promoting the meaning of ISDS and all that it entails to high school students. However, to effectively use this tactic, the department should conduct more research on what high school students consider when thinking

about their future careers since this study was made specifically for college students. Many of these issues could be addressed if the ISDS department was more active during student orientation and other events early in a student's academic career, in order to target students who may be more likely to major in ISDS.

To continue growing the department over time, the ISDS department will continue to send this survey to ISDS 2000 students. To improve the information gained from the survey, it would be useful to add the following questions to the survey:

- During your high school years, did you receive any information about the ISDS program at LSU?
- During your high school years, did you receive any information about careers in IT?
- Earning a degree in ISDS can lead to many differing career paths. (rate Strongly Disagree to Strongly Agree)
- My experience in ISDS courses gave me a better understanding of the ISDS program at LSU. (rate Strongly Disagree to Strongly Agree)

By improving the survey this way, the ISDS department can continue to learn why students choose their major, and also continue to improve their presence in the LSU college of business, bringing more students into IS careers, and furthermore improving businesses' IT processes.

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## APPENDIX

### DATA DICTIONARY

Participants: Please be assured that the results of this questionnaire will remain confidential and will be used solely for assessing student attitudes and opinions for career counseling purposes. Note: The term IT herein refers to Information Technology Directions: Please answer ALL of the following questions:

#### DEMOGRAPHICS

(AGE) (in years as of today): \_\_\_\_\_

(GENDER): \_\_\_\_\_ Male (1) \_\_\_\_\_ Female (0)

(ETHNICITY):  
\_\_\_\_\_ White  
\_\_\_\_\_ African American  
\_\_\_\_\_ Hispanic  
\_\_\_\_\_ American Indian or Alaskan Native  
\_\_\_\_\_ Asian  
\_\_\_\_\_ Native Hawaiian or Other Pacific Islander  
\_\_\_\_\_ Other

(CLASSIF) Academic Classification: \_\_\_\_\_ Freshman  
\_\_\_\_\_ Sophomore  
\_\_\_\_\_ Junior  
\_\_\_\_\_ Senior  
\_\_\_\_\_ Graduate Student

(COB) Are you in the college of business? \_\_\_\_\_ Yes (1) \_\_\_\_\_ No (0)

(MAJOR) What is your proposed or declared academic major? (i.e.: ACCT, FIN, MKT, MGT, ISDS, ECON...)

(ISDS) \*Based on results of field MAJOR: 1=ISDS Major 0=other Major

(MIN\_CONC) If you have declared an Academic Minor or Concentration, please supply here (please use an official abbreviation if possible; also leave BLANK if you have neither a minor nor concentration)

(ISDS\_ANALYTICS\_CONC) \*Based on results of field MIN\_CONC: 1 = Minor or Concentration in ISDS or Analytics 0 = other Minor or Concentration

(GPA) What is your current overall GPA?

(ADVISOR\_YN) Do you have an academic advisor? \_\_\_\_\_ Yes (1) \_\_\_\_\_ No (0)

(ADVISOR\_WHO) My Academic Advisor is: \_\_\_\_\_ In the Office of Business Student Success (OBSS), room 2000 of the Business Education Complex  
\_\_\_\_\_ In the Department of my declared academic major  
\_\_\_\_\_ In the University College Center for Freshman Year (UCFY)

(ADVISOR\_HRS) Approximately, how many times per year do you meet with your Academic Advisor? (please whole number values – no text please)

(AGE\_ACCESS) At what AGE did you have access to a Home Computer (laptop or desktop) for your use? (leave BLANK if you never had use of a computer at home; please provide only numeric values - no text please)

(AGE\_OWN) At what AGE did you get a Computer (laptop or desktop) of your own (leave BLANK if you never had your own computer; please provide only numeric values - no text please)

(COURSE\_YN) During your high school years (grades 9 through 12), did you take any computer courses offered through your school? (please count courses even if your formal education was delivered through home schooling; do not count online courses offered independently of your school)

(COURSE\_NUM) During your high school years, how many computer courses offered through your school did you successfully complete? (please count courses even if your formal education was delivered through home schooling; do not count online courses offered independently of your school)

(COURSE\_1) In what grade did you did you successfully complete your first computer course offered through your high school? (please count courses even if your formal education was delivered through home schooling; do not count online courses offered independently of your school)

(COURSEIND\_YN) Have you ever taken an online computer course offered independently of your school - whether in high school or college? \_\_\_\_\_ YES (1) \_\_\_\_\_ NO (0)

(COURSEIND\_NUM) How many online computer courses have you taken independently of your school - whether in high school or college?

(PARENT\_IT) Does at least one of your parents have (or ever had) an occupation in IT? \_\_\_\_\_ YES (1) \_\_\_\_\_ NO (0)

(IT\_INFO) At any point before entering college, did a teacher or counselor communicate to you or provide to you information about IT as a possible professional career? \_\_\_\_\_ YES (1) \_\_\_\_\_ NO (0)



PLEASE select the appropriate response for EACH of the following statements:  
*Strongly Agree, Agree, Neither Agree nor Disagree, Disagree, Strongly Disagree*  
*Scored as -2, -1, 0, +1, +2*

*PREFERENCES AND PRIORITIES*

- (Q01) Salary/earning potential plays a significant role in my choice of academic major.
- (Q02) Job satisfaction plays a significant role in my choice of academic major.
- (Q03) Job security plays a significant role in my choice of academic major.
- (Q04) Flexibility in career paths plays a significant role in my choice of academic major.
- (Q05) Demand for employees in the job market plays a significant role in my choice of academic major.
- (Q06) The opinions of my parents play a significant role in my choice of academic major.
- (Q07) The opinions of my friends play a significant role in my choice of academic major.
- (Q08) Information from my high school counselor plays a significant role in my choice of academic major.
- (Q09) Information from a high school teacher plays a significant role in my choice of academic major.
- (Q10) Information on the College/Department website plays a significant role in my choice of academic major.
- (Q11) Job location plays a significant role in my choice of academic major.
- (Q12) Completion of ISDS 1102 plays a significant role in my choice of academic major.
- (Q13) Enrollment in an ISDS course plays a significant role in my choice of academic major.
- (Q14) Guest speakers in my college classes play a significant role in my choice of academic major.
- (Q15) Ease of subject matter plays a significant role in my choice of academic major.

*PERCEPTIONS OF THE ISDS CURRICULUM*

- (Q16) I do not know enough about the program in ISDS to choose that as a major.
- (Q17) I think that the ISDS major is more difficult than any other major.
- (Q18) I think that the ISDS major is more demanding than any other major.
- (Q19) I have considered a major in ISDS.
- (Q20) I have considered a minor field of study in ISDS.
- (Q21) When I enrolled in my first ISDS course, I was clear on the meaning of the 'ISDS' course prefix.
- (Q22) I am now clear on the meaning of the 'ISDS' course prefix.
- (Q23) There are many job opportunities available for graduating ISDS majors.
- (Q34) ISDS graduates have higher starting salaries than other graduates.
- (Q35) The demand for graduates in ISDS programs is higher than the demand for graduates in other programs.
- (Q36) Most ISDS majors are male.
- (Q38) I have no desire to major in ISDS.
- (Q39) Majoring in ISDS would make me look like a geek.

*PERCEPTIONS OF IT CAREERS*

- (Q24) Many IT jobs are available in Baton Rouge.
- (Q25) Many IT jobs are available in the state of Louisiana.
- (Q26) Many IT positions can be replaced by cheaper labor.
- (Q27) Many IT positions can be replaced by technology.
- (Q28) Careers in IT require employees to sit at a computer all day each day.
- (Q29) Some IT professionals are not qualified to work as corporate executives.
- (Q30) Most IT jobs are located offshore.
- (Q31) Most IT jobs require heavy programming skills.
- (Q32) Most IT jobs require extensive technical training.
- (Q33) IT knowledge is critical in the everyday operations of all businesses.
- (Q37) Those working in IT positions exhibit a high degree of job satisfaction.
- (Q40) I feel confident working on a desktop computer/laptop.
- (Q41) I feel confident using a variety of software programs/applications.
- (Q42) I feel confident getting software programs/applications up and running.
- (Q43) I feel confident trouble shooting computer and software application problems.
- (Q44) I am confident that I could learn a computer language.
- (Q45) I feel threatened when other people talk about computers. (Reverse coded because of wording)
- (Q46) Jobs in IT encourage creativity.
- (Q47) Jobs in IT allow independent work and autonomy.
- (Q48) Jobs in IT are intellectually challenging.
- (Q49) Jobs in IT involve teamwork.
- (Q50) Jobs in IT are routine and easy to master.
- (Q51) Jobs in IT involve a large amount of verbal communication.
- (Q52) Careers in IT have ample opportunity for advancement.

(TECH\_ATTITUDE) *Sum of scores from responses to variables Q40 through Q45.  
Can be between -12 and +12.*

(Q17\_1, Q17\_2, Q17\_3, Q17\_4, Q17\_5, Q17\_6, Q17\_7) Order the following items in terms of how IMPORTANT they are to you when considering a job opportunity.

*Scored as MOST IMPORTANT 1, 2, 3, 4, 5, 6, 7 LEAST IMPORTANT*

- Encourages Creativity
- Allows independent work and autonomy
- Challenges me intellectually
- Involves teamwork
- Routine and easy to master
- Involves a large amount verbal communication
- Has ample opportunity for advancement