

**Environmental Issues Survey  
The Minnesota Daily  
Department of Survey Research  
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**I. INTRODUCTION**

**A. Purpose of the Study**

The purpose of the Environmental Issues Survey is to examine the attitudes, opinions, and experiences of students on a variety of environmental issues relevant to the University of Minnesota community. Topics explored in this survey include transportation trends, attitudes about the environment, lifestyle choices related to the environment, the relationship between the University and the environment, and the perceived environmental impact of the TCF Bank® Stadium.

**B. General Questions of Interest**

**TRANSPORTATION**

- How do students typically travel to and from the University? Why do students use a particular mode of transportation over other forms of transportation?
- To what extent are students concerned about the environmental impact of their transportation choices?
- Do students support proposals to raise Minnesota's gas tax? Do students think that raising the gas tax will affect driving habits?
- Do students support the expansion of light-rail to the University campus? Where do they support expansion of light-rail in the Twin Cities metropolitan area?
- According to students, should the new I-35W bridge be constructed to support light-rail?
- Are students concerned about the condition of Minnesota's roads and bridges?

**ATTITUDES ABOUT THE ENVIRONMENT**

- Do students think interest in the environment is a passing trend? Do students see concern for the environment as a 'liberal' issue?
- Who do students think is most responsible for the current state of the environment? Do students anticipate their generation will be responsible for fixing environmental problems?

- What do students consider the greatest threat facing the environment?
- Do students believe there is enough evidence to support global warming as real? Do students think global climate change is occurring?
- According to students, how is society doing in protecting animals, plants, and the environment in general?

### **LIFESTYLE CHOICES**

- What measures, if any, do students take to reduce their environmental impact?
- Do students see renewable energies as promising sources of future energy?
- To what extent do environmental issues affect students' support for political candidates?
- Do students think being more environmentally-friendly will have a negative impact on the U.S. economy?
- Are students more or less inclined to patronize businesses based on their environmental impact and their treatment of workers?

### **THE UNIVERSITY AND THE ENVIRONMENT**

- Do students think there is enough emphasis on protecting the environment on campus?
- Do students think the University can become a top three research university and environmentally friendly? Can the University be more environmentally friendly without raising tuition and fees?
- Do students suggest the University give priority to doing business with vendors who are environmentally friendly?

### **TCF BANK® STADIUM AND THE ENVIRONMENT**

- How do students think the new stadium will affect pollution levels on and around campus?
- According to students, how should the University handle litter created by stadium-goers?
- How do students think stadium events will impact neighborhoods bordering the University?

## **C. Methodology**

The Minnesota Daily received the names, contact information, and other publicly available data on currently enrolled students from the University of Minnesota Office of Institutional Research and Reporting. This list was current as of October 2007.

A sampling frame of 2,965 students was chosen at random using a SQL command from the complete list of 41,232. This is the total number of students enrolled for Fall Semester 2007. 443 students responded to the survey for a response rate of 14.9%. The margin of error associated with this sample is plus or minus 4.29 % with a 95% confidence interval.

Due to a server error, a second sampling frame of 2,965 was chosen at random using an SQL command from the complete list of 41,232. This is the total number of students enrolled for Fall Semester 2007. The coverage overlap between these two samples was 216 potential participants. 482 participants responded to this survey for a response rate of 16.2%. The margin of error associated with this sample is 4.1% with a 95% confidence interval.

Combining the two administrations of the surveys, 5,930 students were sampled in total, with 216 students sampled twice. This means the unique sample space was 5,714. From this survey total, 925 participants responded to the survey. In the case of a double-sampled participant responding to the survey twice, we created a decision rule to include the responses from the first survey the participant submitted. This decision rule was only needed in two cases, and left us with a response rate of 923 participants from a unique sample space of 5,714. This translates to a survey response rate of 16.1%. The margin of error associated with this sample is plus or minus 2.95%, reported as 3% for simplicity.

The survey and consent process form was sent via e-mail link on Thursday, November 29. The survey closed on Monday, December 3. A reminder email to complete the survey was sent on Friday, November 30. As in previous surveys, the reminder e-mail served to initiate a new round of responses and had the effect of lifting the response rate slightly. Incentives, offered in the form of Target gift cards, were offered in a random drawing to participants who completed the survey. The incentives also served to increase the response rate.

## **D. Methods of Analysis**

Statistical analysis was conducted using licensed Microsoft® Excel software packages. Rarely, percentage totals may not sum to 100% due to rounding.

# **II. FINDINGS**

## **A. Statistics of General Interest**

The following statistics are provided for the student population samples. Where applicable, we provide comparisons between the survey sample and broader University student registration statistics published by the University of Minnesota’s Office of Institutional Research and Reporting.

**Degree Status** –Graduate/ professional students were overrepresented in this survey as compared to OIRR statistics, while undergraduate students were slightly overrepresented. Non-degree seeking students and those who fall under the “other” category were under-represented in comparison to OIRR statistics.

Table 2.1 Participant Degree Status

| <b>Degree Status</b>           | <b>Survey Participation Total</b> | <b>University Enrollment Total</b> |
|--------------------------------|-----------------------------------|------------------------------------|
| Undergraduate Student          | 67%                               | 61%                                |
| Graduate/ Professional Student | 30%                               | 23%                                |
| Non degree-seeking student     | 2%                                | 10%                                |
| Other                          | 1%                                | 6%                                 |

**Gender** – Slightly more women responded to the survey than men. In the survey, men are slightly underrepresented while women are slightly overrepresented. This is in keeping with broader gender ratio patterns in University enrollment, provided by the Office of Institutional Research and Reporting. University-wide, women comprise 51% of the student population, while men comprise 47%.

Table 2.2 Participant Gender

| <b>Gender</b> | <b>Survey Participation Total</b> | <b>University Enrollment Total</b> |
|---------------|-----------------------------------|------------------------------------|
| Male          | 44%                               | 47%                                |
| Female        | 56%                               | 51%                                |
| Other         | N/A                               | 2%                                 |

**Race/Ethnicity** – Compared to the OIRR registration statistics, students identifying as Caucasian were overrepresented in the survey participation sample. It is not possible to make inference about the proportion of students who selected “other” as an option for race and ethnicity. The Office of Institutional Research and Reporting does not have an “other” category in demographics reporting, but provides categories for “International” and “Not Available.” These two categories were not provided in our survey and are omitted in comparison totals.

Table 2.3 Participant Race/ Ethnicity

| <b>Race/Ethnicity</b>   | <b>Survey Participation Total</b> | <b>University Enrollment Total</b> |
|-------------------------|-----------------------------------|------------------------------------|
| African American        | 2%                                | 3%                                 |
| Asian/ Pacific Islander | 9%                                | 6%                                 |
| Caucasian               | 83%                               | 62%                                |
| Hispanic/ Latino        | 1%                                | 2%                                 |
| Native American         | <1%                               | 1%                                 |
| Other                   | 4%                                | N/A                                |

**Age** – Since the response options for age in our survey differs from those used by OIRR, we only provide the proportion of ages reporting in our study.

Table 2.4 Participant Age

| <b>Age</b>  | <b>Survey Participation Total</b> |
|-------------|-----------------------------------|
| 18-20       | 41%                               |
| 21-23       | 26%                               |
| 24-26       | 12%                               |
| 27 or older | 20%                               |

## **B. Bias**

Students whose University e-mail addresses were disabled (for any variety of reasons) would not have received the invitation to participate. Students who are frequent users of the Internet may have been more likely to participate in a web-based survey than students who do not use the Internet as often. Individuals interested in environmental issues may have been more inclined to participate than those with little interest in the environment. Students concerned about Internet privacy and security issues may have been reluctant to respond to a survey administered via email invitation with an embedded web-link.

## C. Main Findings

### TRANSPORTATION

**How do students typically travel to and from the University? Why do students use a particular mode of transportation over other forms of transportation?**

Table 2.5 Student's Primary Mode of Transportation (to and from campus)

| Mode of Transportation | Percentage of Respondents |
|------------------------|---------------------------|
| Bus                    | 28%                       |
| Single Passenger Car   | 25%                       |
| Foot                   | 24%                       |
| Bicycle                | 10%                       |
| Carpool                | 10%                       |
| Light-rail             | 2%                        |
| Other                  | 1%                        |

When asked the main reason on why they do not carpool (among those who do not), 52% say other transportation options are more convenient. 9% say carpooling is not available in their area. 2% say they do not carpool because of cost concerns, while 1% do not carpool because of safety concerns.

The most frequent reason students cite for using public transportation is low cost (31%). 22% say they use public transportation because it is their only option, 11% say they use public transportation because it is time efficient.

**To what extent are students concerned about the environmental impact of their transportation choices?**

Fuel efficiency would be a very important factor to students if they were to purchase a new vehicle with a response of 68%. 28% responded that it would be somewhat important, 3% replied that it isn't very important and 1% said it was not important at all.

56% of the respondents said the fuel efficiency is just as important as the cost of the vehicle (31% replied that the vehicle cost was more important and 13% replied that the fuel efficiency is more important).

The respondents responded positively to hybrid vehicles with 70% saying they would definitely buy a hybrid (27% replied maybe and 4% said they wouldn't buy a hybrid vehicle).

**Do students support proposals to raise Minnesota's gas tax?**

61% of students oppose raising the state's gas tax, while 39% support a tax increase.

51% oppose raising the gas tax if it were to pay for increased bridge inspections and repair of bridges. 49% were in favor of raising the gas tax if funds went towards inspection of roads and bridges.

62% would favor a gas tax increase if it went towards increasing education funding in Minnesota schools, while 38% would oppose such a proposal.

**Do students think that raising the gas tax will affect driving habits?**

57% of respondents believe that raising the gas tax would not be very effective in discouraging motorists from using their vehicles. 39% believed it would be somewhat effective, while 4% suggest it would be very effective.

44% of students say they would be no less likely to drive their own vehicle if the gas tax were raised. 36% indicate they would be a little less likely to drive, and 5% of students say they would be much less likely to drive a vehicle if the gas tax were raised.

**Do students support expanding light-rail to the University campus? Where do they support expansion of light-rail in the Twin Cities metropolitan area?**

67% of the respondents say they would be very likely to use light-rail if it came through campus. 24% of students said they would be somewhat likely to use light-rail and 9% of students said they would not be likely to use light-rail.

If light rail were to come through campus, 64% support light-rail to be built underground. 32% support light-rail being built above-ground, while 4% said the light-rail should not come through campus.

If light-rail were to come through campus, 84% of respondents believe it would have a somewhat or highly positive impact on campus life (48% replied somewhat positive impact and 36% replied that it would have a highly positive impact). 9% suggest light-rail would negatively impact campus life (2% responded highly negative, and 7% said it would have a somewhat negative impact).

The largest percentage of students (59%) support primary expansion of light-rail to connect downtown Minneapolis with downtown St. Paul. 15% say primary expansion should branch to Uptown and St. Louis Park, while 14% support primary expansion to the northern suburbs. 12% support primary expansion with branching light-rail lines within downtown Minneapolis.

**Do students think the new I-35W bridge be constructed to support light-rail?**

87% of respondents believe that the new 35W bridge should be built to accommodate light-rail transit (13% disagreed).

### **Are students concerned about the current conditions of bridges and roads?**

31% of students say they are somewhat concerned about the condition of bridges and roads around campus, while 48% are not very concerned and 15% are not at all concerned. 7% of respondents say they are very concerned about the condition of bridges and roads.

### **ATTITUDES ABOUT THE ENVIRONMENT**

#### **Do students think interest in the environment is a passing trend? Do students see concern for the environment as a 'liberal' issue?**

17% of students believe society's interest in the environment is a passing trend, while 83% disagree.

22% of students say that concern for the environment is a 'liberal' issue, while 78% disagree.

82% of students anticipate their generation will be responsible for fixing current environmental problems.

51% of respondents say that individuals can't do enough on their own to make an environmental impact, and that changes in big business are the key to change. 49% of respondents disagreed with this statement.

53% of students expect future generations to experience a lower standard of living than society has now, while 47% disagree.

#### **What do students consider the greatest threat facing the environment?**

Opinion was divided as to whether the environment is the biggest problem faced by society. 52% of students agree that "we have bigger problems to worry about than the environment," while 48% disagree.

The largest percentage of respondents cited dependence on non-renewable fuel (37%) and climate change (25%) as the greatest threats facing the environment. Respondents also noted contamination of soil and water (12%) and air pollution (11%). Deforestation and loss of bio-diversity were each cited by 8% of students as being the greatest threats to the environment.

**Do students believe there is enough evidence to support global warming as real? Do students think global climate change is occurring?**

70% of survey participants said they believe that there is abundant evidence to prove the theory of global climate change. 13% of students do not believe there is any evidence to prove global climate change. 17% of students were not sure.

64% of students said that there is conclusive evidence to prove that climate change is occurring. 30% of students said that there is not enough conclusive evidence, but that climate change is probably occurring. 4% said there is not enough conclusive evidence and it is probably not occurring, and 3% said that climate change is not occurring.

**According to students, how is society doing in protecting animals, plants, and the environment in general?**

81% of respondents say they do not think enough emphasis is put on protecting the environment. 12% of respondents felt that just the right amount of emphasis was put on protection, and 7% felt that too much emphasis was being put on protecting the environment.

65% of students say not enough is being done to protect endangered species of animals, while 33% of respondents felt that enough was being done.

55% of students say not enough is being done to protect endangered species of plants, while 42% felt that enough was being done.

## LIFESTYLE CHOICES

### What measures, if any, do students take to reduce their environmental impact?

Students were asked how often they took part in certain activities related to the environment.

Table 2.6 Personal Environmental Activities

| Activity                  | Always/Most of the Time | Sometimes | Rarely/Never |
|---------------------------|-------------------------|-----------|--------------|
| Recycling Aluminum        | 80%                     | 16%       | 4%           |
| Recycling Plastic         | 75%                     | 21%       | 4%           |
| Recycling Glass           | 73%                     | 20%       | 7%           |
| Recycling Paper           | 68%                     | 28%       | 4%           |
| Re-Use Shopping Bags      | 47%                     | 32%       | 21%          |
| Use Cage-Free Eggs        | 13%                     | 27%       | 60%          |
| Buying Organic Food       | 10%                     | 55%       | 35%          |
| Buying Locally Grown Food | 9%                      | 66%       | 25%          |
| Composting Food           | 9%                      | 30%       | 61%          |

53% of students say they use compact fluorescent lightbulbs in their homes, while 26% say they do not. 21% were not sure if they used compact fluorescent lightbulbs in their home.

8% of students say they currently practice vegetarianism or veganism. 12% say they have been vegetarian or vegan in the past, while 80% of students say they never have been.

38% of students say vegetarianism is good for the environment, while 62% disagree.

### Do students see renewable energies as promising sources of future energy?

When asked which form of renewable energies students perceive as most promising for future use, the largest percentage of students indicate solar power (30%) and wind energy (28%) as most promising. 17% of respondents indicated nuclear energy was most promising, and 12% perceive hydro-electric energy as most promising.

### To what extent do environmental issues affect support for political candidates?

84% of students say a politician's stance on environmental issues is important, but not the most important issue when it comes to their decision to support that candidate. 12% say a candidate's stance on environmental issues is the most important issue in their decision

to support a candidate, while 5% say that a candidate's stance on environmental issues is not important at all

**Do students think being more environmentally-friendly will have a negative impact on the U.S. economy?**

94% of University students agree that the United States can protect the environment while still having strong economic growth.

61% of respondents say the U.S. government should help control pollution created by other countries, while 39 % of respondents disagree.

**Are students more or less inclined to patronize businesses based on their environmental impact and their treatment of workers?**

40% of students say they have boycotted a product or a business based on their environmental impact, while 60% of students had not.

46% of students say they have boycotted a product or business based on their treatment of workers, while 54% of students had not.

**THE UNIVERSITY AND THE ENVIRONMENT**

**Do students think enough is being done on campus to protect the environment?**

57% of students say not enough is being done on campus to protect the environment and 40% saying that just the right amount is being done. 3% of students say too much is being done.

**Do students think the University can become a top three research university and environmentally friendly? Can the University be more environmentally friendly without raising tuition and fees?**

96% of respondents believe that the University can become more environmentally-friendly and still be a top three research institution, while 4% disagree.

81% of respondents believe the University can become more environmentally-friendly without raising fees or tuition (19% disagreed).

**Do students think the University should give priority to doing business with vendors who are environmentally friendly?**

35% of students say that environmental concerns should be very important in the University's purchasing decisions, while 55% say that environmental concerns should be somewhat important.

33% of students suggest the University should give priority to doing business with environmentally friendly vendors in all circumstances, while 59% say it should be considered in some circumstances.

## **TCF BANK® STADIUM AND THE ENVIRONMENT**

### **How do students think the new stadium will affect pollution levels on and around campus?**

39% said that the addition of the stadium will increase pollution. 43% were not sure and 18% didn't believe that it would increase pollution.

### **According to students, how should the University handle litter created by stadium-goers?**

74% said that both the University and the individuals were responsible while 22% believed that the individual was responsible and 4% said the University was chiefly responsible.

### **How do students think traffic from stadium events will impact neighborhoods bordering the University?**

65% of the respondents believe that it will cause a slightly negative impact. 27% said it will have a highly negative impact and 9% believe that the new stadium will have no impact on the surrounding neighborhoods.

## **III. RECOMMENDATIONS**

### **A. Recommendations for Future Surveys on Similar Topics**

Future versions of this survey may consider asking more questions regarding biodiversity related issues. Questions pertaining to topics such as hunting, fishing, and animal welfare should be considered. Topics also not discussed in this survey include the current condition of and maintenance of natural areas such as forests, lakes, and city, state and national parks.

### **B. Recommendations for Improvement**

In future surveys it may be more beneficial to ask questions about political ideology rather than party affiliation in attempt to further reduce the response rate in the "other" category. Some participants may be more inclined to answer a question about political ideology (i.e. conservative, liberal, moderate, etc) than choose a political party. Questions pertaining to income level of participants may also be useful when analyzing results. Findings regarding how those in different income brackets view the issue discussed in this survey may be interesting to those reporting on the survey.