

# REDUCING ISOLATION AND ANXIETY IN THE AGE OF COVID-19

Ryan Bettencourt  
Samuel Losh  
Zachary Siders  
Juan Pablo Villamizar

Advisors:

Dr. Thomas Balistrieri  
Professor Creighton Peet

Sponsor:

Dr. Thomas Balistrieri

An Interactive Qualifying Project submitted to the Faculty of  
Worcester Polytechnic Institute  
in partial fulfillment of the requirements for  
the Degree of Bachelor of Science



# ABSTRACT

New college students experience isolation and feelings of anxiety. Universities offer new student orientation and other activities and services to mitigate these concerns. The COVID-19 pandemic has forced universities to minimize programming due to social distancing guidelines, leaving first-year students isolated and unable to form meaningful relationships. We interviewed faculty, staff, and students at WPI and other universities to determine the most effective preventive and on-going methods for maintaining the holistic health of students while upholding COVID-19 safety precautions.

# ACKNOWLEDGEMENTS

We would like to use this section to thank those who have helped us in our pursuit of academic achievement.

First, we would like to thank Garret Fitzgerald, Dr. Kelly Kettlewell, Brian Larson, and Dr. Eric Johnson for sacrificing their valuable time for our interviews.

Second, we would like to thank Kaitlyn Bartley and Dean Gregory Snoddy for their valuable insight and care for the WPI community.

Next, we would like to thank our advisor Prof. Creighton Peet who always has a knack for keeping our writing sharp and keeping us vigilant because no typo gets past Prof. Peet.

Finally, we would like to thank our advisor/sponsor Dr. Thomas Balistreri. Dr. B has guided us at every step along the way and his knowledge of psychology has been imperative to our success. Though we have only met Dr. B over Zoom (so far), he is certainly an invaluable member of our team.

# AUTHORSHIP

## Ryan Bettencourt

**Primary Authorship:** Cover Page, Executive Summary, We Reflected on the Holistic Model, Recommendations, All Appendices

**Secondary Authorship:** Table of Contents



## Samuel Losh

**Primary Authorship:** Acknowledgements, We Examined How Other Universities are Responding, We Examined how WPI is Responding, What We Found

**Secondary Authorship:** We Reflected on the Holistic Model

## Zachary Siders

**Primary Authorship:** Abstract, We Became Aware of an Underlying Problem, The Impact on Universities, We Planned to Create Positive Change, We Explored Recent Data and Research

**Secondary Authorship:** Executive Summary, Recommendations, Works Cited



## Juan Pablo Villamizar

**Primary Authorship:** Table of Contents, We Received Direct Input from students, The Holistic Needs at WPI, We Conducted a SWOT Analysis

**Secondary Authorship:** Recommendations, Appendix C

# TABLE OF CONTENTS

---

Abstract .....	ii
Acknowledgements .....	iii
Authorship .....	iv
Table of Contents .....	v
Table of Figures .....	vi
Executive Summary .....	vii
We Became Aware of an Underlying Problem .....	1
The Impact on Universities in United States .....	2
Breakdown by University Size .....	3
We Planned to Create Positive Change .....	5
We Explored Recent Data and Research .....	6
We Reflected on the Holistic Model .....	8
We Examined How Other Universities are Responding .....	9
Amherst College .....	10
Bucknell University .....	11
Christopher Newport University .....	12
Colby College .....	13
Williams College .....	14
We Examined How WPI is Responding .....	15
What We Found .....	17
We Received Direct Input From Students .....	18
The Holistic Needs at WPI .....	19
We Conducted a SWOT Analysis .....	20
Our Recommendations for WPI .....	22
Work Cited .....	26
Appendix A: WPI Semi-Structured Interview .....	28
Appendix B: Semi-Structured Interviews with other schools .....	30
Appendix C: Survey of WPI First-Year Students .....	32
Appendix D: Survey of WPI First-Year Students Results.....	33

# TABLE OF FIGURES

---

Figure 1.1 .....	1
Figure 1.2 .....	2
Figure 1.3 .....	3
Figure 1.4 .....	5
Figure 1.5 .....	7
Figure 1.6 .....	8
Figure 1.7 .....	17
Figure 1.8 .....	19

# EXECUTIVE SUMMARY

---

Entering one's first year of their collegiate career can be very daunting. Leaving behind the comfort of friends and family only to have to build new relationships up from scratch is no easy task. Compounded with the stresses of academic work and extracurricular activities, many students experience anxiety, stress, and feelings of isolation. With the COVID-19 pandemic currently dictating everyday life, it becomes even harder to make new friends and relieve the stress and anxiety that school brings because of social distancing regulations. Overall, this negatively impacts every category of the holistic model (Mountrose, 2019).

The holistic health of oneself includes physical, emotional, mental, social, and spiritual health, which all can be satisfied individually (Mountrose, 2019). However, one is not "holistically healthy" unless each category is satisfied to some degree.

Although it is imperative for universities to keep their students safe from a COVID-19 outbreak, it is also imperative to limit the detriment to students' holistic health. Nearly every university that we researched reported having resources available for students experiencing sadness or anxiety. On the other hand, those same universities were not offering on-going holistic preventive programming or processes. In these times of COVID-19, when social interaction is at an all-time low and anxiety at an all-time high, it is not enough for universities to just react. Universities must consider offering targeted preventative programs and processes throughout the entire school year, especially in a time where social interaction is at an all-time low and anxiety, stress, and isolation are at an all-time high.

To address this, universities must begin implementing preventative programs and processes.

# EXECUTIVE SUMMARY

---

In order to tackle this issue, we undertook archival and benchmarking research. The first method we used in our research was archival in that we read about student development practices and theoretical models. This research served as the foundation for our project. The second step of our research was interviewing. We interviewed student development professionals, at five northeastern universities, in an effort to find out what preventive programs and processes they used in this time of COVID-19. The third step in our process was to discern what preventive programs and processes WPI had strategized. We then could compare the holistically based preventive strategies of WPI to the five universities we interviewed. The fourth step of our project was to survey WPI students in an effort to learn what holistically based programs and processes they thought might prove helpful. We gathered information from over 150 WPI students which proved to be very insightful.

All of our research guided us into formulating our recommendations that will eventually be shared with our sponsor. The fifth step of our project was to conduct a SWOT analysis on our final recommendations. This SWOT analysis was conducted with the Dean of Students, Assistant Dean of Students, and Associate Dean of Students at WPI. After the SWOT analysis, we finalized our recommendations.

With all this information in our hands, we created a final set of recommendations to provide WPI with the goal of preventing the decline of student's holistic health. We found that students are largely interested in physical and social need-based programs. Our recommendations included more programs among students, increased education and awareness of mental and spiritual health on campus, and consistent monitoring of students' holistic health.

# WE IDENTIFIED AN UNDERLYING PROBLEM

The world is currently struggling with a pandemic of unprecedented proportions (BBC News, 2020). Millions across the globe have been infected with the novel coronavirus, and it has heavily impacted almost every aspect of society and everyday life. The economic and social consequences of the pandemic have resulted in unconventional work situations and made it difficult to accomplish even menial tasks. The United States has been hit especially hard in recent months; case numbers continue to climb in several states (BBC News, 2020) as debates over reopening plans rage on.

We have felt the full impact of COVID-19. Even before the start of the academic year, coronavirus was changing our college experience; this project was originally intended to help faculty researchers at Reykjavik University in Iceland study sleep deprivation in young adults. The growing prevalence of coronavirus in the US and the precautions put in place by the Icelandic government led to the eventual cancellation of our plans to travel to Iceland. We were unable to start the project we had been preparing for, and unfortunately, we were unable to continue working with our original sponsors.

Figure 1.1

## WHERE U.S. CITIZENS ARE ALLOWED TO TRAVEL THIS SUMMER

AS OF AUGUST 10, 2020

● OPEN WITH RESTRICTIONS

● TWO-WEEK QUARANTINE

● CLOSED

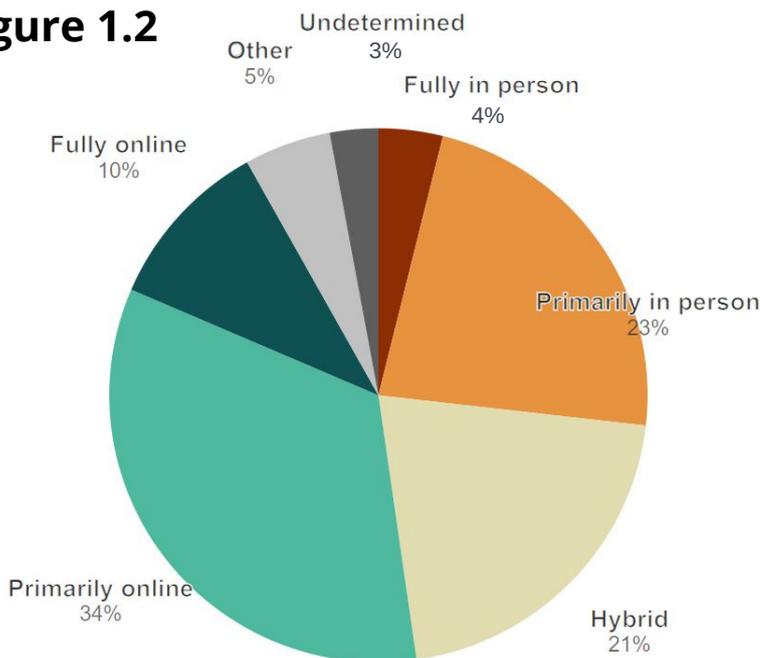


Source: <https://www.travelandleisure.com/travel-news/where-can-americans-travel-right-now-a-country-by-country-guide>

# The Impact on Universities in United States

A global pandemic has much more severe and far-reaching consequences than simple travel restrictions, however. The start of the school year presents a new set of challenges to students, both in primary, secondary, and post-secondary education institutions (Czeisler et al, 2020). Many schools have opted to reduce the capacity of in-person classes or rely on online teaching platforms altogether. Those that still attend school in person are concerned for their own safety and health in an environment they share with thousands of peers and faculty. University students in particular are missing out on their college experience and are not forming lasting connections. The continued isolation and limitations put in place as a result of COVID-19 are severely damaging to these students' holistic health.

**Figure 1.2**



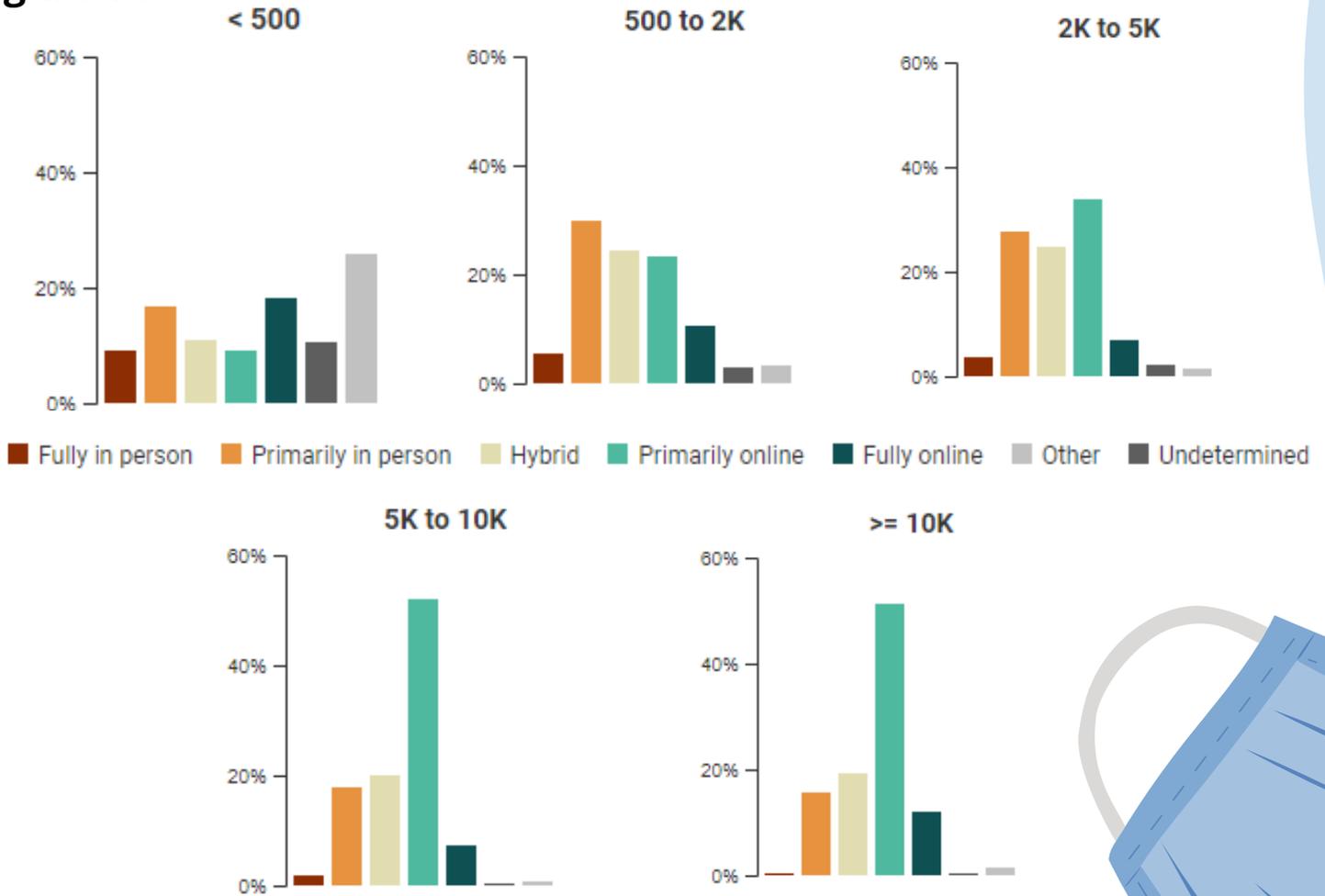
We found existing studies cataloging the extent to which COVID-19 has impacted college education. The College Crisis Initiative, started at Davidson College, intends to discover how universities react and adapt to the COVID-19 pandemic. Researchers have gathered reopening data on 2958 higher education institutions nationwide (Heyer, 2020).

**At least 88% of colleges surveyed conduct classes virtually in some form**

*Source: College Crisis Initiative at Davidson College*

# BREAKDOWN BY UNIVERSITY SIZE:

Figure 1.3



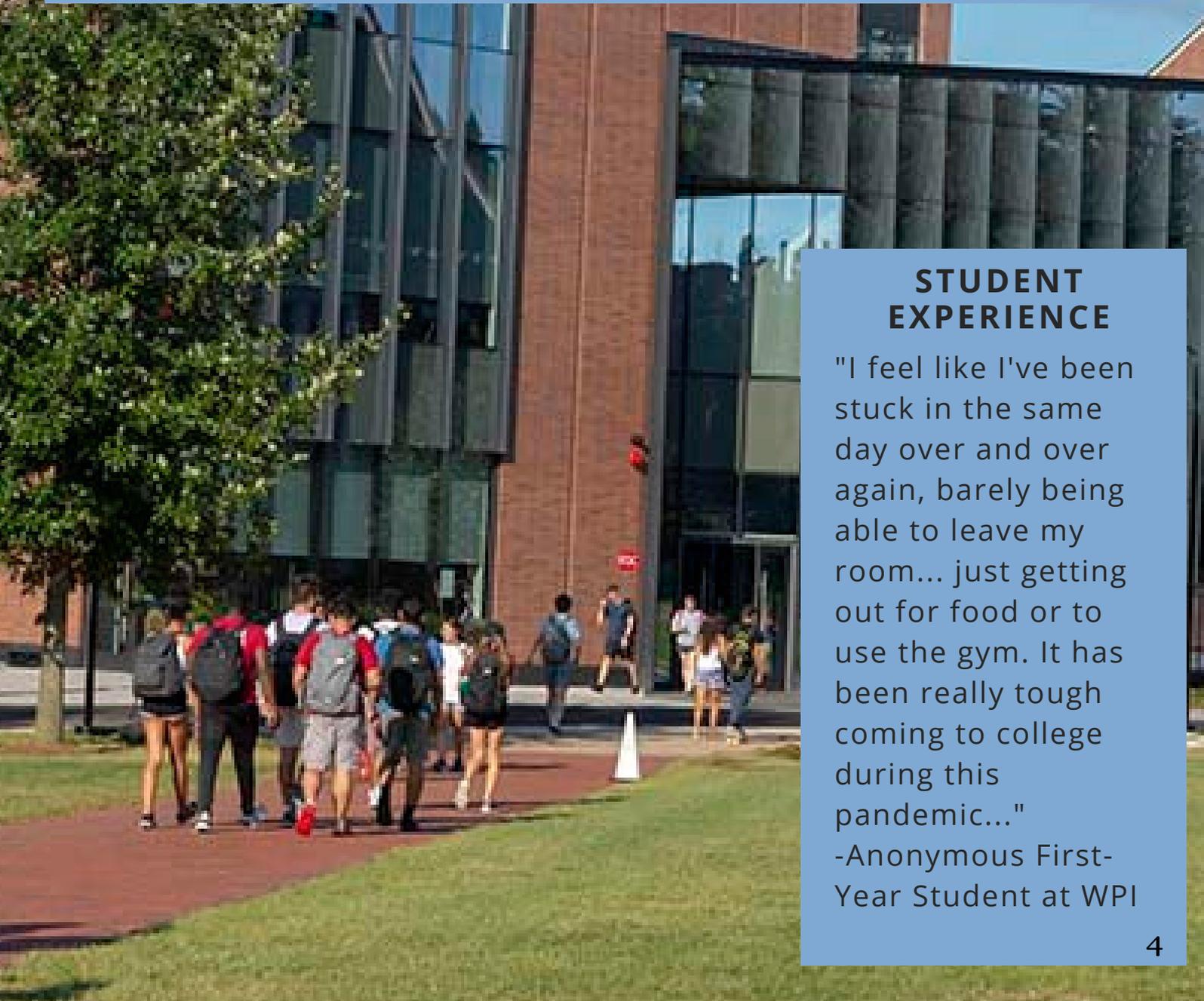
Source: College Crisis Initiative at Davidson College

Attending college for the first time is a daunting experience for many students. Leaving the familiar and comfortable environment of one's hometown, friends and family can cause feelings of anxiety and depression (Goodman, 2018). WPI, like the vast majority of universities, has an orientation process for first-year students designed to acclimate them to the college environment and campus community. This process typically involves frequent in-person interaction and team activities, but in the COVID-19 era, an era of social distancing and isolation such activities are not possible. These social distancing guidelines, mask requirements, and weekly testing leave students feeling isolated, anxious, and even depressed. Ultimately students are separated from the community, they are eager to join.



Even as upperclassmen, we noticed a significant shift in the campus environment and college life as a whole since returning to school this year. To ensure the safety of its students and staff, WPI limits the occupancy of most on-campus facilities. Simple activities ranging from eating in dining halls or working out in the recreation center require reservations ahead of time, and many of our classes are being conducted online. Spending time with people outside of your immediate residence has become increasingly difficult, and even when possible the risk of COVID-19 transmission is ever-present.

We realized that our project focus could shift to address the pressing concerns of student isolation and the resulting impacts on their health. Our conversations with peers and friends at other universities revealed that these circumstances are not unique to WPI. College students across the US are feeling additional stresses from the pandemic dominating their lives. By bringing awareness of exploring responses to this problem, we hoped to improve the overall health and well-being of students.



## STUDENT EXPERIENCE

"I feel like I've been stuck in the same day over and over again, barely being able to leave my room... just getting out for food or to use the gym. It has been really tough coming to college during this pandemic..."

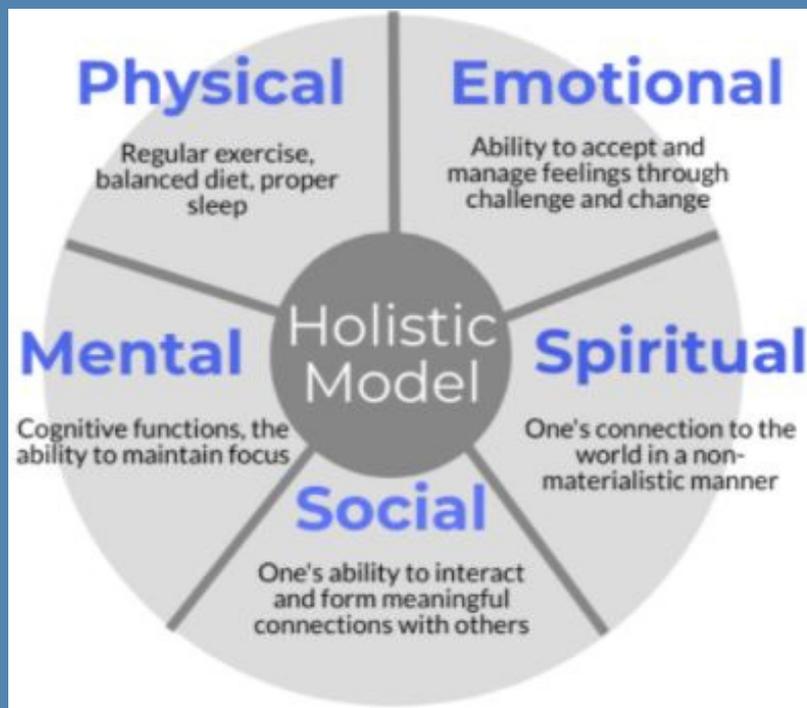
-Anonymous First-Year Student at WPI



# We Planned To Create Positive Change

We understood that in order to address a problem that affects multiple aspects of people's lives, we needed to take a holistic approach to improve health. The holistic model (Mountrose, 2019) is used by practitioners and psychologists to help individuals maintain a healthy body, mind, and spirit. There are 5 distinct areas that contribute to holistic health, and they are equally important in creating fulfilling lives.

**Figure 1.4**



Coronavirus and the subsequent safety guidelines have a deleterious effect on the holistic health of students. The isolation that many find themselves in to prevent the further spread of the virus limits the social interaction and connections that human beings fundamentally need (Hwang, 2020). Stress and uncertainty about the continuation of the pandemic contribute to a decline in productivity and can translate to poor physical habits, such as irregular sleep patterns (National Institute of Health, 2020). Living in constant fear about the health of loved ones can worsen emotional health, and reluctance to go outside diminishes one's connection to the natural world.

The goal of our project was to help WPI realize the importance of holistic preventive and on-going programming and processes for new students. These programs and processes are designed to mitigate the isolation and consequential anxiety and depression caused by COVID-19 and the resulting guidelines such as social distancing. We planned to accomplish this goal through a variety of methods; The first of which was archival research. The second method was a benchmarking analysis of five universities similar to WPI and their strategies for mitigating student anxiety and isolation. We interviewed student development professionals in an effort to discern the strategies they have implemented to mitigate student anxiety and isolation. The third method was to compare the strategies used by those five universities to the strategies employed by WPI. For the fourth method, we surveyed WPI students in an effort to discern their ideas and needs regarding programs and processes they seek that would help mitigate their isolation and anxiety. Finally, we worked directly with WPI administration to discuss our findings and improve our recommendations before presenting them to the university.

# We Explored Recent Data and Research

Our preliminary archival research revealed that young adults have experienced significant increases in mental health issues (Czeisler et al, 2020), ranging from suicide ideation and anxiety to unhealthy and dangerous coping mechanisms.

## Among Individuals Aged 18-24...

1 in 4 seriously considered suicide in recent months

3 in 4 reported one or more symptoms of poor mental health

1 in 4 increased alcohol and other drugs use to cope with the pandemic



As many as  
**75,000**  
Additional  
Deaths

could result from  
substance misuse and  
suicide due to the  
ongoing pandemic

Source: Well Being Trust & The Robert Graham Center Analysis

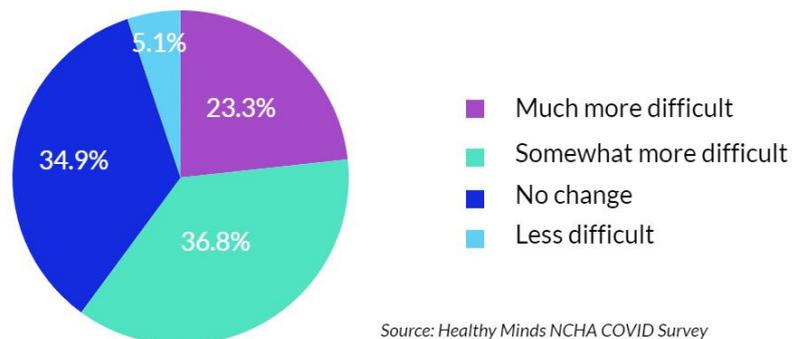
“ Colleges will have  
more mental health  
demands than ever. ”

- Victor Schwartz, Chief  
Medical Officer at the Jed  
Foundation

Research studies, focusing on community-wide disasters, have shown increased levels of trauma and stress for months after (Abrams, 2020). We believe that COVID-19 fits the definition of a community-wide disaster, on a grand scale, and we forecast that the holistic consequences will be increased isolation, anxiety, and depression. At a time where university counseling and mental health resources are needed more than ever, we found that budget cuts and COVID-related deficits could leave schools unable to provide for their students.

**Figure 1.5**

Access to Mental Health Care on  
Campus Since the Pandemic

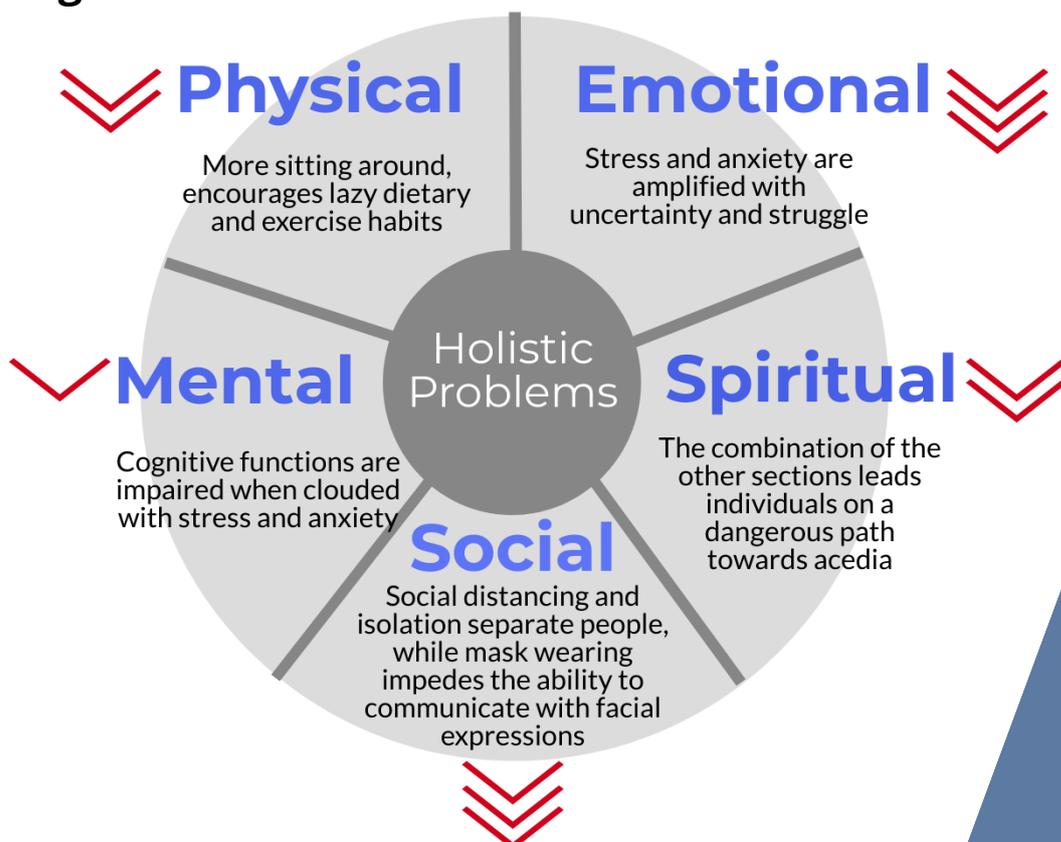


Source: Healthy Minds NCHA COVID Survey

# WE REFLECTED ON THE HOLISTIC MODEL

The holistic model has remained at the core of our approach throughout this project. An individual cannot be considered holistically healthy without satisfying all five of these categories. The task becomes incredibly challenging as every category of the holistic model is affected. In the figure below we present a set of our reflections regarding COVID-19. Our reflections served as the foundation for our interview questions, our survey questions, and ultimately our recommendations.

Figure 1.6



# WE EXAMINED HOW OTHER UNIVERSITIES ARE RESPONDING

## Archival Benchmarking of Other Similar Colleges/Universities

In order to understand the effectiveness of WPI's response to COVID-19, our team's first method was archival benchmarking of other Universities/Colleges through semi-structured interviews. This way, we could learn about what worked and what didn't for universities of similar size to WPI. We conducted five semi-structured interviews. The schools we contacted were Amherst College, Bucknell University, Christopher Newport University, Colby Sawyer College, and Williams College, which fit our criteria.

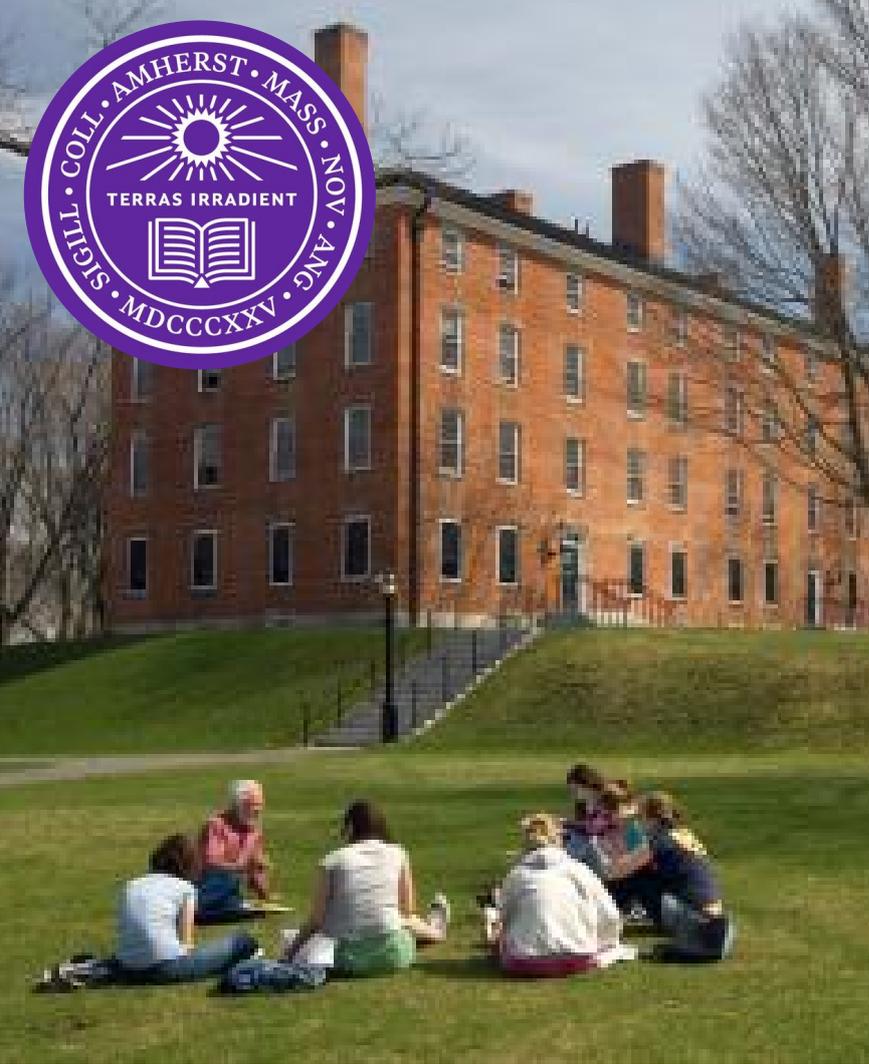
What follows are the three questions we focused on in the course of our semi-structured interviews.

**1** Taking into account the challenges of social distancing, the wearing of masks, the possible increased isolation of students, the possibility of isolation in quarantine, and the general increased anxiety; what new programs and/or processes have been implemented to mitigate anxiety, isolation, and perceived loneliness?

**2** How many of the programs and/or processes are virtual vs in-person?

**3** What training have faculty, staff, administrators, and student leaders received, relative to offering new programs and processes, in an effort to mitigate anxiety, isolation, and perceived loneliness?

The following five pages are the results from each interview. Each strategy is categorized into reactive and preventative, the type of need (as defined by Maslow's hierarchy of needs), and if the strategy was implemented in response to COVID-19.



# Amherst College



## Garret Fitzgerald

Program Director  
for Mental Health

### Strategies

- **Belongingness Initiative:** The belongingness initiative is a program that promotes mental health and the adjustment of first-year students to college life. Upperclassmen write letters addressed to first-year students about their experiences adjusting to college life. The goal is to normalize these experiences and help the first-year students understand and feel welcome during their first semester. This program is preventative and addresses the emotional need of the students.
- **Letters to Yourself:** Students are asked to write a letter to themselves from the perspective of someone who values and supports them. People can write to their future selves or take the perspective of something else like their dog at home. This helps improve the self-image of first-year students that have poor self-confidence. This program is preventative and addresses the emotional need of the students.
- **Training:** Amherst College administered a training specifically to the athletic department on mental health awareness because they believe that athletes are highly connected within the community.

### Our Analysis

Amherst College has specifically addressed the emotional needs of its first-year students by proactively trying to improve their mindset and ease their transition to college life. Amherst College transitioned mostly online but is trying to reinstitute more in-person programs because of their success thus far. Amherst college is excelling at trying to prevent anxiety before it becomes an issue, but they could use more effort in implementing new programs that are specifically designed in response to the COVID-19 pandemic.



# Bucknell University



**Dr. Kelly Kettlewell**  
Director of the Counseling and Student Development Center

## Strategies

- **Expanded Counseling Hours:** Student counseling hours have been expanded from 10 am-3 pm to 9 am-4 pm and additional resources have been invested in allowing for counseling over the phone and online. These counseling hours are open to faculty, staff, students, and parents, and the counseling center has experimented with self-compassion meditation, muscle relaxation, audios, presentations, anxiety videos, etc. This program is reactive, addresses the emotional need of the students, and was created in response to the COVID-19 pandemic.
- **Micro-community Groups:** New groups have been formed of about 12 on-campus students and 1 faculty/staff advisor per group. This group serves as a support group for emotional and social-based needs and provides opportunities to create relationships with students they might not have otherwise met. This program is reactive and addresses the emotional need of the students.
- **Training:** Bucknell has instituted a 40-minute, mandatory training program on anxiety, depression, and suicide prevention for students and staff.

## Our Analysis

Bucknell clearly has relied on its robust counseling system to help mitigate anxiety in students, faculty, and staff alike, and they have prioritized the emotional and social needs of the students. Bucknell has also transitioned well into a virtual format and continues to stay mostly virtual for the foreseeable future, while also making an effort to implement new strategies to address the COVID-19 pandemic. One clear area for improvement for Bucknell is instituting more preventative programs intended to mitigate feelings of isolation and anxiety before they become debilitating. Such holistic preventive programs and processes will take the pressure off of departments, such as counseling and health services, that react to the immediate and active problems of students.



# Christopher Newport University



**Brian Larson**  
Associate Dean of Students

## Strategies

- **Virtual Town Hall:** Brian Larson and Vice President of Student Affairs Kevin Hughes held multiple online meetings about the state of CNU and shared information that would ease students returning to campus. This appeals to the general safety and well-being of the students by easing their worries before returning. This strategy is preventative, addresses the intellectual needs of the students, and was put in place in response to the COVID-19 pandemic.
- **“New” Orientation:** Due to the epidemic, orientation had to be completely changed to accommodate for the safety of the students. CNU still managed to form an in-person welcome crew for the incoming first-year students, but all meetings were changed to an online format. CNU did establish smaller teams of 12-15 students that were led by upperclassmen that were meant to promote social interaction and establish new relationships. This modified orientation process is a preventative measure, addresses the students' emotional, and social needs and was done directly in response to the COVID-19 pandemic.
- **Fresh Check Day:** Fresh Check Day is a day of fun activities set in a central campus location that also promotes mental health and suicide prevention resources. The goal is to make all resources readily known and available to all students while also offering an enjoyable day to students who need to destress. The event is put on entirely by the campus and student involvement while promoting outside mental health organizations. Fresh Check Day is a preventative event and addresses the physical and emotional needs of the students.
- **Training:** The orientation staff had enhanced training on specifically helping students with anxiety due to adjusting to college life. Residential Advisors (RA) also had additional training involving ‘touchpoints’ which is their system to ensure constant communication between an RA. The RAs also received training on how to identify a student undergoing mental stress, anxiety, or depression. Additionally, faculty received training on the resources available to students and were assigned students to monitor and to point out resources if they needed them.

## Our Analysis

Christopher Newport University has done an excellent job of addressing many needs of the students at once with their multitudes of creative programming while still keeping the safety of the students at heart. CNU has transitioned to a mostly online campus with in-person events becoming scarce but still has made efforts to adjust programming in response to COVID-19 to retain a sense of community.



# Colby College



**Dr. Eric Johnson**  
Director of Counseling Services

## Strategies

- **Notice and Connect Training:** The counseling services partnered with the orientation process to create a training centered around the idea of community building. The main principle is being trained in noticing when a fellow classmate is struggling and help them get support. This is the first year that the training has been given to all first-year students. The notice and connect training is a preventative strategy that fulfills emotional and social needs by encouraging a strong sense of community.
- **Mindfulness Meditation Groups:** These are strongly advertised groups that encourage in-person interaction outside and relaxing meditation while also being low commitment. Instructors teach stress management techniques and lead the group in meditation a few times a week. This program is preventative, addresses the spiritual needs of the students and was implemented in response to the COVID-19 pandemic.
- **Talk Space:** Colby College partnered this year with Talk Space, an anonymous direct messaging platform that puts students in direct contact with a mental health clinician that is guaranteed to respond within at least 24 hours. The goal is to eliminate any inconvenience in contacting a mental health professional and eliminate barriers to attaining support. This program is reactive, addresses emotional needs and was implemented in response to the COVID-19 pandemic.
- **Training:** Colby administers a campus wide suicide prevention training annually and provides a second in depth training for those interested. Colby counseling services also works directly with student leaders and athletic team captains to provide them with training to support their peers.

## Our Analysis

Colby College seems very invested in retaining its sense of community through many training modules that educate the student populous. This strategy has transitioned well to an online platform and an effort has been made to improve the program in response to COVID-19 and ensure that students are receiving the support that they require. Overall, Colby has done a great job in addressing many of the needs of the students through many new training programs that teach students how to help themselves and each other.



# Williams College



**Christopher Sewell**  
Associate Dean/  
Dean of First Year Students

## Strategies

- **Daily Programming:** Williams College has implemented many small programs to help students relax and establish new relationships among classmates. For example, the counseling center holds daily events, student leaders hold small, virtual group events, and students are encouraged to go on school-sponsored hikes close to campus. These small events address many holistic needs of students, are preventative, and were expanded in response to the COVID-19 pandemic.
- **Daily Emails:** Chris Sewell writes daily emails to the undergraduates from the perspective of an alumni on his prior experiences and advises students on how to make the most of their college experience. This strategy addresses the social need of the students and is a preventative measure.
- **Training:** Chris works directly with student leaders and Junior Advisors (JAs) to receive peer mentorship training.

## Our Analysis

Williams College has done all of the small things to make daily life for students as enjoyable as possible. Most of their strategies are preventative and aimed to address the social and emotional needs of the students. Williams College is currently under a hybrid model and is offering both in-person and virtual classes. Williams has succeeded in improving daily life through many small events but could improve in creating a large strategy that could impact many students simultaneously.

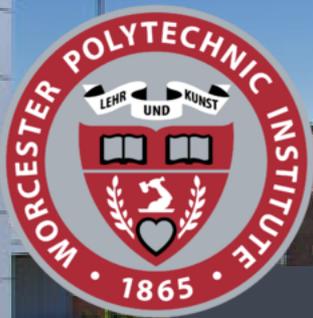
# WE EXAMINED HOW WPI IS RESPONDING

To properly assess WPI's response to the COVID-19 pandemic, we arranged semi-structured interviews with Dean Greg Snoddy and Community Director Kaitlynn Bartley.

The prompts for both interviews are listed below:

- 1** Taking into account the challenges of social distancing, the wearing of masks, the possible increased isolation of students, the possibility of isolation in quarantine, and the general increased anxiety; what new programs and/or processes have been implemented to mitigate anxiety, isolation, and perceived loneliness?
- 2** How many of the programs and/or processes are virtual vs in-person?
- 3** What training have faculty, staff, administrators, and student leaders received, relative to offering new programs and processes, in an effort to mitigate anxiety, isolation, and perceived loneliness?

The following page is the results from both interviews. Each strategy is categorized into reactive and preventative, the type of need (as defined by Maslow's hierarchy of needs), and if the strategy was implemented in response to COVID-19.



**Greg Snoddy**  
**Dean of Students**



**Kaitlynn Bartley**  
**Community Director**

### **Requested Strategies/Changes that Could be Implemented:**

- Dean Snoddy envisions bystander intervention training
- Dean Snoddy seeks to encourage small acts of kindness on campus
- Students seek more in person programming
- Dean Snoddy and Kaitlynn Bartley both envision more preventative programming

### **New Strategies in Response to COVID-19**

- **Expanded Student Development and Counseling Center (SDCC):** WPI has expanded the counseling hours and created new student support groups within SDCC. The intention of this program is to increase the ease of access to these programs, to address the emotional needs of the students, and to react to the mental health of the students.
- **Increase in RA Responsibility:** WPI has expanded the responsibility for RAs by increasing the amount of programming to weekly and adding new initiatives such as spontaneous pop-up socials and weekly one-on-one meaningful conversations. This increase is aimed to address the social and emotional needs of the students and is a preventative initiative.
- **Training:** WPI has implemented a specific "How to Support Students in a Pandemic" training for RAs and faculty and was self-created by the SDCC. RA and CA preparation training had to be shortened from twelve days to five days, two days are exclusively COVID-19 related training. The training that was cut was team building and bonding activities for the RAs and CAs, so the training had the same content in 8 fewer days.

# WHAT WE FOUND

When considering new strategies to mitigate anxiety due to COVID-19, the semi-structured interviews we conducted provided us valuable information on what to prioritize when formatting our final recommendations. Our priorities are listed below:

**More Programs Created Specifically, in Response to COVID-19:** WPI has implemented new strategies to combat COVID-19, but schools such as Colby and CNU have created innovative new programs that are particularly effective in drawing interest and also following COVID-19 guidelines.

**More Preventative Programs:** Some of the most successful programs from other universities are preventative, and WPI seems to have a large number of reactive programs but should implement more preventative strategies.

**Address a Wide Variety of Needs:** We have also found that the programs that were analyzed were overwhelmingly addressing emotional needs as opposed to any other need. According to Maslow's Hierarchy of Needs, every need must be addressed, and therefore; more variety of needs must be satisfied with strategies.



## 2 out of 5

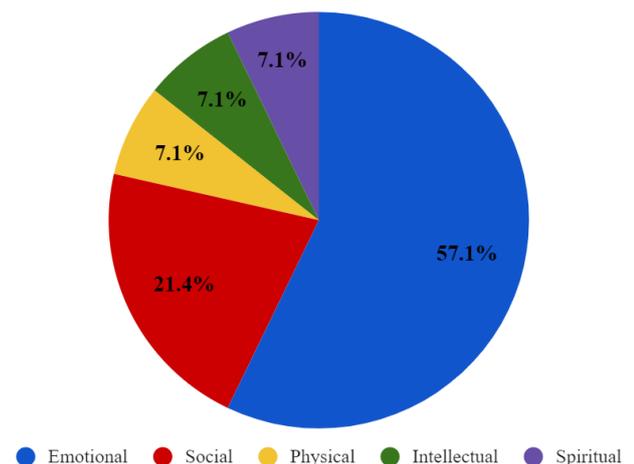
Colleges Interview have not implemented new strategies in response to COVID-19

## 9 out of 13

Strategies Analyzed were Preventative instead of Reactive

Figure 1.7

Needs Addressed by Strategies



# WE RECEIVED DIRECT INPUT FROM STUDENTS

---

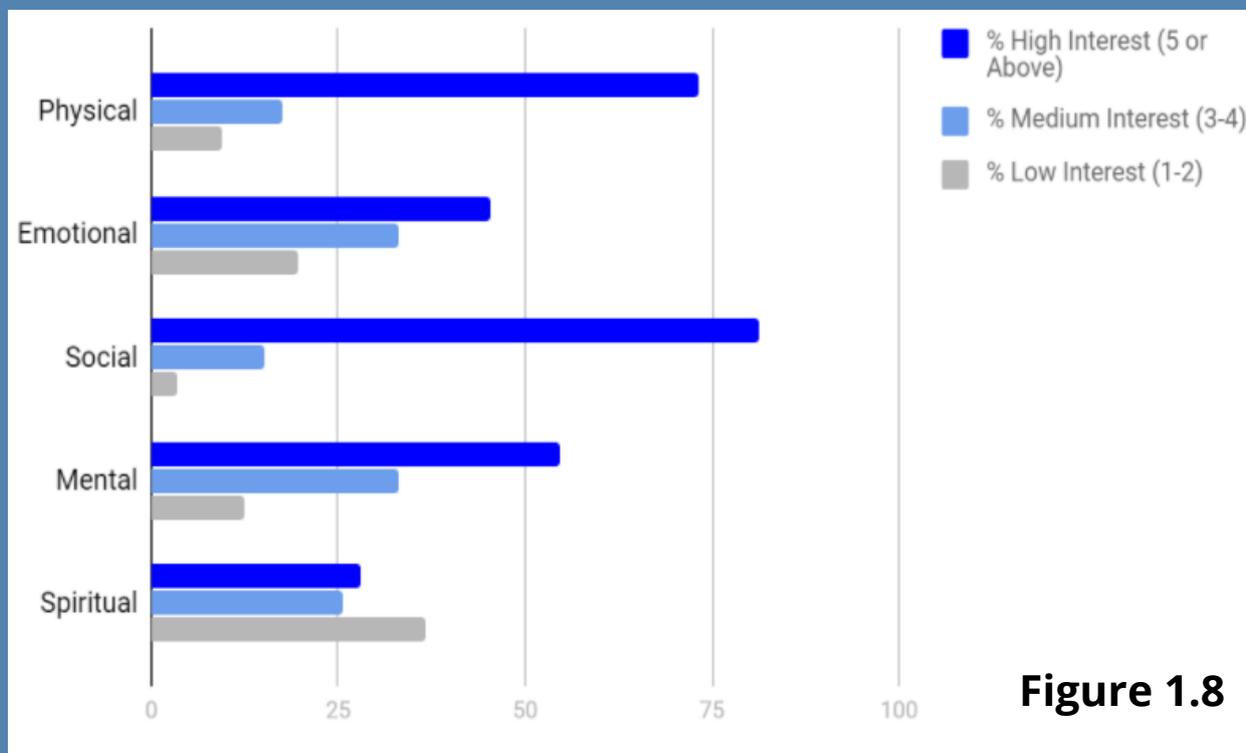
After our interviews with benchmarked STEM universities around the United States concluded, we shifted our focus towards the WPI community. An online survey was created with a total of seven questions based on the different needs of the holistic model. It was then distributed to the freshmen class through in-person QR codes and via emails sent out by residential advisors. The survey consisted of the following questions:

1. A physical need focused program?
  - e.g. Diet, Exercise, Outdoor Physical Activities
2. An emotional need focused program?
  - e.g. Support Networks, Groups to vent and relax with other students
3. A social need focused program?
  - e.g. Floor/Dorm wide competitions, Team building activities, Events to specifically meet other people
4. A spiritual need focused program?
  - e.g. Guided Meditation/Yoga, Nature Walks/Hikes
5. An Intellectual need focused program?
  - e.g. Program to Match Students for Study Groups, Trivia Night, Book Club
6. Any specific examples you would be particularly interested in?
7. Any other suggestions for events/programs/initiatives?

The first five questions were conducted in a Likert scale format where students were asked to rank each need from 1-7 based on their level of interest for the implementation of these types of programs. The last two questions focused on gathering input and ideas from students for possible pilot programs. This allowed us to not only receive data on the students' needs at WPI but also it allowed students to spread their ideas of possible programs under COVID-19 guidelines.

# THE HOLISTIC NEEDS AT WPI

## Surveyed Student's Interest in Programs based on Different Categories



The results of our research guided our holistic mitigation strategies. The holistic model separates one's individual needs into five main categories; physical, emotional, social, mental, and spiritual. The COVID-19 guidelines that students are required to follow impact, negatively and positively, these needs. Our survey of first-year students shows where WPI's new students are struggling the most based on the holistic model. Based on our results from the survey, there is a need for both physical and social programs at WPI. Out of 172 responses, the programs with responses of 5 or above showed that nearly 75% of students expressed high interest in physical need-based programs and just over 80% of students expressed high interest in social need-based programs. It became clear that COVID-19, and the proscribed safety guidelines, made it impossible for WPI to implement an effective New Student Orientation and that the ensuing isolation and lack of community would manifest significant holistic problems within the student body. It is also extremely important to note that both emotional and mental needs reached around 50% of high interest. This means that the difficult circumstances students are facing are slowly affecting them mentally possibly due to factors like stress, anxiety, and depression brought on by the pandemic and the struggles they face during college.

# WE CONDUCTED A S.W.O.T. ANALYSIS

The final step in our research was to conduct a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis. The SWOT analysis gauged the efficacy of the recommendations and promoted discussions that ultimately led to the refinement of recommendation one. Due to time constraints, a SWOT analysis was conducted on recommendations one and three (see Recommendations below). Dean Snoddy and his staff felt that those two recommendations were the most important to analyze.

The recommendations were analyzed and we received feedback by Dean Snoddy and two members his staff:



**Greg Snoddy**  
Dean of Students



**Emily Perlow**  
Associate Dean of  
Students



**Christine Sharry**  
Assistant Dean of  
Student Activities

**Recommendation One:** *We recommend that WPI regularly monitor the holistic health of the student body via a confidential survey.*

Based on the discussion that took place during the SWOT analysis, the group came to the conclusion that recommendation one should remain fundamentally the same but have the following supplemental suggestions.

- Incorporate mental health resources (e.g. *SDCC contact information*) into the survey to increase utilization of existing resources
- Include minor identifying information (e.g. *class year and Major*) to allow for the analysis of different trends
- Link the survey to the symptom tracker to increase the frequency of responses. COVID-19 tests are 1-2 times per week whereas the symptom tracker is daily.

**Recommendation Three:** *We recommend WPI Student Affairs Department implement regular, preventative community involvement events among first-year students.*

During our discussion, recommendation three was also analyzed and the group came to the conclusion that it would remain the same. It should be noted that along with our recommendation, WPI is currently discussing this topic to promote the holistic health of its students while following COVID-19 state guidelines.

# Recommendation One:

# S

## Strengths



- Constant holistic health monitoring of students.
- Clubs on campus could support the usage.
- One of WPI's priorities is wellness, especially mental wellness.

# W

## Weaknesses



- Lack of usage due to students forgetting to fill the survey
- If students only use it when they are feeling down it would result in purely negative data.

# O

## Opportunities



- Increased awareness of WPI mental health resources if included in the survey.
- Increased survey locations around campus.
- Survey could differentiate between the four undergraduate classes for more focused data.

# T

## Threats



- Chance of missing specific individuals of concern because of anonymity.

# Recommendation Three:

# S

## Strengths



- Follows a similar thinking as WPI administration is currently discussing.
- Takes into account the views of the student body.

# W

## Weaknesses



- Need to keep communication in mind, so students don't miss out on these programs.
- To achieve some level of normalcy often involves longer, staggered events.
- State guidelines must be followed which limits the possible activities.

# O

## Opportunities



- Clubs can be encouraged to have longer events to keep crowd size manageable.
- The ability to study students' holistic health on campus.

# T

## Threats



- WPI wants students to keep to small social circles at the moment.

# RECOMMENDATIONS

**Recommendation One:** *We recommend that WPI regularly monitor the holistic health of the student body.*

Throughout our research, we identified a gap in WPI's student health programming. WPI has a wide range of programs and organizations to provide students with care and assistance regarding any part of their holistic health. The gap in WPI's strategy lies in the lack of preventative measures in place. The following recommendations fill that gap. We recommend that WPI regularly monitor the holistic health of the student body in order to implement meaningful measures in regard to the declining holistic health of students. In order to obtain this information accurately on such a large scale, quantitative data would help WPI track how their students feel and they can act accordingly.

**Recommendation 1a:** Our recommendation is that WPI regularly monitors the holistic health of the student body. This could be completed via a confidential survey. The survey could be administered while students are in line for their COVID-19 tests. A suitable medium for distributing the survey could be a QR code available at the tables that students must already stop at to check-in for their COVID-19 test. This would allow students to complete the survey with minimal to no extra time at the check-in station. To increase awareness and frequency of use the survey could incorporate the available mental health resources at WPI and be linked to WPI's symptom tracker. An example of a question for this survey could be "I am feeling anxious," and students have a scale of choices from "not like me" to "very much like me." In addition, the survey could include minor identifying questions such as class year and major to record and analyze different trends of data.

# RECOMMENDATIONS

**Recommendation 1b:** After COVID-19 has been managed and restrictions have lifted, our research indicates that students will still suffer negative impacts on a holistic level. Just because COVID-19 may not be an active issue does not mean students will simply return back to their normal selves. After COVID-19 is gone, we recommend WPI continue to monitor students' holistic health. A way this could be done is to have "survey stands" at various highly trafficked locations around campus to allow students to quickly give quantitative data to WPI as to how they are feeling holistically. These stands could be as simple as a three-button system where students click a happy, indifferent, or sad face based on their holistic health. The system would be anonymous to make students more willing to complete it honestly and will help WPI administration identify trends in the general student population and address them accordingly.

**Recommendation Two:** *We recommend WPI provide and continue to provide programs and processes focusing on community and individual emotional and mental health.*

WPI has resources available to students to educate them on mental health, as well as provide assistance. Based on our research, education on sensitive topics is better received when provided in an enjoyable fashion. An example of this would be WPI's annual Relay for Life, which is a community event based around fundraising for cancer research, while also delivering powerful messages about how cancer can affect an individual or family.

# RECOMMENDATIONS

**Recommendation 2a:** After COVID-19 regulations have been lifted, we recommend WPI sponsor a large-scale, community-wide mental health event such as Fresh Check Day once a year in order for students to become better educated on mental health through a medium that is very enjoyable and interactive.

**Recommendation 2b:** After COVID-19 regulations have been lifted, we recommend WPI organize a smaller scale, mental health improving activities on a more consistent basis. We also recommend this take place specifically during B term and C term where the weather and amount of daylight play a large role in declining holistic health. This could include a day where WPI sponsors a local kennel to bring an animal or animals into the campus center where students can interact with, or simply observe, the animal(s).

**Recommendation Three:** *We recommend WPI Student Affairs Department implement regular, preventative community involvement events among first-year students.*

Given COVID-19 circumstances, WPI students no longer have as many opportunities to foster connections and friendships with fellow students outside their residence halls. Because WPI is a very community-oriented campus, first-year students, in particular, may not feel very connected to each other.

# RECOMMENDATIONS

**Recommendation 3a:** While COVID-19 restrictions are still in place at WPI, we recommend WPI sponsor community involvement events on a regular basis. These events would be organized by Residential Services with an aim to facilitate virtual and in-person, socially distanced activities. Examples could include trivia, online games that allow for many participants, competitions between floors, and outdoor competitions such as relay race or obstacle courses. These events would ideally satisfy the social needs of students, adhere to social distancing guidelines, and bring together many students who might not otherwise meet at all.

**Recommendation 3b:** After COVID-19 has been managed and restrictions have lifted, we recommend WPI get input from students on what type of events they would like to see implemented more on campus. Given enough student interest, residential services could continue creating competitions/events between floors or entire residential halls on a regular basis. These events could be similar to the competition between insight teams that occur during NSO and would continue to serve as enjoyable and competitive relationship-building activities.

# REFERENCES

American Institute of Stress. (2019, October 21). *Anxiety in College Students: Causes, Statistics & How Universities Can Help*. Retrieved from <https://www.stress.org/anxiety-in-college-students-causes-statistics-how-universities-can-help>

BBC News. (2020, October 08). Coronavirus: Why are infections rising again in US? Retrieved October 13, 2020, from <https://www.bbc.com/news/election-us-2020-54423928>

College Crisis Initiative. (2020). *College Crisis Initiative (C2i) at Davidson College*. Retrieved September 12, 2020, from <https://collegetcrisis.shinyapps.io/dashboard/>

Elflein, J. (2020, June 16). *Anxiety symptoms college students U.S. 2018*. Retrieved from <https://www.statista.com/statistics/826896/anxiety-among-us-college-students/>

Gallego, J., Cangas, A. J., & Langer, A. (2014, February). *Effect of a Mindfulness Program on Stress, Anxiety and Depression in University Students*. Retrieved from [https://www.researchgate.net/publication/270892499\\_Effect\\_of\\_a\\_Mindfulness\\_Program\\_on\\_Stress\\_Anxiety\\_and\\_Depression\\_in\\_University\\_Students](https://www.researchgate.net/publication/270892499_Effect_of_a_Mindfulness_Program_on_Stress_Anxiety_and_Depression_in_University_Students)

James, M., & Aretakis, R. (2020, September 19). *Coronavirus updates: US borders with Canada, Mexico to remain closed; almost 200,000 people have died in the US*. Retrieved from <https://www.usatoday.com/story/news/health/2020/09/19/covid-news-trump-vaccine-europe-cases-rise/5834903002/>

Lee, E., & Kim, Y. (n.d.). *Effect of university students' sedentary behavior on stress, anxiety, and depression*. Retrieved from <https://onlinelibrary.wiley.com/doi/pdfdirect/10.1111/ppc.12296>

Lee, S. A. (2020, April 16). *Coronavirus Anxiety Scale: A brief mental health screener for COVID-19 related anxiety*. Retrieved from <https://www.tandfonline.com/doi/full/10.1080/07481187.2020.1748481>

Mountrose, P. (2019, May 22). *The Power of a Holistic Approach to Healing and to Life*. Retrieved from [https://exploreiahp.org/holistic-approach-healing-life/?gclid=Cj0KCQjwqfz6BRD8ARIsAIXQCf1v-BQrpT1cN41vt1DOTDjq3H489yC9T5ZI2Sshj6VkiGVI\\_yDi3x0aAoy0EALw\\_wcB](https://exploreiahp.org/holistic-approach-healing-life/?gclid=Cj0KCQjwqfz6BRD8ARIsAIXQCf1v-BQrpT1cN41vt1DOTDjq3H489yC9T5ZI2Sshj6VkiGVI_yDi3x0aAoy0EALw_wcB)

# REFERENCES, CON'D

- St. Amour, M. (2020, August 17). Suicidal ideation on the rise for college-aged adults due to COVID-19 pandemic. Retrieved from <https://www.insidehighered.com/news/2020/08/17/suicidal-ideation-rise-college-aged-adults-due-covid-19-pandemic>
- Shanahan, L., Steinhoff, A., Bechtiger, L., Murray A., Nivette A., Hepp U., Ribeaud D., & Eisner M. (2020). *Emotional distress in young adults during the COVID-19 pandemic: evidence of risk and resilience from a longitudinal cohort study*. *Psychological Medicine*, 1–10. <https://doi.org/10.1017/S003329172000241X>
- Shanafelt, T., Ripp, J., & Trockel, M. (2020, June 02). *Understanding and Addressing Sources of Anxiety Among Health Care Professionals During the COVID-19 Pandemic*. *Journal of the American Medical Association*., 323(21), 2133. Retrieved from <https://jamanetwork.com/journals/jama/article-abstract/2764380>
- Stauffer, A. (2018, January). *Center for Collegiate Mental Health 2017 Annual Report*. Retrieved from [https://sites.psu.edu/ccmh/files/2018/01/2017\\_CCMH\\_Report-1r3iri4.pdf](https://sites.psu.edu/ccmh/files/2018/01/2017_CCMH_Report-1r3iri4.pdf)
- US Census Bureau. (2019, June 04). *More Than 76 Million Students Enrolled in U.S. Schools*. Retrieved from <https://www.census.gov/newsroom/press-releases/2018/school-enrollment.html>
- Webb, D. (2019, April 18). *The Five Stages to Successful Behavior Change*. Retrieved from <https://www.ceceliahealth.com/blog/2016/1/20/the-five-stages-to-successful-behavior-change>

# APPENDIX A: WPI SEMI-STRUCTURED INTERVIEW

## Protocol:

1. "Hello, thank you for your time. Our names are Ryan Bettencourt, Sam Losh, Zach Siders, and Juan Villamizar."
2. "We seek your permission to utilize your name, title as well as your responses to our questions."
3. "If you agree, your name will appear in our published IQP that will be stored in the WPI Library."
4. "At any time, you reserve the right to end the interview at any time and skip any question you do not wish to answer."
5. "We seek your permission in using your picture in our IQP publication if we find that it will be useful?"
6. "We seek your verbal permission to record this meeting. The recording is used only to review the interview to ensure accuracy. Because it is recorded via Zoom, it will record video, however, the interview and your picture will not be used other than the purpose stated above. This recording will be deleted upon completion of the IQP."
7. Introducing the project. In an effort to mitigate anxiety, isolation and perceived loneliness our team will create and implement innovative programs and processes that will assist First-Year students in establishing relationships with one another, other students, staff, faculty, and the campus itself.
8. The purpose of this interview is to discern what projects and processes have already been undertaken in your department
9. This interview will guide us in new and different creating programs and processes.
10. The main topic of this interview is to focus on the programs and projects that have already been implemented, why they have been implemented and if they have proven to be effective.
11. You will notice 'blank' will be taking notes as we talk.
12. We have about 45 minutes together and 'blank' number of questions we wish to ask.
13. Do we have your permission to contact you in the future if we discover follow-up questions?

# APPENDIX A: WPI SEMI-STRUCTURED INTERVIEW CON'D

## Interview Questions

It is normal for First-Year students to suffer some level of increased anxiety and perceived loneliness, if only in the short-term. Leaving home and family, moving to a college campus, matriculating into difficult classes, transitioning more fully into one's adult life, leaving friends, and trying to make new friends are just some of the factors that may lead to this increased anxiety and perceived loneliness. Like many other colleges and universities, WPI begins the new school year with an extended process called New Student Orientation (NSO). The purpose of NSO is to quickly orient new students to the WPI community, assist students in establishing relationships by introducing them to fellow students, faculty, and staff and influencing them to join and participate in student clubs and organizations all in a concerted effort to mitigate anxiety and loneliness. COVID-19, and the ensuing CDC and WPI strictures recommended to protect people from this very communicable disease, may considerably increase the already inflated degree of anxiety and loneliness experienced by First-Year students. Not only that, but it will become very difficult for WPI to create and implement new ways of building community, building relationships and lowering anxiety and feelings of perceived loneliness in First-Year students due to social distancing and mask requirements.

1. Taking into account the challenges of social distancing, the wearing of masks, the possible increased isolation of students, the possibility of isolation in quarantine and the general increased anxiety; what new programs and/or processes have been implemented to mitigate anxiety, isolation and perceived loneliness?
2. How many of the programs and/or processes are virtual vs in-person?
3. What training have faculty, staff, administrators and student leaders received, relative to offering new programs and processes, in an effort to mitigate anxiety, isolation and perceived loneliness?
4. Is there anything concerning new programs and/or processes that you would like to share that we didn't ask about?

# APPENDIX B: SEMI-STRUCTURED INTERVIEWS WITH OTHER SCHOOLS

## Protocol:

1. "Hello, thank you for your time. Our names are Ryan Bettencourt, Sam Losh, Zach Siders, and Juan Villamizar."
2. "We seek your permission to utilize your name, title as well as your responses to our questions."
3. "If you agree, your name will appear in our published IQP that will be stored in the WPI Library."
4. "At any time, you reserve the right to end the interview at any time and skip any question you do not wish to answer."
5. "We seek your permission in using your picture in our IQP publication if we find that it will be useful?"
6. "We seek your verbal permission to record this meeting. The recording is used only to review the interview to ensure accuracy. Because it is recorded via Zoom, it will record video, however, the interview and your picture will not be used other than the purpose stated above. This recording will be deleted upon completion of the IQP."
7. Introducing the project. In an effort to mitigate anxiety, isolation and perceived loneliness our team will create and implement innovative programs and processes that will assist First-Year students in establishing relationships with one another, other students, staff, faculty, and the campus itself.
8. The purpose of this interview is to discern what projects and processes have already been undertaken in your department
9. This interview will guide us in new and different creating programs and processes.
10. The main topic of this interview is to focus on the programs and projects that have already been implemented, why they have been implemented and if they have proven to be effective.
11. You will notice 'blank' will be taking notes as we talk.
12. We have about 45 minutes together and 'blank' number of questions we wish to ask.
13. Do we have your permission to contact you in the future if we discover follow-up questions?

# APPENDIX B: SEMI-STRUCTURED INTERVIEWS WITH OTHER SCHOOLS CON'D

## Interview Questions

It is normal for First-Year students to suffer some level of increased anxiety and perceived loneliness, if only in the short-term. Leaving home and family, moving to a college campus, matriculating into difficult classes, transitioning more fully into one's adult life, leaving friends, and trying to make new friends are just some of the factors that may lead to this increased anxiety and perceived loneliness. Like many other colleges and universities, WPI begins the new school year with an extended process called New Student Orientation (NSO). The purpose of NSO is to quickly orient new students to the WPI community, assist students in establishing relationships by introducing them to fellow students, faculty, and staff and influencing them to join and participate in student clubs and organizations all in a concerted effort to mitigate anxiety and loneliness. COVID-19, and the ensuing CDC and WPI strictures recommended to protect people from this very communicable disease, may considerably increase the already inflated degree of anxiety and loneliness experienced by First-Year students. Not only that, but it will become very difficult for WPI to create and implement new ways of building community, building relationships and lowering anxiety and feelings of perceived loneliness in First-Year students due to social distancing and mask requirements.

1. Taking into account the challenges of social distancing, the wearing of masks, the possible increased isolation of students, the possibility of isolation in quarantine and the general increased anxiety; what new programs and/or processes have been implemented to mitigate anxiety, isolation and perceived loneliness?
2. How many of the programs and/or processes are virtual vs in-person?
3. What training have faculty, staff, administrators and student leaders received, relative to offering new programs and processes, in an effort to mitigate anxiety, isolation and perceived loneliness?
4. Is there anything concerning new programs and/or processes that you would like to share that we didn't ask about?

# APPENDIX C: SURVEY OF WPI FIRST-YEAR STUDENTS

## Survey Questions

How would you rate your interest in the following types of events/programs/initiatives below?

Each holistic need was rated between 1-7 representing low and high interest respectively.

1. A physical need focused program?  
a. e.g. Diet, Exercise, Outdoor Physical Activities
2. An emotional need focused program?  
a. e.g. Support Networks, Groups to vent and relax with other students
3. A social need focused program?  
a. e.g. Floor/Dorm wide competitions, Team building activities, Events to specifically meet other people
4. A spiritual need focused program?  
a. e.g. Guided Meditation/Yoga, Nature Walks/Hikes
5. An Intellectual need focused program?  
a. e.g. Program to Match Students for Study Groups, Trivia Night, Book Club
6. Any specific examples you would be particularly interested in?
7. Any other suggestions for events/programs/initiatives?

# APPENDIX D: SURVEY OF WPI FIRST-YEAR STUDENTS RESULTS

A physical need focused program?	An emotional need focused program?	A social need focused program?	A spiritual need focused program?	An Intellectual need focused program?
7	1	7	1	4
7	2	5	3	4
2	6	4	3	3
7	1	7	1	4
7	1	7	1	4
7	1	7	1	4
6	7	7	1	4
5	4	5	4	4
2	5	7	4	3
7	4	7	2	5
7	4	5	2	6
2	3	7	1	6
7	6	5	3	3
7	4	5	2	4
6	5	3	4	5
5	4	5	5	6
6	5	7	2	6
3	4	7	2	1
4	6	6	2	6
4	2	7	1	5
4	6	5	4	7
6	5	5	3	6
6	3	4	2	6
6	7	6	5	5
7	2	5	1	6
3	5	6	2	7
7	3	7	2	3
4	6	6	3	6
4	3	4	5	4
7	4	5	3	5
7	7	7	5	4
7	7	3	3	2
6	5	5	7	5
1	5	4	2	5
5	2	7	4	2
7	4	7	5	5
6	4	7	2	4
7	7	3	3	2

# APPENDIX D: SURVEY OF WPI FIRST-YEAR STUDENTS RESULTS CON'D

7	1	3	1	5
1	1	7	1	4
6	2	7	5	6
6	2	7	5	6
4	2	7	1	5
5	5	6	4	6
6	4	7	2	4
3	4	5	3	6
7	2	5	5	7
7	2	7	1	6
7	5	7	2	5
6	6	6	6	6
2	5	3	5	4
6	1	5	2	3
4	5	7	3	6
4	4	6	4	6
6	5	5	2	4
4	2	5	4	3
5	6	7	5	4
5	3	4	1	7
4	6	5	3	3
6	5	3	4	5
6	5	7	2	6
6	5	4	2	5
7	5	7	5	4
3	6	4	3	2
5	5	3	4	3
5	4	5	5	6
4	4	6	4	6
7	1	7	3	4
7	5	7	2	5
7	5	7	2	5
6	5	4	2	5
4	2	7	1	5
5	4	5	4	4
5	2	7	4	2
4	6	6	3	6

# APPENDIX D: SURVEY OF WPI FIRST-YEAR STUDENTS RESULTS CON'D

7	4	5	3	5
6	7	7	1	4
6	1	5	2	3
7	7	7	5	4
7	7	7	5	5
6	1	6	1	1
7	2	5	1	6
6	5	5	2	4
6	4	7	2	4
4	2	5	4	3
3	5	7	3	5
2	2	4	3	5
2	2	4	3	5
4	2	7	3	6
7	4	7	3	2
2	6	2	6	4
6	4	6	3	4
6	5	5	6	7
5	3	2	3	5
7	4	6	2	5
7	7	7	3	5
7	4	6	2	5
5	1	6	2	2
6	5	4	5	3
3	3	5	2	5
5	7	7	5	6
4	2	7	5	3
2	3	5	3	3
4	4	2	5	6
6	6	5	3	3
6	4	4	5	6
5	3	7	4	3
5	4	6	5	4
7	7	7	7	7
7	5	3	6	6

# APPENDIX D: SURVEY OF WPI FIRST-YEAR STUDENTS RESULTS CON'D

7	3	7	2	7
5	5	7	7	1
7	6	7	4	2
6	2	5	5	4
6	3	6	2	4
4	3	7	1	6
7	2	6	6	5
4	4	4	2	4
5	6	5	4	5
5	3	6	3	4
5	3	6	2	5
1	3	6	5	7
5	7	7	5	4
5	1	6	1	1
5	7	6	6	7
5	6	6	3	5
2	5	4	4	5
7	6	7	5	6
5	4	6	2	5
5	5	6	4	4
7	4	7	4	7
2	3	5	3	3
7	1	1	1	1
7	4	7	4	4
5	2	5	7	2
7	4	7	3	2
7	6	7	6	5
6	3	7	5	4
5	5	4	7	6
7	2	6	3	5
7	7	7	7	7
7	1	1	1	1
1	4	2	3	4
5	6	6	3	5
4	5	4	2	4
4	5	6	5	5

# APPENDIX D: SURVEY OF WPI FIRST-YEAR STUDENTS RESULTS CON'D

4	2	7	5	3
5	3	5	2	5
5	3	5	2	5
5	3	5	2	5
7	7	7	7	7
7	4	7	4	4
5	7	7	6	7
5	7	3	5	5
6	3	6	2	4
7	7	7	7	7
2	3	5	3	3
7	7	7	1	1
7	4	7	4	4
7	5	6	4	2
7	7	7	1	1
7	6	7	5	6
4	4	7	4	7
7	5	6	4	2
6	7	7	2	6
7	7	7	7	7
7	4	7	3	2
7	3	4	2	6
7	6	7	5	6
4	6	6	4	5
7	6	7	5	6
2	5	5	2	5