

# WELLINGTON PROJECT INITIATIVE

An Assessment of the Feasibility of Establishing an IQP Center in Wellington, New Zealand.

Interactive Qualifying Project Report completed in partial fulfillment of the Bachelor of Science degree at *Worcester Polytechnic Institute*, Worcester, MA

#### Submitted to:

Professor Michael B. Elmes

## In Cooperation With:

Richard Vaz, Dean of IGSD Natalie Mello, Director of Global Operations

## Sponsoring Agency:

WPI - Interdisciplinary and Global Studies Division

## Submitted By:

Charles Fancher Rachel Heller Nathan Nesbitt Skyler Whorton Scott Woodnorth

Advisor Signature

Date: May 1<sup>st</sup>, 2009 NZ09@wpi.edu

## **AB** Abstract

This feasibility study, prepared for Worcester Polytechnic Institute, details how Wellington, New Zealand could serve the university as an international site for students to complete their Interactive Qualifying Project (IQP). We used preferences of faculty and students derived from survey results, guidelines provided by the university, and information about existing sites to outline qualities appropriate for a new IQP site. Through a literature review and on site investigation, we assessed Wellington's suitability and recommended that WPI establish the center.

# **TC** Table of Contents

ΤI	Title Pag	ge	0	
AΒ	Abstract	t	1	
TC	Table of Contents			
TF	Table of	Figures	7	
TT	Table of	Tables	8	
TE	Table of	Equations	9	
TΑ	Table of	Authors	10	
ES	Executiv	ve Summary	13	
1	Introduc	ction	17	
2	Backgro	ound & Literature Review	19	
2	.1 Cor	nducting a Feasibility Study	19	
	2.1.1	Determining the need for a Feasibility Study using Market Analysis	19	
	2.1.2	The Purpose of a Feasibility Study	21	
	2.1.3	The Outcomes of a Feasibility Study	22	
2	.2 Cha	allenges Faced by WPI Project Centers	22	
	2.2.1	The IQP and Learning Outcomes	23	
	2.2.2	Increasing Enrollment and Demand for Project Centers	24	
	2.2.3	Requirements for a Project Center	25	
	2.2.4	Housing for Students and Faculty	25	
	2.2.5	Availability of Suitable Project Sponsors	29	
	2.2.6	Logistical Necessities	31	
2	.3 We	llington, New Zealand as a Possible Project Center	35	
	2.3.1	New Zealand's Unique History	35	
	2.3.2	Wellington as a Cultural Center	38	
	2.3.3	Weather	41	
	2.3.4	Safety	41	
	2.3.5	New Zealand's Health Care System	46	
	2.3.6	WPI's Health Insurance Plan	47	
	2.3.7	Telecommunications in New Zealand	49	
	2.3.8	Historic Exchange Rate	51	
3	Methodo	ology	53	
3	.1 Pro	iect Sponsor Acquisition	54	

3.1.1	First Contact	54
3.1.2	Further Development and Expansion	55
3.1.3	Maintenance	56
3.1.4	Assessment	57
3.2 Ho	ousing Research	58
3.2.1	Evaluating Potential Housing	59
3.2.2	Recommending New Zealand Housing	65
3.3 Lo	ogistical Necessities	66
3.3.1	Airfare	66
3.3.2	Telecommunications	68
3.3.3	Groceries	69
3.3.4	Dining Out	69
3.3.5	Weekend Excursions and Tourist activities	70
3.4 "S	ection 3" of Project Center Guide	71
3.4.1	Medical Facilities	72
3.4.2	Maps	73
3.4.3	Safety	73
3.5 St	udent and Faculty Research	73
3.5.1	Faculty Population	74
3.5.2	Student Population	75
3.5.3	Research Questions	77
3.5.4	Implementation of the Student Survey	78
3.5.5	Implementation of the Faculty Survey	79
3.6 De	etermining Expnses to WPI	79
3.6.1	Center Director Annual Visit	79
3.6.2	Faculty Advisor Expenses	80
4 Data &	z Analysis	81
4.0 Pr	oject Sponsors	81
4.0.1	Combined Sponsor Contacts	81
4.0.2	Expected Sponsor Analysis	93
4.1 Ho	ousing	95
4.1.1	Annaday Homestay	96
4.1.2	Tinakori Lodge	97
4.1.3	Capital Nomad Backpackers	98

4.1.4	Wellywood Backpackers	99
4.1.5	Bay Plaza Hotel	100
4.1.6	Abel Tasman Hotel	101
4.1.7	Quest Atrium	102
4.1.8	Lambton Court Apartments	103
4.1.9	Quest Wellington	104
4.1.10	Century City Apartments	104
4.1.11	Overview of Student Housing	105
4.1.12	Overview of Faculty Housing	107
4.1.13	Juxtaposition of Group Subjective Rating and Qualmark Rating	108
4.1.14	Best Bed and Breakfast	109
4.1.15	Best Hostel	109
4.1.16	Best Hotel	110
4.1.17	Best Corporate Apartment	110
4.2 Log	gistics	110
4.2.1	Airfare	110
4.2.2	Transportation within Wellington	113
4.2.3	Cell Phones	114
4.2.4	Groceries	117
4.2.5	Dining out	120
4.2.6	Weekend excursions	122
4.3 Stu	dent Research	124
4.3.1	Participation	125
4.3.2	Question 3	127
4.3.3	Question 4	134
4.3.4	Question 5	136
4.3.5	Question 6	137
4.4 Fac	culty Research	140
4.4.1	Participation	140
4.4.2	Question 1	140
4.4.3	Question 2	146
4.4.4	Question 4	147
4.4.5	Question 5	150
4.5 Sec	ction 3- Wellington Project Site Specific Information	151

	4.6	Dete	ermining costs for WPI	159
	4.	6.1	Yearly Center Director Trip	159
	4.	6.2	Costs for Sending Faculty Advisors	159
	4.7	Tota	al Cost for the Students	160
5	C	onclusi	ions	161
	5.0	Spo	nsors	161
	5.1	Hou	sing	163
	5.	1.1	Recommendations on Housing Type for Project Center	166
	5.2	Log	istics	168
	5.3	Safe	ety	169
	5.4	Hea	lthcare	169
	5.5	Proj	ect Center Interests – Students and Faculty	170
	5.	5.1	Survey Research Outcomes: Students	171
	5.	5.2	Survey Research Outcomes: Faculty	175
	5.	5.3	Summary of Survey Research Outcomes	178
6	R	ecomn	nendations	179
	6.0	Dete	ermining Term:	179
	6.1	Who	en to open the site	
	6.	1.1	Open a full site right away:	
	6.	1.2	Don't open a site:	181
	6.	1.3	Open smaller site:	
	6.	1.4	Come back to the idea of opening a site in the future:	
	6.2		l Recommendation	
W			Cited	
A			x A: IQP Center Application Data	
В			x B: Housing Criteria Form	
C			x C: Correspondence with IGSD	
D			x D: IGSD Research Objectives	
Е			x E: Student Survey Crosstab Legend	
F			x F: Student Survey Cross-tabulation	
G			x G: Student Questionnaire	
Η			x H: Faculty Questionnaire	
I			x I: Faculty Survey Recipients	
J	$\mathbf{A}$	ppendi	x J: Survey Cover Letters	226

K	Appendix K: Sponsor Form E-Mail	228
L	Appendix L: Potential Sponsor Meeting Agenda	236
M	Appendix M: Sponsor Reports	239
N	Appendix N: Housing Information	253
O	Appendix O: Housing Email Correspondence	263
P	Appendix P: Cellular Phone Service Summary	269
Q	Appendix Q: Grocery Costs and Analysis	272
R	Appendix R: Wellington Restaurant Survey	274
S	Appendix S: Scholastic Emergency Services Summary	275
T	Appendix T: Sample IQP Abstracts: Windhoek & Venice	276

# **TF** Table of Figures

Figure 2-1 Market Attractiveness Grid	20
Figure 2-2 Telecom Internet Plans Prices	51
Figure 3-1: Project Sponsor Interaction Flowchart	55
Figure 3-2: Housing Criteria Diagram	64
Figure 3-3: Recording Transportation Costs	67
Figure 3-4: Areas of Importance for Site Specific Project Center Guide	72
Figure 4-1: Raw Sponsor Analysis Pie Chart	82
Figure 4-2: Annaday Homestay (Photos, 2009)	97
Figure 4-3: Tinakori Lodge	98
Figure 4-4: Capital Nomad Backpackers (Nomads Capital backpacker hostel, 2009)	99
Figure 4-5: Wellywood Backpackers	100
Figure 4-6: Bay Plaza Hotel (Photo Gallery, 2009)	101
Figure 4-7: Abel Tasman Hotel (Photo Gallery, 2009)	102
Figure 4-8: Quest Atrium (Wellington, New Zealand, 2009)	103
Figure 4-9: Lambton Court Apartments	103
Figure 4-10: Quest Wellington (2 Bedroom Apartment, 2009)	104
Figure 4-11: Century City Apartments	105
Figure 4-13: Cost of Calling	114
Figure 4-14: Sending and receiving texts	116
Figure 4-15: Student Survey Results; Question 1	126
Figure 4-16: Student Survey Results; Question 2	127
Figure 4-17: Student Survey Results; Question 3	128
Figure 4-18: Student Survey Crosstab; Question 3; Subquestion 1	129
Figure 4-19: Student Survey Crosstab; Question 3; Subquestion 2	130
Figure 4-20: Student Survey Crosstab; Question 3; Subquestion 4	132
Figure 4-21: Student Survey Results; Question 4	135
Figure 4-22: Student Survey Results; Question 5	136
Figure 4-23: Student Survey Results; Question 6	137
Figure 4-24: Student Survey Crosstab; Question 6; Subquestion 2	138
Figure 4-25: Faculty Survey Responses; Question 1 Response Summary	142
Figure 4-26: Plot of Weighted Averages of Question 1 Rankings	143
Figure 4-27: Faculty Survey Responses; Question 2	147
Figure 4-28: Faculty Survey Responses; Question 4 Response Summary	149
Figure 4-29: Faculty Survey Responses; Question 5 Response Summary	150

## **TT** Table of Tables

Table 2-1: Housing at Existing IQP Project Centers	26
Table 2-2: Faculty Housing at Existing IQP Project Centers	27
Table 2-3: Composition of Major Costs at Off-Campus IQP Centers	32
Table 2-4: Internet Activity Bandwidth Usage	34
Table 2-5: Crime Statistics for Worcester and Wellington	43
Table 2-6: District crime statistics for past three years	44
Table 2-7: Rates of Crime in Wellington	45
Table 2-8: Rates of Crime in Urban Areas of Massachusetts and Connecticut	46
Table 2-9: Historic Exchange Rates	52
Table 3-1: Model Decision Matrix	57
Table 3-2: Topics from Site Specific Project Center Guide	71
Table 4-1: Qualitative factors for potential sponsors	84
Table 4-2: Refined Sponsor Analysis Pie Chart	94
Table 4-3: Summary of Student Housing Information	107
Table 4-4: Summary of Faculty Housing	108
Table 4-5: Airfare Costs	111
Table 4-6: Individual's cost to travel in the city	113
Table 4-7: Researched Costs of Calling	114
Table 4-8: Cut off points for using different cell phone providers	115
Table 4-9: Cut offs for using Text Messaging	116
Table 4-10: Grocery list for a healthy diet	118
Table 4-11: average cost per calorie	119
Table 4-12: Calories needed for women	119
Table 4-13: Calories needed for men	119
Table 4-14: Costs of an average meal at various restaurants	122
Table 4-15: Average cost per meal	122
Table 4-16: Costs of weekend trips	124
Table 4-17: Cost of Center Director's Trip	159
Table 4-18: Total Cost to Students for a Wellington Project Site	160
Table 5-1: Cost (USD) of recommended student housing	164
Table 5-2: Cost (USD) of recommended faculty housing	165

# **TE** Table of Equations

Equation 1: Cochran's Sample Size Formula for Categorical Data	75
Equation 2: Cochran's Correction Formula	76
Equation 3: WPI Undergraduate Sample Size	76
Equation 4: Response Rate Adjustment	76

## **TA** Table of Authors

ΤI		Titl	e Pag	ge	Woodnorth
ΑF	3 Abstract				Nesbitt
TC	7	Tab	le of	Contents	Whorton
TF	7	Tab	le of	Figures	Whorton
ТТ	•	Tab	le of	Tables	Whorton
TE	Ξ	Tab	le of	Equations	Whorton
TΑ	1	Tab	le of	Authors	Whorton
A(	7	Ack	know	ledgements	Heller & Whorton
ES	•	Exe	cutiv	e Summary	(all)
1		Intr	oduc	tion	Heller & Whorton
2		Bac	kgro	und & Literature Review	Whorton
2	2.1	1	Con	ducting a Feasibility Study	Heller & Whorton
2	2.2	2	Cha	llenges Faced by WPI Project Centers	Fancher
		2.2.	1	The IQP and Learning Outcomes	Fancher & Heller
		2.2.	2	Increasing Enrollment and the Demand for Project Cent	ers Fancher
		2.2.	3	Requirements for a Project Center	Fancher
		2.2.	4	Housing for Students and Faculty	Nesbitt
		2.2.	5	Availability of Suitable Project Sponsors	Woodnorth
		2.2.	6	Logistical Necessities	Fancher & Heller
2	2.3	3	Wel	llington, New Zealand as a Possible Project Center	Fancher
		2.3.	1	New Zealand's Unique History	Woodnorth
		2.3.	2	Wellington as a Cultural Center	Fancher & Heller
		2.3.	3	Weather	Heller
		2.3.	4	Safety	Fancher & Heller & Nesbitt
		2.3.	5	New Zealand's Health Care System	Fancher
		2.3.	6	WPI's Health Insurance Plan	Fancher
		2.3.	5	Telecommunications in New Zealand	Fancher & Nesbitt
		2.3.	6	Historic Exchange Rate	Heller
3		Met	thodo	ology	Fancher
(	3.1	1	Proj	ect Sponsor Acquisition	Woodnorth
(	3.2	2	Hou	sing Research	Nesbitt
	3.3	3	Log	istical Necessities	Fancher & Heller
(	3.4	4	"Se	ction 3" of Project Center Guide	Heller

	3.5	Student and Faculty Research	Whorton
	3.6	Determining costs for WPI	Heller
4	Dat	ta & Analysis	Whorton
4	4.0	Project Sponsors	Woodnorth
	4.1	Housing	Nesbitt
4	4.2	Logistics	Fancher & Heller
	4.2.	.1 Airfare	Fancher
	4.2.	.2 Transportation within Wellington	Fancher
	4.2.	.3 Cell Phones	Fancher & Heller
	4.2.	.4 Groceries	Heller
	4.2.	.5 Dining out	Heller, Nesbitt, & Fancher
4	4.3	Student Research	Whorton
4	4.4	Faculty Research	Whorton
4	4.5	Section 3- Wellington Project Site Specific Information	ı Heller
4	4.6	Determining costs for WPI	Heller
5	Cor	nclusions	Heller
	5.0	Sponsors	Woodnorth
	5.1	Housing	Nesbitt
	5.2	Logistics	Heller
	5.3	Safety	Heller
	5.4	Healthcare	Heller
6	Rec	commendations	Fancher & Heller
W	C Wo	orks Cited	(all)
A	App	pendix A: IQP Center Application Data	(all)
В	App	pendix B: Housing Criteria Form	Nesbitt
C	App	pendix C: Correspondence with IGSD	(all)
D	App	pendix D: IGSD Research Objectives	(all)
E	App	pendix E: Student Survey Crosstab Legend	Whorton
F	App	pendix F: Student Survey Cross-tabulation	Whorton
G	App	pendix G: Student Questionnaire	Whorton
Η	App	pendix H: Faculty Questionnaire	Whorton
I	App	pendix I: Faculty Survey Recipients	Whorton
J	App	pendix J: Survey Cover Letters	Whorton
K	Apı	pendix K: Sponsor Form E-Mail	Woodnorth

L	Appendix L: Potential Sponsor Meeting Agenda	Woodnorth
M	Appendix M: Contact Meeting Summaries	Woodnorth
N	Appendix N: Housing Criteria	Nesbitt
O	Appendix O: Housing Email Correspondence	Nesbitt
P	Appendix P: Cellular Phone Service Summary	Heller
Q	Appendix Q: Grocery Costs and Analysis	(all)
R	Appendix R: Wellington Restaurant Survey	Fancher & Heller & Nesbitt
S	Appendix S: Scholastic Emergency Services Summary	(all)
T	Appendix T: Sample IQP Abstracts: Windhoek & Venice	Heller

## **AC** Acknowledgments

Our team would like to acknowledge the brilliant support and encouragement from many important people involved in our project, from the time we were accepted to complete our IQP in Wellington to the conclusion of our stay in New Zealand.

First, we would like to thank Professor Michael Elmes, our project advisor, for directing and guiding us through the process of completing our report. It took a lot of extra coordination and flexibility for him to advise us remotely from Worcester, and for that, we are truly grateful.

Secondly, we would like to thank Sally Davenport, Mele Wendt, and Bob Frame. They were our initial contacts in Wellington and helped us immensely with the task of finding potential sponsors, by introducing us to various organizations and guiding us through the etiquette of business in Wellington. We feel our project was that much stronger for their influence.

Additionally, we would like to thank our sponsors Dean Vaz and Natalie Mello for all of their guidance and information they provided throughout our project, along with their quick response to all of our e-mails. It is our pleasure to submit the fruits of our labor for their consideration.

Finally, we would like to thank David and Anne Denton, the proprietors of the bed and breakfast in which we spent our seven weeks in Wellington. The couple showed us amazing hospitality and true generosity throughout our stay. They took a great interest in our visit and even invited us to their personal chalet in the country for a weekend away from Wellington. We are incredibly fortunate to have spent our time with the Dentons and thank them for all of the opportunities they gave us to experience the greatest New Zealand has to offer. Mostly though, we want to thank them for all of the support they gave us while we were working on our report, especially the last few weeks.

## **ES** Executive Summary

Increasing undergraduate enrollment at Worcester Polytechnic Institute (WPI) in the past several years has led to an increased strain on its precious resources. Among the most special of these, the Global Perspective Program (GPP) is an important part of many WPI students' project experience. Providing students with the opportunity to travel abroad to complete their Interactive Qualifying Project (IQP), off-campus project centers are an essential asset to the university and a boon to its students.

In business, a feasibility study is a research report that extensively analyzes all relevant dimensions of a proposed business venture, identifies and considers the possible options, and weighs the choices of that company in order to come to a recommendation of whether and under what circumstances the venture is viable. The purpose of this project was to provide WPI with a feasibility study assessing the proposal to establish an IQP center in Wellington, New Zealand. Wellington was suggested by Professor Michael Elmes of WPI after his time spent there as a Fulbright U.S. Senior Scholar in 2005.

We began our feasibility study by identifying the qualities a new project center would need to realize in order to relieve the strain of demand on off-campus project centers. We interviewed our sponsors Richard Vaz, the Dean of Interdisciplinary and Global Studies Division (IGSD), and Natalie Mello, the Director of Global Operations within IGSD, for their definition of these qualities. We also interviewed directors of existing off-campus project centers to further expand our understanding of issues pertinent to setting up and maintaining a project center.

From this research we identified the issues of health care, student safety, transportation, student and faculty housing, project sponsors, and the interest of the WPI community as integral qualities of a new project site. Additionally, we referenced online resources, such as the World

Health Organization, the United States State Department and Tourism New Zealand, which respectively provided logistical details addressing health care, safety and interesting travel opportunities in and around Wellington. We conducted a thorough onsite investigation of Wellington and the surrounding area to identify and describe potential housing and sponsors, as well as the city culture and living expenses.

To find appropriate sponsors for IQPs in Wellington, we started with contacts provided by Professor Elmes, and used a snowball polling technique to harvest a continuous supply of new contacts. After making contact, we described the IQP model to ensure a complete understanding of our proposal and helped direct the project suggestions of the potential sponsor. To judge the likelihood of these organizations becoming sponsors, we considered the potential projects they suggested sponsoring, and the overall interest they displayed in the process. With this approach we were able to reach 55 organizations. Of these 55, we met with 13, of whom we determined that nine would likely sponsor a project in the future. The projects suggested by these nine potential sponsors are described in the table below alongside our assessment of the likelihood they would sponsor projects.

	Likelihood of sponsorship	Associations	Project Examples
Ministry of	High	Government,	Technology in
Education		Education	schools
Grow Wellington	High	Not for Profit	Helping companies grow
VUW Commercialization Arm	High	Education	Applying new technology
VUW Vicar	High	Education	Evaluate radio station
Porirua City Council	High	Museum, Government	Change economic trends, art museum

Department of Labor	High	Government	Labor trend planning
Museum of Wellington City and Sea	High	Museum	Evaluate educational impact
New Zealand Qualifications Authority	Medium	Education, Government	Testing methods, efficiency
Accident Compensation Commission	Medium	Government	Organization

In exploring housing options, we tracked important safety data mandated by WPI as well as subjective criteria developed by the team. After visiting a myriad of lodging providers in Wellington, we were able to provide IGSD with a comprehensive list of options for student and faculty housing that are competitive with the cost of housing at other project centers.

To ensure that the WPI community values and utilizes a potential project center, the team conducted general research involving a random sample of undergraduate students and specific faculty members who are known to have interest in advising projects off-campus. Although individual preferences differed, our analysis showed that the majority of students are interested in attending a site overseas with many preferring a Western society. Although many faculty members may show a preference for visiting a developing country, their reluctance to be paired with unmotivated students may be mitigated by acquiring exemplary project sponsors in Wellington.

Based on our knowledge of the factors that contribute to the final decision of launching a project site and the data we collected about the city, we recommended that WPI operate an IQP center with a full complement of 24-28 students in Wellington, New Zealand during C term 2011.

## 1 Introduction

Study abroad programs are an integral part of many colleges' academic plan. This is especially true at Worcester Polytechnic Institute (WPI), where the majority of students travel to a foreign country to complete their Interactive Qualifying Project (IQP). The IQP provides undergraduates with invaluable team experience while they work towards making a positive impact on the global community.

Ideally, every student in good standing should have an equal opportunity to complete their IQP at an off-campus project center. However, the decline of the global economy has made the cost of traveling abroad for the IQP more consequential to students than in previous years. Additionally, many project centers have been reaching or exceeding capacity every year since the inception of the Global Perspective Program (GPP), despite the periodic augmentation of additional project centers. The recent spike in undergraduate enrollment at WPI is expected to create an even greater demand on existing project centers, furthering the challenge of providing ideal off-campus project opportunities.

In the past, WPI has established new project centers to meet the rising demand for the overseas experience. Although the International and Global Studies Department (IGSD) tracks data regarding the quantity of student applications, acceptances, and participation in the GPP, there is a lack of current data identifying the personal priorities and limitations of students and faculty who are deciding whether to participate in an IQP experience abroad. To make a determination regarding the favorability of a project center we must first know these priorities and limitations. We will compare these priorities and limitations of the students and faculty to

what is offered at a possible Wellington project center site within a framework that controls costs to WPI.

Following his participation in a Fulbright program in Wellington, New Zealand in 2005, Professor Michael Elmes of WPI recommended that IGSD consider the establishment of a project center in Wellington. IGSD then assigned our team to identify and measure key variables such as the affordability to students and WPI, the availability of compelling projects, safety, and access to health care relevant to the establishment of an off-campus project center in Wellington. Above all, the costs to WPI and to student participants had to be affordable relative to existing project centers and fit within WPI's budget framework.

The purpose of our project is to provide the IGSD with an extensive analysis of the feasibility of establishing a project center in Wellington, New Zealand. This report identifies potential project sponsors and housing providers necessary for the project center. It also describes medical resources, transportation and telecommunications logistics, the cultural vibrancy and the overall financial burden of student life in Wellington. It then weighs the suitability of potential sponsors, compares offers received from housing providers and compiles our findings regarding student life to produce a factual model of the Wellington project center. We then compare our findings on the theoretical Wellington project center with IGSD standards for project centers, existing project centers and current preferences identified by surveyed faculty and students. Our final recommendation regarding the establishment of a new project center includes the significant findings from each of these analyses.

## 2 Background & Literature Review

To develop a complete understanding of the problem faced by WPI in providing the off-campus project experience, the team investigated all facets of the demand for off-campus project centers, the requisite conditions for the establishment of new project centers and the preliminary details regarding logistical necessities and the appeal of a potential center in Wellington, New Zealand.

## 2.1 Conducting a Feasibility Study

When investigating a new business venture, it is common practice for an entrepreneur to invest in a feasibility study. Although such investigations are commonplace in the business world, the idea of a feasibility study may be abstracted to apply to any decision regarding a course of action by an organization involving the expenditure of resources to pursue a specific set of goals. In addition to identifying the reasons for conducting them, this section describes the general purpose and outcomes of feasibility studies (University of Mississippi, 2001).

## 2.1.1 Determining the need for a Feasibility Study using Market Analysis

For an organization offering a product in an environment that is prone to fluctuation, it becomes necessary to periodically reevaluate both the environment and the demand for the product being offered. In business, market analysts use a tool called a "market attractiveness decision matrix" (see Figure 2-1) to help determine whether a business should invest or divest in their market (Aaker, 2008). This sequence of periodic investment or divestment comprises a business' growth pattern (Hoagland & Williamson, 2000).

The decision matrix uses rankings of market attractiveness that are compared to a ranking of a business's ability to compete in said market to determine whether to invest, selectively

invest, or divest in the market being considered. When circumstances such as those identified in the Market Attractiveness Decision Matrix suggest that an organization should expand its market, it is prudent to first conduct a feasibility study (Hoagland & Williamson, 2000).

Figure 2-1 Market Attractiveness Grid

		Market Attractiveness		
		нібн	MEDIUM	LOW
Business	нідн	Invest	Invest	Selective Investment
Position; Ability to	MEDIUM	Invest	Selective Investment	Divest
compete	LOW	Selective Investment	Divest	Divest

Evaluating Business Position	Evaluating Market Attractiveness	
<ul> <li>Organization</li> </ul>	Size	
<ul> <li>Growth</li> </ul>	Growth	
<ul> <li>Share by segment</li> </ul>	<ul> <li>Customer satistfaction</li> </ul>	
<ul> <li>Customer Loyalty</li> </ul>	Competition:	
<ul> <li>Margins</li> </ul>	Quantity, types, effectiveness	
<ul> <li>Distribution</li> </ul>	<ul> <li>Price levels</li> </ul>	
<ul> <li>Technology skills</li> </ul>	<ul> <li>Profitability</li> </ul>	
<ul> <li>Patents</li> </ul>	<ul> <li>Technology</li> </ul>	
<ul> <li>Marketing</li> </ul>	<ul> <li>Governmental relations</li> </ul>	
<ul> <li>Flexibility</li> </ul>	<ul> <li>Sensitivity to economic trends</li> </ul>	

In a feasibility study centered on expansion or investment, it is important to identify the factors comprising the advantages of the organization's position and the value of the product in addition to the factors that have resulted in a favorable market for such expansion. As a means of maximizing the impact of an organization's resources, a feasibility study should be conducted when some preliminary investigation has revealed potential opportunities for expansion, but further details are needed to make an informed decision about the investment (Hofstrand & Holz-Clause, What is a Feasibility Study?, 2006).

## 2.1.2 The Purpose of a Feasibility Study

In business, the purpose of a feasibility study is to "determine if a business opportunity is possible, practical, and viable" (Hoagland & Williamson, 2000). Upon generalizing this purpose to apply to all organizations, the definition suggests that all components of the study help an organization answer "the essential question of 'should we proceed with the proposed ... idea?"" (Hofstrand & Holz-Clause, What is a Feasibility Study?, 2006). In order to attain the answers to this "essential question," the study must explore all dimensions of the problem in an objective and rigorous manner. By approaching the problem with neutrality, the study "enables [optimistic persons] to take a realistic look at both the positive and negative aspects of the opportunity" (Hoagland & Williamson, 2000).

In consideration of both the positive and negative aspects of an opportunity for expansion, an organization should consider the notion of opportunity costs. On an abstract level, an opportunity cost is any "benefit, profit, or value of something that must be given up to acquire or achieve something else" (Opportunity Cost Definition, 2009). Such costs may represent a direct expenditure or consumption of a resource, but they often represent the forgone ability to use that resource for a purpose other than that to which it has been assigned. In other words, "every resource (land, money, time, etc.) can be put to alternative uses, every action, choice, or decision has an associated opportunity cost" (The Journal of Financial and Quantitative Analysis, 2009). In this way, every decision an organization makes results in some opportunity cost. While these costs play an important role in the decision of whether to expand, the optimal solution is not necessarily the one which minimizes the immediate, negative effects of these costs. Rather, the true purpose of the feasibility study is to use opportunity costs as factual support for the

development of a range of options that allow the organization to maximize the impact of their resources in a given market.

## 2.1.3 The Outcomes of a Feasibility Study

Ideally, the feasibility study that an organization receives provides accurate and objective data regarding all important dimensions of the problem surrounding a tactical decision. However, these data and the study as a whole "will probably not provide ... a magic answer" (Hofstrand, When to Do and How to Use a Feasibility Study, 2006). Indeed, "it is not the purpose of the feasibility study or the role of the consultant to decide whether or not to proceed with a business idea, it is the role of the project leaders" (Hofstrand & Holz-Clause, What is a Feasibility Study?, 2006).

An extensive review of the analyses of each possible option should empower the organization to come to an informed, objective decision. For a feasibility study to be effective, however, the organization using it as guidance must neither rationalize the results to fit any preexisting determinations nor give blind faith to only the positive or negative aspects of the options the study presents (Hofstrand, When to Do and How to Use a Feasibility Study, 2006).

## 2.2 Challenges Faced by WPI Project Centers

One of the main goals of the GPP is to increase students' understanding of societal problems and their solutions in a foreign environment (Worcester Polytechnic Institute, 2006). To be able to offer this experience to all students who are both interested and eligible, WPI must adapt to the demands from rising undergraduate enrollment, the swelling popularity of off-campus project centers and the tumultuous economic climate. In order to establish a new project

center, a potential location must meet rigorous standards developed by the university and be aligned with the preferences and priorities of student and faculty participants (Vaz R., 2008).

## 2.2.1 The IQP and Learning Outcomes

According to the WPI Plan available on WPI's website, the IQP is intended to "address a problem that lies at the intersection of science or technology with social issues and human needs and is done under the direct guidance of one or more faculty advisors, usually in teams of 2-4 students" (Worcester Polytechnic Institute, 2006). To further the working definition of an IQP the WPI website contains the 5 ideals that every IQP project was built on and meets at present:

- "...as a result of completing the Interactive Qualifying Project students [would] be sensitive to general social problems"
- 2) "[be] able to question, criticize or reinforce prevailing ethics and value concepts"
- 3) "[be] aware of societal-humanistic-technological interactions"
- 4) "[be] able to analyze these interactions"
- 5) "[be] able to make better judgments and policy recommendations on issues that affect society" (Worcester Polytechnic Institute, 2006)

Additionally, the website went on to specify the objectives that a committee led by professor Zwiebel laid out for the IQP in 1972. They are,

"To create an awareness of socially related technological interactions, To enable the identification of socio-technological systems, subsystems, and the linkages between them, To cultivate the habit of questioning social values and structures, To develop and integrate the skills of evaluation and analysis in the societal, humanistic, and technological disciplines, to provide methods for assessing the

impact of technology on society and human welfare, and the impact of social systems on technological developments, and To encourage the recommendation of policy," (Worcester Polytechnic Institute, 2006).

Although students completing their IQP on-campus can result in a positive outcome that meets these criteria, they have the potential to gain more from their IQP experience by completing it at an off-campus project center (Interdisciplinary and Global Studies Division, 2006). By completing their IQP off-campus, students have the chance to learn about a culture other than their own, thereby developing a broader perspective of the global society. The contention is that students will then "...be able to succeed no matter where their paths take them" (Global Perspectives Program, 2006). Ideally, all students would have the opportunity to complete their IQP off-campus. However, rising enrollment has recently redoubled the challenge of providing high enough capacity at off-campus project centers for all interested and qualified students.

#### 2.2.2 Increasing Enrollment and the Demand for Project Centers

Over the past few years there has been a significant increase in enrollment at WPI. Since the fall of 2003 when 631 freshmen enrolled, the university has seen an increase of 276 students or 43.7 % with the last class of 907 freshmen enrolling in the fall of 2008 (Management, 2009).

This dramatic increase in the number of undergraduates enrolled at WPI has lead to an increase in the number of students applying to go to an off-campus center to complete their IQP. According to the IQP application sheet from Natalie Mello (see Appendix A), the number of applications to attend an off-campus IQP site changed from 357 to 489 from the academic year 2005-2006 to 2009-2010, an increase of 132. Concurrently, the number of spots available at off-

campus IQP sites increased from 303 to 387, an increase of 84. This discrepancy between the increase in applications and increase in spots at off-campus centers implies a need for more off-campus project centers. This being said, opening a new center is a serious undertaking that requires the careful consideration of several key issues.

## 2.2.3 Requirements for a Project Center

Through contact with our sponsors, Rick Vaz and Natalie Mello of IGSD, we have identified six cardinal requirements for a feasible project center, outlined below.

- Affordable and safe housing for students and faculty
- Support and availability of sponsors who can provide compelling projects
- Availability of affordable options for logistical necessities (Cell Phones, Internet Access, Groceries, Dining out, Transportation)
- A safe environment
- Availability of suitable health care
- Interest of students and faculty in the location and projects

While each of these factors is important to a potential project center in its own regard, their fulfillment is not as simple as a binary resolution.

## 2.2.4 Housing for Students and Faculty

While attending a project center, students and faculty must have safe and affordable accommodations. The student housing available at existing centers ranges from low-cost simple shacks found in rural parts of Thailand to expensive shared apartments near the center of Copenhagen (Project Centers in the World). For housing to be considered suitable, it must be affordable and meet guidelines mandated by WPI.

Faculty must reside in proximity to student groups, even if they do not occupy the same facility (Vaz R. F., 2009). To meet additional needs of faculty advisors, their accommodations typically exceed the students' in quality (Peet, 2009). However, since the advisors' housing is provided by WPI, it must be attainable by fitting within the university's budget framework.

## 2.2.4.1 Existing Project Center Housing

Although there is a wide range of accommodations used for student housing, most students either stay in hotel rooms or apartments as is evident from the list of current student housing in Table 2-1, gathered from existing off-campus IQP center directors. Apartments do have an advantage over hotel rooms in that they provide students the kitchen facilities necessary for cooking. Preparing their own food may help students incur a lower cost of living.

Furthermore, students at off-campus project centers show a preference for preparing their own meals. Namibia offers an example of students' proclivity to use kitchen facilities, where a full kitchen was only provided in the house that female students stayed in. In one instance, the male students who did not have a kitchen visited the female students' house to prepare food so often that the center director became concerned for the female students' privacy (Creighton, 2009)

**Table 2-1: Housing at Existing IQP Project Centers** 

Project Center Location	Student Housing	Cost USD)
Windhoek, Namibia	University dormitory rooms	\$ 1,900
Bangkok, Thailand	Student residence at Chulalongkorn University	\$ 1,150
CapeTown, South Africa	Shared furnished rooms in a local hostel	\$ 1,700
Hong Kong, SAR, PRC	Shared furnished apartments	\$ 2,000
Melbourne, Australia	Fully serviced, shared student apartments	\$ 3,300
Venice, Italy	Shared student apartments	\$ 2,825
San Jose, Costa Rica	Shared student units in a residential hotel	\$ 2,072
Copenhagen, Denmark	Shared student apartments near the center of Copenhagen	\$ 3,800
San Juan, Puerto Rico	Shared student apartments	\$ 2,222
London, England	Double dormitory-style rooms with phone and Internet access	\$ 3,300

Washington, D.C.	Shared suites in a centrally located hotel	\$ 3,000
Boston, MA	Shared student apartments	\$ 2,300
Worcester, MA	Commute to project center office from your campus housing	\$ -
	AVERAGE COST	\$ <b>2,464</b>
	(excluding Worcester)	

(Project Centers in the World)

Table 2-2, below, shows the information collected about faculty housing from current off-campus IQP center directors. Faculty advisors live almost exclusively in furnished apartments with kitchen facilities, with only a few centers providing hotel accommodations. At some centers the advisors stay in the same facility as students, but require their own living space. In other cases, advisors live near the students' housing in more upscale accommodations.

In unusual circumstances, faculty housing may be located somewhat farther from the students'. In London, for example, advisors are separated from students by 20 to 30 minutes of travel because of the prohibitively high property value surrounding the students' housing (Davis, 2009).

In general, however, most center directors indicate their preference that the advisors' housing is located within a 15 minute walk. Table 2-2 also shows the center directors' opinions about whether faculty should live in the same facility as students.

**Table 2-2: Faculty Housing at Existing IQP Project Centers** 

	Faculty Housing	Distance from Students	Director Preference on Distance?
Windhoek, Namibia*	4 bed house or high-rise apartment building	Nearby	Nearby or with students, but with separation for privacy
Bangkok, Thailand	Hotel	Nearby	Within $10 - 15$ min walk, otherwise no preference
CapeTown, South Africa	N/A	N/A	N/A
Hong Kong, SAR, PRC*	High-rise upscale apartment building	15 – 20 min away	Nearby or with students, but with separation for privacy
Melbourne, Australia	High-rise apartments	Same facility	Prefers to live in same facility

Venice, Italy†	Apartments	Separated	Separate
San Jose, Costa Rica‡	Apartments	Same facility	Prefers to live with students
Copenhagen, Denmark	Apartments near the center of Copenhagen	Same facility	Prefers to live with students
San Juan, Puerto Rico‡	Short term condos	Same facility	Prefers to live with students
London, England	Mid-range corporate serviced apartments	20 – 30 min away	Prefers 5 min away, or separate floors of large hotel
Washington, D.C.			
Boston, MA†	Apartments	Separated	Separate
*, †, ‡: Denotes locations with matching (same) center director			er director

## 2.2.4.2 Objective Criteria

For a housing option to be suitable for students and faculty, several quantifiable criteria must be addressed. Because students must be able to afford the extended stay abroad at an off-campus project center, cost becomes a central concern when evaluating student housing. The price of accommodations is comprised of expenses drawn from two categories: room and board. Room is the direct cost of renting the housing. The type of housing and the amenities included in this arrangement affect what type of food the students can prepare, and thus their grocery expenses. If the students' housing provides for one or more meals during their stay, students will incur fewer expenses on groceries. If there are no kitchen facilities available, students depend on whatever meals are provided by their housing, or eat at some other location that would be identified as part of their living arrangement. Because the tourist season can play a large role in the local businesses at some locations, it is important to identify how the cost of accommodations may fluctuate throughout the year. Above all, identifying the cost to students is paramount to describing a location's feasibility. (Vaz R., 2008).

Based on typical off-campus project center attendance, the accommodations at a project center must house approximately 24 to 28 students, as well as one or two faculty advisors. This

requirement makes the capacity of any potential housing facility an important objective criterion. Although students need not live at the same location, they must have access to a common meeting location designated for meeting with the advisor(s) on a weekly basis (Elmes M. B., 2009).

Furthermore, we obtained a checklist developed by IGSD which outlines necessary traits regarding the safety and location of the housing for students and faculty (refer to B

Appendix B: Housing Criteria Form). The form includes prompts for which aim to address fire safety, security, safety of the surrounding area, available appliances, availability of transportation, and accessibility of nearby medical facilities relevant to the location in question.

## 2.2.5 Availability of Suitable Project Sponsors

The second in the series of cardinal requirements for a project center is the availability of project sponsors, who are given the task of providing students with compelling projects.

As IGSD states, the IQP is based on problems "lying at the intersection of society and technology." At a project center, these problems are provided to the students by an "on-site sponsor (such as a government agency, a professional organization, a museum or a corporation)" (Interdisiplinary & Global Studies Department, 2009). In this way, project sponsors are the source from which all project opportunities emerge. Without the support of these sponsors, there is no way for the project center to succeed. Through our correspondence with IGSD, Professor Michael Elmes and other faculty members involved with the GPP, we have identified key similarities among some of the most successful off-campus project centers.

The first similarity exhibited among successful centers is their ability to provide compelling projects for students. The projects must be available in great enough quantity while

remaining consistently appealing to student and faculty members for a project site to prosper (Vaz R., 2008). In this way, ideal project sponsors balance quality with quantity in their project offerings.

The second positive similarity that many project centers exhibit is a common theme among the projects offered at the location. One example of a commonly themed project center is in Namibia, where projects tend to adhere closely to community service. A second example of a projects tending towards one theme is Venice, where projects are consistently aimed at different aspects of tourism within the city and preserving the city's historic landmarks (refer to T

Appendix T: Sample IQP Abstracts: Windhoek & Venice).

Third, some project centers exhibit synergistic relationships between the topics surrounding available projects and the research that WPI faculty are conducting. Project centers with this characteristic exhibit a sense of progress from the continual interest of WPI faculty in the projects that students complete. This continuity is of particular importance, according to Dr. Gerstenfeld. In our interview with him, Gerstenfeld remarked on the importance of not forgetting progress made at individual sites (Gerstenfeld, 2009).

In addition to exploring the ideal traits of off-campus project sponsors, the group investigated the expectations of potential sponsors provided by WPI primarily; sponsors must produce projects that meet to WPI guidelines. Without full sponsor cooperation, the project center may not effectively produce meaningful projects (Vaz R., 2008). Furthermore, because project centers are meant to function annually, sponsors must be able to provide these projects on a consistent basis over many years (Gerstenfeld, 2009). In addition to providing compelling projects on an annual basis, sponsors must meet some logistical requirements. One of these

requirements is that the sponsor provides a suitable workspace for the students, which has internet access and enough space for the students to work comfortably. The other requirement is that the sponsor provides a liaison to meet with the students once a week. If project sponsors cannot meet these requirements, the project center in question will fail to benefit the WPI community.

## 2.2.6 Logistical Necessities

Any extended study abroad program must ensure that students have access to affordable options for the basic needs derived from living off-campus. The logistical necessities that are likely not addressed by the students' housing include the following:

- Air travel to the project center
- Local transportation
- Cellular phone access
- Internet access outside of housing
- Groceries
- Dining out
- Weekend Excursions

Although most cities will offer some form of each of these necessities, it is important that students be aware of the costs and methods of obtaining these services at a project center.

## 2.2.6.1 Air Travel to the Project Center

Airfare is one of the major costs of a project center to both the students and WPI. As seen in Table 2-3, the cost of travelling to IQP centers can range from \$450 USD with Washington,

DC to \$2,600 USD with Windhoek, Namibia. The percentage of the total cost comprised by airfare ranges from 9 % in Washington DC, to 44 % in Windhoek, Namibia.

Table 2-3: Composition of Major Costs at Off-Campus IQP Centers

Project Center	Total Cost	Estimated	Estimate
Location	Total Cost	Cost of Housing	Airfare
Windhoek, Namibia	\$ 5,900.00	\$ 1,900.00 (32%)	\$ 2,600.00 (44%)
Bangkok, Thailand	\$ 4,200.00	\$ 1,150.00 (27%)	\$ 1,800.00 (43%)
CapeTown, South Africa	\$ 4,950.00	\$ 1,700.00 (34%)	\$ 1,600.00 (32%)
Hong Kong, SAR, PRC	\$ 5,900.00	\$ 2,000.00 (34%)	\$ 1,900.00 (32%)
Melbourne, Australia	\$ 7,200.00	\$ 3,300.00 (46%)	\$ 2,300.00 (32%)
Venice, Italy	\$ 5,625.00	\$ 2,825.00 (50%)	\$ 925.00 (16%)
San Jose, Costa Rica	\$ 3,897.00	\$ 2,072.00 (53%)	\$ 575.00 (15%)
Copenhagen, Denmark	\$ 7,000.00	\$ 3,800.00 (54%)	\$ 1,000.00 (14%)
San Juan, Puerto Rico	\$ 4,402.00	\$ 2,222.00 (50%)	\$ 550.00 (12%)
London, England	\$ 6,775.00	\$ 3,300.00 (49%)	\$ 750.00 (11%)
Washington, D.C.	\$ 5,200.00	\$ 3,000.00 (58%)	\$ 450.00 (9%)
Boston, MA	\$ 3,750.00	\$ 2,300.00 (61%)	\$ -
Worcester, MA	\$ -	\$ -	\$ -

(Interdisiplinary & Global Studies Department, 2009)

In addition to the expense students incur when travelling to the center, the cost of airfare has an annual effect on the university. While the project center is in session, WPI pays for the airfare to send the center director and two faculty advisors to the site. In addition, WPI pays for the center director to take a trip to the site twice a year when the project site is not in session in order to maintain relations with sponsors, housing locations, etc.

#### 2.2.6.2 Local Travel

In order to access the project work location and important services such as medical facilities and grocery vendors, students must have a way of easily travelling within the project center location. Because students are not allowed to operate automobiles while abroad, they must rely on conventional or public means of transportation at the project center. Depending on the distances the students typically need to travel, these means may include anything from biking,

walking or taking a bus. In some cases, the project sponsor may provide transportation from the students' housing to the project location.

## 2.2.6.3 Cellular Phone Options

Cellular phones have become an integrated part of modern reliance on technology.

Despite this social norm, cell phones serve many of the practical needs created by an extended stay in a foreign environment. In particular, carrying a cell phone at all times is a positive contribution to student safety and group accountability while abroad. Students are highly encouraged to have working cell phones at all project centers and some centers require it.

Because foreign countries typically operate wireless service that is totally different from services available in the United States, it is necessary for students and faculty to be aware of the costs of purchasing a new device, if necessary, in addition to understanding the rates for these services.

#### 2.2.6.4 Internet Access

Similarly to the importance of cellular phones, Internet access has become a staple of daily life for many college students. Although continuous Internet access may not be necessary for all parts of a student's off-campus experience, one expectation of project sponsors is to provide access when necessary for work related to the students' projects. Additional Internet access must be sought by students from their accommodations, public terminals, or some other means depending on the location of the project center.

Unlike most Internet connections in the United States, however, telecommunication plans in some foreign countries charge patrons by bandwidth usage. For this reason, students must be aware of their Internet use habits and use their access conservatively to avoid high charges for

the services they use. To aid students' understand of the bandwidth demands of Internet usage, some common Internet activities and their bandwidth estimates are outlined in Table 2-4.

**Table 2-4: Internet Activity Bandwidth Usage** 

Activity	Estimated Bandwidth Usage (MB)
Open a text-only email	0.001
Open 1,000 text emails	1
Email with 5-page Word attachment	0.2
Email with spreadsheet attachment	0.5
Email with 3-4 photo attachments	0.3
Load a typical webpage	0.075
Load 40 pages in one hour	3
Load 80 pages per hour, rich in photos	8
Stream an audio file - low quality	3
Stream an audio file - high quality	6
Listening to an hour of music	40
Watching hour of video (small window)	15

(Compare NZ Broadband Internet Access Service Provider Plans New Zealand, 2009)

## **2.2.6.5** *Groceries*

From a logistics stand point having a place to get groceries is important to the health of the students and affects the amount of money they are going to spend at a site. The majority of times buying groceries is much more cost effective than eating out. In addition to having the ability to buy groceries, it is important for students to know the approximate cost of buying groceries to feed themselves while at the project site. The cost of groceries also appears as a line item cost on the Site Specific Sheet that students consider when applying for off-campus project centers.

## **2.2.6.6** *Dining out*

In addition to buying groceries students also enjoy eating out a few times during the term. It is important for future students to know whether these restaurants exist and how much they might spend eating at them, which is a line item cost on the Site Specific Sheet.

## 2.3 Wellington, New Zealand as a Possible Project Center

This next section contains information about details specific to Wellington, New Zealand as a project center. It starts off with information about New Zealand's history, then moves on to cultural draws in Wellington. It then discusses safety and health information, followed by research into cell phones and Internet plans. Finally it examines the historic exchange rates between the New Zealand Dollar (NZD) and the (USD).

## 2.3.1 New Zealand's Unique History

Situated roughly 1000 miles southeast of Australia, New Zealand is one of the most remote countries in the world (New Zealand, 2009). It was originally discovered and settled between 800 and 1300 A.D. by Polynesians, now referred to as Maori. New Zealand remained unknown to the Western world until it was discovered by Dutch sailors accidentally in 1642 (Morrison & Conaway, 2006). These sailors were unable to land because Maori warriors went out and fought the Dutch in their boats, which forced them to flee the area. In 1769, British settlers arrived at the island with the intent to colonize. (Koea, 2008). At first, the Maori gladly accepted the Dutch and English sovereignty on the island in return for land ownership. Eventually relations deteriorated and in 1820 and the Musket Wars started, due mainly to feuds over property rights. These wars, leading to over 20,000 Maori casualties, remain the bloodiest conflict in New Zealand history.

A product of these wars was the 'Treaty of Waitangi' which is still considered by many to be the most important document in the history of New Zealand and is claimed to be the country's founding article. The treaty, signed by British ambassadors and various Maori chiefs on the northern island, gave Britain sovereignty in New Zealand and also granted land and human rights to Maori equivalent to those held by British subjects (Koea, 2008).

Soon however, conflicts started occurring when land granted to tribes was sold off to western settlers by Maori individuals without the consent of their tribes. Eventually these conflicts peaked and the Anglo-Maori wars broke out in 1860. These wars took quite a toll on the Maori. Even after a resolution had been achieved between the two parties, Maori population continued to drop due to poverty, land infringement, and disease. The population decline continued until 1896 when the estimated number of Maoris bottomed out around 40,000 individuals from an estimated 250,000 when the British first landed (Koea, 2008).

The 1890's brought change to New Zealand both in the form of an increased market demand for its exports as well as a rapidly liberalizing government. The increased demand for exports came from the development of refrigerated shipping containers which allowed the export of New Zealand's dairy and meat products. The increasingly liberal government came about when John Ballance, a highly active member of New Zealand's liberal party, became prime minister and began to introduce such concepts as a progressive land tax and anti-trust (or demonopolizing) acts. John Ballance and his successors brought important changes to New Zealand that helped to bring it up to speed with its western cousins and into its current position in world politics (New Zealand, 2009).

Change continued to occur during the 1970s in New Zealand, when the Maori renaissance created many improvements for the Maori people. Some of these improvements were, "[...]a Māori-language education system has been established; and Māori have started major industry initiatives including fishing, aquaculture and farming. There is now a wide range of Māori-owned enterprises such as television and radio, businesses and tourist ventures. Additionally, there is significant political representation, and an increasing number of individuals are gaining international reputations for their achievements." (Maori, 2009). These improvements have helped to decrease the social divide between the Pakeha (Maori term for Europeans) and Maori.

At present, New Zealand exists as a constitutional monarchy with the current British monarch holding the position of the official head of state, although this is currently a controversial issue amongst Kiwis. The monarch is represented in New Zealand's parliament by a governor general. Other members of parliament are determined from elections occurring every three years with the party, or parties, in power choosing a prime minister (New Zealand, 2009)

New Zealand culture today remains predominantly influenced by European settlers although there is a strong, growing influence of Maori tradition on the New Zealand way of life. "The Maori [in fact] appear to be a group regaining its sense of identity. The current generation of Maori students is the first to attend New Zealand universities en masse. Not only are Maori entering university in unprecedented numbers, but a substantial portion of them (about 35 per cent of the Maori student population) are majoring in Maori Studies" (Liu, et al., 1999).

At present, New Zealand's population hovers at 4.28 million people. Most of these are of British descent, with 15% of people claiming ties to Maori ancestry. The population of New

Zealand is primarily based in concentrated areas with 85% of Kiwis living in urban areas and 76% of Kiwis residing on the North Island. (Background Note: New Zealand, 2009). Where New Zealand will find itself in the coming years has yet to be discovered.

# 2.3.2 Wellington as a Cultural Center

Wellington is a hotspot for the top leaders of the government and top corporations in New Zealand, making it commonplace to see members of parliament either walking to work or eating at a neighborhood café. Not only does Wellington have the benefit of the government to add to the overall culture of the town, it also has numerous museums and other cultural attractions for visitors to partake in. The following activities are just a few possible places to visit while in Wellington according to Exploring New Zealand:

#### 1. **Botanic Gardens**

The Wellington Botanic gardens are situated on Tinakori hill road and overlook downtown Wellington. There are many native and exotic plants and trees along with the Lady Norwood Rose Garden. The gardens also house the Carter Observatory and planetarium which teaches those from the northern hemisphere about the southern night sky.

# 2. City gallery Wellington

The gallery shows the culture of New Zealand through it's collections which are always changing. Attractions include in the Michael Hirschfeld Gallery, dedicated to showing Wellington artists.

# 3. Karori Wildlife Sanctuary

Karori Wildlife Sanctuary is a 623 acre reserve filled with endangered birds native to New Zealand. It is surrounded by a predator proof fence to maintain a predator free environment for birds like kiwis, tuatara, kaka, and saddlebacks to live. The park is open to the public to walk on their own and also offers day and night guided tours.

# 4. Te Papa Museum

Te Papa Tongarewa or the Museum of New Zealand is one of the more widely known attractions in Wellington. Some of the static exhibits in Te Papa include a visit to a marae or Maori meeting house and a simulated earthquake. In the time warp area there are attractions that cost extra and include a simulated bungy jump and a journey into the future of Wellington.

# 5. Museum of Wellington City and Sea

The museum has three floors of fun interactive information about the history of New Zealand in terms of incidents that happened both in terms of boats and in New Zealand, for both the European settlers and the Maori.

#### 6. Otari-Wilton's Bush Native Botanical Gardens

Wilton's Bush is preserved bush not far from the center of Wellington. Its goal is to educate visitors about plants native to New Zealand. The Botanic gardens section has nice walks with smaller native plants while the nature walks have everything from ferns to large trees.

# 7. **Parliament Buildings**

The Parliament buildings in Wellington include the debate floor, executive building (often called the Beehive), parliamentary library and Bowen House. There are hourly tours on weekdays that take visitors around the different buildings and educate them on the parliamentary process in New Zealand.

All information used in these descriptions was gathered from the Fodor's travel guide (Hanna, 2008).

In addition to housing a plethora of museums and cultural attractions, places like Cuba mall and Courtenay place provide very good Kiwi shops and theaters as well. Wellington also hosts many events such as the dragon boats and jet boat regattas to attend on weekends. There are activities for all types of students from those who are interested in politics and history to those who love sports.

For sporting events, Wellington has quite a few professional sports teams and also plays host to a number of international sporting matches. In the Westpac stadium in Wellington, students can go watch a Wellington Hurricanes rugby game or watch a concert or attend any of the other events that the stadium hosts. The Basin Reserve in Southwest Wellington is a cricket field that hosts everything from international cricket tests to music festivals.

Besides sporting events, Wellington also has quite a few cultural and art festivals. For instance, there is the New Zealand International Arts Festival, which "... is a biennial multi-arts festival held in the capital city, Wellington. It is New Zealand's premier and largest cultural event and celebrates the best arts entertainment from around the world and within New Zealand" (NZ International Arts Festival 2009, 2009). The biennial Cuba St Carnival is a festival celebrating the arts and the spirit of Cuba St and alternates years with the New Zealand International Arts Festival (Cuba St Carnival Trust, 2009). Another festival in Wellington is the annual Fringe Festival. It is a three week event that allows anyone to perform any kind of art. The advertised mediums are "comedy, theatre, visual art, dance, outdoor, music and everything in-between" (Finge Arts Trust, 2009). The Festival runs from mid-February to early March every year and is

supported by the Minister for the Arts, Culture, and Heritage as well as the mayor of Wellington. Yet another example is the Dragonboat festival which takes place in Wellington in late March every year. It commemorates the death of Ch'y Yuan in a protest against the current Chinese regime (Dragon Boat Festival, 2009). Around eighty teams race their boats around the harbor in front of forty thousand onlookers.

#### 2.3.3 Weather

When students attend a project center, it is good to know what the weather is like so they know what kind of clothes to pack and wear. To get a sense of the overall weather patterns in Wellington, we researched tourism books According to one such guide, the weather in Wellington from, "November to mid-April is the best time weather-wise in the Wellington area. ... From February to April, you can expect fewer crowds and many brilliant, warm days. Winters bring more rain, but they're rarely bitterly cold. Be prepared for unpredictable weather; rain and southerly gales are possible even during the summer". (Butler & McIlvian, New Zealand 2009, 2009, p. 254). This is important to be aware of because the weather conditions affect what activities students are able to partake in while in Wellington and what clothing they bring.

# **2.3.4 Safety**

With respect to the safety of completing an IQP abroad in Wellington, "...in general NZ is a very safe country to live or travel in," according to United States Embassy located in Wellington (United States Embassy, 2009). The New Zealand travel section of the United States' Department of State website elaborates on this by stating that, ". Crime in New Zealand is historically low, but has increased in recent years. Property crimes such as theft from cars, camper vans, and hostels are the most prevalent of this crime," (US Department of State, 2009). Cities also experience a higher crime rate than rural areas, and thus reasonable care should be

taken when traveling in Wellington. However, "...violent crime against tourists is unusual," and police officers do not even carry fire arms regularly, because there is no need to (Denton, Wellington Police Force, 2009) (New Zealand, 2009).

According to the tourism books we have researched New Zealand is a safe place for Americans (Safety, 2009). There are the general travel precautions about not going into the city at night and locking your doors, but there are no specific threats to visitors in general or Americans in specific (Safety, 2009). Besides these general warnings, the tourist books mention the Mongrel Mob, which is an organized gang in New Zealand (Safety, 2009). The book does not mention any specific threat the Mongrel Mob poses, rather they say they mention it to remind readers that crime does exist in New Zealand despite its idyllic image.

Statistics New Zealand, which provides statistics about the country, has ten years of crime rate information from the New Zealand Police. The crime rate is determined by the number of recorded offences per 10,000 population. "A Recorded Offence is an incident reported or detected by Police" (Crime Statistics for fiscal year ending 30 June 2008, 2009).

Error! Reference source not found. outlines detailed information concerning the crime rates in Wellington Table 2-8 shows the standardized property crime rates in Worcester. When the two property crime rates are compared, Wellington has a much lower property crime rate than Worcester, sitting at about half the number of violent offenses per year per 10,000 population.

The group then decided to look at a source which clearly outlined how many major crimes such as murder, rape ect. occurred in Worcester in 2006 (Law Enforcement Data, 2009). Since this number was not a rate in terms of 10,000 people we went to the CNN website to find the population of Worcester for 2006 (Money Best places to live, 2009). We then calculated the

rate of each type of crime per every 10,000 people so that we could compare the rates to those in Wellington in Table 2-5.

Table 2-5: Crime Statistics for Worcester and Wellington

Offense Per 10,000 people	2006 Worcester	2006 Wellington
Murder, Man-Slaughter	.33	.2
Forcible Rape	6.95	5.5
Robbery	21.73	5.2
Aggravated Assault	54.78	48.5

As seen in the chart above Wellington had a lower rate of occurrence for all categories of violent crime than Worcester.

In addition to looking up statistics and information in tourism books, we gathered information from the Wellington Police. In a phone interview they confirmed the information we gathered in the tourism books that Wellington is a safe city in general and that there are no specifically dangerous area. Additionally, the police reiterated the importance of general travel practices such as not carrying a lot of cash and not leaving valuables in cars. One interesting piece of information they did mention was the fact that there is a law banning people from carrying open or closed alcohol in the center of the city. Overall the general mood of the interview with the Wellington Police was one in which they were trying to be helpful by answering our questions, but felt the questions were a bit unnecessary because of their opinion that Wellington is a safe area if you follow basic travelling safety practices. (Police, 2009)

Table 2-6: District crime statistics for past three years

# DISTRICT RECORDED CRIME PER 10,000 POPULATION, BY AREA Years ending 31 December

Area Description	Recorded per 10,000 pop 2006	Recorded per 10,000 por 2007	Recorded per 10,000 pop 2008	Percent Variance 06-07	Percent Variance 07-08
Kapiti-Mana	824.3	815.6	856.7	-1.1 %	5.0 %
Lower Hutt	986.0	1,016.2	1,084.9	3.1 %	6.8 %
Upper Hutt	972.0	884.3	1,036.6	-9.0 %	17.2 %
Wairarapa	1,089.4	967.4	1,114.6	-11.2 %	15.2 %
Wellington	954.9	994.7	1,069.2	4.2 %	7.5 %
TOTAL	945.1	946.8	1,025.4	0.2 %	8.3 %

(09\_Wellington\_Official\_Stats\_2008\_Final.pdf, 2009)

**Table 2-7: Rates of Crime in Wellington** 

# DISTRICT RECORDED CRIME PER 10,000 POPULATION, BY CATEGORY Years ending 31 December

Offence Category	Offence Class	Recorded per 10,000 pop 2006	Recorded per 10,000 pop 2007	Recorded per 10,000 pop 2008
Violence	Grievous Assaults	12.1	14.1	13.1
	Group Assemblies	1.0	0.9	1.3
	Homicide	0.2	0.4	0.1
	Intimidation And Threats	32.9	34.8	36.0
	Kidnapping And Abduction	0.7	0.8	0.9
	Minor Assaults	33.3	34.9	34.9
	Robbery	5.2	4.2	4.6
	Serious Assaults	48.5	57.2	56.8
Violence		134.1	147.3	147.6

Offence Category	Offence Class	Recorded per 10,000 pop 2006	Recorded per 10,000 pop 2007	Recorded per 10,000 pop 2008
Sexual	Abnormal Sex	0.0		0.1
	Immoral Behaviour	0.9	0.6	0.9
	Immoral Behaviour/Miscellaneous	0.1	0.6	1.1
	Sexual Affronts	1.2	1.4	1.4
	Sexual Attacks	5.5	5.5	4.5
Sexual		7.6	8.1	8.0

Offence Category	Offence Class	Recorded per 10,000 pop 2006	Recorded per 10,000 pop 2007	Recorded per 10,000 pop 2008
Property Damage	Destruction Of Property	115.7	119.7	142.6
	Endangering	0.7	0.4	0.3
Property Damage		116.4	120.1	142.9

Offence Category	Offence Class	Recorded per 10,000 pop 2006	Recorded per 10,000 pop 2007	Recorded per 10,000 pop 2008
Property Abuse	Animals	0.4	0.5	0.6
	Arms Act Offences	5.6	5.2	4.6
	Littering	0.2	0.3	0.5
	Postal/rail/fire Service Abuses	7.5	7.5	10.2
	Trespass	21.5	24.6	23.8
Property Abuse		35.3	38.2	39.7

 $(09\_Wellington\_Official\_Stats\_2008\_Final.pdf, 2009)$ 

Table 2-8: Rates of Crime in Urban Areas of Massachusetts and Connecticut

Violent Crimes Normalized for Population equal to 10,000 for the years 2001 through 2007

Year	Worcester, MA	Bridgeport, CT	Hartford, CT	Providence, RI	Lowell, MA	Springfield, MA
2007*	N/A	N/A	N/A	N/A	N/A	N/A
2006	84.7	108.7	128.0	55.4	88.7	148.2
2005	79.0	108.5	115.9	68.2	97.9	177.4
2004	78.6	101.4	121.3	60.7	95.4	183.7
2003	87.5	97.5	145.4	78.9	83.2	191.4
2002	N/A	1214	124.3	74.0	81.3	204.1
2001	81.7	136.6	128,1	82.6	80.9	216.2

Property Crimes Normalized for Population equal to 10,000 for the years 2001 through 2007

Year	Worcester, MA	Bridgeport, CT	Hartford, CT	Providence, RI	Lowell, MA	Springfield, MA
2007*	N/A	N/A	N/A	N/A	N/A	N/A
2006	300.8	436.7	740.9	495.4	320.6	534.7
2005	334.2	501.4	745.6	567.6	284.2	566.0
2004	372.7	444.1	876.8	587.3	308.5	655.7
2003	436.1	453.9	786.2	626.3	293.3	764.8
2002	N/A	483.6	754.7	709.1	320.2	727.1
2001	391.4	445.5	752.1	726.6	346.4	623.1

(WPDAnnualReport2007.pdf, 2009)

# 2.3.5 New Zealand's Health Care System

The New Zealand tourism website, says that "New Zealand's public and private medical/hospital facilities provide a high standard of treatment and service but it is important to note these services are not free to visitors, except as a result of an accident," (Accidents and Health Insurance, 2009). Additionally the site did go on to suggest that," You still need to purchase your own travel and medical insurance because ACC [Accident Compensation Corporation] does not cover everything. ACC only covers treatment and rehabilitation in New Zealand, and usually you must pay part of the cost yourself." This point was also reiterated by a worker at the Wellington hospital who stated in a phone interview that, "if coming in for non

injury, it is good to have insurance. Travel (insurance) can cover on the spot but usually students have to pay up front and them file a claim with their insurance later," (Worker, 2009).

The New Zealand health care system is funded by the government and is divided into two parts, accident compensation and general health. "The Ministry of Health aims to ensure that the health and disability support system works for all New Zealanders" (NZ Ministry of Health). The Ministry of Health is responsible for covering the general medical costs incurred by Kiwis. The Ministry of Health does not cover the medical expenses incurred by travelers to New Zealand (NZ Ministry of Health).

The Accident Compensation Commission (ACC) covers the cost of medical treatment for all accidents that Kiwis and travelers in New Zealand suffer (Accident Compensation Commission, 2008). In addition to medical costs, the ACC will replace up to eighty percent of a Kiwi's wage if they cannot work because of an accident, but will not do so for a traveler (Accident Compensation Commission, 2008). Though the ACC covering accidents is a nice benefit of the healthcare system in New Zealand, "... it is not a replacement for travel insurance and does not cover illness, disrupted travel plans or emergency travel to get you back home. We recommend you arrange travel insurance before visiting New Zealand." (Accident Compensation Commission, 2008).

#### 2.3.6 WPI's Health Insurance Plan

There are many different health insurance plans in the United States, each having the potential to work differently when the Insured party is overseas. A baseline for these different medical insurances that students have is the health insurance offered through WPI. According to the Explanation of Benefits from the Harvard Pilgrim Student Injury and Sickness Insurance

Plan, the only covered medical expense while more than 100 miles from home or school is

Emergency Medical Services arranged by Scholastics Emergency Services (SES). The

explanation of these international benefits is extremely brief, comprising only one page (refer to

S Appendix S: Scholastic Emergency Services Summary). In the Explanation of Benefits, it

goes on to explain that all services not arranged by Scholastics Emergency Services will not be

considered for payment. After this they list some key services of Scholastics Emergency

Services which are:

- Medical Consultation, Evaluation, and Referrals
- Foreign Hospital Administration Guarantee
- Emergency Medical Evacuation
- Critical Care Monitoring
- Medically Supervised Repatriation
- Prescription Assistance
- Transportation to Join Patient
- Care for Minor Children Left Unattended due to Medical Incident
- Return of Mortal Remains
- Emergency Counseling Services
- Lost Luggage or Document Assistance
- Interpreter and Legal Referrals

Students who use the WPI health insurance plan are only minimally covered for an overseas IQP experience. The policy takes no responsibility for payment of services that are not rendered by Scholastics Emergency Services. The brochure says that "SES is not travel or medical insurance but a service provider for emergency medical assistance services." What this

means for students covered under this plan is that they are minimally covered for travel abroad.

Their emergency services are covered, but hardly anything else is.

When these limited benefits of the student health insurance plan is combined with the benefits offered to travelers in New Zealand, a gaping hole in coverage becomes apparent.

Students would be covered for emergencies through their WPI plan and accidents through the ACC, but would not be covered for general health care issues. To get more comprehensive coverage students would either have to purchase travel insurance or temporary insurance from a New Zealand provider (Welcome Worcester Polytechnic Institute Students, 2009).

#### 2.3.7 Telecommunications in New Zealand

#### 2.3.7.1 *Cell Phones*

There are currently two major cell phone service providers in New Zealand, Vodafone and Telecom. With no competition these two companies have essentially developed a partnered monopoly, leaving New Zealanders to pay some of the highest cell phone charges in the world (Doesburg, 2009). "The latest comparison shows a New Zealand subscriber on a medium-priced calling plan is paying about 145 per cent of the OECD average," (Doesburg, 2009).

A third company, NZ Communications, developed in 2001, and has the potential to provide the much needed competition in the industry (Doesburg, 2009). Unfortunately, Vodafone and Telecom see it in their best interests to prevent NZ Communications from becoming operational, according to Anthony Doesburg. Regardless of the intentions of Vodafone and Telecom, the new company has encountered many difficulties, and has been pushing back its opening day of operation since 2001 when it declared operation would start "mid to late" in 2002, (Doesburg, 2009).

#### 2.3.7.2 Internet

There are two options for mobile Internet access in Wellington, Telecom and Cafenet. Cafenet is a network of wireless hotspots throughout Wellington, and as such will only work in covered areas (Cafenet, 2009). Cafenet has pay per megabyte plans as well as unlimited daily and weekly access plans. Cafenet charges \$20 NZD for 70 Mb and \$80 NZD for 350 Mbytes for pay as you go plans. Unlimited plans cost \$10 NZD per day or \$40 NZD per week (Cafenet, 2009).

Telecom offers a mobile broadband service (Telecom, 2009). Telecom's plans require a contract and the purchase of a T-stick or Data Card, but the monthly rates are comparably priced to Cafenet's, see Error! Reference source not found. The total cost of two months of a 200 Mbytes per month open term plan is \$80 NZD. This is the same cost as the 350 Mbytes pay as you go plan from Cafenet and provides 400 Mbytes total over the two months that students would be at the project center. Besides the monthly cost, there is the aforementioned T-Stick/Data Card cost, which would be \$310 NZD for the previously discussed 200 Mbytes per month plan. This T-Stick/Data Card makes the cost of Telecom's mobile broadband prohibitively expensive, and leaves Cafenet as the most viable choice for students should they need Internet beyond what their housing and sponsors provide.

**Figure 2-2 Telecom Internet Plans Prices** 

All pricing excludes GST	Mobile Broa T-Stick or Dat	De la Contraction de la contra	Monthly access fee	MBs per month included in plan	Additional charge per MB, (applies to both open term and 24 month plans
	Open term	24 month term			
Mobile Broadband Casual Suits occasional use. Not suitable for T-Stick or DataCard users.	\$310.22	n/a	n/a	n/a	\$8.00
Mobile Broadband Flexi Suits very low use. Not suitable for T-Stick or DataCard users.	\$310.22	\$176.89	\$10.00	Nil	\$1.00
Mobile Broadband 20 Suits Low PDA or Smartphone users.	\$310.22	\$176.89	\$22.22	20MB	\$1.00
Mobile Broadband 50 Suits Medium PDA or Smartphone users (e.g. 1.5MB per working day)	\$310.22	\$176.89	\$35.00	50MB	\$0.95
Mobile Broadband 200 Suits medium - high use. Ideal for T-Stick and DataCard users.	\$310.22	\$176.89	\$39.95 - Open term \$29.95- 24 month term	200MB	\$0.50 Special: Extra 200MB for just \$10
Mobile Broadband 1GB Suits high use (especially if sending or receiving images, sound or film clips) Ideal for T-Stick and DataCard users.	\$310.22	\$132.44	\$59.95 - Open term \$49.95 - 24 month term	1GB	\$0.50 Special: Extra 1GB for just \$10

# 2.3.8 Historic Exchange Rate

The exchange rate between New Zealand Dollars (NZD) and United States Dollars (USD) can have a large impact on the overall cost of the project center to students and WPI. Table 2-9 below shows the average exchange rate for the past 5 years according to the X-rates website (xrates.com, 2009). The average of the last 5 year's March 1<sup>st</sup> exchange rates was 1 NZD = 0.651 USD. The high value for the Kiwi Dollar was 1 NZD = 0.730 USD and the low was 1 NZD = 0.494 USD.

**Table 2-9: Historic Exchange Rates** 

March 1st	NZD to
	USD
2004	0.661
2005	0.730
2006	0.638
2007	0.699
2008	0.685
2009	0.494
average	0.651

# 3 Methodology

We divided our information gathering into five parts to best accomplish the goals of our project. The sponsor section outlines how we will find out whether compelling projects and supportive sponsors and liaisons exist. Housing covers what housing is available for both students and faculty and gives an idea of the quality of each location. The logistics section deals with the non academic aspects of operating a project center such as transportation, telecommunications, groceries, and dining out. In the student and faculty preferences section we accomplish the goal of gauging the "interest of WPI students and faculty in the location and projects". By making a section 3 of the project center specific guide we further addressed the safety, health, and risk management aspects of operating a project center site in Wellington.

We analyzed the cost of the project site both to WPI and to the students attending the project site within each section. If the project center were to prove feasible students would need to know the costs associated with completing their IQP in Wellington. In addition to students paying their own way to attend a project center, WPI pays for project advisors' airfare and housing. We gathered information on each of the line item costs on the site sheet for a project center and about the cost of advisors' housing and travel to help determine the costs to both students and WPI of operating a project center site in Wellington.

All of the costs involved in the project site were kept in the currency they were purchased in because the exchange rate frequently fluctuates and thus can have a large effect on the affordability of the project site. What this means is that things purchased in the US, like airfare, were reported in US dollars but most everything else such as housing and activities in New Zealand were kept in Kiwi dollars. This way the effect of the fluctuating exchange rate on the

costs can be easily interpreted. To form a rough estimate of total cost in US dollars we used the average exchange rate for the last five years. In addition to this average the group reported the costs in terms of the highest and lowest exchange rates over the last five years to give a sense of the extremes of costs to students and WPI.

# 3.1 Project Sponsor Acquisition

We divided the process that our group used to find and develop relationships with possible sponsors into three parts: preliminary contact, further development and expansion, and maintenance.

#### 3.1.1 First Contact

During the preliminary contact stage of project sponsors acquisition (as seen in Figure 3-1), our group used information obtained from advisors, interviewed WPI faculty and staff, and other contacts (this will be discussed later) to get in touch with potential sponsors and set up interviews with them to talk about our purpose. The first method that the group used to get in touch with potential sponsors was an e-mail message giving a brief explanation of what we were trying to do (See Appendix K). If the first email was unsuccessful in going through, the group tried to contact the entity directly with a phone call (again this included a brief explanation of what we intended to do; we used queues from the email scripts to guide us). If both the phone call and the email were unsuccessful, the group deemed the contact in question a 'negative response' and would not continue trying to get in touch with them. If however either the first email or the first phone call were successful in eliciting a response, the group would immediately begin answering any pressing questions that the contact had while also trying to set up a meeting with the contact. If the first response was a sound decision that the entity in question could not sponsor a project, the group would thank contact for their time and ask them if they knew of

anybody else with whom we could talk about our proposal. If the immediate response was one of indecision, the group would continue exchanging emails that both answered any questions that the entity had and also continuously worked towards a meeting until either one was scheduled or a negative decision was made on the contact's part. If the immediate response was positive, the group would simply set up a time to meet with the contact and discuss things further.

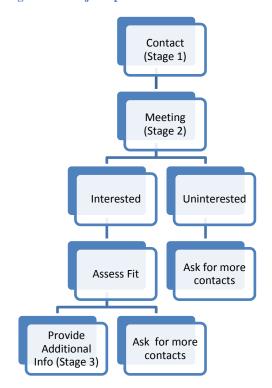


Figure 3-1: Project Sponsor Interaction Flowchart

#### 3.1.2 Further Development and Expansion

Once a meeting had been set up with a contact or potential sponsor, our group tried to develop and expand our relationship with the contact (Stage 2). In this phase between two and three members from the group met with potential sponsor and, through natural conversation, the group ensured that during the meeting all of the contact's questions were answered, and that the project program was explained in full and as accurately as possible. This included letting the contacts know what they had to provide to be a sponsor. If the potential sponsor was still

interested in our proposal by the end of the meeting, our group then gave them the email address of Professor Elmes (for contact past our group's project date) and told them that we would stay in touch. If the potential sponsor was still unsure, the group asked them to keep in touch and continue to give updates on the decision making at their end. If the potential sponsor decided no, the group thanked them for their time and consideration and would cease contact.

Regardless of the outcome of the meeting, the group made sure to ask each and every contact to suggest more organizations with whom we could take our proposal to. By asking for additional contact ideas from the not-for-profits and government agencies, our group hoped to ensure that we would never run out of potential contacts in and around Wellington. This 'snowball' method of finding contacts also helped our group to broaden the original limitations of our early contact list. If the contact is out of questions and has determined that they do not wish to be a future sponsor for a WPI project site in any way, then our group simply asked for any suggestions of additional contacts, thanked that contact for their time and moved on to contacting additional individuals and groups.

#### 3.1.3 Maintenance

Once a potential sponsor had been identified, the group moved into the sponsor maintenance stage for the duration of our project period. In this stage, the sponsors were given the long-term contact information of the group members as well as the contact information of WPI faculty such as Professor Elmes (who will initiate contact with the potential sponsor later in the process). Additionally, sponsors were told to formulate some possible project ideas for WPI's consideration and were encouraged to contact the group at any time with additional questions that they may think of.

#### 3.1.4 Assessment

Once potential sponsors have been identified as willing to host a project their suitability was analyzed by the group to help add qualitative ratings to the quantitative data. To determine the 'fit' of a potential sponsor the group did two things. First, during the correspondence with the contact the group asked them exactly how many student project groups they could foresee accommodating. This information was used by the group to objectively rank each sponsor in every aspect of what they are expected to provide for students. Second, aspects of a contact that were observed during meetings but may not have been outlined in the objective data were mentioned in a short summary of a meeting as well as shown in the multiple attribute decision making matrixes.

As seen in

Table 3-13-1, a decision matrix is "an array presenting on one axis a list of alternatives,

also called

Criteria

evaluated

A. B.

Criteria

A. Evaluation Evaluation

B. Evaluation Evaluation

options or solutions, that are regarding, on the other axis, criteria" (What is a Decision

Matrix?, 2009). The version of the matrix that our group used can be seen below the first table as well.

**Table 3-1: Model Decision Matrix** 

			Criteria			
i			Stated Abil	ity/Wi <b>l</b> ii	ngness	to Sponsor
	Criteria	A.	Evaluation	Evalue	<i>ıt</i> ined,	/Low
	<b>C</b> 21 11 <b>C</b> 21 1 <b>C</b> 2	В.	Erightytinely	<b>E</b> value	<i>u</i> seme	what Likely
Per	ceived	High	Sponsor		to Sp	onsor
Ability/V	Villingness		Somewhat I	ikely	Unlik	ely to
to S <sub>l</sub>	oonsor	Med/Low	to Sponsor		Spon	sor

The matrix provided the group easy translation of how to interpret both types of data acquired. In addition to the matrix the group went over each meeting in detail and filled out a form about how they felt the sponsor could meet our proposal (this was qualitatively determined by ranking perceived willingness to sponsor a project, as well as perceived ability to sponsor a project) that can be found in Appendix M.

Finally a conclusion concerning the sponsor end of the project site was made by the group by comparing the amount of available sponsor organizations and the projects that those organizations can provide (as determined by the data collected, both qualitative and quantitative) to the guidelines for a project center's success as determined through conversations with Mike Elmes and Rick Vaz.

# 3.2 Housing Research

While simultaneously contacting sponsors, the group investigated different housing options for students and faculty such as hotels, hostels, university dorms, bed and breakfasts, and serviced apartments. To find potential housing for the project center we consulted tourist books, Victoria University, existing study abroad programs, and the Wellington City Council. From the tourist books we compiled a list of all the suggested accommodations and advertisements on an excel spreadsheet, and then systematically contacted the owners or managers of the accommodations to ask if they would be interested in providing housing for the project center.

We also inquired about the price of the accommodations, and whether any discount could be made for such a long stay of a large group of 24 to 28 students and two faculty advisors.

The group contacted Victoria University to inquire about the use of their on-campus and off-campus housing. To contact Victoria University, we sent the Accommodation Services an email, and then followed up with a visit to their on-campus office.

We researched study abroad programs that work out of Wellington to see what type of housing they provide for their international students. This was done by emailing the programs to ask for specific suggestions of housing providers, and through information found on their website.

To inquire about apartments owned and rented by Wellington City Counsel, we spoke with the receptionist at the Wellington City Counsel Housing office.

# 3.2.1 Evaluating Potential Housing

The possible accommodation providers we found were evaluated using both objective and subjective measures to determine which would be the most desirable for project center housing. Objective considerations were related to practical issues like cost, safety, and location, while subjective considerations were more focused on the general appeal of the accommodations.

The objective criteria were evaluated with Natalie Mello's Objective Housing Criteria Checklist (Appendix N), with price information for each term amended to the list. Price was a primary consideration in this search, since site affordability is important to both students paying for themselves, and the ISGD which pays for the faculty housing (Vaz R., 2008). The capacity

of each facility was also considered to determine whether additional facilities would be required to house the entirety of the center, or if the facility could provide for the whole center.

A final objective consideration was the proximity of medical facilities with respect to the accommodations. There is no set distance they must be within, but students and advisors need to know where the facilities are and how long it takes to get to them via public transit or ambulance (Mello N., Interview: Housing, 2009).

For faculty housing price was not the dominate factor it was for students since faculty demand higher quality housing. Cost was still quite important, but we gave more precedence to subjective factors like included amenities and the overall quality of the location. In addition to housing the center director and faculty advisors when the project center is in operation, WPI pays for five to seven nights lodging for the center director to visit off season and maintain relationships with sponsors (Vaz R., 2009). We researched the cost of this stay as well.

Our group considered seven subjective factors to rate the general appeal of accommodation facilities. These were facility cleanliness, the hospitality of the management, the cultural immersion, the privacy and productivity offered by the environment, how equally personal space is divided in shared living situations, how enjoyable the immediate surroundings are, and what amenities come included. The qualitative research method "Grounded Theory" was used to develop these seven criteria. This involved considering data from several sources, and identifying key categories that outline appealing accommodations. These categories were then refined into seven criteria that could each be judged on a 5 point Likert scale. The IGSD provided information that helped develop these categories in interviews with Richard Vaz and Natalie Mello (Appendix C). Interviews with global project advisors Michael Elmes and Susan

Vernon-Gerstenfeld provided further insight into what made suitable center housing. Experience living in dorms and renting apartments in Worcester, as well as visits to potential housing in Wellington provided firsthand knowledge that was especially useful for devising our scheme to judge housing.

To develop each subjective category previously mentioned into quantifiable criteria that could be given a rating on a Likert scale, a title and descriptive prompt was developed. A total percent grade for each facility was determined by adding the Likert ratings of the seven criteria and dividing by the maximum possible points. This percent grade was used to provide a general sense of how appealing each facility was. The form used to give each potential housing provider the seven Likert ratings and the total percent grade is in Appendix N.

Based on life experience in various living situations, we decided a significant part of how appealing accommodations are is determined by how clean they are. To make the concept of cleanliness quantifiable, we defined it as Facility Cleanliness, with a descriptive prompt asking "Is the floor grungy? Is there dust? Are windows clean?" (Appendix N)

The hospitality of the accommodation management can be quite important as students or faculty may need special accommodations and WPI would like to keep a good relationship with its housing providers so it can use their facilities in future years. This category was developed off of notable variation in management found while visiting potential housing facilities. To make hospitality a quantifiable criterion, we defined it as "Hospitality exhibited by Staff/Director" with a descriptive prompt asking "How helpful, easy to work with, and genuine is the person?" (Appendix N).

Cultural immersion was considered because it was a primary motivating factor for some of us to go abroad to New Zealand. Natalie Mello confirmed that the local cultural experience offered by the housing is something to be balanced with other relevant criteria (Mello N., Interview: Housing, 2009). To quantify the category, it was defined simply as "Cultural Immersion", with a descriptive prompt asking "Does the accommodation lend itself to cultural immersion, would there be frequent and engaging contact with locals?"

Students may need to complete work in the evening at their accommodations, and may value an opportunity to relax in isolation after an engaging day of work. The faculty advisors use the accommodations as their primary workspace, and will certainly desire a degree of separation from students and the general hubbub of the city. Discussion between each other in the group and with Richard Vaz brought up this point, and motivated us to include this category. This criterion was defined as "Work Atmosphere of the Accommodation", with a descriptive prompt asking "Is lighting sufficient? Is it quiet (conducive to an early night's sleep)? Is there comfortable work space (desk or lounge area)?" Although the description focuses primarily on the work atmosphere, these details also outline the qualities necessary for a facility to be comfortable and relaxing (Appendix N).

The distribution of personal space in shared living situations is a consideration primarily relevant for students. Many accommodations in Wellington have an uneven distribution of personal space such as apartments with a large master bedroom and a much smaller bedroom meant for children. Such facilities motivated us to distinguish between them and those with an equal balance. We defined this criterion as "Equality of Personal Space" with a descriptive prompt asking "How equal is the distribution of personal space such as bedrooms, beds, and bathrooms?" (Appendix N).

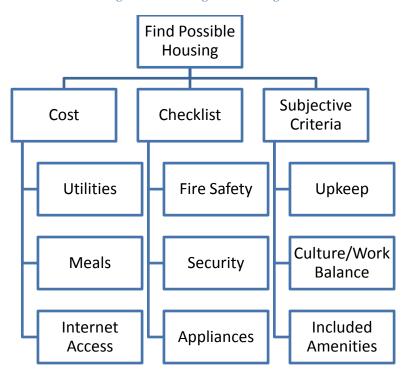
Our group reasoned that it is important for the immediate surroundings of the accommodations to be enjoyable and culturally active for reasons similar to those explained for cultural immersion. Students and faculty will want easy access to an interesting evening experience when they finish work, and such ease will be best served by the immediate surroundings of accommodations. We defined the criteria as "Quality of the Immediate Surroundings" with a descriptive prompt asking "Would you enjoy spending time in the immediate surroundings of the accommodation?" (Appendix N).

The amenities provided by accommodations vary in content quite widely, making a direct comparison impractical. However, such qualities of a facility often provide a distinct identity, and can make a facility much more interesting. We thus determined that amenities should be addressed, and that a Likert scale included with the subjective criteria would be the best way. We defined the criteria as "Provided Amenities" with a descriptive prompt asking "Are there provided amenities of high quality and/or quantity?" (Appendix N).

To judge how appropriate our seven subjective criteria for rating housing were, we compared them to the criteria used by Canadian Hotel Guide to rate hotels throughout Canada. Any similarities or differences were considered in judging the validity of our subjective analysis. Terminology used by the Canadian Hotel Guide to define its criteria was in some cases adopted to more clearly define of each or our group's seven criteria (Appendix N).

Figure 3-2 shows the two main objective categories we investigated, their subcategories, and some of the major subjective categories.

Figure 3-2: Housing Criteria Diagram



To track all of the information related to housing, three spreadsheets were used. A contact spreadsheet was used to keep track of who we contacted at which potential housing providers, and to what degree we had communicated with them. The Objective Housing Criteria Checklist for each provider was compiled into another spreadsheet to outline safety and cost information. The final spreadsheet outlined the score each provider received for each subjective criterion the reasoning behind each score, and the final percent grade each provider received. From these three spreadsheets, a summary table was developed to provide a general sense of each housing provider in a manner that makes it easy to compare the facilities. All spreadsheets are included in Appendix N: Housing Information.

Seven factors of the accommodations are featured on the summary spreadsheet for comparing potential housing providers. These were selected because they outline the important

details used to determine which providers of each type of housing would best serve a Wellington project center. The available cooking appliances were given importance because of their impact on the cost of board and thus influence on the overall cost of the site. Cost also supported the consideration of the housing provider's location, because of fees involved in transportation to project sponsor offices. The Qualmark rating provided a well established judgment of the quality of the facilities, and a perspective on the subjective grade our group assigned to each facility. The subjective grade was included as a primary means to judge the quality of the facilities, since several of the facilities did not have Qualmark ratings. To compare the cost of accommodations, we listed price of the room arrangements that would be most appropriate for students, as deemed by the management at each facility. A basic description of these arrangements is included to outline whether students would need to share bedrooms. Other information, like the safety of the facilities as outlined by the Objective Housing Criteria Checklist, did not vary between facilities in any meaningful manner, and such were not included in the summary. Information like the 5 point ratings facilities received for each of our group's subjective criteria was excluded because it provided excessive detail, making an overarching idea of how the facilities compare to one another impractical.

# 3.2.2 Recommending New Zealand Housing

To contribute to a recommendation of Wellington as a WPI project center, the most appropriate accommodations found in Wellington were compared to housing offered at existing IQP project centers. This was done to see how housing offered in Wellington compares in quality and cost to housing offered at other centers. This comparison was made for both student and faculty accommodations.

# 3.3 Logistical Necessities

Throughout our time in New Zealand the group investigated the logistic aspects of the area to see if the details of the location were conducive to a successful site. This is a rather broad category that includes transportation, telecommunications, and groceries. It is meant to include everything that is important to students' day to day living in a project site.

#### 3.3.1 Airfare

The first logistical necessity the group investigated was the price of airfare to reach New Zealand. We researched the airfare cost using Qantas, Air New Zealand, United, and Mixed Carrier packages and a roundtrip flight from Boston to Wellington. We also found the lowest fare for each airline connecting through Auckland, Christchurch, or Sydney. We used the least expensive day of the week when determining the cost of the airfare. The cost of the airfare was kept in the currency it was quoted in (USD or NZD). The price of the airfare will vary based on things like fuel costs and seasons of travel so this limitation was recognized in the estimation. We then investigated taxis, shuttles, and buses to see which was the most cost effective in allowing students to get from the airport to their housing. In addition to the students and faculty flying in while the project center is in operation, the center director will have to make an extra trip each year while the site is not in season. We researched the cost of airfare for this trip as well.

#### 3.3.1.1 Transportation within Wellington

The group researched the cost, availability, and efficacy of different modes of transportation students will use for regular travel within Wellington. This regular travel includes going from students' housing to their sponsor every day and other necessary locations like grocery stores. The group accomplished this by estimating the weekly cost of regular travel

based on current mass transit rates in terms of the New Zealand dollar. We based these costs on student fares if they differed from normal rates.

To help in the estimation of student travel costs within Wellington we kept track of our daily travel expenses as shown in Figure 3-3. We talked to various New Zealanders to see what their preferred method of travel was and then included those means in our cost-benefit analysis of the best forms of travel.

Figure 3-3: Recording Transportation Costs



# 3.3.1.2 Transportation to other areas in New Zealand

The group then looked into the costs of traveling to other places in New Zealand on weekend trips. This travel is highly dependent on individual students and what they choose to do on weekends. Nonetheless the group endeavored to provide information to both future students and IGSD about the costs of different modes of weekend travel. To do this we researched the advertised costs of different travel options like buses, trains, and planes going to different locations and excursions. We also looked into the cost of staying overnight in the average hostel / low price hotel in the area. Finally, we approximated the cost of returning to the airport by calling different shuttle services, taxis, and looking at bus fares and averaging the cost of transportation to the airport.

#### 3.3.2 Telecommunications

In terms of telecommunications, cell phones and Internet access, students in the United States we are used to cheap and reliable Internet and phone service, but this is the exception rather than the rule for other countries. We looked into the cost and availability of telecommunications in Wellington to accumulate data in this subject.

#### 3.3.2.1 Cell Phones

To determine the most cost effective way of using a cell phone we examined the prices of Verizon, AT&T, T-Mobile, Sprint, Telecom, and Vodafone in New Zealand and recorded them in Appendix H. We then graphed them based once with the independent variable being how many minutes of talking were used. Then on a separate graph we graphed the cost of the different phone companies based on how many texts are sent and received. All of the costs were kept in Kiwi dollars for the local carriers or converted to Kiwi dollars for the US carriers using the average historic exchange rate. Once we graphed all of this information we suggested which company is the most cost effective based on how much someone is planning on texting/calling.

#### 3.3.2.2 Internet Access

Students will mostly use the Internet at their sponsor locations and their housing which has been covered in the sponsor and housing sections, respectively, but students may also want to use the Internet at other locations. In addition to using the Internet at other locations, it is quite likely for there to be a bandwidth limit for Internet usage at the sponsor location or their housing location, or both, so students may have to venture elsewhere for bandwidth heavy activities like video-Skype. In either case, students will need to know the cost of public Internet access. We found this cost by looking at the rates of local Internet cafes and any citywide broadband that is available.

#### 3.3.3 Groceries

Our group then examined the cost of groceries in New Zealand since every students needs to eat while in the city with the aim of providing an estimate of their grocery expenses while living there. To provide this estimate for groceries we decided on an approach that used the average cost per calorie of a healthy diet used this in conjunction with how many calories an average active person will consume over the course of 50 days. We used this method to make our approach scientific and rigorous. With an approach like an average basket of groceries, some of the items purchased like milk may be consumed within a couple of days, whereas a jar of peanut butter may last a week or more. To take some of the ambiguity out of students' personal food preferences and how long it would take students to eat certain things we came up with the average cost per calorie of a healthy diet method.

Using this approach we first prepared a list of foods that and that we considered to be a sample of a healthy diet (refer to Q Appendix Q: Grocery Costs and Analysis). We also compared this sample diet to what we would normally purchase for groceries for ourselves and made changes as appropriate to better represent what a student would eat. Next, we went to the local grocery store and found the quantity and prices of each item. Third, we calculated the total cost of this basket of groceries and the total calories it contained and divided the two to get an average cost per calorie. We then used multiplied this cost per calorie by the average caloric intake per seven week term people of different genders and levels of activity to create a cost estimate for groceries.

#### 3.3.4 Dining Out

Dining out is another cost we looked into since the average student will want to dine out occasionally and knowing the cost of doing so is part of the cost on each site sheet. We looked

at the costs of dining out at low, middle, and high end restaurants. We went to about ten of each type of restaurant and obtained an average meal price from each to create an average meal price for each range. We then averaged the costs to obtain an estimate for the average meal out. Then we will simply multiply this cost by seven to obtain the estimate of dining out over the entire term (refer to R — Appendix R: Wellington Restaurant Survey).

#### 3.3.5 Weekend Excursions and Tourist activities

It was also important for the group to investigate the costs of tourist activities and weekend excursions students attending a project center could partake in. While this is by no means mandatory or what every student does, we put together what it would cost for an average student to go on these excursions. We broke up the weekend excursions into trips where students would spend the entire weekend at a location and day trips where students would still stay in their Wellington housing. We then researched examples of where students might want to go and determined the cost of transportation to that location, housing for overnight trips, and food/extras.

The cost of transportation was based off of the least expensive form of public transportation. The cost for housing was based off of the average cost of a hostel in the area for two nights. We used our own experiences in determining how much students would likely spend on food/extras. In addition to this we used how many times our group went on each type of excursion to estimate how many excursions future students would go on. Our own experiences were a valuable aid to determining how many excursions an average student will want to go on. Finally we kept track of our expenses in these tourist activities and averaged them to provide a rough estimate of the cost of weekend excursions.

# 3.4 "Section 3" of Project Center Guide

Throughout this term the group has been gathering information to help ease the transition to living in New Zealand for future students attending the center. We then compiled the information into a section three of the Wellington site specific project guide to be used for future students completing their IQP there. To acquire this information, we used a combination of data from Internet research, discussion with contacts, travel guides, and personal experiences. We went through the Venice and Australia Site Specific Guides and wrote down the titles of each section we needed to find out information for, as listed in Table 3-2.

Table 3-2: Topics from Site Specific Project Center Guide

- Introduction
- Dates
- Arrival in Wellington
- Calling Home
- Housing in Wellington
- Emergency and Medical Numbers
- General Emergency
- Lifeline (Suicide Prevention)Hospital
- Public Transport to Wellington Hospital(Other than Ambulance)
- Map of hospital
- Health Insurance
- Dentist
- Mental health hospital
- Eating disorders

- Pharmacies
- Grocery Stores
- Useful Telephone Numbers
- Transportation
- Other Useful Information
- Tipping & Gratuities
- Currency & Currency Exchange
- Major laws that are different from US
- Weather
- Units of Measure
- Shopping hours
- Telephone Information
- Taxi Cabs
- American Embassy

We then compared this list to Figure 3-4 located below, which we had presented to IGSD as the areas we were going to cover in "Section 3" to make sure we did not miss any of the major areas. We found that we did forget to include commenting on appropriate clothing, so we went back and added information about appropriate clothing to our Section 3 for Wellington, New Zealand.

To acquire information for the site specific guide the group had discussions with various contacts such as Michael Elmes and the owners of Annaday, the bed and breakfast we stayed at. With this knowledge base we then continued to explore the local area on our own to expand our knowledge of the culture. Some subtopics of this learning included: what people wear, societal expectations for gratuity, and various aspects of New Zealand society to name a few. This information was then processed to indentify significant differences between New Zealand and America that would be beneficial to future IQP students.

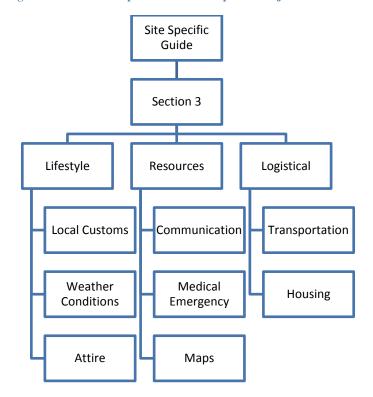


Figure 3-4: Areas of Importance for Site Specific Project Center Guide

### 3.4.1 Medical Facilities

To develop recommendations on medical facilities, emergency and otherwise, our group looked at area maps, government websites for medical facilities (such as the World Health Organization's (WHO) websites), and the facilities that Michael Elmes has already identified in Wellington. We then provided a list of medical facilities, such as the suicide helpline or the

area's general hospital, which was recommended by WHO, in section 3 for students to refer to when in New Zealand on future IQP.

#### 3.4.2 Maps

To make travel around the IQP site simple, maps from Google maps will be provided along with listings of popular bus routes. These two things used in unison can bring a student anywhere they wish to go within Wellington's general area. Further, specific directions to the hospital as well as a map of the facility are provided to give students clear instructions should they need them in an emergency.

## **3.4.3 Safety**

In addition to knowing that the area they will be in is safe, students should know any laws that are different than in the US as well as any specific actions to take or avoid taking while at the project site. To get a sense of what these actions might be we interviewed a representative from the Wellington Police force.

# 3.5 Student and Faculty Research

As part of the feasibility study for the Wellington project center, the team published voluntary surveys to both possible faculty advisors and a random sample of students. At the request of IGSD, the surveys pursued a broad objective of identifying the most important priorities among students and faculty deciding whether to participate at off-campus IQP centers. In this way, the surveys minimized topical bias by withholding any specificity regarding the location of possible future project centers. This generality of purpose may allow these data to be used for IGSD's evaluation of other possible off-campus project centers.

The team drew from its background research regarding existing project centers and correspondence with IGSD staff to identify the important factors in the decision to participate in an off-campus IQP. We then used these factors as a basis for developing a series of high-level research questions which, when explored, would provide insight into the decision to participate in an off-campus IQP center. After developing overall research questions, the team then developed survey questions using the SurveyMonkey application online. (Survey Monkey, 2009) These questions used a variety of input options including Likert scale ratings, multiple choice response and free response written comments, depending on the type of data sought for the corresponding research question.

Once published, the surveys were distributed to their appropriate sample groups for a period of about a week to allow respondents ample time to participate. The team then evaluated the SurveyMonkey summaries of the responses in our analysis of student and faculty opinions. To establish a model of the opinions held by the majority of the target populations, the team used the responses and related statistical information from the surveys to form answers to the original research questions. Finally, the team weighed the conclusions to our research questions against factual results from other sections of our research concerning the project center location. The team used student and faculty opinion data in this way as one factor in our evaluation of whether Wellington would be a feasible project center location.

#### 3.5.1 Faculty Population

The questionnaire designed for possible faculty advisors was distributed via e-mail to a specific set of 43 individuals identified by IGSD as having interest and/or experience in advising (refer to I — Appendix I: Faculty Survey Recipients). In this way, only those faculty members with an informed frame of reference for advising IQPs responded to the survey.

#### 3.5.2 Student Population

For surveying undergraduate students, the team received a suggestion from Dean Vaz to attempt to achieve demonstrable statistical significance by distributing the corresponding questionnaire to a random sample of the total population (Vaz R., 2009). A simple random sampling is appropriate for collecting approximate data regarding a population while avoiding response bias when that population is inconveniently large for a complete census (CustomInsight). Since the student survey concerned a total full-time undergraduate population of 3,075 students, it was certainly inappropriate to complete a census for this purpose (Division of Enrollment Management, 2008).

According to Cochran's sample size formula for categorical data, solving Equation 1 for the variable  $n_0$  yields an appropriate sample size for a large population (Bartlett, Kotrlik, & Higgins, 2001).

**Equation 1: Cochran's Sample Size Formula for Categorical Data** 

$$n_0 = \frac{(t^2) \times (pq)}{(d^2)}$$

(Bartlett, Kotrlik, & Higgins, 2001)

Where t is a statistical standard value of 1.96 that corresponds to a 95% confidence interval, pq is an estimation of variation at 0.25 and d is the acceptable margin of error per cent, expressed as a decimal value between 0 and 1 (in this case, 0.05). Since the value of  $n_0$  for these parameters, 384, is greater than 5% of the target population's size, 3075, it is necessary to use the correction formula to obtain the appropriate sample size by definition of Cochran's formula. (Bartlett, Kotrlik, & Higgins, 2001) In Equation 2,  $n_1$  is the adjusted sample size for a total population N with Cochran's formula resulting in  $n_0 > (0.05 \times N)$ .

#### **Equation 2: Cochran's Correction Formula**

$$n_1 = \frac{n_0}{\left(1 + \frac{n_0}{N}\right)}$$

(Bartlett, Kotrlik, & Higgins, 2001)

Following this correction formula, the team identified the appropriate sample size of 341 undergraduate students, as obtained from Equation 3.

**Equation 3: WPI Undergraduate Sample Size** 

$$n_1 = \frac{384}{\left(1 + \frac{384}{3,075}\right)} = 341.37$$

However, in a voluntary survey, it is not expected that 100% of the sample group will respond. For this reason, it is necessary to estimate what the response rate to the survey will be and distribute the survey to an even larger number of recipients,  $n_2$ , which is directly related to the response rate R and the adjusted sample size  $n_1$  in Equation 4.

**Equation 4: Response Rate Adjustment** 

$$n_2 = \frac{n_1}{R}$$

(Bartlett, Kotrlik, & Higgins, 2001)

For the purpose of this student survey, the team estimated a response rate of 50% of completion. Following the formula in Equation 4, the appropriate number of survey recipients totals 682. The group contacted Aaron Harp of WPI Institutional Research for assistance in providing a random selection of 682 undergraduate e-mail addresses to which the survey would be distributed.

The undergraduates completing the questionnaire first responded to two preliminary questions to allow their responses to be group according to year of graduation or by category of IQP completion. These categories are defined as follows:

- Group 1. Students who have completed their IQP at or have accepted entry to an offcampus project center. This includes sophomores who successfully completed their Global Perspective Program application and acceptance process.
- **Group 2.** Students who have completed their IQP on-campus or have applied to oncampus IQPs. This group includes most sophomores who did not accept or were not accepted to the Global Perspective Program.
- **Group 3.** Students who have not completed their IQP, and have neither applied neither to participate at an off-campus project center nor to complete their IQP on-campus. This group includes most freshmen.

#### 3.5.3 Research Questions

To obtain information from the student and faculty surveys relevant to the issue of project center feasibility, the two questionnaires were developed on the basis of several research objectives which we created through correspondence with and the influence of IGSD. These objectives established our projected outcomes for the surveys, both giving them purpose and implicit organization. The student questionnaire (refer to G Appendix G: Student Questionnaire) was developed to form answers to the following questions:

- What kinds of project experiences do students seek?
- How do students decide whether to complete their IQP off-campus?

How do students who complete their IQP off-campus decide which project center they
are most interested in actually attending?

The team developed the faculty questionnaire (refer to H Appendix H: Faculty Questionnaire) to answer the following questions:

- What kind of project experiences do faculty members seek?
- What factors influence faculty members most in deciding whether they're willing to advise IQPs at an off-campus project center?

Upon review of the survey data, the team evaluated the responses to formulate answers to the research objectives identified here. We then used these research outcomes as a basis from which we inferred the suitability of a Wellington project center with regard to the preferences and priorities maintained by students and faculty.

# 3.5.4 Implementation of the Student Survey

The team distributed the student questionnaire beginning on Tuesday, April 14. The survey remained open to responses until the following Monday, April 20.

Similarly to the team's analysis of the data from the faculty survey, students' responses allowed the team to form answers to the research questions concerning students. Unlike the faculty survey, the team used responses to questions 1 and 2 of the questionnaire to filter responses using the SurveyMonkey web application. Responses were filtered to correspond to the three groups of students (identified in 3.5.2 Student Population) to identify trends within those groups. Responses to questions 3 and 4 identified the key priorities of students deciding whether to go abroad, and responses to questions 5 and 6 showed additional underlying preferences regarding location selection.

## 3.5.5 Implementation of the Faculty Survey

The team distributed the faculty questionnaire beginning on Monday, April 6. The survey remained open to responses until the following Friday, April 10.

After the questionnaire closed, the team considered the resultant data in forming answers to the premeditated research questions. The team used responses to questions 1 and 3 to determine the most important considerations for faculty choosing to go abroad. Responses to questions 2, 4 and 5 provided additional information regarding the preferences of faculty members, and also exposed possible topics for future research regarding the preferences of off-campus IQP faculty advisors. Furthermore, Question 3 is never specifically addressed in our data, but rather, the comments respondents entered were used in support of our assessment of the research objectives identified in 3.5.3.

# 3.6 Determining Expenses to WPI

When determining the costs to WPI for opening up a new Project Center we investigated the cost of sending the Center's Director to the site ahead of time and the cost of sending 2 faculty members to the site to advise the students (Vaz R., 2009).

#### 3.6.1 Center Director Annual Visit

When calculating the cost of travel to Wellington for the Center's Director, Dean Vaz suggested that we look at the numbers on The State Department website for Per Diem Rates for Americans who are traveling for business to Wellington, New Zealand (Vaz R., 2008). This number includes food, transportation within the city, and any incidentals they may incur. We then took this number and multiplied it by the 7 days the Director will be in New Zealand for and added to that the cost of airfare to get the total cost for sending a Director to Wellington for 7 days. The Per Diem rates and the cost of Airfare were all given in the US Dollar.

#### 3.6.2 Faculty Advisor Expenses

When we calculated the cost WPI must pay to have advisors at the site. We had to make a few adjustments in how we calculated the numbers compared to calculating the cost for students. When calculating the cost of dining out instead of taking the average cost of the three different levels of restaurants the group took the average of only the higher level of restaurants, since faculty will have a higher standard for going to eat at a restaurant. We then took that average and multiplied it by 7 to calculate the total cost of dining out for the term if they decide to go out to dinner once a week. However we will use the numbers we calculated for the cost of the student's flight, food, and transportation since they are calculated in the same manner as we would calculate those costs for the faculty. The last cost that was calculated for the faculty data is the cost of housing. To find this we took the three top housing locations we found and asked for the cost for a single apartment for 7 weeks. We then took the cost of food, dining out, transportation, and housing and used the high, low, and average exchange rate over the past six years to convert the prices from the New Zealand Dollar to the US Dollar. We then added these costs to the cost of Airfare, which was quoted in the US Dollar to get the high, low and average total costs IGSD would have to pay per faculty member to attend the site. We took this number and multiplied it by the number of faculty who would be present at the site to find the total cost for faculty at a New Zealand project site.

# 4 Data & Analysis

Assessing a location for project center feasibility is a complex problem demanding many types of information. At times, this information was cumulative in that the team was advised to collect as much information as possible. In particular, it was important for the team to develop as many contacts as possible to discover potential project sponsors. Additionally, we performed a thorough examination of most of the major lodging options in Wellington. By continually investigating opportunities for sponsors and housing, we accumulated a diverse range of options.

Some information about other important factors of the project center came in the form of costs for commodities such as telecommunications and food, and led to simple analyses of the affordability of student life in Wellington. We gathered even further information from the student and faculty surveys, which we reported along with their related statistical figures.

# 4.0 Project Sponsors

#### **4.0.1 Combined Sponsor Contacts**

Using the 'snowball polling' method, that was previously mentioned, to locate and get in touch with potential sponsors, the group was able to contact 55 organizations. Of these, 46 have responded in some way; further 22 of the organizations who responded did so positively (refer to M Appendix M: Sponsor Reports). A positive response is one where the potential sponsor does not say no to the group in any way; positive responses that quickly turned negative were considered negative responses in the data. In the end, the group was able to meet with 15 contacts and 11 of those wish to liaise further with WPI and the group about sponsorship (Appendix M). To add to this, 7 organizations were interested but never allowed a meeting to happen for various reasons The two main reasons that one of these organizations could not meet

with our group were that the emails kept getting forwarded to someone better qualified to help us (essentially people were politely putting duty of responding to our proposal with somebody else in the organization) and that the person who we had been told to meet with was on vacation or business trip. Simply put, 48% of organizations who responded to the group's first contact were immediately interested in the proposal, 68% of those replies led to meetings, and 73% of those that we met with intend to engage in more talks with WPI if it moves forward and sets up Wellington as a new project site in the future. Below are the overall percentages and numbers of what happened with each organization contacted.

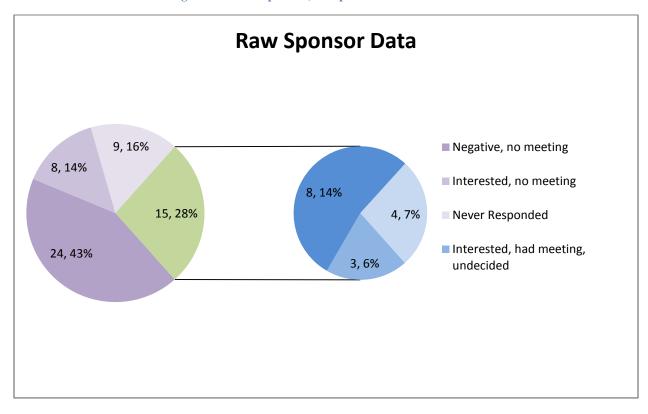


Figure 4-1: Total Sponsors; Composition of Contact Results

An interesting outcome that should be noted in the raw sponsor data is the fact that very close to half of all the organizations contacted (51%) ended up giving a negative response. The other half of contacts either were undecided, unresponsive, or interested in the group's proposal.

This statistic must be taken with the understanding that our group did not always know the qualifications of the organizations we were trying to reach when it came to them sponsoring a project. Some of the organizations we contacted arose from the brainstorming that the group did both alone and in meetings with other organizations.

Out of the 22 organizations our group contacted that we either met with, or are still liaising with, it should be observed that 10 of these are associated with government in New Zealand (2 local, 6 national, 2 associated with research for the government), 5 are affiliated with education (either through Victoria university, or as a government agency dealing with it), 4 are museums, and at least 3 are-not for-profits. Some instances saw contacts that fulfilled more than one of these categories as well.

Finally, this data is only based on raw, yes or no answers given by sponsors in meeting with them and through e-mails. While what a potential sponsor explicitly states in writing and in word is perhaps the best judge of what they will do in the future, our group can also use the qualitative data we gained during observations of the potential sponsor during our meetings with them. An example of how qualitative data might help with our group's decisions is when a potential sponsor says that they are very enthused about hosting a project in the future while at the same time, not acting at all interested or genuine in what they are promising. In this case, the additional data gained through observations of a potential sponsor's intonations can be vital in accurately predicting their future actions.

As a part of determining the differing abilities of potential sponsors to provide projects in the future, the group reported on qualitative experiences as well. These are shown below through accounts of the events of each meeting and give an account of the group's observations. The meetings are listed with those organizations with a high likelihood of sponsoring listed first, and with the ones having lower likelihood listed after.

**Table 4-1: Assessment of Potential Sponsors** 

Organization	Likelihood of sponsorship	Associations	Project Examples	
Ministry of Education	High	Government, Education	Technology in schools	
Grow Wellington	High	Not for Profit	Helping companies grow	
VUW Commercialization Arm	High Education		Applying new technology	
VUW Vicar	High	Education	Evaluate radio station	
Porirua City Council	High	Museum, Local Government	Change economic trends, art museum	
Department of Labor	High	Government	Labor trend planning	
Museum of Wellington City and Sea	High	Museum	Evaluate educational impact	
New Zealand Qualifications Authority	Medium	Education, Government	Testing methods, efficiency	
Accident Compensation Commission	Medium	Government	Efficiency, user access	
Royal Society of New Zealand	Low	Government, Education, Science Policy	None Given	
Ministry of Research Science and Technology	Low	Government, Education, Science Policy	None Given	
Wellington City Council	Low	Local Government, Policy	None Given	

## 4.0.1.1 Izak Human, Sam Mackay – Ministry of Education

The ministry of education deals with executing new policies in NZ's schools and then evaluating how effective these new policies are. They are division of the New Zealand government.

The meeting with Izak and Sam was a breath of fresh air for our group; at most of the organizations that we met with in Wellington, the idea of an intern-like entity (in our case a project group) was a novel idea but at the Ministry it was a fully understood idea as numerous interns had worked for them over the past few years. This fact allowed for very complete understanding of what our group's proposal was and really let the meeting cover all of the points of the proposal in fine detail. Indeed, everything that could have been discussed with Izak and Sam concerning the project system was discussed. Luckily both men were very interested in the whole process and understood each of the things that would be required of them as sponsors. When asked for possible ideas of projects the two men mentioned the possibility of using WPI project groups to evaluate how effectively technology is being used in the classroom and how this efficacy varies in different socioeconomic areas. They also mentioned possible cross-center IQP's with China because they are very involved in that area of the world at the moment as well. Overall, the meeting went very well and both men are extremely interested in WPI's project system and proposal.

#### 4.0.1.2 Ruth McDavitt - Grow Wellington

Grow Wellington is an organization that specializes in helping companies who are either losing revenue or looking to expand to change their policies and practices for the better.

The group also had a meeting with Ruth McDavitt and Amanda Lynn from Grow Wellington, which is a company that works with small businesses. Both women were interested in having WPI students come and work with some of their clients and were able to rattle off a few ideas for potential projects students could work on with various clients. They also suggested that a few of our group members attend a workshop Grow Wellington is having, in order to meet some of the businesses and to increase our contacts. Grow Wellington will be an important company to keep in contact with because of their large network of companies and the fact that they are currently trying to find more university students to work with their clients.

# 4.0.1.3 Malcolm Menzies – Victoria University Commercialization Arm

The commercialization arm of Victoria University specializes in bringing the products and intellectual property created at VUW to market.

The meeting with Malcolm Menzies and Kevin Crume (both associated with Victoria University's Product Commercialization arm) went very well; Malcolm, the group's main contact, was well prepared to hear us out and actively asked questions. Kevin was also very well prepared and he has since become our main contact. During the meeting our group was able to cover all of the necessary points in the time frame allowed and no proverbial stone was left unturned when it came to ensuring Kevin and Malcolm's understanding of our proposal. Both men mentioned the high amount of projects that they could provide and said that it would be no problem to provide these in the long term. The only part of the requirements that gave the men a little bit of a hurdle was their ability to provide workspace for students as Victoria is running most of its rooms at max capacity already. Fortunately, in talking to the head librarian at Victoria University, Janet Keilar, and she says that it is certainly possible for a student group to rent out an office suite (which includes all of the necessities for student groups) for free for the duration

of the project term. Other than this aspect, both men ensured us that they would gladly host one team provided things work themselves out.

#### 4.0.1.4 David Newton- Human FM Radio Station

Human FM is a local radio station run by David Newton. The station is DJ'd almost entirely by students and has a mild Christian bent to it.

Our meeting with David Newton, the Supervising Chaplin for Victoria University, was very productive. Originally we went in to the meeting with the thought that David would simply have additional names of people to contact. It turns out however, that he had a project in mind for students to work on. There is currently a radio station at the religious center which is being underutilized; David is interested in finding out how many people are listening in on a daily basis along with finding ways to make the station more popular. He is very excited to be a sponsor if the Wellington site takes off and is taking the next step by sending a draft of the possible projects he can host to Professor Elmes. Overall, the meeting was very successful even for the unpredictable circumstances.

#### 4.0.1.5 Darcy Nicholas – Porirua City Council

Darcy is the general manager of community service in Porirua. His duties include running the local art museum and providing community services to his city.

During our meeting with Darcy Nicholas, it quickly became obvious he is a real mover and shaker; he is apparently very good at getting things started and opening up new lines of communication. This trait showed itself to the group when, having just gotten situated in the office, Darcy immediately outlined his all-encompassing plan for bettering his community and how he viewed our group as a necessary piece in this equation. It became apparent that he was expecting quite a lot out of each project

group that would come visit him so we then had to explain to him that if he wanted to be able to sponsor a group in the future he would need to be able to set manageable goals and checkpoints for the individual project groups. He seemed to understand although he would definitely need to be made absolutely sure of things before a project is given because of his apparent tendency for seeing the larger picture of things. Other than his high level of enthusiasm for our proposal, Darcy was very interested in what we had to offer and is poised to provide great sponsorship opportunities in the future.

#### 4.0.1.6 Richard Whatman – Department of Labour

The Department of Labour is a government division focused on promoting the economic growth of New Zealand through good work policies and advice. They are also in charge of forming labour laws.

The meeting with Richard Whatman and George Rarere went very well. The two men were very engaging and understood our proposal from the get go. Once the basics were covered, the two men proceeded to outline three possible projects that the department of labour can provide. The first of these has to do with organizing the hiring of migrant horticultural and viticultural workers so that the same organizations year after year are getting the same workers. This means that the workers are guaranteed yearly salary and also that the organizations quickly have a skilled labor force that can harvest with increased effect and produce more profit. The second project idea was a little bit more specific; it involved developed an application that could be loaded on cell phones to allow them to read barcodes while at the same time bar-coding everything in the agriculture industry from workers to packages to the plants themselves to allow for very strictly monitored harvesting plans. The increased efficiency allows for increased profit margins. The third project idea was only briefly discussed and it involves streamlining the way that meat and other cattle products are handled and shipped overseas, possibly by robotic

process. At the end of the meeting, it was very clear that the men were both very interested in our proposal. So much so that they asked for multiple copies of all of our pamphlets and business cards to give to further organizations.

## 4.0.1.7 James Dickson - Museum of Wellington City and Sea

The Museum of Wellington City and Sea is a free, educational facility that focuses mainly on the history of Wellington, both land-based and maritime.

While in Wellington the group met with James Dickson who is in charge of education at the City and Sea Museum on Queens Warf, close to the central business district. James had an outstanding understanding of what sponsoring a project entails and was very enthused to have students come and work on a project. He talked about a few various ideas he had such as having our students develop a method to determine how much wellington students have learned during his programs. Additionally he also is interested in learning about how he can better utilize organizational charts, such as Venn Diagrams, in his programs. One example of a project that James gave concerns examining which types of organizational charts are the most beneficial in communicating information to students who visit the museum and then making new displays in the museum as the data recommends. Overall James was highly interested in hosting a project group and could not wait to get started.

## 4.0.1.8 Dr. Karen Poutasi – New Zealand Qualification Authority

The is an organization concerned with ensuring that graduates of all levels of school are getting a quality education that is on par with the rest of the world if not better.

The meeting with Dr. Poutasi went very well considering she originally responded with the comment in her email that she could not provide any project sponsorship to us but would meet anyway. During the initial minutes of the meeting, it became apparent that she misunderstood our original intent and thought that we were asking for projects in the short term. Once this point had been clarified, Karen

turned around mentioning that this changed things considerably so we proceeded to talk about the details of our proposal and everything. Karen seemed very keen on setting up a sponsorship opportunity and she grasped the idea of what a project should be as she completed something very similar to it when she was going to school. Apart from wanting to help sponsor a project, Karen also was a very good source of further contacts for us. Provided that she is still interested in sponsoring a project in the future, Dr. Poutasi should be able to be very helpful as she is the CE of her organization.

#### 4.0.1.9 Denise Cosgrove – Accident Compensation Commission (ACC)

The Accident Compensation Commission is responsible for providing the public healthcare that is provided to all New Zealanders. The ACC also devotes a significant amount of its budget to promoting safe practices.

At first it seemed that the meeting with Denise got off to a slow start but it soon became apparent that this was not so. Ms. Cosgrove it turns out is merely a somewhat understated individual, that is to say, she may not look as interested in something as she is. After the first few minutes of the meeting, our group realized that this was so and proceeded with the presentation as usual. Once Denise had the whole project system explained to her she seemed to understand what we were offering and stated that she would love to remain in contact with WPI in the future. Furthermore, she let us know that providing work for student groups would be no problem at all; the ACC, which is responsible for health care insurance for the public, handles 1.8 million claims a year which amounts to a lot of inherent inefficiencies. This large amount of claims also means that the ACC has quite a large budget to work with. When asked for possible ideas for projects, Denise mentioned projects were aimed at refining the claim process in which reports are filed as well as streamlining the release of data to the public via the internet. In the

end, the meeting proved quite fruitful and Denise seemed happy to continue contact into the future.

## 4.0.1.10 Richard Meylan – Royal Society of New Zealand

The Royal Society of New Zealand provides scientific policy advice to the New Zealand government. They publish science journals, give out grants to organizations and promote international co-operation between scientific communities.

Richard was very interested in what we had to say. He started by asking us to reiterate what we had said in our email to him so that he could revise his understanding to be accurate. After we were done explaining our purpose, Richard said that he had a very good comprehension of everything and that he didn't think that he could sponsor a project for WPI. His reasons were simple: the Royal Society was a primarily policy-forming organization and it would have a hard time both accommodating 5 students (indeed, the Royal Society's offices consist of three Victorian style houses-turned-offices) and also formulating a problem as discrete as what WPI expects for students. Richard went on to say that he could help us out by spreading the word of our presence to the numerous organizations that the society has connections with in the Wellington area.

## 4.0.1.11 Liz Keller – Ministry of Research, Science and Technology

The Ministry of Research Science and Technology is the organization responsible for controlling the flow of money to different research organizations in New Zealand. They also help create some new policy as well.

The meeting with Liz was brief yet productive. First Liz outlined how MoRST was responsible for controlling where the money flows to scientific applications within New Zealand.

In other words, MoRST is the budgetary entity for scientific endeavors in New Zealand. After Liz explained exactly what her organization was responsible for, we started to explain our proposal to her. From the beginning it was obvious that Liz was somewhat unprepared for the meeting as she had been given the task of meeting us on fairly short notice but things still went well. After the meeting was over, Liz seemed to intone that MoRST itself would not like to sponsor and projects but that she would certainly help us contact other organizations in the Wellington area. Shortly after the meeting ended, Liz sent our group an email with many new contact suggestions for us to use. She also got in touch with various additional organizations to give an introductory point for our group and help to speed the set up of meetings.

# 4.0.1.12 Ian McKinnon, Mark Farrar – Wellington City Council, Absolutely Positively Wellington

The Wellington City Council is responsible for organizing many of the public works processes within the city. They also control where the city chooses to develop.

The meeting with Ian McKinnon, the deputy mayor of Wellington, was a very informative meeting but it has since become a dead end. When he sat us down, he immediately told us that we were correct in contacting him about the project since he is on the board of education at Victoria University. Ian then went on to say that unfortunately as deputy mayor, he could only give our proposal to those organizations working for the city, say he supported it, and then leave them to decide if they could fit it in to their budget. Accordingly, Ian brought along Mark Farrar, the Senior Advisor of City Communities and the best person for us to talk to in his opinion, for us to meet with further. After leaving Ian's office to discuss things more over coffee, Mark sat us down and we got to discussing logistics. What Mark proceeded to say was that his main job was as the events coordinator for the city of Wellington and that all of his work was

focused around organizing these. After the brief introduction our group outlined all of the details about our proposal and answered any questions about the program that they had. Once Mark was satisfied that he had a full understanding of our proposal, he said that he would proceed to talk to his subordinates and other organizations within Wellington's public works sector 'Absolutely Positively Wellington' and see if they had any willingness to accommodate us. After that the group asked Mark to send us an email within a few days letting us know if anybody was interested; he also said he would look into sponsoring a project himself. Since our meeting with him, the group has not been able to get in touch with him.

## 4.0.2 Expected Sponsor Analysis

In order to combine the raw numbers data with the qualitative data that our group acquired, we used the L-shaped decision matrix, outlined below, to determine what each sponsor's most probable course of action was going to be when they are contacted in the future should WPI decide to go ahead with setting up a project site.

**Figure 4-2: Decision Matrix Implementation** 

		Stated Ability/Willingness to Sponsor		
		High	Med/Low	
			Somewhat Likely to	
Perceived	High	Highly Likely to Sponsor	Sponsor	
Ability/Willingness		Somewhat Likely to		
to Sponsor	Med/Low	Sponsor	Unlikely to Sponsor	

Again, the quantitative data came from written and oral communications between our group and potential sponsors while the qualitative data came from our group's observations of a potential sponsors undertones small comments during face-to-face meetings. The qualitative data was judged in terms of our group's perception of both the organization's willingness and ability

sponsor Reports) and further into a pie chart. The chart shows the which organizations, out of all that we met with to ask if they would like to sponsor a project, we deemed highly likely, likely, and unlikely to sponsor a project in the future based on the best analysis our group can safely make with our current data. Obviously, no one can completely predict what variables will sway organization's judgments however our group realized that qualitative data collected simply cannot be ignored when making a decision; keeping this in mind, one sees that 54% (7) of the organizations that our group met with were deemed highly likely to sponsor a project in the long run, an additional 15% (2) will be somewhat likely to sponsor a project in the future. A mere 31% (4) of organizations met with will be unlikely to sponsor a project for WPI.

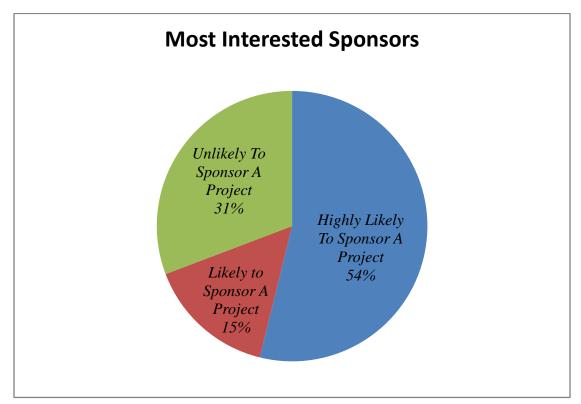


Table 4-2: Most Interested Sponsors; Composition of Perceived Suitability

With 7 of the contacts who we met with being highly interested in sponsoring a project and an additional 2 being somewhat likely (that is to say they are over 50% likely) to sponsor a project. Each of these potential sponsors mentioned that they would be able to accommodate at least one group. This gives a probable 9 group spots in Wellington that can be used in the near future.

As an end note, this data is only valid through April 30<sup>th</sup> as the group was restricted from incorporating data changes that occurred later in the project term. This was because the final report was handed in by on the 30<sup>th</sup> which left the data and analysis inoperable. Any other meetings, though not mentioned in this report, will be given to the sponsors as separate data.

## 4.1 Housing

During our seven weeks in Wellington, the group identified 10 different facilities that would be willing to wholly or partially house WPI students and advisors at reasonable rates for the full duration of a project. These consist of corporate serviced apartments, hotels, bed and breakfasts, and hostels. All the accommodations are located either in the central business district (CBD), or in city suburbs along main public transit bus routes into the city.

Several housing options were pursued and dismissed early in our investigation, such as student housing at Victoria University, the dominant university in Wellington. Victoria University is short on housing itself during the academic year, and is in session for a significant portion of all four WPI quarters. The Accommodation Services at Victoria University suggested Wellington City Counsel housing, which are large apartment buildings the City rents at very reasonable rates. When we spoke with a secretary at the Wellington City Counsel Housing office, she informed us they only rent long-term, and that a seven week rental would be too short.

The YHA (Your Hostel Association) Wellington City Backpacker Hostel was also investigated, but has a maximum stay of 6 nights.

For facilities that were interested in housing WPI students, a narrative of each with its pros and cons is listed below.

## **4.1.1** Annaday Homestay

Annaday Homestay is a bed and breakfast located in Wadestown, a suburb of Wellington. The bus stop, a minute walk, is fifteen minutes from the center of the city by bus, or about 40 minutes by foot. It takes about 20 minutes to walk to the local New World, a grocery chain in New Zealand, but only 5 minutes by bus. Annaday can house up to 6 students in a triple a double, and a single. It could also put 4 beds in the triple room to house just 4 students. Both faculty could be housed in singles. If faculty were to travel with a spouse an extra charge would be applied (See Appendix N). Breakfast, dinner, laundry, and Internet are included in the cost. There is access to a full kitchen, and a small kitchenette with a refrigerator for students to store lunch food in. The facility has a very pleasant atmosphere, with solid and well kept furniture, large rooms, and an appealing view of the harbor. Due to the size, Annaday would not be able to offer a comfortable space for all of the students and faculty to meet on a weekly basis. However, the Wadestown Community Centre a short walk away could be used. Many opportunities exist to experience cultural immersion, such as the regular meals that are shared with the family. The hosts are very outgoing and helpful people who love to answer questions or invite you along for a hike. While one can certainly seek out space to relax and be alone, it does take some effort as there are always people milling about, and the dog is occasionally inclined to bark at a passing stranger.



Figure 4-3 – Annaday Homestay (Photos, 2009)

#### 4.1.2 Tinakori Lodge

Tinakori Lodge is a bed and breakfast located in Thorndon, a suburb of Wellington very close to Wellington proper. The bus stop, a five minute walk away, is ten minutes from the center of the city by bus; getting to the city center by foot takes about 25 minutes. The local New World is about 10 minutes away by foot. The lodge can house about 6 students or faculty in two double rooms and two singles. No meals are included in the price, but students would have access to a refrigerator and microwave. Due to the small facility size, student faculty meetings would have to be held in the city. Tinakori Lodge is located very close to the highway, but once inside is well isolated from the traffic noise. It is a pleasant location, with a nice sunroom and a little garden out back to lounge around. The rooms are all relatively small, so there would be some challenge in finding comfortable seclusion besides sitting on one's own bed. The cultural immersion offered by Tinakori Lodge would be fairly limited, since nothing in advertisements or our visit to the location suggested frequent contact with the hosts.



Figure 4-4 - Tinakori Lodge

## 4.1.3 Capital Nomad Backpackers

Capital Nomad Backpackers is a Hostel located in the CBD across the street from Wellington City Hall. There are many bus stops for various bus routes within a short walk, and nearly any part of Wellington Proper can be reached within a twenty minute walk, as is the case for all the facilities located in the CBD. A New World is located about ten minutes away by foot and the waterfront is about five minutes away. There is ample room for all of the students to stay at the backpackers, but faculty would likely prefer nicer accommodations. For rooms, there are quad ensuites, which have two bunk beds and an attached private bath. There are also dormitory rooms, which house 4, 6, or 8 students, and share a more public bath that is across the hallway. The rooms are not fancy, but are clean and functional, as can be observed in the photo below. The first floor contains a lounge area with couches, tables and chairs, and a television. This connects to a kitchen area with sixteen stove tops, half electric half gas, an oven, several microwaves, and refrigerator space. Students would be free to use this facility as they please. A small dinner is included in the cost, and can be upgraded to a full serving for \$4. This comes from the restaurant bar that is connected to the side of the hostel, and operated under the same management. Either the lounge or the bar area could be reserved for weekly meetings between

the students and faculty of the project center. The travelers in the lounge are typically friendly, and conversational. As travel and backpacking is a major facet of New Zealand's identity, such interaction with travelers can be considered cultural immersion. A downside to the facility is it does not offer anything very grand, and one would likely have to venture outside of the facility to a nearby city park if they wanted space to relax in relative solitude.





Figure 4-5 – Capital Nomad Backpackers (Nomads Capital backpacker hostel, 2009)

## 4.1.4 Wellywood Backpackers

Wellywood Backpackers is in the CBD about 5 minutes from the waterfront, and just around the corner from Courtney Place, a culturally rich street of the inner city. The local New World is a little over a ten minute walk away. The hostel has very basic quarters for students, comfortably sized rooms with two to three bunk beds. Bathroom and shower stalls are located at the end of the hallway on each floor, and have individual locking doors. One floor contains coin operated laundry facilities for the whole hostel. The top floor of the facility is common space. This includes a sitting area with couches around a fire place, a pool table, tables and chairs for meals, and a large kitchen. The kitchen has gas stoves and ovens, refrigerators, freezers, and microwaves. One or two refrigerator units would be reserved for our group to use, and are

secured by a padlock students would be given keys to. There is a study room with a large table and chairs that offers guests a quiet space to work, and a television room that lets guests watch television away from the general hubbub of the lounge area. A large room with a chalkboard wall would be suitable for weekly project center meetings between the faculty and the students. The management seemed very accommodating, willing to adjust facilities to the liking of the group. The wireless is free with no password protection. The router is located on the top floor, but students should be able to access the wireless from their bedrooms. The lounge space on the top floor would offer students a convenient means to socialize with travelers in New Zealand, thus providing an opportunity for cultural immersion.



Figure 4-6 – Wellywood Backpackers

#### 4.1.5 Bay Plaza Hotel

Bay Plaza Hotel is located close to the waterfront in the CBD. It is an upscale facility that could house the whole project center with nice rooms that feature two beds, one queen and one twin. The rooms also include a private bath, a lounge chair, a desk and desk chair, and a television. No kitchen facilities are available. There is a nice restaurant on the first floor, but meals run between 35NZD and 40NZD on average. For student-faculty meetings, conference space could be reserved for a maximum of 225NZD a week. For a brief visit to Wellington by the center director to set up the center each year, the same rate as the extended stay would be

available. The hotel would offer plenty of solitude for students looking to relax after work, but students would have to venture into the city for any interaction with people outside the project group. With regard to cultural immersion, our experience has shown that visiting restaurants and cafes, or exploring the local area does not necessarily result in conversation or the development of relationships with members of the community. This limiting factor is characteristic of all the corporate living arrangements we explored in Wellington, and is a result of the inherent business nature of the facilities.



Figure 4-7 – Bay Plaza Hotel (Photo Gallery, 2009)

#### 4.1.6 Abel Tasman Hotel

Abel Tasman Hotel is located in the CBD, and can house the whole project center, students and faculty advisors. It is a nice, rather upscale hotel that can house the students in either twin or triple rooms with twin beds. The rooms themselves are typical hotel rooms with beds, television, and bathroom. The rooms are rather Spartan but the hotel itself is quite nice. If WPI was to enter into a long term contract Abel Tasman would gladly make an extra room for the students with a refrigerator and microwave, but no stove or oven. They are also willing to give us meeting space in their conference rooms if they are not being used by someone else. There is an attached restaurant on the first floor, and they offered to make students a cheap dinner for approximately \$5NZD once a week. If WPI were to house students at the hotel, they

would offer an excellent special rate for faculty of \$50NZD per night for single rooms. The hotel director Jill Murphy said she would be very flexible with anything else we may need.

Being a corporate arrangement, it would be reasonably comfortable and relaxing, but would lack inherent culture.



Figure 4-8 – Abel Tasman Hotel (Photo Gallery, 2009)

#### 4.1.7 Quest Atrium

Quest Atrium is found in the CBD among many small shops and cafes. It has upscale corporate apartments that are serviced weekly, and include full kitchens, laundry, couches, chairs, tables, and a flat screen television. The gym and lap pool are located on the first floor, and are available daily at no extra cost. There are apartments available with one, two, or three bedrooms. However, it should be noted that the three bedroom arrangement would have two very comfortable rooms with queen beds and one very small room with a twin. There are two variations of the single bedroom apartment, the larger of which would be most suitable for faculty on such a long stay. For student-faculty weekly meetings, an adjacent and independent facility would have to be used, Meetings on The Terrace. This would cost at most \$150 per meeting, and possibly less. All characteristics of the corporate setting would apply with regard to culture and relaxation.



Figure 4-9 – Quest Atrium (Wellington, New Zealand, 2009)

## **4.1.8 Lambton Court Apartments**

Lambton Court Apartments is also found in the CDB. The rooms include all the same amenities as Quest Atrium, although there are only one and two bedroom apartments available, with a queen bed in each room. There is no gym associated with the facility, but the layout of the living space and bathroom is more spacious and upscale than that of Quest Atrium. Internet is very expensive here, and has a daily limit of 100 megabytes, while most other facilities have a daily limit of approximately a gigabyte. The single bedroom apartments would be very suitable to a faculty advisor.



**Figure 4-10 – Lambton Court Apartments** 

#### 4.1.9 Quest Wellington

Quest Wellington is yet another corporate apartment located centrally in the CBD. Like the others it has a full kitchen with a living space that includes sitting and television.

Unfortunately most of the apartments have only a single bedroom with a queen bed. Four apartments were the exception with a queen bed in a very spacious bedroom, and a much smaller bedroom with two twin beds. The facilities in general were of a lower grade than Lambton Court or Quest Atrium, with regard to the quality of the furniture and the upkeep of the building.

Despite appearances in the photos below, we found the lighting to be somewhat minimal.



Figure 4-11 – Quest Wellington (2 Bedroom Apartment, 2009)

### **4.1.10 Century City Apartments**

Century City was the final corporate apartment we looked at in the CBD. It was also to a reasonable degree the most upscale facility that we visited. It has the capacity to house all of the project center students in sharp new apartments with stainless steel appliances, glass tables, and leather couches. The apartments include large flat screen televisions and sliding glass doors to balconies overlooking Tory St. The kitchen has everything one would expect, electric stove and oven, microwave, refrigerator, and dishwasher. A washer dryer combo resides in the bathroom for laundry. There would most likely be two students to an apartment, each with their own double bed and bedroom. The facility is still under construction, and thus there is the potential

that some of the apartments on the upper floors of the facility will have split king beds, allowing 3 or 4 students to share an apartment, two students to a bedroom. With just two students per apartment, the price per bed per night would be \$57NZD, a reasonable rate considering comparable corporate facilities offered in the CBD. An unusual feature of the facility is a glass pool on the top floor, which overhangs the street and allows for pristine, if only a little nervewracking, views of the surrounding metropolis. Being a corporate location, it would be a wonderful place to relax, but would offer no inherent immersion into the culture.



**Figure 4-12 – Century City Apartments** 

#### **4.1.11 Overview of Student Housing**

potential housing facility in Wellington, with cost and room information related to student accommodations. This table features the information our group felt was most relevant to choosing a provider of accommodations, as described in the methodology. The highlighted facilities are those of each type of accommodation that seemed most appropriate for project center housing, based on the criteria outlined in the summary. A full kitchen was considered a positive quality since it is an apparent preference of students and faculty. This preference of

students is expanded upon in the background on housing, while the tendency of faculty housing to be in corporate apartments rather than hotels suggested the faculty preference. Location did not play a major role in the decision, since there is little variation, but the CBD was considered preferable because of the easy access it provides to potential sponsor offices in the city. The Qualmark rating also did not carry much weight because almost half of the facilities were not rated. This could have been due to inadequate facility quality. However, since our own experience suggested that the facilities without ratings were of high quality, it is more likely that the providers did not find it worthwhile to pursue the cost and time devotion necessary for a Qualmark rating. The subjective grade we assigned each facility was our primary means of distinguishing the quality, and thus was important in our selection of highlighted facilities. As requested by Rick Vaz, cost also played a major role in our selection (Vaz R., 2008).

Table 4-3- Summary of Student Housing Information \*see appendix N

	Name of Housing	Appliances	Location	Qualmark Rating	Subjective Criteria Score (%)	Term Housing Cost (NZD)	Room Description	C or B term increased rate
Bed and Breakfasts	Annaday Homestay	FK L	SP	-	97	\$2688.*	1 room, 2-4 beds	\$3225* for C term
	Tinakori Lodge	MF L	SP	***+	69	\$2620.	1 room 2 beds	C term not possible
tels	Wellywood Backpackers	FK L	CBD	***+	83	\$1150.	1 brm, 4-6 beds	no seasonal dependence
Hostels	Capital Nomad Backpackers	FK L	CBD	****	77	\$1500.	Quad Ensuite	\$1600 for C or B term
Hotels	Bay Plaza Hotel	L	CBD	***+	69	\$3725.	1 rm, 2 beds	\$4562 for C term
Hot	Abel Tasman	(MF) L	CBD	-	77	\$2570.	1 brm, 3 beds	surcharge for C or B term
Corporate Serviced Apartments	Quest Atrium	FK L	CBD	***+	71	\$3250.	2 brm, 3 bed	no seasonal dependence
	Lambton Court Apartments	FK L	CBD	-	71	\$3500.	2 brm, 3 bed	no seasonal dependence
	Quest Wellington	FK L	CBD	***+	57	\$3350.	2 brm, 3 bed	C term not possible
	Century City Apartments	FK L	CBD	-	83	\$3200.	2 brm, 2 bed	no seasonal dependence
	Key	Full Kitchen=FK; Microwave/Fridge=MF; [Laundry=L] Suburb, Public Transport = SP;  Central Business District = CBD Original Quote in USD, converted 0.651NZD to 1USD = *						

# 4.1.12 Overview of Faculty Housing

As noted in the background, faculty advisors almost exclusively live in corporate apartments, with only a few centers housing advisors in hotels. Following this precedent, corporate apartments and hotels were considered the most appropriate types of housing for faculty. Bed and breakfasts were also considered, since they can offer a quiet professional atmosphere similar to an apartment. Hostels were not considered because of their distinctly unprofessional atmosphere. Error! Reference source not found. shows the accommodations we investigated which could be considered for faculty housing. The difference between this and Error! Reference source not found. is the room arrangement at the accommodations, and the corresponding cost. Rather than the doubles, triples, or quads considered for students, only singles were considered for faculty. It should be noted that many of these one person apartments

(singles) are often referred to by the accommodations as doubles, as they feature a double or queen size bed that would be appropriate for a couple traveling together.

Table 4-4- Summary of Faculty Housing \*see appendix N, Qualmark ratings from website (Places to stay, 2009)

	Name of Housing	Appliances	Location	Qualmark Rating	Subjective Criteria Score (%)	D Term Housing Cost (NZD)	Room Description	C or B term increased rate
Bed and Breakfasts	Annaday Homestay	FK L	SP	-	97	\$3533.*	1 brm, 1 bed	\$4147* for C term
Bed Breal	Tinakori Lodge	MF L	SP	***+	69	\$6120.	1 brm, 1 bed	surcharge for C term
sle	Bay Plaza Hotel	L	CBD	***+	69	\$7100.	1 rm, 1 bed	\$8787 for C term
Hotels	Abel Tasman	MF* L	CBD	-	77	\$2920**	1 rm, 1 bed	surcharge for C and B term
p	Quest Atrium	FK L	CBD	***+	71	\$7550.	1 brm, 1 bed	no seasonal dependence
oorate Serviced Apartments	Lambton Court Apartments	FK L	CBD	-	71	\$6750.	1 brm, 1 bed	no seasonal dependence
Corporate Apartn	Quest Wellington	FK L	CBD	***+	57	\$6950.	1 brm, 1 bed	no seasonal dependence
ŏ	Century City Apartments	FK L	CBD	-	83		1 brm, 1 bed	no seasonal dependence
	Key	Full Kitchen=FK; Microwave/Fridge=MF; [Laundry=L] Suburb, Public Transport = SP Central Business District = CBD Original Quote in USD, converted 0.651NZD to 1USD = * Conditional on contract to house students = **						

# 4.1.13 Juxtaposition of Group Subjective Rating and Qualmark Rating

Both a custom rating system developed by our group and the official New Zealand Qualmark rating system were used to evaluate the appeal and quality of each facility. Both systems were used to determine a sense of the accuracy of the ratings. A rough positive correlation, seen in **Error! Reference source not found.**, between our groups own grading system and the Qualmark rating system, gives the ratings reasonable credibility. This gave us confidence in our recommendation of facilities for student project housing in New Zealand.

#### 4.1.14 Best Bed and Breakfast

Annaday Homestay was selected as the most preferable bed and breakfast we investigated in Wellington. Qualities that distinguished it from Tinakori Lodge were the full kitchen, the high grade in subjective criteria, and the cost. Since Tinakori Lodge did not have any qualities considered more positive than Annaday Homestay, this was a clear distinction, and is applicable to both student and faculty housing.

#### **4.1.15 Best Hostel**

The hostels were more difficult to decide between. Capital Nomad Backpackers has somewhat more appropriate rooms, since they are all 4 bed rooms with attached bathrooms, and Wellywood Backpackers would house students in a mix of 4 and 6 bed rooms that would use stall bathrooms down the hall. Capital Nomad also has a higher Qualmark rating than Wellywood. However, the common space at Wellywood was much more expansive than that found at Capital Nomad. There are a variety of separate rooms, and lots of space such that guests can lounge without having their personal space infringed upon. Capital Nomad has only one room with a few couches that all focus on the television, making personal space in the lounge very limited. With no space in the lounge or the bedroom, students would be very pressed for personal space at Capital Nomad Backpackers. Such a discrepancy in the common area was one reason Wellywood scored higher in the subjective criteria. Wellywood also provides a superior price to Capital Nomad, which is a significant criteria in our housing search. Consequently, we felt Wellywood Backpackers would provide more appropriate housing for a WPI project center than Capital Nomad Backpackers.

#### **4.1.16 Best Hotel**

Abel Tasman is the most suitable hotel for project center housing. It is a very accommodating facility, as evidenced by the management's offer to create a small kitchen room with a microwave, refrigerator, and possibly a hot plate. It offers the third best price in the CBD, with only the hostels offering better rates. The equal size of the three twin beds in the rooms is also preferable to the queen-twin arrangement Bay Plaza offers. Factors like these played a role in the subjective criteria grade, which was higher than Bay Plaza's.

# **4.1.17 Best Corporate Apartment**

All of the corporate apartments we visited would be appropriate facilities for project students or advising faculty. They were all of reasonable quality, according to either our rating or Qualmark's, were located in the CBD, and had full kitchens and laundry facilities. However, Century City Apartments stood apart from the rest because of the superior quality of the facilities demonstrated by our subjective criteria grade, the low cost, and the individual bedrooms offered to students. All the other facilities had either one bedroom meant for children with one or two twin beds in a small bedroom, or very poor Internet access. Century City apartments had two equally and liberally sized bedrooms with double or queen size beds, and the most forgiving Internet plan, as seen in Appendix N.

## 4.2 Logistics

#### 4.2.1 Airfare

Error! Reference source not found. below shows the quoted costs for airfare from Boston, MA to Wellington, New Zealand for each of the three possible terms. All of the costs were quoted in USD and kept in USD. A price quote for C term was only available from for Air New Zealand. No carrier could give us a quote for D term, so for the cost estimate of a D term

airfare we used the 1700 USD that we spent on airfare flying D term 2009. The airline representatives explained that there are many things they could not know in advance, like customer demand and fuel prices so they could not give us a reliable quote that far in advance.

**Table 4-5 Airfare Costs** 

B term	Multiple Carrriers	Air New Zealand	Qantas	United	Average Cost
Whole Term	1814	1703	2086	2212	2212
7 days	1520	1603	1610	1719	1719
C term	Multiple Carrriers	Air New Zealand	Qantas	United	
Whole Term	Unavailable	2200	Unavailable	Unavailable	2200
7 days	Unavailable	2200	Unavailable	Unavailable	2200
C term	Multiple Carrriers	Air New Zealand	Qantas	United	
Whole Term	Unavailable	Unavailable, 1700 for us	Unavailable	Unavailable	1700
7 days	Unavailable	Unavailable	Unavailable	Unavailable	
total average for students	2037.33				
total average for director	1959.50				

These quoted costs may vary by the time students actually or WPI purchases them, but they were the upper limit of any searches that were performed. When getting an airfare quote for an earlier flight, the prices were always the same cost or cheaper. In addition to these fares for travelling from Boston to Wellington in one shot, students and faculty may have the option to purchase discount tickets from Los Angeles or San Francisco to Wellington through Air New Zealand and find their own way to Los Angeles/San Francisco. These discount fares were offered on Air New Zealand's website from late October to late April, the time of writing. The

cost through this deal was \$800 USD for a roundtrip ticket from Los Angeles/San Francisco to Wellington. A roundtrip ticket cost approximately \$250 USD for a trip between Boston and Los Angeles/San Francisco using a domestic carrier.

It is worth noting that the cost for sending the center director for a seven day stay did vary slightly from the cost of having seven weeks between flights. This variance only occurred during B term, which was not as far in the future as C and D terms at the time of data collection. Airfares change frequently and differ for a multitude of reasons, so the reason for this variance will not be explored further.

## 4.2.1.1 Transportation between the Airport and Housing

Students have three options to travel from the airport to their housing. The first is a bus route called the "Airport Flyer" that runs straight from the Wellington airport to the CBD. This would cost \$5 NZD each way, or \$10 NZD total (Metlink, 2009). The second option is an airport shuttle. It will cost about 61NZD for a shuttle to transport up to 10 people to their housing in wellington city, (Bus, Taxi, Shuttles, 2009). We used an average of three people per shuttle, which ends up as \$40 NZD roundtrip for the cost of the shuttle. The third option is taking a taxi, which would cost \$31 each way to reach the farthest part of the CBD from the airport (Green Cabs, 2009). This \$62 NZD roundtrip was calculated using taxi fares of \$3.50 NZD initial charge and \$2.50 NZD per km, an airport leaving fee of \$6 NZD, and a distance of 8 km.

From these data, the cheapest option would be using the "Airport Flyer" bus. Students would have to make their own assessment of what fits best with their budget and travel plans.

## **4.2.2** Transportation within Wellington

The only form of public transportation within Wellington proper is city buses. The bus routes are quite extensive and service areas as far away as 30 miles (Metlink, 2009).

Furthermore, there are many trains that run from Wellington proper to its suburbs should there be a need for students to travel farther away from the city. While there is plenty of information available on bus routes and schedules, it has been the group's experience that the buses do not rigorously follow their schedules. For the majority of trips the buses arrived within ten minutes of their scheduled time, but there were occasions where the buses were up to twenty minutes late and even one time where it did not come at all.

Bus fares are determined by the number of fare zones that a person travels through. Travelling within the CBD costs \$1 NZD, while travel between our housing location and the CBD cost \$2.50 NZD (Metlink, 2009). Since most potential student housing is within the CBD and none of them are farther away than we stayed, we averaged what we spent on bus fares to give a conservative cost estimate for daily transportation within Wellington.

Person	Bus costs over the term
Charlie	145
Nathan	160
Rachel	130
Scott	160
Skyler	120
Average cost	150

Table 4-6-Individual's cost to travel in the city

According to Table 4-6, the average cost per term is about \$150 NZD.

#### 4.2.3 Cell Phones

## 4.2.3.1 Calling

Table 4-7 below shows the researched costs of calling in NZD. The cost using US carriers was determined using the historic exchange rate of 1 NZD = 0.651 USD.

Verizon &T-Mobile	Sprint & AT&T	Vodafone	Telecom
\$3.06 per minute	\$3.52 per minute	\$0.89 per minute	\$0.49 per minute
		\$100 for phone	\$130 for phone

**Table 4-7: Researched Costs of Calling** 

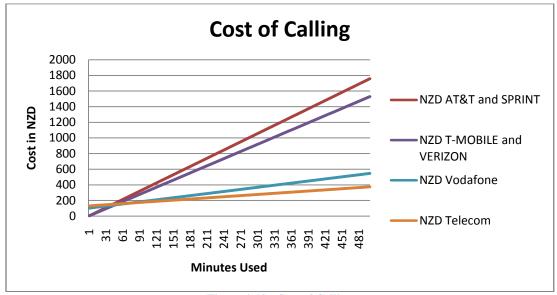


Figure 4-13 - Cost of Calling

Figure 4-13, above, shows graphically the cost of calling in New Zealand using US carriers and also buying a phone in New Zealand and using NZ carriers. All of the costs are in NZD using the average exchange rate of 1 NZD = 0.651 USD. As can be seen numerically in Table 4-8, Verizon and T-mobile customers should continue to use their US provider if they are going to talk 46 minutes or less and those using Sprint or AT&T should only use their current

provider if they will be calling for 38 minutes or less. Vodafone's Pay-As-You-Go Plan is the most cost effective until 72 minutes are used, then Telecom's Pay-As-You-Go Plan would be the most cost effective option.

*Using the historic exchange rate of 1 USD=1.563 NZD							
Min	Max	Verizon & T-mobile	Min	Max	Sprint & AT&T		
0	46	US provider	0	38	US Provider		
47	72	Vodafone	39	72	Vodafone		
73	onward	Telecom	73	onward	Telecom		

Table 4-8-Cut off points for using different cell phone providers

## 4.2.3.2 Text Messaging

In addition to looking into the cost of calling, we also investigated the cost of text messaging since it could be cheaper than calling. The prices of the different cell phone plans were calculated by sets of texts sent and received, assuming the number of texts sent and received are equal (Note Sprint does not offer international texting). Figure 4-14 below shows these costs of text messaging in NZD.

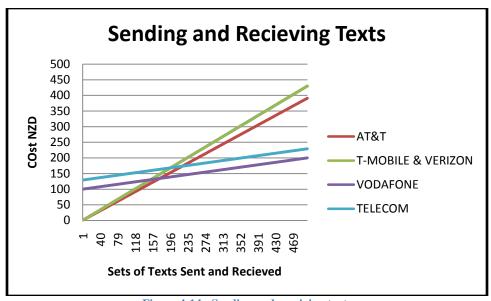


Figure 4-14 - Sending and receiving texts

As shown in the Error! Reference source not found. below, Verizon or T-mobile it makes fiscal sense to stay with Verizon or T-Mobile sending and receiving less than 151 sets of text messages. After 151 sets of text messages it then makes sense to use Vodafone. Likewise, it is logical to stay with AT&T until sending and receiving 170 sets of text messages, after which Vodafone is more sensible. In neither case is Telecom preferable because it costs more to purchase one of their phones and they have the same charges for sending and receiving text messages.

Table 4-9 Cut offs for using Text Messaging

Number of Texts	Verizon or T-mobile	Number of Texts	AT&T	
	providers			
0 to 151	Current Provider	0 to 170	AT&T	
152+	Vodafone	171+	Vodafone	

Whether a student or faculty member uses their domestic or a New Zealand cell phone carrier, it will expensive to use. An alternative to primary use of cell phones is to keep and use US cell phones for emergencies and use the internet program Skype to talk with the people at home. It is free to call Skype to Skype over the internet and it's free to set up an account. Phone calls can also be made with Skype for a minimal fee of \$0.024 per minute to America and New Zealand. A Skype subscription is also available that offers unlimited calling to the US and Canada for \$3 USD a month.

#### 4.2.4 Groceries

As discussed in the methodology, the group came up with a sample shopping list for a healthy diet and found the price at the local New World grocery store (See Error! Reference source not found. below).

Table 4-10 Grocery list for a healthy diet

Department	Food	Cost	unit	Calories
Dairy				
	Yogurt	5.29	kg	920
	Milk	3.35	2L	1055
	Butter	4	4 sticks	3240
	Cheese	11	kg	4059
Produce				
	Potatoes	1.29	kg	700
	Lettuce	2.75	1 head	76
	Carrots	2.5	1.5 kg	625
	Avacados	2	for 5	1610
	Broccoli	2	1 bunch	414
	Tomatoes	3	kg	179
	Cucumber	2	1	45
	Cellery	2.29	1 bunch	135
Meat (for cooking)				
	Lamb	17.99	kg	2721
	Hamburger	15.49	kg	1760
	Steak	19.99	kg	2209
	Eggs	3.69	12	888
	Chicken	23.99	kg	1717
	Sausage	9	kg	3460
Snacks				
	Crackers	3	box	450
	Biscuits	2.5	12	1272
	Pita Bread	2.5	6	462
	icecream	3.79	2L	1853
Add-ons				
	Peanut butter	2.29	jar	2135
	Marmalade	2	jar	1230
	Honey	4	jar	2062
	Jam	2	jar	1400
	tomato sauce	3	500 g	156
	humus	3	container	984
Carbohydrates				
	Pasta	1.69	1lb	1643
	Bread Loaf	2	loaf	1311
Fruit				
	Apples	2.75	kg	522
	Pears	3.69	kg	579
	Bananas	2.99	kg	890

The group used these price data gathered from the New World grocery store and the calories present in each item priced to calculate the average cost per calorie of a healthy diet. The results are listed in Table 4-11 below.

Total Calories	42762
Total Cost (NZD)	172.82
Average Cost per calorie	0.004041

Table 4-11-average cost per calorie

We then used the average cost per calorie of a healthy diet to calculate how much it would cost students at all four levels of calorie needs to purchase groceries in Wellington. The results are shown below.

	Normal Wor	man's calorie diet	High Calorio	e Woman's diet
	Calories	Cost	Calories	Cost
Daily calories	1940	7.84	2206	8.92
Weekly Calories needed	13580	54.89	15442	62.41
Calories needed for	95060	384.18	108094	436.86
term				

Table 4-12-Calories needed for women

	Normal Calorie Man's Diet		High Calorie Man's Diet	
	Calories	Cost	Calories	Cost
Daily calories	2550	10.31	3170	12.81
Weekly Calories needed	17850	72.14	22190	89.68
Calories needed for term	124950	504.98	155330	627.76

Table 4-13- Calories needed for men

Next we took the average of the cost of the four different calorie intake levels per term, which gave us a result of \$489 NZD per term. Although students are expected to eat at a restaurant seven times a term, we did not deduct the amount of calories they would intake at the restaurant from the amount they would purchase at the grocery store. This was done so that our result would be a slight overestimation, rather than having students spend more money on food than expected.

## 4.2.5 Dining out

Throughout New Zealand there are many low priced restaurants offering good food at very reasonable prices. Examples of low priced establishments include: Fish and Chipperies, Noodle Restaurants, Cafés, Kebab restaurants and fast food takeaway restaurants. Through our research and data collection, the group has found that the price of the average entrée for these establishments falls between 5NZD and 14NZD which makes these very reasonable places to eat. (See Appendix R) Once the low priced restaurants were identified, it quickly became easy to classify the distinctions.

In terms of low range restaurants, takeaway restaurants carry a large range of fried food from fish and chips for 5 NZD to a whole chicken for 15 NZD. Additionally it is common for New Zealanders to eat at Asian noodle restaurants where the cost of food ranges from 5NZD to 14 NZD with soup being on the lower end, and large portions of noodle dishes being closer to the 14 NZD at a higher quality establishment. However, we have found many good quality noodle places where the meal on average costs 9 NZD for a large portion of food. In terms of cafés, meals range from 5 NZD for a sandwich to 14 NZD for a full meal. If you are going out for a nicer meal you can of course spend up to 50 NZD if you wish, but for a good meal at a nice restaurant it can cost anywhere from 20 to 30 NZD. Averaging the cost at each type of

restaurant, and then taking the overall average for the five different types of restaurants, we find the average cost per meal is about 20 NZD. We then multiplied that by 7, the number of times students eat out during the term, to have a total cost per term of approximately 140 NZD.

Also to help verify our results we looked at tourist books, such as Fodor's which states that in New Zealand you are able to have a main course at dinner ranging anywhere from under 10 NZD to over 30 NZD (Butler & McIlvian, New Zealand 2009, 2009) which helps to solidify the range in which we found meals cost.

During our group's stay in Wellington, we looked into the different prices of meals for various restaurants and recorded them in Table 11 below.

Low (\$0-14)	Average Price of Dinner	Mid (\$15-24)	Average Price of Dinner	High (\$25+)	Average Price of Dinner
Fish and Chippery	8	Backbencher	20	Scapa	27
Satay Kingdom	8	La Bella Italia	20	Zibibbo	40
A-Roy Thai	10.5	Cafe Neo	17	Green Parrot	27
Underground	9	Monteith's	24	Shed 5	25
Chinese		Brewery			
Chow Mein Cube	10	Front Page Cafe	15	Dockside R&E	36
Gasoline	10	India Bistro	18	Loaded Hog	25
Ripe Cafe	7	Mac's Brewery	18	Le Metropolita	n 29
Boulcott Pies	7	Wagemama	20	Logan Brown	44
Hell Pizza	8	J.J. Murphy	10		
Charcoal Kitchen	9	Tulsi Indian	18		
Satay Noodle	8	Great India	19		

House		Kitchen		
Mr Bun	13	Ernesto Cafe	18	
		Kayu Manis	17	

Table 4-14-Costs of an average meal at various restaurants

We then used this data to compute the average price, in the New Zealand Dollar, of a meal at a restaurant. The group then multiplied the average price of a meal by 7 to get the total price of going out to eat once a week for 7 weeks.

Low	8.96	
Average		
Med	18	
Average		
High	31.63	
Average		
Total Aver	age	19.53
<b>Total Cost</b>	per term	136.69

Table 4-15- Average cost per meal

This means that it will cost the average student about \$137 NZD to eat at restaurants throughout the term.

### 4.2.6 Weekend excursions

Part of going away for IQP is having the chance to experience the surrounding area of the site on the weekends. Through researching tourism books, talking to Kiwis, and using our own experiences we have found a plethora of weekend excursions available to students (Butler & McIlvian, New Zealand 2009, 2009). These excursions range from a local rugby game to two night trip to Christchurch in the South Island. We have broken the excursions into two groups,

weekend trips and day trips. Some of the places that students can go for a weekend away from Wellington are:

- Lake Taupo is a large cultural attraction in the center of the north island. It has
  essentially any activity the students could possibly think of as well as the scenery of
  the lake and surrounding mountains
- Rotorua is a town in the north island with natural hot springs which has caused it to be a major destination point since the early 1900s.
- Christchurch is the second largest city in New Zealand, slightly larger than
   Wellington, and is location on the Pacific coast of the south island. In addition to the shopping and nightlife that any city offers, Christchurch offers many parks and museums for visitors to visit while in the area.

In addition to weekend trips away from Wellington, groups will also want to take day trips around the Wellington area. Some of these excursions are:

- Kapiti Island is a bird sanctuary off the Tasman coast about 50 km northwest of
   Wellington. Students must get a permit to go on the island and reserve a spot on the
   boat over. The roundtrip train ride from Wellington takes 30-40 minutes.
- Karori Wildlife Sanctuary is very similar to Kapiti Island in that it is also a bird sanctuary void of any mammals. Karori uses a predator fence to keep all the invasive species from reappearing in the park. Karori is about a fifteen minute bus ride from the CBD and is open seven days a week.
- New Zealand is quite intense about its rugby teams as a whole, and Wellington is no exception. The Wellington Hurricanes are the local professional rugby team. They

play at Westpac Stadium which is about a ten minute walk from the CBD. Home games about every other weekend and last approximately two hours.

Table 4-16 Costs of weekend trips

Place	Travel Expenses	<b>Housing Expenses</b>	Food/Extras	Total
Lake Taupo	80	80	100	260
Rotorua	100	50	50	200
Christchurch	150	60	100	310
Kapiti Island	20	0	66	76
Karori Wildlife Sanctuary	6	0	30	36
<b>Hurricanes Rugby Game</b>	5	0	25	30

The housing costs were found using Budget Backpacker Hostels, (World Traveler Accommodation NZ). Day trip travel costs were based off of Metlink fares (Metlink, 2009). Lake Taupo and Roturua travel fares were based off of Tavelink bus fares (Travelink, 2009), Transportation to Christchurch was based off of roundtrip airfare through Air New Zealand (Air New Zealand, 2009). The food/ and extra costs were based off of what we spent on similar trips.

Through this data we then found the average price of a two night stay away from Wellington was \$257 NZD. The average price of a day from Wellington was \$48 NZD. While on our trip to New Zealand we went on three day trips and two weekend trips. Using this as an estimate for what future students will do and using the averages of the two categories we arrived at \$660 NZD as an average weekend excursion cost.

### 4.3 Student Research

The group accessed the SurveyMonkey "Analysis" section to view a summary of the student responses, and conducted compound analyses by completion group (See Appendix F) as

identified in 3.5.2. We identified contrasting results among completion groups, explored their possible implications and identified possible sources of error. In the next chapter, we will also discuss possible avenues for future research. This particular section describes the analyses of student responses and establishes the field to later discuss the significance of our findings with regard to the feasibility of Wellington as a project center.

### 4.3.1 Participation

Out of a total 682 survey recipients, 171 responded by the deadline. With a target goal of 341 respondents (as obtained in section 4.6.3), the 171 responses we received account for 25.1% of survey recipients and 56% of the target population. Statistical analysis shows that the results of the survey should be considered with a 7.3% margin for error using a 95% confidence rating (CustomInsight). Because the target level of error for this survey was 5%, this means that data the team collected must be considered with slightly less accuracy than if the number of respondents met the original target of 341. Before delving further, the target groups of the survey are:

- **Group 1.** Students who have completed their IQP at or have accepted entry to an off-campus project center. This includes sophomores who successfully completed their Global Perspective Program application and acceptance process.
- Group 2. Students who have completed their IQP on-campus or have applied to oncampus IQPs. This includes most sophomores who did not accept or were not accepted to the Global Perspective Program.
- **Group 3.** Students who have not completed their IQP, and have neither applied for participation in an off-campus project center nor to complete their IQP on-campus. This includes most freshmen.

As discussed in section 4.6.3, the total sample was drawn randomly, rather than by a proportional sampling of students from each class year. Questions 1 and 2 gathered demographic data that was used in populating the subgroups for cross-tabulation. According to Figure 4-15, the largest subset of participants by year was the graduating class of 2010 (current juniors), but without an understanding of the distribution of graduating year of survey recipients, it is not possible to meaningfully consider the statistical significance or a possible response bias related to this study.

1. What is your expected year of graduation? Response Response Percent Count 2009 13.5% 23 35.1% 60 2011 24.6% 42 26.9% 46 Other (please specify) 0.0% 0 171 answered question 0 skipped question

Figure 4-15 – Student Survey Results; Question 1

Perhaps of more importance to this study is the distribution of respondents among IQP Completion Groups as identified in Figure 4-16. Although a more focused study that samples each completion group proportionally may more reliably support specific comparisons and contrasts among these groups, these evaluations still provide broad identifications of any acutely contrasting responses.

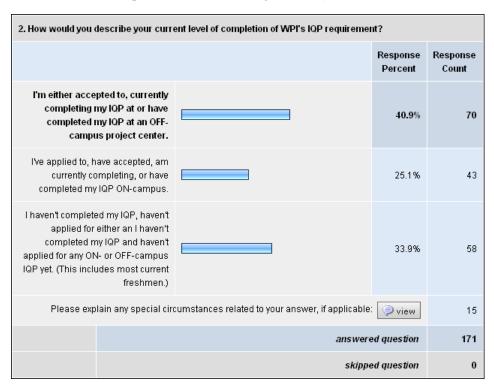


Figure 4-16 – Student Survey Results; Question 2

## **4.3.2 Question 3**

Question 3 prompted student respondents to prioritize four factors in their decision of whether to complete the IQP at an off-campus project center. Figure 4-17 summarizes the data from all respondents, including a count of skipped responses. In total, 15 participants skipped the entire question, but additional participants only provided responses to parts of the question. For example, a participant may have only ranked three of the factors for some reason, neglecting to rank the fourth option. This is evident in the variation among individual subquestions' "Response Count" in the far right column of Figure 4-17.

Figure 4-17 – Student Survey Results; Question 3

3. Students may either complete their IQP on-campus or off-campus. When making this decision, what were or will be your order of priorities? (Rank in order from most important being "1" and least important being "4.")									
	1	2	3	4	Rating Average	Response Count			
Whether I could afford to travel off- campus.	40.4% (59)	16.4% (24)	19.2% (28)	24.0% (35)	2.73	146			
Which term of the year (B, C or D) I would be off-campus.	22.2% (32)	28.5% (41)	27.1% (39)	22.2% (32)	2.51	144			
Whether I would be accepted to the off-campus project center I preferred.	17.2% (26)	24.5% (37)	29.1% (44)	29.1% (44)	2.30	151			
Whether I would like the kind of projects being offered at off-campus project centers.	21.3% (33)	29.7% (46)	25.8% (40)	23.2% (36)	2.49	155			
Please explain any additional considerations for choosing whether to complete your IQP off-campus.									
answered question						156			
skipped question						15			

From the responses to Question 3, it is immediately evident that, among respondents, "whether I could afford to travel off-campus" was ranked as the highest priority approximately twice as much as any one of the other three options. Additionally, this first subquestion scored highest of the four factors in its Rating Average. The SurveyMonkey application derives this rating from response weights that follow the inverse of their rank, i.e. Rank 1 is weighted with a value of 4, Rank 2 is weighted as 3, etc.

Because the subject of affordability scored highest overall in this priority ranking and is otherwise an integral consideration to the question of feasibility, we examined this datum with further scrutiny. The frequency of each group's selection of Subquestion 1 as the highest priority (Rank 1) as depicted in Figure 4-18 shows that respondents from Group 2 ranked Subquestion 1 with Rank 1 most frequently. Specifically, 50% of Group 2 respondents who answered Subquestion 1 gave affordability their highest priority. A close number of Group 3

respondents—45.8%—also answered with Rank 1. In contrast, only 30.6% of Group 1 respondents answered Subquestion 1 with Rank 1.

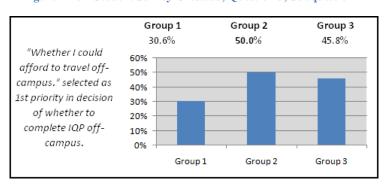


Figure 4-18 – Student Survey Crosstab; Question 3; Subquestion 1

This slight disparity in selection frequency and the correlations between selection frequency and completion group has many possible implications. In particular, it is appropriate to consider the chronologic differential among respondents' IQP completion.

Respondents from Group 1 who are completing or have already completed their IQP abroad (this subpopulation is unknown) may have exited their off-campus experience with different priorities than those with which they approached it. This bias constitutes a possible source of error in the summary of all respondents, and similar biases may exist in Group 1 responses to other questions.

Respondents from Group 2 who were not able to afford to complete their IQP off-campus (this subpopulation is unknown) may have ranked affordability as the highest priority retrospectively, since the cost prohibited their participation. This does not solely indicate a source of bias, but it offers one explanation for the disparity between the groups' selection frequency of this option.

It is possible that respondents from Group 3 have the least bias regarding this question. Because Group 3 is composed of 77.6% freshmen (See Appendix F), it is likely that these respondents represent the group that is the least informed overall of the costs of attending an off-campus project center. These respondents may be more likely to answer in a purely idealistic manner based on personal perceptions, which is more closely aligned with the original intent of the survey question. These data are not necessarily more or less valid than responses from Group 1 or 2, but rather, they offer a different perspective.

We obtained notable crosstab comparisons for Subquestions 2 and 4, as well. In comparing priority ranks, we noticed more disparities in selection frequency across all four rankings in Subquestion 2. Figure 4-19 shows contrasting priorities regarding the timing of an off-campus project in respondents' schedules. The data indicate that, in general, Group 1 was more likely to rank this issues' importance in the top three rankings, whereas Group 2 was more likely to rank it as 2<sup>nd</sup> or 3<sup>rd</sup>, and Group 3 was most likely to rank the issue in the lowest two registers.

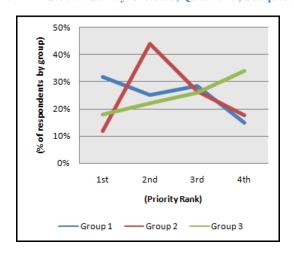


Figure 4-19 – Student Survey Crosstab; Question 3; Subquestion 2

One possible explanation for the high frequency of Group 3's low ranking of Subquestion 2 is that, as the "freshman group," a larger portion of respondents may believe that their academic schedule is unrestricted by term constraints. More specifically, they may not be aware of high-level course requirements which are only offered in certain terms of the year. In particular, one respondent indicated that the "...aerospace major is designed so that only D-term is available for IQP, so the term was most important to me." Additionally, the newest students to campus may be less involved in extracurricular activities than upperclassmen are, thereby creating fewer obligations on those respondents. These perceptions and personal priorities may be applied in the affirmative to Groups 1 and 2 (who are generally upperclassmen) as one explanation for their inclination to rate this issue with somewhat higher importance than rated by Group 3.

The spike in selection frequency for Group 2's ranking of this subquestion at Rank 2 is anomalous in that we were unable to offer a hypothesis for its source. The visual provided in Figure 4-19 must be clarified in that this spike does not indicate that Group 2 ranked the issue higher overall than Group 1 did; rather, 0.8% more respondents from Group 1 placed this issue in the top two ranks than Group 2 respondents did.

Responses to Subquestion 4, which address the issue of "the kinds of projects being offered" at the project center, demonstrated remarkably distinct ranking patterns among the completion groups. Figure 4-20 shows a line plot tracking these data. First and foremost, Group 2 exhibited the highest frequency for selecting either of the top two ranks for rating the importance of this issue. Specifically, 64.1% of Group 2 respondents indicated that the issue ranked in the top two tiers of importance, outscoring 52.0% of respondents from Group 3, and only 42.4% of respondents from Group 1. Furthermore, Group 1 exhibited the highest frequency

of responses which ranked this issue as least important: 61.1% of those respondents who ranked the issue last belong to Group 1.

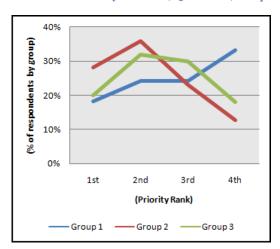


Figure 4-20 - Student Survey Crosstab; Question 3; Subquestion 4

These data may support several hypotheses about the importance of this issue to students completing their IQP. Because the data do not directly indicate each respondent's reason for their priority rankings, we have identified several possible implications of the patterns based on our opinion.

With respect to the high overall ratings of this issue by Group 2, there may be a correlation between these data and the nature of on-campus IQP applications, where students have greater control over their project topics. This process fundamentally differs from off-campus IQP applications in the way that project work is assigned to the students. Although off-campus applicants may discover what types of projects have been completed at a particular project center in the past during their application, these students will likely only develop a complete understanding of their task within the two-term period of PQP and IQP, after their participation has been confirmed. This fundamental difference may indicate that some respondents from Group 2 are more likely to consider the project topic before other factors based

on their current or past on-campus IQP application. This reasoning represents a bias in Group 2 respondents, because their recent or current priorities may have been influenced by applying to complete projects on-campus.

We also considered an alternate hypothesis that there is an underlying cause for these data that is specific to Group 2. Rather than constituting a bias resulting from on-campus IQP applications, this higher prioritization may show that students who had the opportunity to complete their IQP off-campus, but chose to perform it on-campus (this subpopulation is unknown), hold more specific preferences for their project topic than students who hold the intention of completing their IQP off-campus. We explore this hypothesis more in later sections of this questionnaire analysis, in addition to the following chapters of the report.

The responses from Group 3 were generally more evenly distributed than the ones Groups 1 or 2 provided. Respondents more frequently rated their priority on this issue in the middle two ranks than at either extreme of the scale.

We finally identified several confounding factors that may have had an impact on the results we collected. As previously mentioned, there were some participants who skipped subquestions in Question 3, or even the entire question. It is difficult to speculate why individual students skipped the question, because the SurveyMonkey application does not provide a crosstabulation option for isolating respondents who skip a question. We identified several possible causes for these skipped responses, however, the most likely of which we believe is that the participants didn't want to answer the question. In particular, it is possible that the intent of the question was not clear to those respondents, or the respondents did not place their priorities in a structure that would allow them to answer easily. Some of the text comments we obtained

support the existence of such respondents, such as the comment we received which said, "My preferences with respect to the above options are more conditional, as I would only choose to complete a project off campus if: 1. I was accepted to the location I wanted and the project there was of interest 2. the project was during C term. If these criteria were met, then I would consider whether I could afford it as the main priority." Other respondents entered comments suggesting that all of the subquestions of Question 3 were irrelevant to them, such was one participant who responded, "I was very open-minded about the whole thing and I did not consider any of these as issues in my decision." It is ultimately unclear exactly why so many respondents who submitted the survey chose to skip whole questions or parts of questions.

### **4.3.3 Question 4**

Question 4 prompted respondents to rate their preferences regarding their ideal offcampus project location. Figure 4-21 provides a summary of the responses we collected as well as the SurveyMonkey "Rating Average" and "Response Count" columns.

One notable result of this question is the preference respondents showed for overseas project locations, as is evident from approximately 78% of respondents indicating they either "Prefer" or "Strongly prefer" this characteristic. Additionally, this subquestion received a very high rating average score of 4.26, indicating that the average response was between a preference and a strong preference.

With regard to Subquestions 3 and 4, the most frequent selection for both was "No preference," although both subquestions demonstrated that the majority of respondents who did not select "No preference" indicated that they did prefer these circumstances.

Figure 4-21 – Student Survey Results; Question 4

4. Suppose you had the option to travel anywhere in the world to complete your IQP. What are your preferences for this ideal location? (A strong preference should indicate a primary factor in your decision.)								
	Strongly prefer	Prefer	No preference	Prefer otherwise	Strongly prefer otherwise	Rating Average	Response Count	
It's within the United States.	4.6% (7)	5.3% (8)	30.5% (46)	31.8% (48)	27.8% (42)	2.27	151	
It's overseas.	52.6% (80)	25.7% (39)	17.8% (27)	2.6% (4)	1.3% (2)	4.26	152	
It's in a "westernized" country.	12.3% (19)	31.8% (49)	39.0% (60)	11.0% (17)	5.8% (9)	3.34	154	
English is the primary language.	18.3% (28)	30.7% (47)	38.6% (59)	7.8% (12)	4.6% (7)	3.50	153	
There'd be pleasant weather for the duration.	13.5% (21)	54.8% (85)	29.7% (46)	1.9% (3)	0.0% (0)	3.80	155	
Please share any details about your preferences: 📦 view							20	
answered question					155			
skipped question						16		

In cross-tabulating these data, we did not find significant disparities or anomalous results in selection frequencies among completion groups. The summaries for each of these group's selection frequency for this question are also available in Appendix F.

However, we did receive some substantial comments from respondents explaining their preferences in further detail. One respondent wrote, "I think it's definitely a worthwhile experience for people to experience life in a non westernized country, as it helps you view things from multiple points of view, and gives you a glance at a different way of life you might not otherwise see." An additional respondent identified additional preferences by writing, "I would greatly prefer a country where the social impact would be greatest. Hopefully I could also pick up a little bit of a new language, and preferably a country that would not be a mainstream tourist location." Although there is no statistical inference to be made from these two comments, these

respondents identify important topics that will be addressed again in our review of student and faculty research.

## **4.3.4 Question 5**

When responding to Question 5, participants were prompted to rate their agreement with several hypothetical characteristics of their ideal location at which to complete their IQP. As depicted in Figure 4-22, the majority of respondents indicated agreement or neutrality to all three of the characteristics tested.

Additionally, the comparison of the preliminary crosstab comparison of selection frequencies revealed very similar response patterns among all three completion groups. Although there were subtle variations among the average ratings for each group, we could not identify any disproportion significant enough to warrant further investigation.

5. Please rate your level of agreement with how much each of the following statements describe your ideal IQP location. Neither Strongly agree Totally Rating Response Strongly Agree Disagree agree nor disagree unsure Average Count disagree I'm already familiar with or interested 23.0% 30.3% 30.9% 12.5% 0.7% 2.6% (4) 3.59 152 in the culture, society or history (35)(46)(47)(19) (1) there. There's an urban area or large 11.8% 39.5% 34.9% 7.9% 2.0% 3.9% (6) 152 3.48 population to interact with. (53) (12)(18) (60)(3) 52.6% There is a wide range of recreational 18.4% 21.7% 0.7% 4.6% (7) 2.0% (3) 3.81 152 activities available. (28)(80)(33)Please provide any additional details about your preference on these characteristics. 9 152 answered question skipped question

Figure 4-22 – Student Survey Results; Question 5

These data indicate that large quantities of respondents agree that an interest or familiarity with the project center location, the existence of an accessible society and the availability of recreational activities are all positive traits of an ideal IQP experience.

### **4.3.5 Ouestion 6**

Question 6 asked participants to rate their agreement with certain hypothetical characteristics of an ideal project experience in a manner identical to Question 5's prompt. The two questions were split to create a distinction between the characteristics relevant to the project location (Question 5) and the project work and topic. Similarly to the responses to Question 5, the responses to Question 6 (summarized in Figure 4-23) show large portions of respondents rating some level of agreement or "Neither agree nor disagree," but relatively few respondents express outright disagreement with the presented factors.

6. Please rate your level of agreement with how much each of the following statements describe your ideal project experience. Neither agree Totally Rating Response Strongly Strongly Agree Disagree agree nor disagree unsure Average Count disagree I'd be working closely with people 33.3% 47.7% 17.6% 0.0% 1.3% (2) 0.0% (0) 153 4.13 from the location. (51) (73)(27) (0) 32.0% 39.2% 19.6% 7.2% 0.7% I'd work heavily with technology. 1.3% (2) 3.62 153 (30)(49)(60)(11)(1) 26.3% 37.5% 30.9% 0.0% lt'd serve a humanitarian need. 4.6% (7) 0.7% (1) 3.84 152 (40)(57)(47) 27.5% 20.3% 41.2% 8.5% 0.7% 2.0% (3) It'd deal with environmental issues. 3.56 153 (42) (63)(13)(1) (31)Please provide any additional details about your preference on these characteristics. answered question 153

Figure 4-23 – Student Survey Results; Question 6

18

skipped question

In general, a high frequency of "neither agree nor disagree" responses may indicate a sense of ambivalence towards these issues. That is, respondents may feel that their preference depends too heavily on other factors, such as the context of the problem topic or the location of the off-campus center. This hypothesis implies that respondents who selected "neither agree nor disagree" hold other such factors (whatever they may be) more important than the characteristics of their project.

After performing crosstab analysis on Question 6, the team identified a great inconsistency in the "Rating AVG" level among completion groups with respect to Subquestion 2, regarding "work heavily with technology." Specifically, as seen in **Error! Reference source not found.**, Group 2 exhibited a Rating AVG score approximately twice as large as either of the other groups' scores. Although this score does not solely indicate that group's preference regarding technology-themed projects, the discrepancy supports the hypothesis that respondents from Group 2 indicate a stronger preference for this characteristic overall than respondents from the other two completion groups.

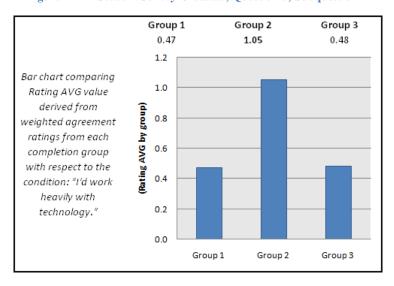


Figure 4-24 – Student Survey Crosstab; Question 6; Subquestion 2

This idea, as originally identified in our analysis of responses to Question 3, is not without the possibility of further bias from Group 2. Respondents from Group 2, in answering this question, may have been influenced by a current or past IQP involving the heavy use of technology. In this way, respondents may have indicated a preference when in actuality it is merely a familiar characteristic of their project, triggering a response to respond positively. Although there may be some combination of factors affecting this score, we do not believe that the disproportionally positive rating of this preference by Group 2 respondents may be explained solely by one of these hypotheses.

After investigating the crosstab summary of each completion group's responses to Question 6, the team reviewed the respondents' text comments. Some students shared their opinions regarding their personal objectives in completing their IQP, such as one student who wrote, "Frankly, I'm going abroad to go abroad and to experience a new culture; I don't really care about the project I'll be doing there." Several other students shared similar perspectives, including another response reading, "Projects aren't usually the reason people choose IQPs, mostly it has to do with what you can do for fun or to learn about the culture when you get there." Although these respondents indicated the priority they place on experiencing the off-campus location and its local culture, other participants shared starkly contrasting views. For example, one student wrote, "It's important to know that the project will have a direct impact on people that are needy." Similarly, another respondent wrote, "I really want my project to matter. With the project I'm working on now (in a museum), the impact on society as a whole is non-existent, and I'm beginning to stop caring." These responses show a wide range of opinions regarding the IQP and its completion off-campus.

## 4.4 Faculty Research

We accessed the SurveyMonkey "Analysis" section to view a summary of faculty responses and conducted a holistic analysis that evaluated the quantitative and qualitative information that respondents provided. We explored the implications of these responses and identified possible sources of error. In the next chapter, we will also discuss possible avenues for future research. This particular section describes the analyses of the responses we received from the faculty survey and establishes a basis for later discussion regarding the significance of our findings as they are significant to the feasibility of Wellington as a project center.

## 4.4.1 Participation

Out of a total 44 survey recipients, 23 responded by the deadline of Friday, April 17 2009 at 5:00pm Eastern Standard Time: a total of 52.2% of recipients. Because the population was a specific target group identified by IGSD, there is no particular statistical significance to be derived from the number of respondents. However, any analysis of these responses must acknowledge that the responses do not include the opinions of the entire population identified in the list of recipients.

Because there were no demographic or categorical questions developed to group respondents into opposable subpopulations, the group did not perform any cross-tabulation analyses for any part of the questionnaire. For this reason, our exploration of responses to the faculty questionnaire maintains a scope encompassing all respondents as a single group.

## **4.4.2 Question 1**

Question 1 asked participants to provide a sequential order of priority for five factors relevant to the decision to advise off-campus. Similarly to Question 3 in the student

questionnaire ("SQ3"), the team created this query of ranking priority to attempt to determine the process by which a decision is made. In this case, our objective was to examine how potential faculty advisors decide to advise projects off-campus.

Despite the conceptual similarities between Question 1 and SQ3, our analyses of the responses to the two questions were significantly different. Most importantly, we recognized that with many fewer responses to the faculty survey than to the student survey, individual responses to the faculty survey were each much more powerful than individual responses to the student survey. To attempt to recognize each response equally, the team used a "weighted" average to compare the level of importance faculty advisors might place on these issues. This is divergent from the method we used for SQ3, in which we isolated response options which had the highest selection frequencies as a means of identifying the need for cross-tabulation. Although a high selection frequency may indicate an increased level of agreement about a particular issue among respondents, isolating that information may neglect other responses.

As summarized in Figure 4-25, we examined both the most frequently selected ranking of each subquestion (indicated for each by the frequency enclosed in a black square in the center segment of the table) and a "weighted average" score for each subquestion (detailed in the rightmost segment of the table). Comparison of these data allowed us to make several possible inferences about respondents' personal priorities regarding this decision.

Figure 4-25: Faculty Survey Responses; Question 1 Response Summary

	Priority Rank: Weight:	1st 5	2nd 4	3rd 3	4th 2	5th 1	Weighted Total	Total Responses	Weighted Average
	The relevance of available project topics to my personal or professional interests.	0	11	3	5	2	65	21	3.10
ons	My level of interest in the geography, culture, history and/or society present at the location.	16	1	1	3	0	93	21	4.43
Subquestions	The projected cost of living upon arrival at the location.	1	2	5	6	9	49	23	2.13
	The suitability of the location for bringing my spouse/partner or other family members.	3	2	3	6	7	51	21	2.43
	Unique characteristics of the location, in comparison to other project center locations.	2	5	9	3	4	67	23	<u>2.91</u>

By virtue of exhibiting both the highest frequency of selections indicating the respondents' first priority and the highest weighted average, Subquestion 2 ("My level of interest in ... the location") fits a simple hypothesis that the majority of respondents place the highest priority on this issue. In fact, approximately 69.6% of all respondents ranked Subquestion 2 as their 1<sup>st</sup> priority. Furthermore, the fact that this subquestion was never ranked 5<sup>th</sup> by any of its respondents suggests that all respondents place some level importance in its consideration.

In considering the other four subquestions, the team compared their weighted average scores to one another to attempt to identify any patterns in the data. Figure 4-26 depicts an arrangement of the weighted average of each subquestion in descending order, with subquestion 2 scoring highest on the far left, and subquestion 3 scoring lowest on the far right.

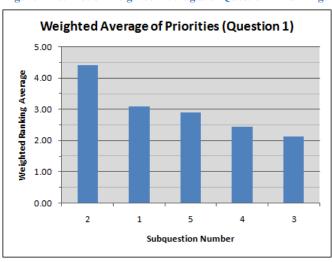


Figure 4-26: Plot of Weighted Averages of Question 1 Rankings

In this way, the weighted averages suggest one way of ordering the priorities represented by the five subquestions: 2, 1, 5, 4, 3. This sequence is very similar, but not exactly the same as the sequence obtained by arranging the subquestions in descending order by the rank which achieved the highest selection frequency: 2, 1, 5, (3 and 4 tied).

These similar sequences in combination with Subquestion 2's relatively high weighted average in comparison to that of the other subquestions allow it to be tentatively identified as that in which respondents placed highest overall priority.

The next two common numbers in each sequence are one and five, suggesting that, according strictly to these weighted averages, the majority of respondents might agree that Subquestions 1 and 5 should come next in the sequence of priority. However, given the very close weighted average scores of these two items and the generally low number of respondents, it would be remiss to infer that the data are significant enough to indicate the majority of the target population would give Subquestions 1 and 5 the same ranking. For this reason, we suggest considering that these two issues are tied in their indicated importance by survey respondents.

The remaining two subquestions also exhibit some obscurity in their resultant rankings. In particular, Subquestion 4 resulted in the most evenly distributed spread of responses. However, according to our method, the responses to this subquestion indicate that the bare majority of respondents would rank its priority in either of the last two ranks. Responses to Subquestion 3 show a skewed distribution in favor of the bottom of the priority scale, with responses becoming sequentially more frequent in descending order of priority. We then examined the selection frequencies for Subquestions 3 and 4 with closer scrutiny. The data in Figure 4-25 show that Subquestion 4 received two more responses ranking it 1<sup>st</sup> and two fewer responses ranking it 5<sup>th</sup> than did Subquestion 3.

Upon considering both the resultant weight average scores and the distribution of responses in Subquestions 3 and 4, we submit that the majority of respondents would be likely to place a higher priority on Subquestion 3 than Subquestion 4. However, this hypothesis does not imply that the target population considers the issue identified by Subquestion 4 ("suitability of the location for bringing...family members") the least important overall out of the five issues represented in the questionnaire.

One confounding factor that may contribute to the obscurity in the data particular to Subquestion 4 is the wording of the question, which implies a binary choice of whether the faculty member brings family members. Several respondents provided text comments which suggest that advisors place a high priority on contact with family members, but the matter is not always as simple as having family members travel with them to the project center location. As one respondent commented, "Since I leave most of my family behind, it is important to me to be able to come back for a couple of days if need be." One other participant noted that their highest concerns included "[how] to handle my commitments to my family while away (spouse cannot

leave work, children won't want to leave school, elders in health care facility)." In this way, the targeted issue of family contact may not be adequately addressed by the subquestion which was designed to do so.

In summary, rather than developing a rigid, five-point sequence that describes a clear order of priorities and thereby provides a decision making process for the target population, it may be more appropriate to consider these five issues in "layers of importance" containing groups of the issues which the subquestions address as suggested by weighted average scores which are in close proximity. Although these strata would not dictate the entire target population's decision logic, they may suggest a more flexible order of priorities to which most respondents may agree. Following this paradigm instead, the distribution of responses among the issues addressed in addition to the analyses already performed in this section suggest a three-layered priority chain, with some of these layers containing more than one of the issues identified in Question 1. This hypothetical model of respondent priorities would consist of the following:

- "My level of interest in the geography, culture, history and/or society present at the location." (Subquestion 2)
- 2. "The relevance of available project topics to my personal or professional interests" and "unique characteristics of the location, in comparison to other project center locations." (Subquestions 1 and 5)
- "The projected cost of living upon arrival at the location" and "the suitability of the location for bringing my spouse/partner or other family members."
   (Subquestions 3 and 4)

#### **4.4.3 Ouestion 2**

Question 2 prompted respondents to indicate their preference regarding characteristics of off-campus project centers. In general, responses indicated large numbers of respondents expressing some level of ambivalence to many of these factors. However, some topics elicited stronger preferences than others. Figure 4-27 summarizes the responses to this question and provides a rating average score similar to preference questions from the student questionnaire, in which a "strong" preference is valued at 2, "no preference" is valued at zero, and "strongly" preferring otherwise is valued at -2. In this way, scores close to zero suggest general ambivalence towards the topic (it may be that the respondent's preference is highly dependent on separate factors) and scores farther from zero represent a stronger preference in their respective directions.

Subquestion 1 ("English is the primary language...") exhibited a particularly high frequency of "...no preference" responses and a correspondingly neutral rating average score of 0.04. These data may demonstrate that the majority of respondents would be content with any language being used at the project center location, or that they consider themselves highly adaptable in this regard. Alternatively, respondents may have responded neutrally because they place very little priority on this factor in comparison to their other concerns and expectations.

Subquestion 2's endeavor to identify respondents' opinions about a "westernized" project center location most frequently revealed neutral or ambivalent responses. However, with a rating average of -0.48, the data indicate that many respondents may prefer that the project center is located in a non-"westernized" (or "developing") country.

Figure 4-27 – Faculty Survey Responses; Question 2

2. How would you describe your preferences regarding the following aspects of off-campus project center locatio							ons?
	l strongly prefer this.	I prefer this.	I have no preference.	I prefer otherwise.	I strongly prefer otherwise.	Rating Average	Response Count
English is the primary language at the location.	4.3% (1)	8.7% (2)	78.3% (18)	4.3% (1)	4.3% (1)	0.04	23
The location is "westernized" and well-developed.	0.0% (0)	8.7% (2)	43.5% (10)	39.1% (9)	8.7% (2)	-0.48	23
There'd be pleasant weather for the duration.	8.7% (2)	47.8% (11)	43.5% (10)	0.0% (0)	0.0% (0)	0.65	23
Please share any additional comments about any of these preferential questions:							5
answered question						23	
skipped question						0	

With respect to the issue of "pleasant weather" addressed by Subquestion 3, most respondents indicated moderate preference in favor of or neutrality towards this factor. However, this may have encouraged several respondents to share their ideas about students' preferences regarding project center locations. In particular, respondents showed concern that some students may place too much priority in the recreational opportunities at a project center location. As one participant commented, "I would not want a site chosen primarily by students for its weather or touristic appeal. Such students, in my experience, can be difficult to motivate and work with." This opinion is supported by other similar responses, such as those indicating the importance of a "conducive [environment] to promote student interest in performing work balanced with other cultural attractions."

## **4.4.4 Question 4**

Question 4 asked participants to provide a simple rating on a 3-point Likert scale to identify their general interest in advising IQPs pertaining to various topics. We used a simple method of isolating the topics which received high selection frequencies in the "Very interested"

or "somewhat interested" columns in order to form a hypothesis about trends in the professional interests of potential faculty advisors.

According to the summary in Figure 4-28, the responses most frequently resulted in six topics being "very [interesting]," eight topics being "somewhat [interesting]," and only one topic, "Safety Analysis and Liability (including Fire Safety)," as "not particularly [interesting]."

Several topics exhibited unique response patterns that may suggest additional significance. For example, the "Energy and Resources" topic was the only option to receive no "not ... interested" responses and furthermore, demonstrated an approximate 45.5% frequency of respondents being "very interested" in the topic. Additionally, the "Technology and Environment" topic received the second fewest (1) "not...interested" responses and received the most (13) "very interested" responses out of all the topics listed. Although these categories describe a broad range of IQP foci, their particularly positive responses suggest that they're favored certainly by the majority of respondents, but possibly also by the majority of the target population. Conversely, the unique response pattern for "Safety Analysis..." which exhibited a rate of 57.1% "not...interested" responses and only a single "very interested" selection suggest that the majority of the respondents and possibly the entire population are not interested in advising IQPs focused on this topic.

Figure 4-28: Faculty Survey Responses; Question 4 Response Summary

4. Please provide one of three simple ratings to reflect your level of interest in advising IQPs relevant to each of the following general topics.						
	Very interested.	Somewhat interested.	Not particularly interested.	Response Count		
Technology and Environment	59.1% (13)	36.4% (8)	4.5% (1)	22		
Energy and Resources	45.5% (10)	54.5% (12)	0.0% (0)	22		
Health Care and Technology	22.7% (5)	59.1% (13)	18.2% (4)	22		
Urban and Environmental Planning	54.5% (12)	31.8% (7)	13.6% (3)	22		
Science and Technology: Policy and Management	38.1% (8)	47.6% (10)	14.3% (3)	21		
Social Studies of Science and Technology	40.9% (9)	50.0% (11)	9.1% (2)	22		
Safety Analysis and Liability (including Fire Safety)	4.8% (1)	38.1% (8)	57.1% (12)	21		
Humanistic Studies of Technology	45.5% (10)	45.5% (10)	9.1% (2)	22		
Economic Growth, Stability, and Development	27.3% (6)	63.6% (14)	9.1% (2)	22		
Social and Human Services	42.9% (9)	42.9% (9)	14.3% (3)	21		
Education in a Technological Society	47.6% (10)	33.3% (7)	19.0% (4)	21		
Law and Technology	28.6% (6)	38.1% (8)	33.3% (7)	21		
Historic and Artistic Preservation Technology	50.0% (11)	36.4% (8)	13.6% (3)	22		
		Other (ple	ease specify) 👂 view	4		
			answered question	22		
			skipped question	1		

In considering these results, it is important to acknowledge that although a faculty advisor may be interested in a particular field, there is no guarantee that a project categorized as such will be interesting to the advisor. As one respondent austerely commented, "All topics are interesting, [but] not all projects end up being interesting." The survey question tested only one dimension of an advisor's opinion about the projects they advise. Although our data show that many potential advisors have indicated a relatively high priority for their interest in the project

topic, one must also consider that the "importance of the problem and quality of the sponsor are more important than the particular area into which it falls," according to another respondent.

## **4.4.5 Question 5**

Question 5 prompted respondents to roughly estimate their availability to advise offcampus in B, C and D term according to a 3-point rating scale. Figure 4-29 summarizes the responses below.

5. Please indicate to the best of your knowledge the terms you may be available to advise off-campus. If your availability may change from one year to the next, please provide details in the additional space below. Response Most likely available Possibly available Not likely available B-Term 38.1% (8) 28.6% (6) 33.3% (7) 21 C-Term 38.1% (8) 42.9% (9) 19.0% (4) 21 D-Term 50.0% (11) 40.9% (9) 9.1% (2) 22 Additional comments: | 🌏 view 22 answered question skipped question 1

Figure 4-29: Faculty Survey Responses; Question 5 Response Summary

Because of the tentative nature of faculty members' schedules from year to year, these responses must be evaluated with the understanding that conclusions drawn from these data may change completely in just one year. As one respondent qualified his selections, "Future years will be completely different." Furthermore, it is possible that the distribution of responses may resemble much different patterns if every person in the target population were to respond to the questionnaire. For this reason, we drew only the most general of comparisons with any confidence in their reliability. In particular, we identified that the term for which respondents most frequently indicated their lack of availability is B-Term.

A confounding factor in interpreting these results is how the respondent determined the difference between what defines "most likely" and "possibly" for the purpose of explaining their availability. Furthermore, the calculus of probabilities involved in determining how accurately the respondents' estimations will reflect the future realization of their availability prohibits any deep understanding of what these responses may indicate about the true pattern of faculty availability.

## 4.5 Section 3- Wellington Project Site Specific Information

#### 4.5.1.1 Introduction

To be written by project site Director.

#### 4.5.1.2 Dates

Dependent on which term it will be.

#### 4.5.1.3 Arrival in Wellington

Once your plane lands in Wellington collect your luggage and continue on to the shuttles with a group of 10 people. It will cost about 61NZD for a shuttle to transport 10 people to their housing in wellington city, (Bus, Taxi, Shuttles, 2009).

#### 4.5.1.4 Calling Home

When calling home the cheapest option is to use Skype. Users may call each other for free using two Skype over the Internet. Additionally, it's possible to purchase a monthly plan of about \$3 US/month to call from Skype in New Zealand to any mobile or land lines in one country. Calling cards are also available at local convenience stores, called dairies with. The cards come with instructions on how to use them.

#### 4.5.1.5 Housing in Wellington

This section is dependent on which housing location is chosen.

## 4.5.1.6 Emergency and Medical Numbers

#### 4.5.1.7 General Emergency

Police, Fire, Ambulance -111

#### 4.5.1.8 Lifeline (Suicide Prevention)

#### Lifeline 0800 543 354

LifeLine New Zealand has a team of trained telephone counsellors ready to take your call

## Samaritans 0800 726 666

Samaritans is a service available 24 hours a day for people who want confidential listening and support.

## 4.5.1.9 *Hospital*

Wellington Hospital

Riddiford Street

Newtown, Wellington 6021, New Zealand

Error! Hyperlink reference not valid.(04) 385 5999

http://www.ccdhb.org.nz/Patient/maps/SiteMap4octlowres.pdf

## 4.5.1.10 Public Transport to Wellington Hospital(Other than Ambulance)

Wellington Hospital is well served by buses. Direct services connect the hospital with most of Wellington's eastern, western and southern suburbs.

You can travel into the cityby bus or train from Hutt Valley, Eastbourne, Wainuiomata, Johnsonville / Tawa, Porirua or Kapiti, and take a connecting bus to the hospital. About 20 buses per hour pass the hospital southbound, and the same northbound, during weekday business hours.

Direct bus routes run from the following suburbs to the hospital;

- 01 Island Bay
- 03 Karori Park Lyall Bay & Kilbirnie
- 04 Owhiro Bay / Happy Valley \*\*
- 10 Newtown Park
- 11 Seatoun
- 18 Miramar Kelburn / Karori Park (Campus Connection) \*\*\*
- 21 Karori Park / Wrights Hill Kingston / Vogeltown \*/\*\*\*
- 22 Southgate Mairangi / Northland
- 23 Melrose and Houghton Bay Mairangi / Northland
- 29 Owhiro Bay, Brooklyn, Mornington (Southern Shopper route) \*\*\*
- 32 Houghton Bay \*\* / \*\*\*
- 43/44 Khandallah, Ngaio Miramar / Strathmore
- 83 Eastbourne, Lower Hutt, Petone (Route extends to Wellington Hospital 8am 5pm Mon-Fri), commences 11/02/08

- \* Stops at John St, 5 mins walk from hospital
- \*\* Stops on Adelaide Rd., 5 minutes walk from the hospital
- \*\*\* No weekend service

Routes 04, 29, 32, are restricted services, running at weekday / peak times only. (http://www.ccdhb.org.nz/Patient/Travel Wellington.htm)



## 4.5.1.11 Dentist

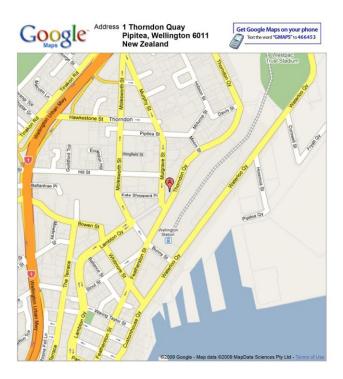
Thorndon Dental Surgery 246 Tinakori Road Thorndon Wellington 6011 Telephone +64 4 472 8353 Anthony Wong & Associates Level 7, Hope Gibbons Building 7 Dixon Street Wellington 6011 Telephone +64 4 384 8481

## 4.5.1.12 Mental health hospital

Counselling & Psychotherapy Associates Ltd Level 3, 1 Thorndon Quay Wellington 6011 Telephone +64 4 499 3541 www.cpa.gen.nz

1 thorndon quay wellington, NZ - Google Maps

Page 1 of 1



## 4.5.1.13 Eating disorders

Central Region Eating Disorder Services (CREDS) Hutt Valley District Health Board Private Bag 31 907 High Street Lower Hutt

Phone: (04) 461 6528

#### **4.5.1.14 Pharmacies**

Radius Pharmacy, Lambton Quay 204 Lambton Quay Wellington Ph 04 472 0362 Fax 04 472 0587 Radius Pharmacy, Willis Street Grand Arcade 16 Willis Street Wellington Ph 04 472 8945 Fax 04 471 2121

## 4.5.1.15 Grocery Stores

New World Wellington City 279 Wakefield Street, Te Aro, Wellington, New Zealand (04) 384 8054 7am- Midnight 7 days a week

New World Railway Metro Bunny St, 6011, Wellington, New Zealand (04) 499 1299 6am-10pm Monday-Saturday 7am-8pm Sunday

New World Supermarket Wellington 70 Willis Street, Wellington, New Zealand (04) 471 6580 7am-11pm Weekdays 8am-11pm Saturday 8am-10pm Sunday

## **4.5.1.16 Telephones**

## 4.5.1.17 Telephone information

The country code for New Zealand is 64. When dialing from abroad, drop the initial "0" from the local area code. Main area codes within New Zealand include 09 (Auckland and the North), 04 (Wellington), and 03 (South Island). Dialing from New Zealand to back home, the country code is 1 for the United States and Canada, 61 for Australia, and 44 for the United Kingdom. The prefixes 0800 and 0867 are used for toll-free numbers in New Zealand.

## 4.5.1.18 Useful Telephone Numbers

Directory Assistance 018 Operator 010

## 4.5.1.19 Transportation

#### 4.5.1.20 Bus

For updated information about fares and timetables go to <a href="http://www.gowellingtonbus.co.nz/">http://www.gowellingtonbus.co.nz/</a>

#### 4.5.1.21 Taxi

Green Cabs 15 Walter St CBD Wellington New Zealand 0508 447 336 greencabs.co.nz Capital Taxis 19 Arthur St Te Aro, 6011, New Zealand (04) 384 5678 capitaltaxis.co.nz

Wellington Combined Taxis Ltd. 150 Adelaide Road Mount Cook, Wellington 6021, New Zealand (04) 384 4444 taxis.co.nz

## 4.5.1.22 Other Useful Information

## 4.5.1.23 Tipping & Gratuities

As a student, it is general practice not to tip anyone, including shuttle drivers and restaurant staff.

Older Kiwis may rarely tip for an exceptional meal, but it is not something students do.

## 4.5.1.24 Currency & Currency Exchange

Currency is in 100, 50, 20, 10, and 5 dollar bills. Additionally there are \$2, \$1, 50 cent, 20 cent, and 10 cent coins. Since there are no pennies or 5 cent coins, stores will either round up or down the cost of the final purchase to the nearest 10 cents.

#### 4.5.1.25 Weather

The more pleasant weather in the Wellington area occurs from November to mid-April. Book well ahead if you are traveling in summer school holidays from mid-December to the end of January. From February to April, you can expect fewer crowds and many brilliant, warm days. Winters bring more rain, but they're rarely bitterly cold. Be prepared for unpredictable weather; rain and southerly gales are possible even during the summer.

## 4.5.1.26 Units of Measure

11b to kg= lb/2.2 Mile to Km= mile/.625

## 4.5.1.27 Shopping hours

Monday through Friday- Stores are open 9-5:30 Thursday or Friday- 9-9 Saturday- Stores are open 10-4 Sunday- Some stores are open 11-4, but not all choose to open.

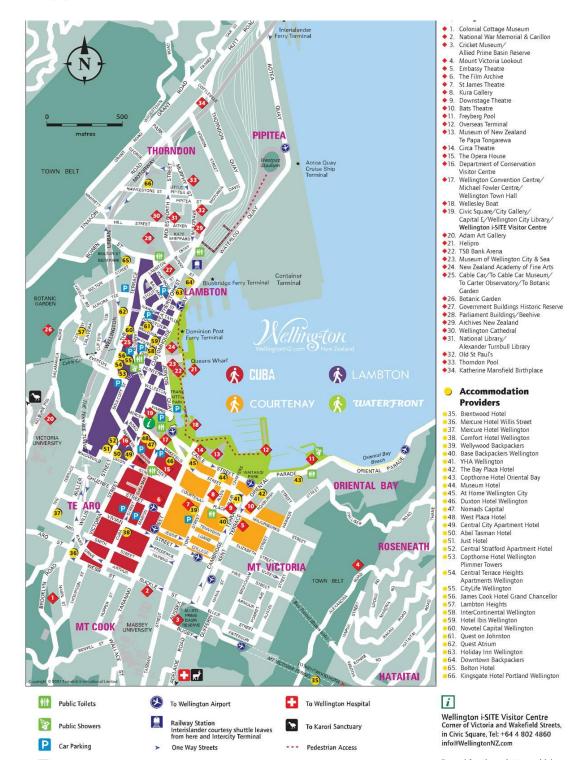
## 4.5.1.28 American Embassy

United States Embassy 29 Fitzherbert Street Thorndon Wellington 6011 Telephone +64 4 462 6000 www.newzealand.usembassy.gov

## Map of Wellington

## http://www.wellingtonnz.com/files/uploads/About\_Wellington/Wellington\_downto

## wn\_map.pdf



## 4.6 Determining costs for WPI

## 4.6.1 Yearly Center Director Trip

Using the US Department of State website we were able to find that the Per Diem costs for a business trip to Wellington New Zealand is \$219 USD. This number includes food, housing, transportation within the city, and incidentals. (Foreign Per Diem Rates, Country: NEW ZEALAND, 2009). With this number we then calculated the cost of the Center Director traveling to Wellington for seven days to be \$3371 USD as seen below in **Error! Reference source not found.** 

**Table 4-17 Cost of Center Director's Trip** 

	Unit Cost	<b>Total Cost for Seven Day Stay</b>
Airfare	\$1838 USD	\$1838 USD
Food and Incidentals	\$95 USD (per diem)	\$665 USD
Housing	\$124 USD (per diem)	\$868 USD
Total cost for entire trip		\$3371 USD

## **4.6.2** Costs for Sending Faculty Advisors

When calculating the cost for one faculty member to stay for a term we were pulled the information from the recently analyzed airfare and housing sections. The housing provider we used for this estimation was Annaday Homestay, whose price was quoted in USD. The airfare cost for faculty was \$1952 USD and the housing is \$3255 USD. This leads to the overall cost for WPI sending a faculty member of \$5207 USD.

## **4.7** Total Cost for the Students

The group then took all of the data we gathered about the different costs associated with completing an IQP in Wellington to calculate the total cost of a student attending a Wellington Project Site as seen in the table 4-16.

**Table 4-18 Total Cost to Students for a Wellington Project Site** 

Airfare	1952 USD		
Airport Transportation	40 NZD		
Groceries	532 NZD		
Dining Out 7x a term	150 NZD		
Weekend Excursion	660 NZD		
<b>Local Transportation</b>	150 NZD		
Housing	3050 NZD		
Total Costs (USD)	High (0.730)	<b>Average (0.651)</b>	Low (0.494)
Using different exchange rates	5297	4935	4214
(NZD to NZD)			

The cost of the center using the average exchange rate, \$4,935 USD is less than the average cost of the off-campus IQP sites.

## **5** Conclusions

Through looking at all of our data we were able to draw a few conclusions in terms of the feasibility of starting a site in Wellington. We looked at each issue below and determined if it supported the establishment of a site.

- 1. Affordable and safe housing for students and faculty
- 2. Support and availability of sponsors who can provide compelling projects
- 3. Availability of affordable options for logistical necessities (Cell Phones, Internet Access, Groceries, Dining out, Transportation)
- 4. A safe environment
- 5. Availability of suitable health care
- 6. Interest of students and faculty in the location and projects

## 5.0 Sponsors

In our correspondence with Dean Vaz, we determined that the group's responsibilities in terms of sponsors fell into two categories. The first was to alert organizations in the Wellington area to our presence. The second was to locate sponsors willing to host projects. Furthermore we were to evaluate the availability of sponsors in different sectors and generally make ourselves known to these organizations (Appendix C). Additionally, Vaz noted that approximately 10 sponsors would be needed to consider it a well supported project site.

In terms of locating sponsors who are interested in hosting projects, our group believes that we have made great strides from initially only being known by a handful of original contacts given to us by Professor Elmes. Our group contacted many organizations including numerous government organizations, both local and national, museums, non-profits, and even a few private

organizations. Of the organizations that responded to our group's contacts, 22 were interested about the idea of students coming to work on projects. The group was able to meet with 15 of those 22 contacts. Eleven of those who we met with want to continue talking with the group and WPI about sponsorship. Lastly, seven organizations were interested but for various reasons we were never able to meet with them.

Each organization we met with, and most of the ones we contacted but never met with, we asked for suggestions of organizations to contact. This method both allowed the group's purpose to be spread in the Wellington area, while continuing to give us new leads. Our group therefore deems that we have to the best of our ability located and contacted as many potential sponsors as we were able to.

Deciding whether we met the former requirement of making the presence of our group and the WPI IQP known in Wellington is a slightly more difficult task. Of the 13 meetings which the group had with possible sponsors, 7 of these will be very likely to sponsor projects. This likelihood comes from the combination of qualitative and quantitative factors and represents the best estimate that the group can make given our experience and current data from the potential sponsors. In addition to the original 7 organizations with a high likelihood of sponsorship, there are 2 that we consider likely to sponsor (Appendix M). Based on the results seen and, acting under the assumption that 9 to 10 potential sponsors are needed to form a well supported project site, though only 6 are needed per term per year to run a site, at this moment the group has found enough sponsors to state that a full size site is feasible.

Additionally, future growth of interested sponsors seems very plausible. Of the 22 organizations that remain interested in sponsoring a project, meetings only came to fruition with

13 of them, leaving organizations that can be contacted in the future. Also, as mentioned in the individual meeting accounts, the group noticed many instances where a company was particularly interested in starting student internship programs (which are uncommon in New Zealand at the moment), as well as furthering international relations. With this current environment of organizations wanting to increase collaboration with students and other countries, the task of approaching organizations about possible project sponsorship has been made easier. If someone were to persist where we left off, we believe more sponsors would be found quite easily. When all things are considered, it again becomes clear that setting up a project site in Wellington with enough sponsors to take on project groups is feasible.

On a last note, the group's conclusions were made with the understanding that the prediction is just that, a prediction. We really have no definite proof that the people that we have talked with will not change their minds in the future. However, to the best of our abilities and knowledge, the group was able to conclude that there are interested sponsors, based on what the sponsors have told us. Through communications, meetings, and very specific questions, we do feel our evaluations of the sponsors' willingness to sponsor are well founded.

## 5.1 Housing

Our analysis of housing providers in Wellington identified four types of housing that a WPI project center could use: bed and breakfasts, hostels, hotels, and corporate apartments. The analysis selected one facility from each of these categories that would best serve the students and faculty at a project center, and outlined why these facilities were desirable. As outlined in the background, to judge whether a project center in Wellington would be effective, these facilities must be of comparable standards to those at existing project centers, and be offered at a competitive price.

As demonstrated in the background most existing IQP project centers house students in temporary apartments. Three centers, Windhoek, Bangkok, and London use university dorms. Washington D.C. and Capetown, South Africa are somewhat unique and house students in a hotel and in a hostel, respectively. From this limited knowledge available to us, we will assume that the apartments, hostels, and hotels we investigated are comparable to those at existing project sites. There is no precedent we know of, besides this IQP on New Zealand feasibility, for housing students in a bed and breakfast, which suggests they may not be ideal for a project center. However, the excellent experience our group had at Annaday Homestay motivates us to include it as a type of housing WPI may want to consider for future project centers.

Since the potential housing in Wellington is of a similar nature to existing center housing, the cost competitiveness must be considered to determine if the housing offered in Wellington is appropriate for an IQP project center. The average cost of housing at off campus project centers, excluding Worcester which has no cost, is \$2464 USD. The lowest is \$1150 USD in Bangkok, and the most expensive is \$3800 USD in Copenhagen. Using historical exchange rates for the past five years (New Zealand Dollar, American Dollar, 2009), the four recommended housing facilities would each cost less than the average cost of housing, even with the highest exchange rate that occurred in 2005. With the more recent exchange rate, which is the lowest in five years, the most expensive housing that we recommended would be 64% of the average housing cost, and the cheapest housing we recommended would be 23% of the average housing cost.

Table 5-1 Cost in United States Dollars (USD) of recommended student housing, using exchange rates in past 5 years

E 20044-	El D-4-	Annaday	Wellywood	A 11 /T	<b>Century City</b>
From 2004 to	Exchange Rate	Homestay	Backpackers	Abel Tasman	Apartments
2009	(NZD to USD)	(TIGE)		Hotel (USD)	
		(USD)	Hostel (USD)		(USD)

High Exchange	0.730	\$1,750.00*	\$839.50	\$1,876.10	\$2,336.00
Rate					
Ave. Exchange	0.651	\$1,750.00*	\$748.65	\$1,673.07	\$2,083.20
Rate					
Low Exchange	0.494	\$1,750.00*	\$568.10	\$1,269.58	\$1,580.80
Rate					
	*price originally quoted in USD				

Faculty housing was difficult to compare to existing centers, since we had no way to judge the quality of housing at existing sites, and no information on the cost of existing faculty housing. However, since we knew that existing sites usually use upscale temporary apartments for faculty, and occasionally hotels, we were able to confirm there are a multitude of options in Wellington that are similar to existing housing. We also considered the cost of these facilities in Wellington. The facilities we recommended are listed below with their cost in United States Dollars according to exchange rates from the past five years. Century City Apartments has not yet provided a quote for a single person apartment, but assuming a cost to quality ratio similar to that for students, we expect it will be very competitive. To provide a statistic for the cost of housing faculty in a corporate apartment, we used Quest Atrium, the facility our group would recommend after Century City. From our findings on faculty housing in Wellington, and the results of comparing Wellington student housing to existing student housing, we expect these potential housing providers would support an argument in favor of establishing a Wellington project center.

Table 5-2- Cost (USD) of recommended faculty housing, using exchange rates in past 5 years

From 2004 to	Exchange	Annaday	Abel	Century City	Quest Atrium

2009	Rate	Homestay	Tasman	Apartments	Apartments
	(NZD to	(USD)	Hotel	(USD)	(USD)
	USD)		(USD)		
High Exchange	0.730	\$2300.00*	\$2,131.60		\$5,511.50
Rate	0.730	\$2300.00	\$2,131.00		<i>\$</i> 3,311.30
Average	0.651	\$2300.00*	\$1,900.92		\$4,915.05
Exchange Rate	0.031	\$2300.00	\$1,900.92		ψ4,913.03
Low Exchange	0.494	\$2300.00*	\$1,442.48		\$3,729.70
Rate	0.474	φ2300.00	φ1,442.40		ψ3,129.10
		*price originally	y quoted in US	D	

## **5.1.1** Recommendations on Housing Type for Project Center

It is difficult to define one style of living arrangement as better than another based on the desires of faculty and students, since it depends on the experience they would want. However, advantages that could serve the general purposes of a project center can distinguish between different types of housing, after which priorities of the IGSD would have to determine which type would be best.

A bed and breakfast like Annaday Homestay has a lot to offer with regard to the quality of the facility, its culturally rich atmosphere, and its low cost. Being located well outside of Wellington Proper it would be ideal for those who would like to live away from traffic noise and the general hubbub of city life. For some students or faculty this could help them relax and consequently be more productive. Bed and breakfasts also offer very competitive rates for faculty, which would keep the center cost for IGSD low. A downside to a bed and breakfast is the distance it can be from sponsor offices in the city proper. For students, one facility would not be able to house the whole center, and thus they would have to spread out amongst several bed

and breakfasts in the Wellington suburbs. This could be undesirable for IGSD because it would involve more organizational effort, and it would be impossible for faculty to be within 10 to 15 minutes of all the student housing. Organizational effort could be avoided for a cost as both David, the owner of Annaday Homestay, and Neville, the owner of Tinakori Lodge, independently offered to act as an onsite manager of all the bed and breakfasts WPI would need to house all the students. The proximity issue of faculty to students could be accommodated by housing students in the CBD, and faculty in a bed and breakfast like Annaday. This would put faculty about 20 to 30 minutes away from the student housing, which is similar to the situation in London.

The low price, central location, and kitchen facilities offered by inner city hostels like Wellywood make them an attractive option for student project center housing. However, the constant human contact and limited personal space that they offer could be overwhelming for students, and unacceptable for faculty. This stress could have a significant impact on students who are already subject to the stress of travelling abroad and working in a different culture.

Hotels like Abel Tasman offer pleasant and attractive facilities located in the CBD. Their cost for students sits between hostels and corporate apartments, and the reasonable personal space they offer makes them somewhat of an intermediate option, with respect to hostels and apartments. For faculty, Abel Tasman offers an uncharacteristically low cost for the CBD because of a special rate they offered on the condition that WPI students are housed in the hotel.

Corporate serviced apartments such as Century City may be the best option for student and faculty housing. They offer the most personal space, the most upscale accommodations, and include kitchen appliances. Since the clientele base for the corporate apartments is very business

oriented, there is no seasonal rate dependence and thus no increased cost for students if the project center ran in B or C term. All other accommodation styles had a significant dependence on tourists, and thus quoted higher rates for B or C term when the tourist season peaks. For this quality, Century City Apartments charge a rate lower than hotels like Bay Plaza, which makes for an excellent quality to cost ratio.

A unique idea that would allow students to optimize their living situation to their personal preference and budget would be to offer students the choice between a corporate apartment and a hostel. Century City Apartments, our group's recommended corporate apartment building, sits adjacent to Wellywood Backpackers, our group's recommended hostel. Presuming that the split was such that the long-term group rates still applied, students could be given a choice of whether to stay at the apartments, or save considerable money and stay at the hostel. Considering the average exchange rate over the past five years, the cost difference between a corporate apartment at Century City and a room in Wellywood Backpackers would be \$984.55USD. The hostel would also offer a much more social atmosphere for those who enjoy frequent company.

A clearer distinction of which type of housing would best suit a project center is beyond the scope of our evaluation, and is dependent on factors and opinions internal to IGSD. However, an argument in support of establishing a Wellington project center can be made with reasonable confidence, as appropriate accommodations for competitive prices were clearly identified in our investigation of Wellington housing.

## 5.2 Logistics

To determine whether Wellington is a feasible site based on its logistics, the different aspects had to be available and not prohibitively expensive. group had to be able to gather

enough data on their cost and availability. We consider the availability goal accomplished since we were able to create the site specific sheet and Section 3 of the Guidebook for a possible Wellington site. Another stipulation was that the total cost of the logistics could not cause the overall site cost to become unreasonable. We consider this accomplished as well because the total cost of the logistic aspects of \$547 USD (using the average exchange rate) did not cause the cost of the site to become unreasonable. Therefore since we were able to gather enough data about the site and the cost of logistics is not too expensive, the logistics potion is feasible for opening an IQP site in Wellington, New Zealand.

## 5.3 Safety

Through information gathered from the Wellington Police Station, tour guides, and from statistical data, Wellington, New Zealand does not have any outstanding crime. Since it is a city there is some crime, but it is not an outstanding amount in any given area as we learned when interviewing the police force. When asking them about the overall safety of Wellington they were slightly confused why we were asking because in general Wellington is a very safe city. Additionally, through what we found out through the US Embassy, Americans do not need to have any specific concerns about traveling the country because, "in general NZ is a very safe country to live or travel in," (United States Embassy, 2009). Through all of these sources it has become apparent that there are no major safety issues students should be concerned with when traveling or living in New Zealand.

#### 5.4 Healthcare

The City of Wellington has various places with suitable health care. They have a few hospitals, one of which is approved by the World Health Organization (WHO) which highlights the fact that it is a reputable hospital with good health care. Additionally, there are numerous doctors for

students to see if they become sick (although this necessarily may not be covered by the student's insurance) and dentists throughout the area incase students need to have any dental work done. If there is a medical emergency the facilities are close enough to the possible housing locations that students would be able to quickly get to a hospital for medical attention. Because of the proximity of the medical facilities to the housing and the fact that they are approved by WHO means that the area is not in lack of suitable health facilities.

## 5.5 Project Center Interests - Students and Faculty

After reviewing the student survey responses, we revisited the overarching research questions we developed. These questions in combination with the results of our other areas of research have led us to form hypotheses about the relationship between a potential project center in Wellington and the preferences and priorities indicated by respondents to the surveys we published. These relationships suggest possible ways in which students and faculty members may perceive the opportunity to participate in a Wellington project center, and whether the WPI community would ultimately support such a project center.

This segment of the report is divided into two sections. In the first part, we use the data gathered from the student survey we conducted to form answers to the research questions concerning student preferences and priorities regarding the decision to participate in off-campus project centers (3.5.3). The second section similarly compares the faculty preference model as obtained through our assessment of the faculty research questions to a hypothetical Wellington project center.

## **5.5.1** Survey Research Outcomes: Students

In our survey of student opinions about completing the IQP off-campus, we established three research objectives to attain through the use of survey questions. These questions and the conclusions we have drawn about them follow.

## 5.5.1.1 What kinds of project experiences do students seek?

In general, students seem to agree on certain abstract ideals pertaining to their project experience, even if these ideals imply different specific conditions to different people. Students seek a fresh experience and expect to explore a new environment; indeed, the majority of students prefer to travel overseas to complete their IQP. Furthermore, the majority indicate that they would prefer to interact with a large population there and participate in a wide range of recreational activities. However, specific preferences regarding language, level of development at the destination, and how the cultural environment at the location compares to their norm are widely variable and left to the specific student.

A center in Wellington, although it does not offer a totally divergent lifestyle like places such as Thailand or Namibia might, would offer a new overseas environment in the same societal category as places like Melbourne or London. In this way, although many of the modern developments and much of the culture in New Zealand would seem similar to the United States relative to other countries, a Wellington project center would likely appeal to the majority, who prefer to complete or have no preference regarding completion of the IQP in a Western country and value interactions with the local population in an urban environment. A minority of students who indicated their preference to experience a drastically different culture—in a developing country, for instance—would most likely prefer a project center other than Wellington.

With respect to the projects the students complete, most students take a strong interest in contributing a humanitarian or community aid, and indicate their desire to work closely with the people their projects concern. However, the themes and topics students expect are heterogeneous among respondents. The fact that students who complete their IQP on-campus have exhibited a higher proclivity to express a preference about their project topic may suggest some vague disinclination to accept the challenge of a relatively unpredictable problem.

Although students have exhibited several basic preferences about the expectations they hold in travelling abroad for the IQP, the data we collected do not allow conclusive declarations of very many specific majority opinions. In these ways, the ideal project experience to the total population of WPI undergraduates is, like the IQP itself, "unscripted" in our assessment and amorphous in its boundaries. Based on our assessment of student preferences and the popularity of other IQP centers, however, the team believes there could be a sufficiently large population interested in attending a Wellington project center.

## 5.5.1.2How do students decide whether to complete their IQP off-campus?

Particularly as a result of a forced ranking question in the student questionnaire, we endeavored to develop a tentative order of priorities for the decision process with which most students may agree. The hypothesis we have made towards this end is outline below, with each boldfaced question representing one of the four choices in the corresponding student survey question.

#### 1) Can I afford it?

In that ranking this issue as the first priority was the single most frequently selected option (among 20, where each respondent makes up to four selections to indicate a

sequence) in the entire question, it is clear that the question of cost is most frequently the strongest prohibitive factor in students' decisions. What the survey does not clearly reveal is why or how frequently students decline an opportunity to participate off-campus which they can afford, but due to a different factor.

## 2) What term will I be gone, and what would the project be like?

Upon close inspection, we saw suggestions that students who have or will complete the IQP off-campus more frequently indicate the timing of the project as an important factor. Additionally, students with an on-campus project more frequently indicated the content of the project as an important factor. In the spirit of the previous research question, it seems that these issues, while important, average into a mixed category of comparable importance that is otherwise unquantifiable.

#### 3) Will I get to go where I most want?

Generally, upperclassmen indicated that this issue was less important than others, where freshmen showed a stronger preference towards being accepted to their first choices of project center. Freshmen may not, however, be as informed as upperclassmen regarding the highly competitive nature of off-campus centers. Overall, we have concluded that the specific project center is less important to students than the previous three priorities.

It may not be possible to determine the exact effect this model of priorities may have on students' decision to go off campus should a Wellington project center be present in their range of options. However, comparing the characteristics of Wellington to these priorities may identify any prohibitive factors. In particular, our given estimate for the cost to students of attending a Wellington project center is below the overall average estimated cost of attending an off-campus

IQP center. Therefore, the cost of attending a Wellington center may not be a primary prohibitive factor. Among the remaining priorities in the sequence discussed, the type and quality of project could be prohibitive factors to some students, depending on their expectations of these attributes and the perceived qualities of the project centers they're considering. With regard to a Wellington center, an assessment of whether projects provided by the preliminary sponsor contacts we have developed would match students' expectations is best left until such a time that their proposals and formal relationships with WPI are further developed.

## 5.5.1.3 How do students who complete their IQP off-campus decide which project center they are most interested in actually attending?

To develop an understanding of how students develop a preference for one project center location over another, we built on the personal priorities the students have identified and apply this model to the population of existing project centers.

In particular, students preferring a fully developed or Western country may be most interested in centers like the ones in London or Melbourne. Melbourne in particular consistently exhibits high competition among students, but it is possible that this is because of other factors, like the perceived cultural experience the location offers. In this regard, students also identified that they'd like to interact with the population and seek a new culture to experience.

Due to England and Australia's societal and cultural similarities to New Zealand, this may make a Wellington project center favorable to the type of student who already considers London or Melbourne one of their top choices. Of course, each individual student will exhibit unique preferences and an order of priorities. Any determination of whether a project center

would be popular must be made from a holistic consideration of patterns observed in existing project centers and some of the specific majority opinions held by students.

## 5.5.2 Survey Research Outcomes: Faculty

The team pursued two specific research objectives through use of survey questions targeting faculty preferences for advising IQPs off-campus. Only receiving a response from about half of the survey recipients obscures our analyses somewhat in that the survey was intended to come as close as possible to a census. This method was divergent from that of the student survey because of the relatively small population of potential faculty advisors. This effects our conclusions because it becomes even more uncertain how the majority of the sample would respond based on so few responses, even though the *rate* of response was much higher than the student survey. This is an assumption based on a hypothesis that each survey recipient provided by IGSD holds an equal opinion or likelihood of having an opportunity to be involved in a Wellington center, on average. We have provided our reasoning and final assessment of faculty preferences with these stipulations for each of these objectives below.

## 5.5.2.1 What kind of project experiences do faculty members seek?

Overall, faculty members who shared their opinions by participating in our study indicated a common foundation of standards. Past these shared ideals, however, the diverse personal interests and contrasting priorities have made it difficult to identify any majority opinions.

In general, respondents frequently showed their strong desire for the students they advise to be "motivated" and interested in the work they're doing. Some respondents went so far as to identify a problem in some students who place too much priority on the recreational

opportunities inherent in an off-campus program. By these responses, it's clear that many faculty advisors feel very strongly about their expectations of their advisees. The quality of student "motivation" is something that our research did not attempt to track; future studies may be useful in determining what students expect from the project they complete to develop a better understanding of this student-advisor dynamic.

Otherwise, the next best indicator of likely student motivation is the overall quality of the sponsors. We reasoned that a compelling project is more likely to stimulate students' interest in their work, thereby improving the experience of the advisor. This hypothesis leads our assessment to acknowledge that, incidentally, faculty respondents also indicated their desire to work with "serious" sponsors who valued the students' project.

From the potential sponsor contacts so far, there exists a perceptible range of enthusiasm regarding a possible cooperation with WPI. Although potential sponsors such as the Ministry of Education and Porirua City Council exhibited great enthusiasm for the GPP and the possible projects they could envision students completing, the true measure of the overall quality of the sponsor base at a Wellington site may not be realized until the contacts we initiated are further developed and maintained. However, considering the favor with which we were received by Professor Elmes' contacts and the potential sponsors we have tentatively confirmed, a Wellington center has the advantage of boasting an evidently fertile project climate. That is, our contacts so far have indicated that our program seems very appropriate in a place like Wellington that has so many concentrated government and non-profit organizations.

A final broad ideal that faculty expressed was the inclination towards types of projects that have a great impact on the community at the center. Around 40% of respondents showed

they prefer their project center not be located in a fully developed country, perhaps for this reason. It is possible that faculty members holding this opinion would be disinclined to advise projects in a place like Wellington. In addition to preferring to participate in centers located in developing countries, these faculty members may notice that the students who attend such sites are more motivated by their project opportunity than by their opportunity for a cultural and recreational experience. Although tourism plays a significant role in New Zealand's business and society, the nation may not quite match the hypothesis of one faculty member who would prefer not to advise IQPs at "a site chosen primarily by students for its weather or touristic appeal."

# 5.5.2.2 What factors influence faculty members most in deciding whether they're willing to advise IQPs at an off-campus project center?

To determine whether faculty advisors would be willing to participate in an off-campus project center, it's important to understand the prohibitive factors and what constitute favorable circumstances to faculty. Because of the limited nature of our survey results, our assessment of the most important factors may not be reliably extended to the entire population of potential project advisors.

Furthermore, our results are somewhat confounded in that the desired outcome of the research question—identifying "what factors influence faculty members most"—is indeterminate from the responses we collected. Instead, we have identified some of the strongest and most frequent opinions expressed by respondents as a rough indicator of what issues are most likely to play a major role in this decision.

As discussed in 4.4.2, the advisor's interest in the location leads the model of priorities for faculty respondents. The confounding factor here is that this datum is limited to comparisons

to the options available in the survey question. An additional concern which multiple respondents identified was the ability of an advisor to travel back to the United States during the term to tend to their family or to maintain interests at WPI. Should faculty members with these preferences consider advising at a center like New Zealand, they may be restricted in their decision due to the high cost of air fare between the United States and New Zealand. In these circumstances, it would be particularly impractical for faculty advisors to make extra trips to and from the project center. These responses, however, do not clearly represent the prevalence of this concern among all potential faculty advisors.

## **5.5.3 Summary of Survey Research Outcomes**

The type of students who may prefer Wellington would value a comfortable and convenient experience while being immersed in a unique Western culture. Some projects may serve a strong humanitarian need, and some may deal closely with technology. Others may have a more social, practical, or financial focus that might not appeal specifically to students who strongly prefer the former.

The type of faculty member who may be available and most suitable to advise projects in Wellington will be able to stay for the entire term, and furthermore will be content with a Westernized culture. The centrality of business and accommodations in the city increase the advisors' overall convenience and lifestyle. It is too soon to speculate "how dedicated" project sponsors would be. Even though this is an important factor in determining the willingness of faculty members to advise IQPs in Wellington, this is best left for an analysis after proponents of the project center have made more progress with potential sponsors.

## 6 Recommendations

In the course of collecting and analyzing data, our group has identified a few viable options for WPI and IGSD to choose from when deciding the future of a site in Wellington. This section not only gives the aspects to consider for various terms in which IGSD could run the site, but also how far in the future they would want to run the site, if at all.

## 6.0 Determining Term:

When running the site IGSD has the option of choosing between B, C or D term. A-term is not a viable option because there is no time for students to complete the mandatory ID 2050 class the term before they leave. Below, we explore the factors that would affect the decision of choosing between each of the terms.

The time of year the students are living in Wellington affects the prices for some of the housing options. In this recommendation we will only talk about the top rated housing option, from each of the following categories: hostel, corporate apartment, hotel, and bed and breakfasts. For the top choices of the hostel and corporate apartment, Wellywood Backpackers and Century City respectively, there will be no change in price based on the time of the year. However, Abel Tasman, a hotel, and Annaday, the bed and breakfast, have higher prices for students in B and C-term than in D-term, since B and C-term occur during the peak tourist season.

While potential sponsors did not say that they would be unable to host projects during B and C term, they did express preference for hosting projects in D-term. In New Zealand their summer occurs during our B and C term, so many Kiwis take vacations at this time. Victoria University in particular said that hosting projects during this time could be difficult for them, but not impossible.

Faculty prefer to advise IQPs in D-term, followed by C-term, with B-term as their lowest preference. Though we do not know how many project sites will operate in the future, there were 5 operating project sites in B term, 4 in C term, and 7 in D term during the 2009-2010 academic year (Interactive and Global Studies Division, 2009). Because a faculty member must teach ID 2050 the term before a project center operates, and two faculty members must attend a project site while it is operating, it seems to be beneficial to have an equal distribution of project centers. With this in mind, C term would be the most preferred, followed by B term, then D term in terms of even faculty distribution.

In terms of weather, which can affect the student's interest in a site, it is much nicer in C-term since it is summer in New Zealand. During D-term the weather is still pleasant, but is a bit windier. Likewise the weather in B-term should be windy for the beginning of the trip and turn nice towards the end.

From this information it is important for IGSD to look at the sponsor's and faculty interest and balance those with any cost implications when determining which term to run the site.

## 6.1 When to open the site

The next decision IGSD must make is when or if they will open the site. Below are the four different options and the implications for each.

## 6.1.1 Open a full site right away:

#### 6.1.1.1Pros

One of the benefits to WPI for opening up a site for the 2010-2011 academic year is that the information on the cost of living and housing would, most likely, not change as much as it would if the center were opened further down the road. Additionally, opening a site abroad will help to increase the supply of international sites to meet the demand for them, which was discussed in sections 2.2.2 and 4.4. Another added benefit of opening a site in Wellington in the very near future is that it will help to keep the current sponsors we have interested. There is a chance that if the site waits a few years to open that the current sponsors we have may lose interest in sponsoring.

#### 6.1.1.2 Cons

By opening a site in Wellington, instead of another site, the students at WPI would lose the opportunity to go to another site and learning about the culture at that site. Additionally, opening a site would lessen the amount of money WPI would have to spend on other aspects of the school since the cost of running a site in New Zealand costs about \$20,000 USD. In addition to the monetary costs, WPI would have to provide the time of the center director and the faculty advisors while they are directing and advising at the site. WPI would also have to provide the logistical support from IGSD staff needed to operate a project center.

### 6.1.2 Don't open a site:

#### 6.1.2.1Pros

This option of not opening the center would save WPI the money it would spend on advisors' housing and airfare, as well as the center director's yearly trip. WPI could keep the savings or

use these resources to open another site. WPI would also have the would-be faculty advisors on campus teaching classes instead of abroad when the project center would be in operation. Furthermore, WPI would not have to provide a professor to teach ID 2050 the term before the center operates. This would also put less of a burden on the IGSD staff, who have to provide logistical support for the center. Additionally, with the current economy some students are unable to afford to pay the high costs of traveling abroad, which could make opening a less expensive site in the US a better decision.

#### 6.1.2.2Cons

One of the downsides of not opening the site would be that students would miss out on the opportunity to experience the unique New Zealand culture as discussed about in section 2.3.2. While there are different cultures available all around the world the culture of New Zealand is not one that is easy to find anywhere else on earth. In addition to not experiencing Wellington, which to the best of our knowledge is currently the only site abroad IGSD is examining to open, not opening a new project center would prevent some of the increased number of students from attending a project site abroad.

#### 6.1.3 Open smaller site:

#### 6.1.3.1Pros

WPI can also decide to open up a smaller than full size project site, with the possibility of increasing the size in the future. This has the advantage of an increased buffer between the number of groups and the number of sponsors. This increased buffer would help ensure enough projects for students even if an unexpected number of sponsors were unable to provide projects. This would also allow the WPI students and the work they complete the first year to give

evidence to other potential sponsors about what students in Wellington can accomplish with their IQP. This would also allow time for the idea of having WPI students work on projects spread by word of mouth. Additionally, opening up a smaller site could be more cost effective for WPI since they would only have to pay for one faculty advisor instead of two and the professor who wasn't advising could teach classes.

#### 6.1.3.2Cons

One of the problems with opening half of a site is that the cost of the housing may increase due to a smaller number of students. This could occur since in some cases there was a discount because of the number of students. Another concern with this option is that it would not help as much with the aforementioned lack of spots in off campus centers for this year's large freshman class. Additionally, if WPI sent a smaller group of students, there is the possibility that there would not be enough groups to complete the projects provided by the sponsors. Also, opening a smaller site would still entail sending the site director to Wellington ahead of the time which is a significant cost compared to sending another faculty advisor.

## 6.1.4 Come back to the idea of opening a site in the future:

#### 6.1.4.1Pros

Finally, WPI has the option to put this idea on hold and re-examine it in the future. This method could be beneficial if the school wants to wait for the economy to rebound. It could allow students to have more money to spend, allowing them to go abroad. Additionally, the idea of students working with New Zealand companies is not very strong at the moment. A few organizations are trying to make the idea of students working with companies more common in Wellington business. WPI could gain by waiting for these campaigns to come to fruition and thus

allow for organizations to become more responsive to the idea of being a sponsor. Another benefit to this course of action is that WPI could investigate more sites in the future to pick the best from a sample.

#### 6.1.4.2Cons

In the future, the strength of the US dollar in New Zealand could decrease from its current relative strength and thus cause the cost of living to increase. Also, housing could change in price or become unavailable. In addition to this, the majority of the logistical information our group has collected could change significantly because their prices in New Zealand could change for a multitude of reasons. Moreover, waiting could hurt the relationships already developed with the current sponsors as they begin to forget about WPI, or question whether a site will ever open. One of the largest drawbacks of this course of action is that there will not be any additional international project center spots in the 2010-2011 academic year for the freshmen entering in 2008, the largest class in WPI history, to travel abroad for their IQP.

## 6.2 Final Recommendation

We recognize that we do not have all the information necessary to make a certain decision about the best course of action regarding the proposed Wellington project center. Particularly, some of the requirements we have considered, such as project sponsors, hinge on certain progress or other unknown events. This is a conditional recommendation based on the assumption that the housing providers will still want to provide housing and at the same rate, interested sponsors following through and providing compelling projects, students being interested and able to afford the site, and WPI being able to afford all of the costs involved.

Considering all of these conditions and the advantages and disadvantages of each possible course of action, we recommend that WPI opens a full size IQP site of 24-28 students in Wellington, New Zealand. Currently we have found nine organizations who we consider highly likely to sponsor projects. If six of these sponsors work out then there would be enough projects at the site to support a full complement of students.

We further advise that the center is run during C-term because it will help to balance the distribution of project centers among academic terms, the weather is more agreeable to students, and it is the second most preferred term by faculty. We felt their first choice, D-term, would not be the best term to choose because of the large amount of projects already offered D-term. Since we recommend that the center runs in C-term, we recommend Century City Apartments because it offers large upscale facilities at a reasonable price that does not increase in C-term.

In terms of affordability the total cost of the site for a student is around \$5,300 for 7 weeks when using the numbers for a high exchange rate. The cost of this site is \$100 less than the average cost of all the IQP sites (excluding the Worcester site). Because of the fact that the total cost of the site comes in under the average cost we feel that the site, while not affordable to all, this shows that students would be able to afford this site.

For all of the reasons previously stated our group believes that it is in the best interest of WPI to open a full sized project center in Wellington, New Zealand C term of 2011 and to house students at Century City corporate apartments.

### WC Works Cited

09\_Wellington\_Official\_Stats\_2008\_Final.pdf. (2009, April 26). Retrieved April 26, 2009, from New Zealand Police:

http://www.police.govt.nz/service/statistics/2008/calendar/09\_Wellington\_Official\_Stats\_2008\_Final.pdf

*2 Bedroom Apartment*. (2009, April 24). Retrieved April 15, 2009, from Quest Wellington on Lambton Quay Serviced Apartments Wellington:

http://www.questwellington.co.nz/index.site.rooms.roomType.184.html

(2009, April 21). *The Journal of Financial and Quantitative Analysis*, 39(2), 385-405. University of Washington School of Business Administration. Retrieved April 21, 2009, from http://www.jstor.org/stable/30031861

a. (d, e). b. Retrieved from c.

Aaker, D. A. (2008). Strategic Market Management (1st ed.). New Jersey: Hoboken.

About Our Firm. (2009, April 24). Retrieved April 24, 2009, from Canadian Hotel Guide: Hotel Discounts And Hotel Reservations: http://www.canadianhotelguide.com/about.html

*About us.* (2009, April 24). Retrieved April 24, 2009, from Qualmark: http://www.qualmark.co.nz/about\_us.php

*About Us.* (2009, April 26). Retrieved April 26, 2009, from Go Wellington: http://www.gowellingtonbus.co.nz/go-about-us/go-wellington.php

Accident Compensation Commission. (2008, June 20). *Am I covered?* Retrieved April 23, 2009, from ACC: http://www.acc.co.nz/making-a-claim/am-i-covered/index.htm

Accidents and Health Insurance. (2009, April 20). Retrieved April 20, 2009, from Health and Safety: http://www.newzealand.com/travel/about-nz/key-facts/key-facts-health-and-safety.cfm

Background Note: New Zealand. (2009, April 2). Retrieved February 2, 2009, from US Department of State: http://www.state.gov/r/pa/ei/bgn/35852.htm

Bartlett, J. E., Kotrlik, J. W., & Higgins, C. (2001). Organizational research: Determining appropriate sample size for survey research. *Information Technology, Learning, and Performance Journal*, 19 (1), 43-50.

Berkey, D. (2009, Winter). A Message from President Berkey. Retrieved April 26, 2009, from WPI Transformations: http://www.wpi.edu/News/Transformations/2009Winter/can-do.html

Borgatti, S. (2009, April 24). *Introduction to Grounded Theory*. Retrieved April 23, 2009, from MB 870 Qualitative Research Methods / Steve Borgatti, Boston College: http://www.analytictech.com/mb870/introtoGT.htm

*Bus, Taxi, Shuttles*. (2009, April 14). Retrieved April 15, 2009, from Wellington International Airport: http://www.wellington-airport.co.nz/html/parkingtransport/bus.php

Butler, S. E., & McIlvian, J. (2009). New Zealand 2009. New York: Random House.

Cafenet. (2009). *About Cafenet*. Retrieved April 15, 2009, from Cafenet: http://www.cafenet.co.nz/about/services/prepay.html

*College Campus News*. (2009, March 30). Retrieved March 25, 2009, from http://www.collegenews.org/x3036.xml

Compare NZ Broadband Internet Access Service Provider Plans New Zealand. (2009, April 24). Retrieved April 23, 2009, from Compare NZ Broadband Internet Access Service Provider Plans New Zealand: http://broadband.t5.co.nz/

Creighton, P. R. (2009, April 22). RE: IQP Project Center Housing Accommodations. (N. Nesbitt, Interviewer)

*Crime Statistics for fiscal year ending 30 June 2008.* (2009, April 26). Retrieved April 26, 2009, from New Zealand Police: http://www.police.govt.nz/service/statistics/2008/calendar/index.html

Cuba St Carnival Trust. (2009). *About Us*. Retrieved April 20, 2009, from Cuba St Carnival: www.cubastcarnival.co.nz

*Current Travel Alerts*. (2009, April 20). Retrieved April 20, 2009, from US Department of State: http://travel.state.gov/travel/cis\_pa\_tw/pa/pa\_1766.html

CustomInsight. (n.d.). *Survey Tips - Random Samples and Statistical Accuracy*. Retrieved April 20, 2009, from CustomInsight.com: http://www.custominsight.com/articles/random-sampling.asp

Davis, P. W. (2009, April 22). RE: IQP Project Center Housing Accommodations. (N. Nesbitt, Interviewer)

Denton, D. (2009, March 24). Car Accidents. (S. Woodnorth, R. Heller, S. Whorton, N. Nesbitt, & C. Fancher, Interviewers)

Denton, D. (2009, March 20). Wellington Police Force. (N. Nesbitt, Interviewer)

Division of Enrollment Management. (2008). WPI Undergraduate & Graduate Student Enrollment Information.

Doesburg, A. (2009, February 23). Third Mobile Network Coming - Eventually. New Zealand Herald.

Dragon Boat Festival. (2009, April). *Dragon Boat*. Retrieved April 20, 2009, from The Basics: http://www.dragonboat.org.nz/page/basics.aspx

Elmes, M. B. (2009, March 28). Housing Requirements. (N. Nesbitt, Interviewer)

Elmes, M., & Vaz, R. (2008, September 3). Letter to the Provost: ISRP Proposal.

Finge Arts Trust. (2009, April). *About Us*. Retrieved April 20, 2009, from Fringe Arts Festival: http://2009.fringe.co.nz/contact-us/

Foreign Per Diem Rates, Country: NEW ZEALAND. (2009, April 26). Retrieved April 26, 2009, from U.S. Department of State:

http://aoprals.state.gov/web920/per\_diem\_action.asp?MenuHide=1&CountryCode=1134

Fui-Hoon Nah, F. (2002). *Enterprise Resource Planning Solutions and Management*. Hershey: Idea Group Inc (IGI).

Gerstenfeld, A. (2009, Februaury 6). Meeting with Gerstenfeld. (S. Whorton, & S. Woodnorth, Interviewers)

Global Persepective Program: Windhoek, Namibia D 10. (2009, April 2). Retrieved March 24, 2009, from Interdisiplinary & Global Studies Division: http://www.wpi.edu/Academics/GPP/Centers/namibia.html

Global Perspectives Program. (2006, October 31). *The Value of a Global Persspective*. Retrieved April 26, 2009, from Global Perspectives Program: http://www.wpi.edu/Academics/GPP/Overview/value.html

Green Cabs. (2009, April). *Fare Calculator*. Retrieved April 29, 2009, from Green Cabs: http://www.greencabs.co.nz/calculator.html

Hanna, N. (2008). Wellington. In *Fordor's Exploring New Zealand* (pp. 148-155). New York: Random House.

Hoagland, H., & Williamson, L. (2000). *Feasibility Studies*. Agricultural Economics. Lexington, KY: University of Kentucky.

Hofstrand, D. (2006, March). When to Do and How to Use a Feasibility Study. Retrieved April 28, 2009, from Iowa State University Ag Decision Maker:

http://www.extension.iastate.edu/AGDM/wholefarm/html/c5-64.html

Hofstrand, D., & Holz-Clause, M. (2006, March). What is a Feasibility Study? Retrieved April 27, 2009, from Iowa State University Ag Decision Maker:

http://www.extension.iastate.edu/AGDM/wholefarm/html/c5-65.html

*Hotel Rating System Explained*. (2009, April 24). Retrieved April 24, 2009, from Canadian Hotel Guide: http://www.canadianhotelguide.com/ratings.html#amenities

Interactive and Global Studies Division. (2009). *The Gobal Calendar*. Retrieved May 1, 2009, from IGSD: http://www.wpi.edu/Academics/GPP/Centers/globalcalendar.html

Interdisciplinary and Global Studies Division. (2006, October 31). WPI's Unique Approach to Global Studies. Retrieved April 26, 2009, from Global Persepctives Program: http://www.wpi.edu/Academics/GPP/Overview/unique.html

Interdisiplinary & Global Studies Department. (2009, April 2). Retrieved March 21, 2009, from WPI: http://www.wpi.edu/Academics/Depts/IGSD/

Koea, J. B. (2008). Indigenous Trauma: A New Zealand Perspective. Injury, S11-S18.

Law Enforcement Data. (2009, April 30). Retrieved April 30, 2009, from Law Enforcement Statistics: http://www.idcide.com/citydata/ma/worcester.htm

Line, H. P. (2009, March 9). Health Insurance. (R. Heller, Interviewer)

Liu, J. H., Wilson, M. S., McClure, J., Higgins, T. R., Liu, J. H., Stewart Wilson, M., et al. (1999). Social identity and the perception of history: cultural representations of Aotearoa/New Zealand . *European Journal of Social Psychology*, 1021-1047.

Management, D. o. (2009, March 30). 2008 Fact Book. Retrieved March 24, 2009, from http://www.wpi.edu/Images/CMS/InstituionalResearch/Factbook\_2008.pdf

*Maori*. (2009, April 14). Retrieved April 12, 2009, from Urbanisation and renaissance: http://www.teara.govt.nz/NewZealandInBrief/Maori/5/en

Mello, N. A. (2009, March 27). RE: Some NZ IQP Questions. (N. Nesbitt, Interviewer)

Mello, N. (2009, March 26). E-mail Answering Questions.

Mello, N. (2009, February 5). Interview: Housing. (S. Woodnorth, & C. Fancher, Interviewers)

Mello, N. (2009, February 5). Interview: Non Academic. (S. Woodnorth, & C. Fancher, Interviewers)

Metlink. (2009, April). *Tickets and Fares*. Retrieved April 29, 2009, from Metlink Greater Wellington's Public Transportation Network: http://www.metlink.org.nz/section2324.php?

Money Best places to live. (2009, April 30). Retrieved April 30, 2009, from CNN Money: http://money.cnn.com/magazines/moneymag/bplive/2006/snapshots/PL2582000.html

Morrison, T., & Conaway, W. A. (2006). Kiss, Bow, Or Shake Hands: The Bestselling Guide to Doing Business in More than 60 Countries. Avon, Mass: Adams Media.

New Zealand. (2009, April 2). Retrieved February 12, 2009, from Encyclopædia Britannica: <a href="http://search.eb.com/eb/article-9108762">http://search.eb.com/eb/article-9108762</a>>

*New Zealand*. (2009, April 26). Retrieved April 26, 2009, from United States Department of State: http://travel.state.gov/travel/cis\_pa\_tw/cis/cis\_984.html

*New Zealand Dollar, American Dollar*. (2009, April 15). Retrieved April 3, 2009, from Exchange rates data: http://www.x-rates.com/d/USD/NZD/data120.html

New Zealand Ministry of Economic Development, Growth and Innovation Advisory Board. (2002). Being More Like Ourselves: Smart New Zealand Enterprises: a Study on the Values and Cultural Characteristics of New Zealanders at Work.

New Zealand: Country Specific Information. (2009, April 2). Retrieved March 22, 2009, from US Department of State: http://www.travel.state.gov/travel/cis pa tw/cis/cis 984.html#safety

*Nomads Capital backpacker hostel*. (2009, April 24). Retrieved April 15, 2009, from Nomads Capital backpacker hostel: http://nomadshostels.com/hostels/new-zealand/wellington-nomads-capital

NZ International Arts Festival 2009. (2009, April). *About Us & Contacts*. Retrieved April 20, 2009, from New Zealand International Arts Festival 2009: http://www.nzfestival.nzpost.co.nz/about-us-contacts

NZ Ministry of Health. (n.d.). *NZ Ministry of Health*. Retrieved April 27, 2009, from About the Ministry of Health: http://www.moh.govt.nz/moh.nsf/wpg\_index/About-moh

*Opportunity Cost Definition*. (2009). Retrieved April 28, 2009, from Business Dictionary: http://www.businessdictionary.com/definition/opportunity-cost.html

*Opportunity Cost Definition*. (2009, April 21). Retrieved April 20, 2009, from Buisness Dictionary.com: http://www.businessdictionary.com/definition/opportunity-cost.html

Peet, C. R. (2009, April 22). RE: IQP Project Center Housing Accommodations. (N. Nesbitt, Interviewer)

*Photo Gallery*. (2009, April 24). Retrieved April 15, 2009, from Bay Plaza Hotel: http://www.bayplaza.co.nz/index/Bay%20Plaza%20Hotel/Overview/Gallery/

*Photo Gallery*. (2009, April 24). Retrieved April 15, 2009, from Abel Tasman Hotel: http://www.primehotels.co.nz/abel\_gallery/abel\_photo\_gallery.php

*Photos.* (2009, April 24). Retrieved April 15, 2009, from Annaday Homestay in Wellington New Zealand: http://www.tavis.co.nz/annaday/photos\_2.html

*Places to stay.* (2009, April 24). Retrieved April 24, 2009, from Qualmark: http://www.qualmark.co.nz/places\_to\_stay.php

*Places to Stay.* (2009, April 24). Retrieved April 24, 2009, from Qualmark: http://www.qualmark.co.nz/places\_to\_stay.php

Police, W. (2009, April 26). Safety in Wellington. (S. Woodnorth, Interviewer)

*Project Centers in the World.* (n.d.). Retrieved from Interdisciplinary & Global Studies Division: http://www.wpi.edu/Academics/GPP/Centers/intheworld.html

(2009). Safety. In S. E. Butler, & J. McIlvian (Eds.), *New Zealand 2009* (p. 577). New York, New York: Random House.

Survey Monkey. (2009). Retrieved April 2009, from SurveyMonkey: http://www.surveymonkey.com/

Telecom. (2009). *Telecom Mobile Broadband Prices*. Retrieved April 15, 2009, from http://beta.telecombusinesshub.co.nz/Internet/MobileBroadband/Pages/Pricing.aspx

*Travel Warnings*. (2009, April 20). Retrieved April 20, 2009, from US Department of State: http://travel.state.gov/travel/cis\_pa\_tw/tw/tw\_1764.html

United States Embassy, W. N. (2009, March 17). Fwd: FW: Information on travel safety. (N. Nesbitt, Interviewer)

University of Mississippi. (2001). *A Guide to Centralized Foodservice Systems*. National Food Service Management Institute. Oxford: University of Mississippi.

US Department of State. (2009, April 2). *New Zealand: Country Specific Information*. Retrieved March 22, 2009, from US Department of State:

http://www.travel.state.gov/travel/cis\_pa\_tw/cis/cis\_984.html#safety

US Department of State. (2009, April 2). *New Zealand: Country Specific Information*. Retrieved March 22, 2009, from US Department of State:

http://www.travel.state.gov/travel/cis pa tw/cis/cis 984.html#safety

Vaz, R. (2009, April 28). Cost of an IQP site to WPI. (R. Heller, Interviewer)

Vaz, R. F. (2009, April 21). RE: IQP Project Center Housing Accommodations. (N. Nesbitt, Interviewer)

Vaz, R. (2008, December 9). Initial Interview. (R. Heller, S. Woodnorth, N. Nesbitt, C. Fancher, & S. Whorton, Interviewers)

Vaz, R. (2008, December 9). Initial Interview. (R. Heller, S. Woodnorth, N. Nesbitt, C. Fancher, & S. Whorton, Interviewers)

Welcome Worcester Polytechnic Institute Students . (2009, April 14). Retrieved April 13, 2009, from United Healthcare: https://www.uhcsr.com/SelfServiceSupport/Students/CollegeHome.aspx

*Wellington, New Zealand*. (2009, April 24). Retrieved April 15, 2009, from Quest Atrium Apartments: http://www.atriumtowers.co.nz/gallery.htm

What is a Decision Matrix? (2009, April 25). Retrieved April 25, 2009, from Request for Proposal: http://rfptemplates.technologyevaluation.com/What-is-a-Decision-Matrix.html

Worcester Polytechnic Institute. (2006, 10 17). *Global Perspectives Program Chapter 2: Objectives of the IQP*. Retrieved February 15, 2009, from Interdisciplinary and Global Studies Division: http://www.wpi.edu/Academics/GPP/Students/ch2.html

Worker, W. H. (2009, April 27). Health Care and Insurance. (S. Woodnorth, Interviewer)

World Traveler Accomodation NZ. (n.d.). Retrieved 4 5, 2009, from Budget Backpacker Hostels: http://www.bbh.co.nz

*WPDAnnualReport2007.pdf.* (2009, April 26). Retrieved April 26, 2009, from Worcester Police Department: http://www.ci.worcester.ma.us/reports/WPDAnnualReport2007.pdf

WPI's Unique Approach to Global Studies. (2009, April 2). Retrieved March 21, 2009, from Interdisiplinary & Global Studies Division: http://www.wpi.edu/Academics/GPP/Overview/unique.html

xrates.com. (2009). *NZD to USD Historical Exchange Rates*. Retrieved March 26, 2009, from xrates: http://www.x-rates.com/d/USD/NZD/data120.html

# **A** Appendix A: IQP Center Application Data

Site	Term	05-06 apps	# spots	ACC	C	06-07 apps	# spots	ACC
Washington DC	b	7	24	24		7	24	26
Worcester	b	4	12	10		10	12	10
Zurich	b							
Venice	b					40	24	24
Cape Town	b							
Nantucket Island	b							
San Josse	b							
Bangkok	С	41	24	24		30	24	24
London	С	19	24	24		13	24	24
Worcester	С	6	12	12		2	12	7
Hong Kong	С	21	24	24		17	24	24
Melbourne	С							
Boston	d	11	24	22		12	24	24
Copenhagen	d	49	15	15		37	15	15
London	d	19	24	24		31	24	24
Melbourne	d	31	24	24		60	24	24
San Juan	d	63	24	24		39	24	24
Windhoek	d	23	24	24		32	24	24
Worcester	d							
London	е					12	24	18
San Jose	е	26	24	23		17	24	23
Venice	е	15	24	19				

Site	Term	07-08 apps	# spots	ACC	(	08-09 apps	# spots	ACC
Washingto	b	10	24	26		11	24	30
Worceste	b	10	12	12		8	16	18
Zurich	b							
Venice	b	30	24	24		48	28	28
Cape Tow	b	50	24	24		30	24	24
Nantucket	b					13	24	21
San Josse	b					51	24	28
Bangkok	C	25	24	24		41	24	25
London	C	16	24	26				
Worceste	С	5	12	9		6	16	14
Hong Kong	С	11	24	18		29	24	24
Melbourn	С							
Boston	d	17	24	25		5	24	30
Copenhag	d	17	15	15		27	15	15
London	d	21	24	26		30	24	25
Melbourn	d	50	24	24		58	26	26
San Juan	d	26	24	25		22	26	26
Windhoel	d	25	24	24		24	24	24
Worceste	d							
London	е	6	12	7		11	24	26
San Jose	е	18	24	19				
Venice	е							

Site	Term	9-10 apps	# spots	ACC
Washingto	b	6	28	32
Worcester	b	3	16	10
Zurich	b			
Venice	b	45	28	28
Cape Town	b	38	24	27
Nantucket	b			
San Josse	b	50	28	28
Bangkok	С	34	24	27
London	С			
Worcester	С	5	16	9
Hong Kong	С	30	24	24
Melbourne	С	15	12	16
Boston	d	11	28	28
Copenhage	d	46	15	15
London	d	34	28	28
Melbourne	d	36	26	24
San Juan	d	33	26	26
Windhoek	d	23	24	24
Worcester	d	2	16	10
London	е	14	24	21
San Jose	е			
Venice	е			

# **B** Appendix B: Housing Criteria Form

Category			
Catogory	ves	no	comments
Fire safety	,,,,	1	
multiple clearly marked fire exits			
fire extinguishers			
working smoke detectors			
barred windows			if yes, what floor?
exposed electrical wires			where?
Security			Describe access: key card, key, concierge/front desk staff, etc.
secure entrances (deadbolt locks)			
solid external doors			
locks on all windows			
no broken windows - all function			
screens/sterms on windows			
Any sort of security system in place			what is it?
peephole at front door			
working appliances (if available)			
stovetop			gas or electric? If gas, how supplied
oven			gas or electric? If gas, how supplied
microwave			
refridgerator			
laundry facilities			if no - how close by?
hot water in kitchen			
hto water in bathroom			
landline telephone			
high speed internet			

	Describe locale: residential,
Noighborhood	· · · · · · · · · · · · · · · · · · ·
Neighborhood	urban, business district, etc.
safe surroundings	
well lit outside at night	
Accessible to public transportation	
Access to shopping - for necessities	
Access to restaurants	
Transportation	
easy access to public transportation	how long of a walk?
bus line	
metro/subway	
reliable taxi service	
walking distance to sponsor	
	indicate which floors will be
Multi-floor building	used
working elevator	
multiple stairways	
fire escape	
Co-ed apartments	
locks on bedroom doors	
locks on bathroom doors	
separate bathrooms?	
	Name, Address, and proximity to
Facilities	housing
emergency medical services	
medical clinic (non-emergency)	
dental clinic	
mental health facilities	
Embasy or consulate (if available)	
fire house	how close?
police station	how close?
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
ADA Compliance	
wheelchair accessible	
ADA accommodated bathroom &	
shower	
Silowel	<del>                                      </del>
Price	<del>     </del>
B-term (ex. Oct. 27 - Dec 17, 2009)	<del>                                      </del>
2 tom (ox. cot. 21 - bcc 11, 2009)	<del>     </del>
C-term (ex. Jan 14 - March 15, 2010)	
D-term (ex. March 15, May 4, 2010)	
Does peak and off-peak tourist	<del>-  </del>
· · · · · · · · · · · · · · · · · · ·	
season matter?	
Cost of Internet	

## C Appendix C: Correspondence with IGSD

### Meeting with Rick Vaz 12/12/2008

The interview with Rick Vaz in December 2008 answered our initial questions about our project. The first thing that Vaz addressed was what he wanted from us as a project sponsor. We should come back with enough documentation about housing, project sponsors, and cost so that WPI can make an informed decision about whether to make a project center in Wellington. He informed us that the main limitation to opening new project centers is the cost to WPI. WPI has to replace the professors time while they are teaching ID 2050 and at the project site. WPI also has to pay for the professor's airfare and housing for the duration for the duration of their stay the site. The way WPI defrays these costs is to collect project fees from sponsors. For an IQP these fees range from \$ 5,000 to \$10,000. Vaz said that Professor Ault would be knowledgeable about getting sponsors to pay fees in Melbourne.

In addition to defining our main goal as a project group Rick Vaz answered some of our broader questions about how to accomplish this goal. One of the more difficult things that we are going to have to pull off is getting across to potential sponsors what a project is. In order for us to accomplish this we have to understand fully what a project is so Vaz suggested that we research the information available on WPI's website and also attend the President's IQP awards on 1/28/2009. Some of the thoughts Rick Vaz had about IQPs were that they are a problem that the sponsor has for students to find a solution to instead of a task that just requires work.

For all the non-educational aspects of setting up a project center such as safety, housing, transportation, etc. we were referred to Natalie Mello who is in charge of that aspect of the

IGSD. For our immediate needs like whether we need a visa or what we should tell the customs people we are doing in New Zealand we were referred to Leanne Johnson.

## Meeting with Natalie Mello 2/5/2009

The interview with Natalie Mello provided many details about the logistic side of opening a project center. Topics discussed were housing for students and faculty, access to medical facilities, and what our group needs to do to create a site sheet for the possible project center. One of the main goals of going to New Zealand is to come back with enough documentation to make a good recommendation for or against the establishment of a project center there.

For housing to be approved there are quite a few things that need to be considered. In Appendix 1 there is a checklist that our group should fill out to assess each potential housing location. In addition to this checklist there should be enough space for twenty four students, faculty, and meeting space that is separate from the living quarters. The cost of housing is the next most important factor to consider next to the checklist for housing safety. Cost could very easily determine whether students could be able to go to New Zealand.

The single most important factor in determining suitable housing, according to Natalie Mello, is access to quality health care. This includes general hospitals as well as mental health facilities. The World Health Organization (WHO) can provide a list of hospitals and mental health facilities in the Wellington area.

One of the tasks the group should complete while in New Zealand is coming up with a Section 3 of the site specific handbook for a project center. Section 3 of a project center handbook has local phone numbers for any kind of emergency situation, maps and directions to

places like medical facilities, grocery stores, and other places of interest. The Section 3 of the

Venice handbook is a great example of the level of detail that should be included.

In addition to creating the Section 3 for the project center handout, the group should

gather information for the family section of the IGSD website and a site sheet for the project

center. The data to be collected for the site sheet is mainly expense based. These expenses

include airfare, housing, groceries, dining out 1x a week, tourist activities, etc. The easiest way

to do this is to record all of the expenses of the group and average them to account for the

differences in spending habits.

Some miscellaneous but still quite useful information gleaned from the interview

included talking to Aaron Harp in Institutional Research about the survey. Ms. Mello also said

that projects should be something new to students, manageable, interesting, and fulfill the need

of a sponsor.

E-Mail Correspondence about Site Feasibility

From: Heller, Rachel K

**Sent:** Tuesday, April 21, 2009 7:37 PM

**To:** Vaz, Richard F; Mello, Natalie A.

Subject: A few questions-Wellington IQP group

Dean Vaz and Natalie Mello,

We were just wondering at what point in your mind the site is seen as feasible for each of the

following criteria:

. Safety, health, and risk management- We have compiled data on this subject, how do we

determine it is safe? or do you just want us to be able to provide information on it's safety? or is

it just if according to the US department of State it is a safe country?

2. Affordability for both students and WPI (including the potential for sponsor fees)- what

price counts as affordable? Is there a certain site ours ideally should be cheaper than?

4. Potential synergies (e.g, with other centers, with WPI faculty research, etc.)- are you

looking for a minimum of 1 or is there another number you have in mind?

5. Logistics: transportation, telecommunications, etc.- in order for the site to be viable do we

just need to be able to collect this data and for it to not cause the total cost of the site to be too

expensive? Are there any specific circumstances that would have a strong negative impact on the

center's feasibility in and of themselves?

6. Sponsors: is there a minimum number of foreseeable projects the site needs (or minimum

number of students that can go and have a project to work on) to be able to host in its first year

of operation?

Thanks for your help.

Sincerely,

Rachel and team

Response One from Dean Vaz

Dear Rachel,

Most of these questions do not have simple numerical answers. We encourage you not to make

judgments yourselves, but rather to focus on collecting and analyzing information. WPI will

have to make the judgments in the future; if you can gather enough relevant information that will

help us.

I will defer to Natalie on question 1.

2. The cost of each site is available on the site sheets, on line, and that will give you an idea of

the range. Some students can't afford the more expensive sites. Some students can't afford ANY

international site. The cheaper the better. Same for WPI -- keeping the cost of faculty housing

low is an especially important factor, but of course airfare is also.

4. I'm not looking for anything here. Synergies are nice when they happen.

5. I'm not sure what you're asking. We need to know if logistics, telecommunications, etc.

are convenient and affordable, so collect as much information on them as you can.

6. In my experience, not all projects work out and not all sponsors can sponsor each year. To

field 6 projects, one might want 9 or 10 possible sponsors. Since this is just a feasibility study,

you should be looking at the prospects of good streams of projects from different sectors -- local

government, non-profits, museums, whatever. Try to make contacts and raise their awareness of

us.

Good luck to the team as you enter the final days of your work!

RV

Response Two from Dean Vaz

Hi again Rachel,

I tried to cc your group, but forgot that you changed your alias. Please share this with them – thanks.

I want to clarify my comments a bit, and also make sure that what I'm suggesting is consistent with what your advisor is expecting, so I've cc'd him also. Mike, if anything I'm saying contradicts how you've been guiding the team, please chime in!

Your questions suggest that you're hoping to answer some yes/no questions -- Is it safe? Is it affordable? Are the projects good? -- to lead up to a big yes/no question: Should WPI have a NZ Project Center?

None of those is a yes-or-no situation, since there is a wide range of safety, of cost, of project availability and quality, etc. And you don't have enough information to answer that last big question of whether a center makes sense, because you don't know what WPI's budget situation is, or what the other options might be.

So, the most helpful thing your team can do is to position yourselves as <u>objective consultants</u> who can answer the question "What could a NZ Project Center offer to WPI and its students?" That is, what are the benefits? What are the risks? What are the costs? What makes it appealing? What are the limitations and challenges? Note that none of these is a yes/no question.

I am sure you have had a FABULOUS time there. To finish off your project in a way that will be genuinely helpful to IGSD, you must set that aside and deliver an objective report, balanced with pros and cons. Your job is NOT to convince us to start a center there; your job is to give us enough information to decide if a center there makes sense – and if we think it does, to provide us with enough facts and evidence to make the argument to the WPI administration.

Good luck, and thanks for listening!

RV

Response from Natalie Mello

Hello Rachel,

Sorry for the delay in responding. I do not have much to add to what Rick has already written

below... the answer to safety is not a yes no answer. If it were that easy, we could just students

anywhere the state department didn't have a travel warning. But as I suspect you know, it isn't

that easy – partly because what drives the US state department is politics. But enough about

that. What I need you to do is to gather as much information as you can about the conditions

where the center might be – crime and safety reports, local lore about where is safe and not safe,

which neighborhoods to avoid and when to avoid them, if there are particular practices that

should e avoided, etc. if your team can compile all of that type of information, that will aid us in

determining if this is a location that will support students at an appropriate level.

\*\*\*\*\*

Natalie A. Mello

Email from Professor Elmes to Dean Vaz

From: Elmes, Michael B.

Sent: Wednesday, April 22, 2009 9:16 AM

To: Vaz, Richard F

**Subject:** RE: A few questions-Wellington IQP group

Rick -

I would like (and have told) the students to try to conduct a thoughtful and authoritative costbenefit analysis and make a recommendation to IGSD about opening a project center in Wellington. Please note that this kind of analysis and recommendation is much different from trying to convince you and Natalie to start a center there because they are having a FABULOUS time. Whatever recommendations they give you will be based on pros and cons and are likely to have conditions and caveats attached to them.

So you can anticipate some kind of recommendation based on the analysis they conduct.

Best,

ME

#### Response from Mike Elmes

Hi Team – Regarding your exchange with Vaz, you will definitely need to present the pros and cons of a NZ project center in your analysis and make a recommendation (or recommendations) within the context of your knowledge and data. For example, you won't know what Vaz budget is, what other project centers are being considered and so on. So you will have to couch your recommendation(s) in the knowledge and data that you have acquired and the analysis you have conducted. It won't be complete knowledge and data but that is ok as long as you are transparent about what you are basing it/them on.

To Vaz's point....I know that you are having a wonderful time. Your challenge will be to separate that wonderful time from the rigorous, dispassionate analysis you need to conduct to

identify the pros and cons and ultimately make a recommendation. That is your challenge and is the only way that your study will have credibility and ethos. You might try to establish some conditions under which a project center makes sense. Comparing it to other project centers (except with regards to cost) may be difficult given that you don't know what other project centers are like.

I believe that you can offer a balanced, thoughtful, and objective set of recommendations to Vaz and Mello even without all the information that they have access to. My guess is that it will end up being a conditional recommendation based on your analysis – but if it is an outright rejection, that would be fine too (truly it would be – I am not wed to making this happen, despite my love of Wekas!). How ever you come down on the question, the key is that you try to be objective – doing so will be a challenge since your sponsors are inclined to believe that you will have difficulty being objective because of the great time you are having.

Please help me prove him wrong.

Best,

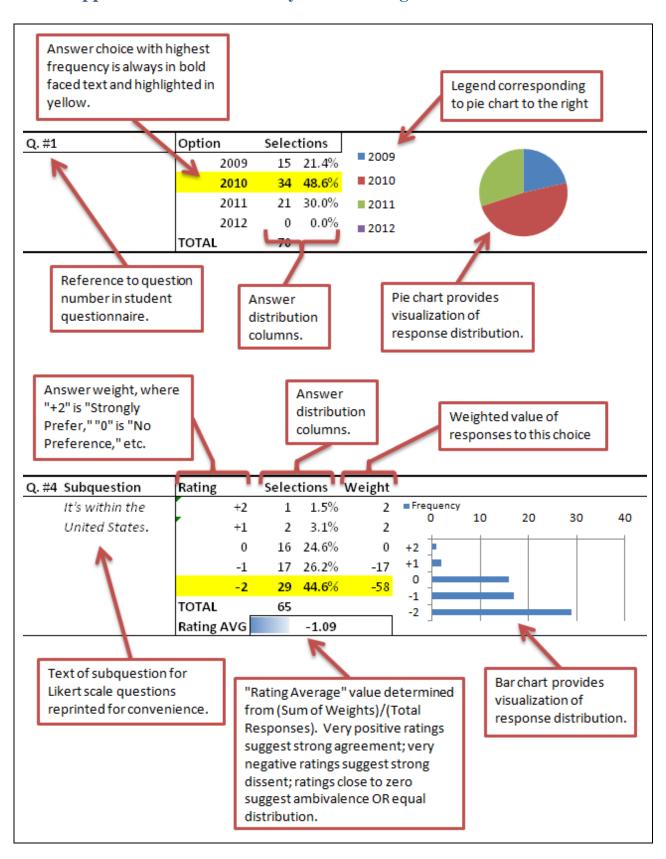
Mike

# D Appendix D: IGSD Research Objectives

These are the research objectives given to the group from IGSD prior to starting to project:

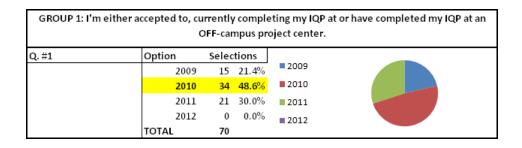
- Safety, health, and risk management
- Affordability for both students and WPI (including the potential for sponsor fees)
- Availability of compelling projects (preferably thematically related)
- Availability of supportive sponsors and liaisons
- Interest of WPI students and faculty in the location and projects
- Potential synergies (e.g, with other centers, with WPI faculty research, etc.)
- Availability of suitable housing for students and faculty
- Logistics: transportation, telecommunications, etc.

## **E** Appendix E: Student Survey Crosstab Legend

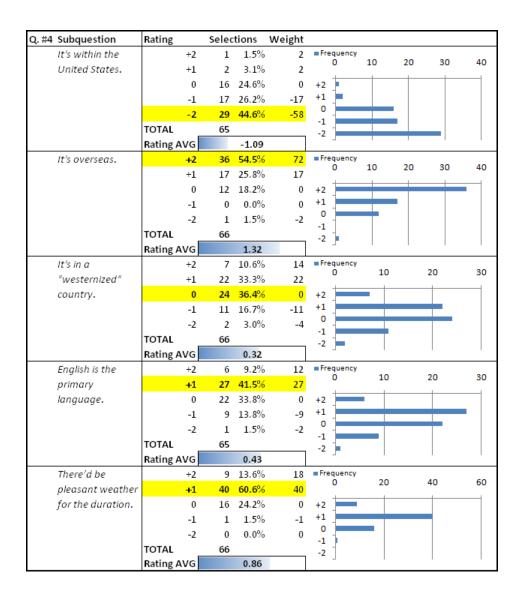


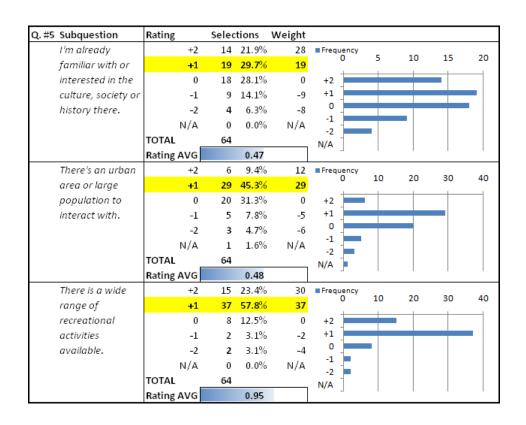
# **F** Appendix F: Student Survey Cross-tabulation

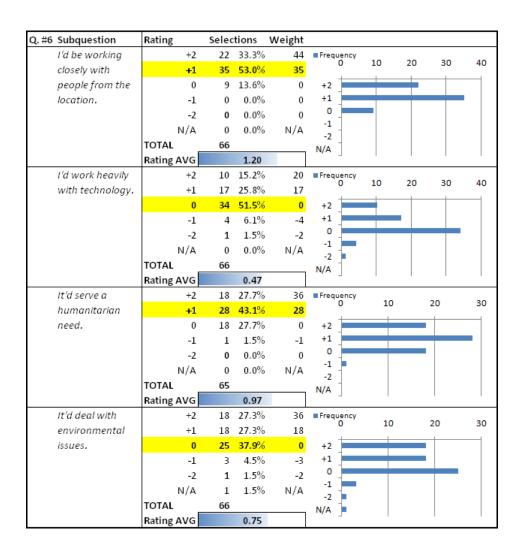
# Group 1



Q. #3 Subquestion	Ranking	Selec	tions	
Whether I could	1st	19	30.6%	
afford to travel	2nd	17	27.4%	■1st
off-campus.	3rd	12	19.4%	2nd
	4th	14	22.6%	■3rd
	TOTAL	62		■ 4th
	Rating AVG	2.66		
Which term of	1st	19	31.7%	
the year (B, C or	2nd	15	25.0%	
D) I would be off-	3rd	17	28.3%	■2nd
campus.	4th	9	15.0%	■3rd
	TOTAL	60		■ 4th
	Rating AVG	2.73		
Whether I would	1st	14	21.2%	■1st
be accepted to	2nd	16	24.2%	
the off-campus	3rd	20	30.3%	■ 2nd
project center I	4th	16	24.2%	■ 3rd
preferred.	TOTAL	66		■ 4th
	Rating AVG	2.42		
Whether I would	1st	12	18.2%	■1et
like the kind of	2nd	16	24.2%	
projects being	3rd	16	24.2%	
offered at off-	4th	22	33.3%	■ 3rd
campus project	TOTAL	66		■ 4th
centers.	Rating AVG	2.27		



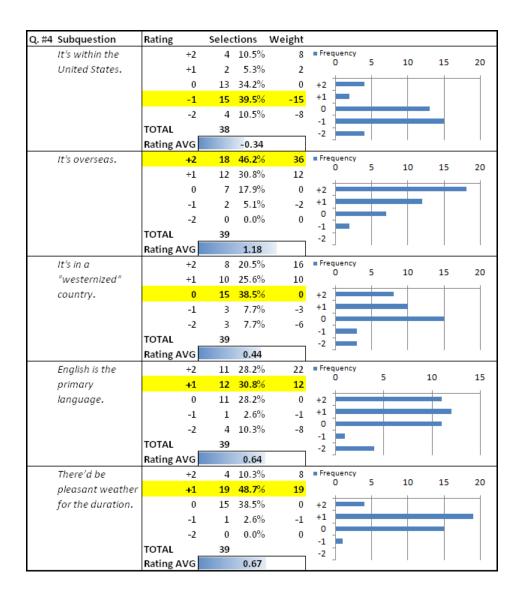


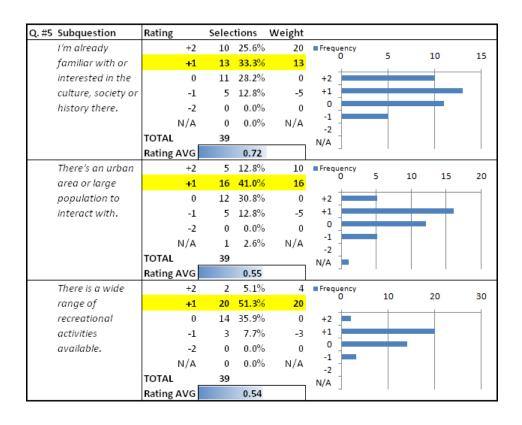


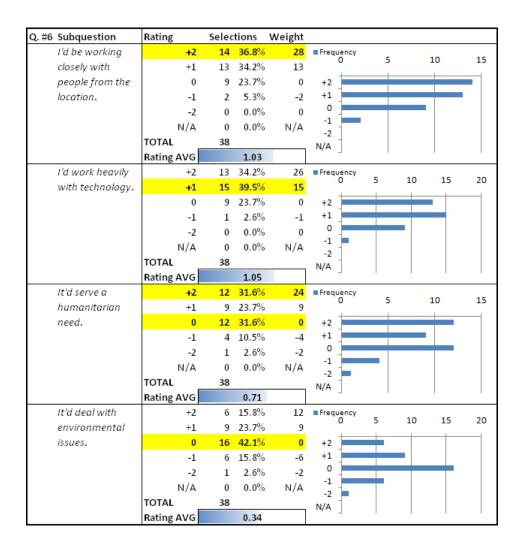
# Group 2

GROUP 2: I've appl	ied to, have acce	oted, am curre camp		g, or have completed my IQP ON-
Q. #1	Option	Selections		
	2009	7 16.3%	2009	
	2010	24 55.8%	■ 2010	
	2011	11 25.6%	■ 2011	
	2012	1 2.3%	■ 2012	
	TOTAL	43		

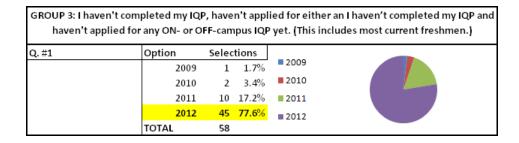
0 #3	Subquestion	Ranking	Selec	tions	
Q. #3	Whether I could	1st	18	50.0%	
					■ 1st
	afford to travel	2nd	1	2.8%	■ 2nd
	off-campus.	3rd	6	16.7%	
		4th	11	30.6%	■ 3rd
		TOTAL	36		■ 4th
		Rating AVG	2.66		
	Which term of	1st	4	11.8%	= 4 -4
	the year (B, C or	2nd	15	44.1%	■ 1st
	D) I would be off-	3rd	9	26.5%	■ 2nd
	campus.	4th	6	17.6%	■3rd
	•	TOTAL	34		■ 4th
		Rating AVG	2.73		_ 1011
	Whether I would	1st	5	13.2%	
	be accepted to	2nd	6	15.8%	■ 1st
	the off-campus	3rd	11	28.9%	■ 2nd
	project center I	4th	16	42.1%	■ 3rd
	preferred.	TOTAL	38		■ 4th
		Rating AVG	2.42		_ +01
	Whether I would	1st	11	28.2%	
	like the kind of	2nd	14	35.9%	■ 1st
	projects being	3rd	9	23.1%	■ 2nd
	offered at off-	4th	5	12.8%	■ 3rd
	campus project	TOTAL	39		
	centers.	Rating AVG	2.27		■ 4th
	centers.	rating Ave	2.27		



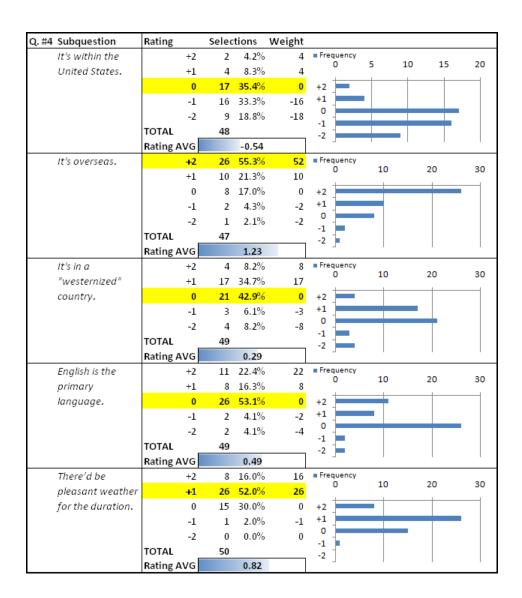


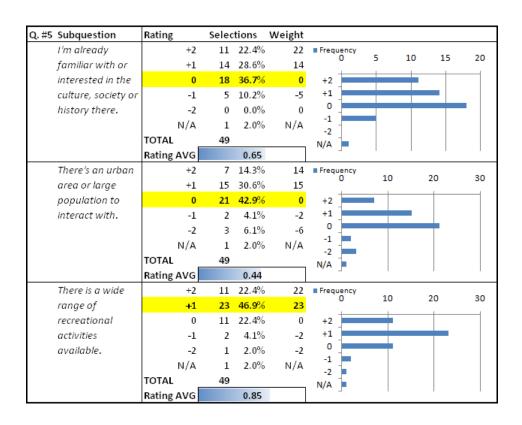


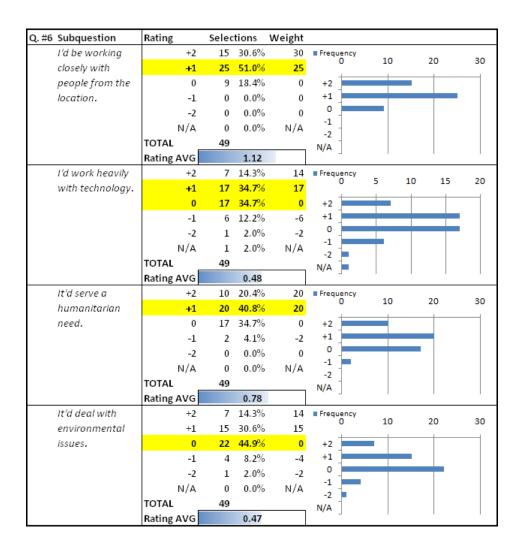
## Group 3



Q. #3 Subquestion	Ranking	Selec	tions	
Whether I could	1st	22	45.8%	
afford to travel	2nd	6	12.5%	1st
off-campus.	3rd	10	20.8%	, ■2nd
	4th	10	20.8%	3rd
	TOTAL	48		■ 4th
	Rating AVG	2.66		
Which term of	1st	9	18.0%	
the year (B, C or	2nd	11	22.0%	
D) I would be off-	· 3rd	13	26.0%	, ■2nd
campus.	4th	17	34.0%	5 ■3rd
	TOTAL	50		■ 4th
	Rating AVG	2.73		
Whether I would	1st	7	14.9%	
be accepted to	2nd	15	31.9%	
the off-campus	3rd	13	27.7%	, ■2nd
project center I	4th	12	25.5%	3rd
preferred.	TOTAL	47		■ 4th
	Rating AVG	2.42		
Whether I would	1st	10	20.0%	■1st
like the kind of	2nd	16	32.0%	
projects being	3rd	15	30.0%	, ■2nd
offered at off-	4th	9	18.0%	3rd ■3rd
campus project	TOTAL	50		■ 4th
centers.	Rating AVG	2.27		







# **G** Appendix G: Student Questionnaire

1. W	hat is your expected year of graduation?
	2009
	2010
	2011
	2012
Other (ple	ease specify):

2.	How would you describe your current level of completion of WPI's IQP requirement?  I'm either accepted to, currently completing my IQP at or have completed my IQP at an OFF-
	campus project center.
	I've applied to, have accepted, am currently completing, or have completed my IQP ON-
	campus.
	I haven't completed my IQP and haven't applied for any ON- or OFF-campus IQP yet. (This
	includes most current freshmen.)
Please e	explain any special circumstances related to your answer, if applicable:

3. Students may either complete their IQP on-campus or off-campus. When making this decision, what were or will be your order of priorities?						
(Rank in order from most important being "1" and least important being "4.")						
1 2 3 4						
Whether I could afford to travel off-campus.						
Which term of the year (B, C or D) I would be away.	Which term of the year (B, C or D) I would be away.					
Whether I would be accepted to the project center I preferred.						
Whether Iwould like the kind of projects being offered at off-						
campus project centers.						
Please explain any additional considerations for choosing whether to	to complete	your IQP	off-camp	ous.		

4. Suppose you had the option to travel anywhere in the world to complete your IQP. What are your						
preferences for this ideal location?						
(A strong preference should	ld indicate a p	rimary factor	in your decision	n.)		
	Strongly	Prefer	No	Prefer	Strongly	
	prefer		particular	otherwise	prefer	
			preference		otherwise	
It's within the United States.						
It's overseas.						
It's in a "westernized" country.						
English is the primary language.						
There'd be pleasant weather for						
the duration.						
Please share any details about you	Please share any details about your preferences:					

5. Please rate your level of agreement with how much each of the following statements describe your ideal IQP location.						
	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Totally unsure
I'm already familiar with or						
interested in the culture, society						
or history there.						
There's an urban area or large						
population to interact with.						
There is a wide range of						
recreational activities available.						
Please provide any additional details about your preference on these characteristics						

6. Please rate your level of agreement with how much each of the following statements describe						
your ideal project experie	your ideal project experience.					
	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Totally unsure
I'd be working closely with people from the location.						
I'd work heavily with technology.						
It'd serve a humanitarian need.						
It'd deal with environmental issues.						

Please provide any additional details about your preference on these characteristics.

### **H** Appendix H: Faculty Questionnaire

1. When choosing whether to advise IQPs at an off-campu	s project o	center, in	what orde	r of priori	ty do
you place the following considerations?					
(Order these factors using each number exactly once, with	"1" repres	senting yo	our first pr	iority and	"5"
your lowest.)					
	1	2	3	4	5
The relevance of available project topics to my personal					
or professional interests.					
My level of interest in the geography, culture, history					
and/or society present at the location.					
The projected cost of living upon arrival at the location.					
The suitability of the location for bringing my					
spouse/partner or other family members.					
Unique characteristics of the location, in comparison to					
other project center locations.					
Please share additional thoughts about the priorities above	or list ad	ditional p	riorities th	nat haven'	t been
covered:		Î			

2. How would you describe your preferences regarding the following aspects of off-campus project center						
locations? (A strong preference should indicate a primary factor in your decision.)						
I strongly I prefer I have no I prefer I strongly						
	prefer	this.	preference.	otherwise.	prefer	
this. otherwise.						
English is the primary language at the						
location.						
The location is "westernized" and well-						
developed.						
There'd be pleasant weather for the						
duration.						
Please share any additional comments about	out any of the	se preferentia	al questions:			

3. Please describe the characteristics of your ideal off-campus project advising experience. Please focus on aspects of the project center location, the sponsors of the project(s) and the project topic(s). Feel free to be as brief or descriptive as you wish.

Please also take this opportunity to provide any additional information about your personal preferences regarding off-campus advising.

4. Please provide one of three simple ratings to reflect your level of interest in advising IQPs relevant to

each of the following general topics.			
	Very interested.	Somewhat	Not particularly
		interested.	interested.
Technology and Environment			
Energy and Resources			
Health Care and Technology			
Urban and Environmental Planning			
Science and Technology: Policy and			
Management			
Social Studies of Science and Technology			
Safety Analysis and Liability (including			
Fire Safety)			
Humanistic Studies of Technology			
Economic Growth, Stability, and			
Development			
Social and Human Services			
Education in a Technological Society			
Law and Technology			
Historic and Artistic Preservation			
Technology			
Other (please specify):			

5. Please indicate to the best of your knowledge the	erms you may be available to advise off-campus. If
your availability may change from one year to the ne	ext, please provide details in the additional space
below.	

	Most likely available.	Possibly available.	Not likely available.
B-Term			
C-Term			
D-Term			

Additional comments:

# I Appendix I: Faculty Survey Recipients

Alex Wyglinski (ECE)	Kaveh Pahlavan (ECE)
Brigitte Servatius (Math)	Andy Klein (ECE)
Fabio Carrera (IGSD)	Rob Krueger (IGSD)
Constance Clark	Lorraine Higgins (HUA)
Chrys Demetry (ME)	Lauren Mathews (Bio)
Chick Kasouf (Mgmt)	Reinhold Ludwig (ECE)
Creighton Peet (IGSD)	William Martin (Math)
Dan Gibson (Bio-Biotech)	Nikolaos Kazantzis (CHE)
David DiBiasio (CHE)	David Olinger (ME)
Eunmi Shim (HUA)	Peter Christopher (Math)
Dominic Golding (IGSD)	Paul Davis (Math)
Bob Hersh (IGSD)	Robert Kinicki (CS)
Holly Ault (ME)	Ruth Smith (HUA)
Isa Bar-On (ME)	Guillermo Salazar (CEE)
Ingrid Shockey (IGSD)	Scott Jiusto (IGSD)
Joe Petruccelli (Math)	Jeanine Skorinko (SSPS)
John Delorey (HUA)	Stan Selkow (CS)
Janice Gobert (SSPS/CS)	Steve Weininger (CH)
Jianyu Liang (ME)	Svetlana Nikitina (HUA)
Joel Brattin (HUA)	Sue Vernon-Gerstenfeld (IGSD)
Josh Rosenstock (HUA)	Tom Roberston (HUA)
Karen Lemone (CS)	

J Appendix J: Survey Cover Letters

Student Survey Cover Letter

(Subject: Your IQP Preferences)

Dear WPI Student,

I 'm part of a team doing an IQP on the possibility of starting a new IQP center. As part of our research, we're trying to determine how WPI students decide whether to go off-campus for their IQP.

• It doesn't matter whether you have completed your IQP already, or whether that IQP was or will be on- or off-campus.

• You've been randomly selected from all undergraduates to participate in a voluntary study. However, as one out of a very low number of people selected, your response is extremely valuable because it will allow our results to carry statistical significance.

• Your opinions directly aid our research, which will be used as a basis for deciding whether to establish a new IQP center.

• The questionnaire will only take a moment of your time. It consists of 2 multiple choice and 4 ranking questions. You need not answer all questions, and all of your responses will be kept confidential. You may terminate the survey at any time.

Please follow this hyperlink to take the survey:

http://www.surveymonkey.com/s.aspx?sm=UM3KYIWmduSOuO8i37oRTg\_3d\_3d

If you have any questions or additional comments, feel free to reply to this e-mail or contact our team at

feasibility09@wpi.edu

Thanks for your time,

**IQP** Feasibility Team

Faculty Survey Cover Letter

(Subject: Off-Campus IQP Advisor)

Dear WPI Faculty Member,

I am part of a team of undergraduates conducting an IQP investigating the feasibility of opening

a new project center.

A crucial part of every project center is the willingness and availability of dedicated faculty

advisors. As someone who has been identified by IGSD as experienced or interested in advising

at an off-campus project center, your personal priorities regarding the decision to advise off-

campus would greatly benefit our research. We would sincerely appreciate a moment of your

time to respond to the following brief questionnaire:

http://www.surveymonkey.com/s.aspx?sm=bt\_2f6yzf1fJstT5AIZ\_2bSiFg\_3d\_3d

Completion of this survey in and of itself neither commits nor guarantees your participation in

any off-campus project center. If you have any questions or additional comments, feel free to

reply to this e-mail or contact our team at: feasibility09@wpi.edu

Thank you for your time and consideration.

Sincerely,

**IQP** Feasibility Team

227

### **K** Appendix K: Sponsor Form E-Mail

#### General

To whom it may concern,

We have not met before but through my group's meetings with XXXXX your organization was mentioned as one we should contact.

I am part of a group of university students from Worcester Polytechnic Institute in Massachusetts. We are currently staying in Wellington and are looking for organizations who would be willing to become sponsors which provide a problem for WPI students to work on in an annual school project. A WPI project term lasts for seven weeks of preparation and seven weeks abroad; during this time students go about solving an unscripted problem given to them by their sponsor dealing with the interaction between society and technology. For their work the students receive valuable work experience and school credit; the sponsors on the other hand receive help in achieving their objectives, the new insights and perspectives that come from outside organization and the knowledge that they are helping young professionals put their skills to tangible use!

If you would like more information, you may visit:

http://www.wpi.edu/Academics/GPP/index.html

We would love to talk with you about this possibility and are wondering if we may meet with someone in your organization in the near future?

Cheers!

Scott Woodnorth

WPI Group

NZ09@wpi.edu

Short, specific:

We have not met before but through my group's contacts with \_\_\_\_\_ you were mentioned as someone who we should talk to.

I am part of a group of university students from Worcester Polytechnic Institute in Massachusetts. We are currently staying in Wellington and are looking for organizations who would be willing to become sponsors which provide a problem for WPI students to work on in an annual school project. A WPI project term lasts for seven weeks of preparation and seven weeks abroad; during this time students go about solving an unscripted problem given to them by their sponsor dealing with the interaction between society and technology. For their work the students receive valuable work experience and school credit; the sponsors on the other hand receive help in achieving their objectives, the new insights and perspectives that come from outside organization and the knowledge that they are helping young professionals put their skills to tangible use!

If you would like more information, you may visit:

http://www.wpi.edu/Academics/GPP/index.html

Hello Dr. \_\_\_\_,

We would love to talk with you about this possibility and are wondering if we may meet with you in the near future?

Cheers!

Scott Woodnorth

WPI Group

NZ09@wpi.edu

Specific

Hello \_\_\_\_,

We have not met before but through my group's contacts with Sally Davenport you were mentioned as someone who we should talk to.

I am currently staying in Wellington as a member of a five person group charged by our University (Worcester Polytechnic Institute) with determining the feasibility of setting up a school project center in Wellington. A project for my school however does not consist of a simple study abroad program, but what my school calls an Interactive Qualifying Project (IQP).

The IQP is a requirement for graduation at WPI; it lasts for 14 weeks and is completed by students in their 3rd year of a 4 year program. In completing the project, students work in autonomous groups of 2 to 5 on an unscripted problem from their sponsor that lies at the intersection of society and technology, and proceed to develop a solution to it. In the first seven weeks of the project before they arrive at the site students gather background information and

write a proposal of how they plan to address the problem they were given; this way the student groups may hit the ground running upon arriving at their project site and approach the goal in very efficient manner.

I am contacting you to ask if you would be able to meet with my group to discuss the possibility of your organization fulfilling the role of project sponsor in the future. There are only a few requirements of what a sponsor must provide: a workspace for the students that has Internet (computers will be provided by students themselves), a liaison to meet with the students an hour a week to discuss any major questions raised by the group and most importantly a meaningful problem for students to work on. The benefits received by sponsors include:

- solutions to problems that are important to you
- the opportunity to evaluate potential new employees
- fresh ideas, new perspectives and enthusiasm students bring to their work
- the new technologies, computer applications and ideas students generate
- new insights into your operations that can be discovered much more easily by people outside of the organization

If you would like more information about the projects and what is expected of sponsors, please visit: http://www.wpi.edu/Academics/GPP/index.html

Thank you for your time and we look forward to meeting with you soon!

Cheers!

WPI Group,

Scott Woodnorth, Nathan Nesbitt, Rachel Heller, Skyler Whorton, Charlie Fancher

#### Resend E-Mail (If first one goes ignored):

To whom it may concern,

I emailed you on \_\_\_\_\_ and I have not yet heard back from anybody at your organization so I am unsure as to whether the previous email that I sent went through or not. To reiterate why I contacted you I have attached my first email below. I look forward to hearing from you!

We have not met before but through my group's meetings with \_\_\_\_\_ your organization was mentioned as one we should contact.

I am part of a group of university students from Worcester Polytechnic Institute in Massachusetts. We are currently staying in Wellington and are looking for organizations who would be willing to become sponsors which provide a problem for WPI students to work on in an annual school project. A WPI project term lasts for seven weeks of preparation and seven weeks abroad; during this time students go about solving an unscripted problem given to them by their sponsor dealing with the interaction between society and technology. For their work the students receive valuable work experience and school credit; the sponsors on the other hand receive help in achieving their objectives, the new insights and perspectives that come from outside organization and the knowledge that they are helping young professionals put their skills to tangible use!

If you would like more information, you may visit:

http://www.wpi.edu/Academics/GPP/index.html

someone in your organization in the near future? Cheers! Scott Woodnorth WPI Group NZ09@wpi.edu **RESEND EMAIL SPECIFIC:** Hello again \_\_\_\_\_, I emailed you on \_\_\_\_ and I have not yet heard back so I am unsure as to whether the previous email that I sent went through or not. To reiterate why I contacted you I have attached my first email below. I look forward to hearing from you! We have not met before but through my group's contacts with \_\_\_\_\_ you were mentioned as someone who we should talk to. I am part of a group of university students from Worcester Polytechnic Institute in Massachusetts. We are currently staying in Wellington and are looking for organizations who would be willing to become sponsors which provide a problem for WPI students to work on in

an annual school project. A WPI project term lasts for seven weeks of preparation and seven

their sponsor dealing with the interaction between society and technology. For their work the

weeks abroad; during this time students go about solving an unscripted problem given to them by

We would love to talk with you about this possibility and are wondering if we may meet with

students receive valuable work experience and school credit; the sponsors on the other hand receive help in achieving their objectives, the new insights and perspectives that come from outside organization and the knowledge that they are helping young professionals put their skills to tangible use!

If you would like more information, you may visit:

http://www.wpi.edu/Academics/GPP/index.html

We would love to talk with you about this possibility and are wondering if we may meet with you in the near future?

Cheers!

Scott Woodnorth

WPI Group

NZ09@wpi.edu

Resend E-Mail (To those with whom we have met but have not heard back from)

Hello again \_\_\_\_\_,

On behalf of my group I would like to thank you for taking the time to meet with us and for considering our proposal. At the moment, we have not yet heard back from you and are simply writing to check in and see where you are at with your considerations.

If you have any further questions or would like to meet with us again to discuss things further please do not hesitate to ask!

Thank you and we look forward to hearing from you.

Scott Woodnorth & The Team

WPI Group

NZ09@wpi.edu

#### L Appendix L: Potential Sponsor Meeting Agenda

#### Defining IQP

- Unscripted problem
- Intersection of Technology and society
- 7-week prep, 7-week project
- Examples

#### Defining student teams

- Dedicated, intelligent, passionate
- High standards
- Prepared, hit the ground running
- Rigorously selected by IGSD
- 2 to 4 students per group

#### Defining sponsor duties

- Work space (Internet, desks, project specific materials, not computers)
- Liaison (once a week min.)
- Project (14 week accomplishment, unscripted, tangible goal)
- Transportation (students have to get there)
- Payment (WPI realizes that expecting you to pay right away isn't going to make you want to host a project so we will give you the first project at no cost. We think however that once you try being a project sponsor for one project, you will quickly realize how valuable this team can be to you. Knowing this, WPI does need to pay for an advisor to stay with the students and in the long run we will expect a nominal fee to cover this. The students themselves are not paid and are getting school credit for the project. Housing, transportation to the country and city, and food are all paid for by the students themselves.)
- Time frame, would start in early 2011 (1.5 2 years ahead if at all)

#### Benefits to sponsor

- solutions to problems that are important to them;
- the opportunity to evaluate potential new employees;
- a close working relationship with one or more members of the WPI faculty;

- fresh ideas, new perspectives and enthusiasm students bring to their work;
- the new technologies, computer applications and ideas students generate;
- new insights into their operations that can often be discovered only by people outside of the organization;
- the satisfaction of working closely with students and watching them grow and mature; the prestige of taking part in one of the world's most innovative and effective approaches to technological education.

Sponsor Evaluation (Su	bje	cti	ive	)				
This is meant to be a 'first impression' of sorts group members who attended the sponsor me in the future.								
* Required								
Name of Sponsor *								
Date of Meeting * dd/mm								
Contact Info * Email, Phone, Website, Names								
								.41
Are they interested? *	1	2	3	4	5	6	7	
Not at all, they do not like the idea of an IQP or anything related to it		0	0	0		0	0	Extremely interested in what WPI has to offer

Ability to provide projects * *foreseeably
Can provide a multitude of possible projects for multiple student groups
<ul> <li>Can provide a multutude of possible projects but can only work with one group</li> </ul>
<ul> <li>Can provide only one project per year for one group</li> </ul>
<ul> <li>Cannot provide any projects</li> </ul>
Other:
Additional Notes of Meeting Were contacts genuinely engadging? Was anything omitted in the meeting? Any vibes given off?
.at
Additional Contacts Given
.#
Submit
Powered by Google Docs

#### M Appendix M: Sponsor Reports

#### Meeting with Sally Davenport on 3/19/2009

- Royal Society of New Zealand wants to sponsor
- Te Papa Museum does as well
- Sally does not have any contacts at Museum of Wellington but thinks it would be a good sponsor
- Ministry of Research Science and Technology sets policy
- Foundation of Research Science and Technology and Royal Society of New Zealand administer money
- Various CRI? Organizations actually do research like Industrial Research Laboratory (IRL), Geologic and Nuclear Survey (GNS), ESF, NIWA
- Ministry for Economic Development
- Ministry for the Environment
- Venture Capitalists Jenny Morel "No 8" Ventures
- Neville Jordan 1st Kiwi to bring a company to Nasdaq
- Business NZ lobbying group for export and foreign investment Phil O'Reilly
- Observatory at Botanical Gardens
- Climate Change NZ
- Possibly talk to Fulbright about housing
- Liz Richardson Science and Technology at VUW
- South of city has a lot of student housing
- Wellington Mayor is pro University
- Motels are like furnished apartments with kitchens and baths and 1-2 bedrooms
- Hut Valley is on the other side of the bay
- Avoid International 7's 1st week in February similar to superbowl, hard to get housing
- 3rd Monday in January Wellington Anniversary
- Oct 25th Labor Day
- Apr 25th Some battle with Americans and Kiwis fighting someone else
- Jan 6th Another Holiday
- January is a slow time for companies, many people take off time to be with children on summer recess

#### Meeting with Mele Wendt 3/19/2009

- Drop Mele's name during each e-mail, except with the mayor of wellington
- Calling people will get a better response
- Send the information about what a project is before we get there
- Come up with ideas about where potential sponsors could put students
- People we should contact:
  - Ministry of foreign affairs
    - Rob McIntosh (couldn't find)
  - Royal Society
    - Diane McCarthy (wait to contact)
  - Ministry of Research and Technology [MORST]
    - Helen Anderson CEO 9172900 (Contact by phone on mondizzle)
  - Ministry of the Enviornment
    - Ginny Mclean ginny.mclean@mfe.govt.nz
  - o Commission for env. [Parliament]
    - Dr. Jan Wright pce@pce.govt.nz
  - Enviornmental Risk Management Authority
    - Lees McMillen 9162426 (can't find online, will have to call)
  - o Earthquake Comission-
    - Hugh Cowan-contact him first (phone: http://www.eqc.govt.nz/abouteqc/publications/annualreport/ar-05-06/directory-06.aspx)
    - David Midlton 9786400
  - Department of Conservation (DOC)
    - Al Morrison 471 0726
  - Ministry of Fishery
    - **972 06 200**
  - City Council
    - Wellington
    - Lower hut
    - Porirua- Jenny Brash
      - Darcy Nicholas –Porirua Museum, Art, Library, Swimming
  - New Zealand Post
    - John Allen, state owned
  - o Fire Service-
    - Dame Margaret Bazley
  - New Zealand Qualification Authority [NZQA]
    - Karen Poutasi
  - New Zealand Transport Agency

#### Hello Scott

Apologies for the delay in replying - I trust this hasn't caused any inconvenience in your work.

Having read all your hypothetical "if's" I'd be very pleased to give a WPI project group preference to use one of our group study rooms here at the Commerce Library, in the Railway Station building, at Pipitea Campus.

Our larger group study rooms have tables and chairs, wireless internet is available in some(http://www.victoria.ac.nz/wireless/coverage/ - I assume you bring laptops) and are relatively quiet - though the rooms face to a fairly busy city street so can sometimes experience traffic noise. These are not secure rooms so you'd need to remove any valuable items when you weren't using the room.

So long as I had about two week's warning, I could put something in place for you.

Our other library locations may not be so amenable to making this sort of longer-term booking. I trust that the location here at Pipitea Campus would provide you with the convenience of being close to the city, the management school and transport.

I don't need any further information at this stage. I look forward to hearing from you again should you be successful in setting up a project centre here.

Kind regards

Janet K

Janet Keilar

Faculty Librarian - Commerce

Victoria University of Wellington

P O Box 600, Wellington

New Zealand

email: Janet.Keilar@vuw.ac.nz

phone: (04) 463-6945 (RWW 226a)

----Original Message----

From: Woodnorth, Scott R [mailto:scott.woodnorth@WPI.EDU]

Sent: Monday, 20 April 2009 1:55 p.m.

To: Janet Keilar

Subject: Student Project Enquiry - WPI

Hello Ms. Keilar,

I am part of a group of students who are currently staying in Wellington with the

purpose of determining the feasibility of setting up a future project center for our

university (Worcester Polytechnic Institute, in Massachusetts). Part of this task involves

willing to become sponsors which provide a problem for WPI students to work on in an

annual school project. A WPI project term lasts for seven weeks of preparation and seven

weeks abroad; during this time students go about solving an unscripted problem given to

them by their sponsor dealing with the interaction between society and technology.

In our searches for sponsors, we have come across various entities at Victoria who are

at once interested but at the same time without a workspace to give 5 students for one

242

seven week period annually. During one of our talks with Prof. Sally Davenport she mentioned that there are rooms in the libraries at Victoria that students may use to work in groups on schoolwork and things. What I have written to you today to ask is, hypothetically, if our University is successful in setting up a project center in Wellington, and if one of the project sponsors that is used is affiliated with Victoria, and if said sponsor does not have an adequate workspace for a project group (all that is required for a work area is deskspace for 5 people, internet access, and relative quiet) would we be able to reserve a room in one of Victoria's libraries for a full workweek (5 days a week, 8 hours a day) so that our students could work on things?

If you would require any additional info in order to give a word on if this is possible, please do not hesitate to ask!

Thank you for your time and help!

Scott Woodnorth

WPI Group

NZ09@wpi.edu

			1	<u> </u>
Name (Orange = Negative, Green = Met With and interested, Yellow = Interested)	Position (If Applicable)	Phone Number	Who Recommende d them	E-mail Address
Mele Wendt	Executive Director, Fulbright New Zealand	DDI 04 494 1505, Mobile 027 244 5594	Elmes	mele@fulbright.org.nz
Marina Dihama	Tublight New Zealand	WODIIE 027 244 3334		mele@raibright.org.nz
Wayne Pihema			Elmes	
Hans and Valerie	Owner	07 333 8280	Gerstenfeld	
Sally Davenport		mobile 64 21 884 800	Elmes	Sally.Davenport@vuw.ac.nz
Rosemary (Rose) Mose		DDI 09 632 9504 Ph 09 632 9400 Mobile 021 805 637	Pasifika Festival	rosemary.mose@minedu.govt. nz
Bob Frame	Principal Scientist (Sustainability & Society) Landcare Research New Zealand Ltd	T: +64 3 321 9673 M: +64 27 4784 123	Elmes	FrameB@landcareresearch.co.n;
Fishery New Zealand			Mele	info@fish.govt.nz
Dr. Karen Poutasi	CEO - New Zealand Qualifications			
- The real Foundation	Authority		Mele	karen.poutasi@nzqa.govt.nz
Darcy Nicholas	Porirua City Council - General Manager of Community Service		Mele	dnicholas@pcc.govt.nz
Dr. Jan Wright	Parliamentary Commisioner for the Environment		Mele	pce@pce.govt.nz
Jenny Brash	Mayor of Porirua		mele	JBrash@pcc.govt.nz
Kerry Prendergast	Mayor of Wellington			mayor@wcc.govt.nz
David Ogden	Mayor of Lower Hutt		Mele	david.ogden@huttcity.govt.nz
Malcolm Menzies	Victoria University's Commercialization Arm		Sally	malcolm.menzies@vuw.ac.nz
Bridget MacDonald	manager		Sally	BridgetM@tepapa.govt.nz
Lisa Woodhouse	FRST worker		Sally	Lisa.Woodhouse@frst.govt.nz
Anthony Scott	CEO of Science New Zealand		Sally	ce@sciencenewzealand.org
Shaun Coffey	CEO Industrial Research		Sally	s.coffey@irl.cri.nz
Neil Anderson	Karori Sanctuary		Sally	Neil@sanctuary.org.nz
Nicci Roswell	National Center for Biosecurity and Infectious Disease		Sally Secondary	www.ncbid.govt.nz/email_for m.cfm
Julian Thompson	Institute of Geological and Nuclear Sciences		Sally Secondary	www.gns.cri.nz/bin/feedback
Dr. Andrew Laing	Regional Manager, National Institute of Water and Atmospheric Research		Sally Secondary	a.laing@niwa.co.nz
Deanna Warren	Scion (forestry science)		Sally Secondary	enquiries@scionresearch.com
General	Deer Industry of New Zealand		Sally Secondary	info@deernz.org
General	Tertiary Education Committee		Sally Secondary	www.tec.govt.nz/templates/x form.aspx?id=1174
General	New Zealand Transit Authority			info@nzta.govt.nz
Mark Farrar	Senior Advisor - City Communities		(Kerry	Mark.farrar@wcc.govt.nz
Richard Meylan	Royal Society of NZ		Sally	Richard.Meylan@royalsociety.or

General	Deer Industry of New Zealand		Sally Secondary	info@deernz.org
General	Tortion Education Committee		Sally	www.tec.govt.nz/templates/x form.aspx?id=1174
General	Tertiary Education Committee		Secondary	
Mark Farrar	New Zealand Transit Authority		/Vorm	info@nzta.govt.nz
	Senior Advisor - City Communities		(Kerry	Mark.farrar@wcc.govt.nz
Richard Meylan	Royal Society of NZ		Sally	Richard.Meylan@royalsociety.or
Liz Keller	International Team at MoRST		Mele	[liz.keller@morst.govt.nz]
General	Ministry for the environment		Mele	information@mfe.govt.nz
General - Mei.Taniguchi-	Ministry of Tourism		Bob	info@tourism.govt.nz
Charlie Ahrens	receptionist			Charlie.Ahrens@sparc.org.nz
General	Wellington Conservancy Office		Sally	wellingtonco@doc.govt.nz
General	Biosecurity New Zealand		Sally Secondary	info.biosecurity@maf.govt.nz
General	EECA Energy Efficiency and Conservation Authority		Sally Secondary	info@eeca.govt.nz
General (Ask frame for name)	Enviro-mark	275)	Bob	mark@landcareresearch.co.nz
Loise Miles	Incite	(04) 801 6862	Bob	louise@incite.co.nz
General	Meridian Energy			AboutUs/contactus/
Richard Whatman	Dept. of Labour		Bob	richard.whatman@dol.govt.nz
General	Museums Aotearoa		Elmes	aotearoa.org.nz
James Dickson	Museum of Wellington, City &Sea		Elmes	james.dickson@wmt.org.nz
General	Enquiries at DOC		Bronwyn Bell - DOC	Enquiries@doc.govt.nz
Mina Davies	Contact at MAF		Sally	mina.davies@maf.govt.nz
Monoa Taepa	School of Māori Studies		Nate	Monoa.Taepa@vuw.ac.nz
David Newton	Supervising Chaplains		Elmes	david.newton@vuw.ac.nz
Ruth McDavitt	Grow Wellington		Sally	.co.nz
Steven Finlay	Grow Wellington Project Manager		Menzies	co.nz
General (Looking or Jeff Ashford)	Executive Developement (CEED)		Menzies	ceed@vuw.ac.nz
Iain Rennie	Comissioner		Karen Poutasi	lain.Rennie@ssc.govt.nz
Karen Sewell	Dept. of Education		Karen Poutasi	Karen.Sewell@minedu.govt.nz
Dr. Jan White - Denise Cosgrove	Accident Compensation Commision		Karen Poutasi	jan.white@acc.co.nz
General	Office of Ethnic Affairs	64 4 494 0546		
Dame Margaret Bazley	Fire Service Commision Chairperson		Mele	queries@fire.org.nz
John Allen	CEO New Zealand Post		Mele	oiaofficer@nzpost.co.nz
Pieri Munro	District	381 2000	Sally	
Anne Smith	holding off)		Bob	
Izak Human, Sam Mackay	Ministry of Education		Karen	izak.human@minedu.

## Basic Results of Contacting Sponsors

Title	Entity Associated With	Interested?	Met with?	Proceed?
Bazley, Dame Margaret	Fire Service Commision Chairperson	NA	No	
General	Office of Ethnic Affairs	NA	No	
General (Ask frame for	Enviro-mark	NA	No	
General (Looking or Jeff	Center for Continuing Education and			
Ashford)	Executive Developement (CEED)	NA	No	
Miles, Loise	Incite	NA	No	
Mose, Rosemary	Pasifika Education	NA	No	
Rennie, Iain	State Services Commission Comissioner	NA	No	
Sewell, Karen	Dept. of Education	NA	No	
Woodhouse, Lisa	FRST worker	NA	No	
Ahrens, Charlie	Sparc	No	No	No
Allen, John	CEO New Zealand Post	No	No	No
Anderson, Neil	Karori Sanctuary	No	No	No
	Department of Conservation Wellington			
Bell, Bronwyn	Conservancy Office	No	No	No
Brash, Jenny	Mayor of Porirua	No	No	No
Crocker, Barbara	Ministry of the Fisheries	No	No	No
Davies, Mina	Contact at MAF	No	No	No
General	Ministry for the environment	No	No	No
General	New Zealand Transit Authority	No	No	No
Henderson, Deborah	Meridian Energy	No	No	No
Mulitalo, Roy	Tertiary Education Committee	No	No	No
Munro, Peiri	Superintendent of Police Wellington	No	No	No
O'Connor, Mark	Deer Industry of New Zealand	No	No	No
Ogden, David	Mayor 'O' Lower Hutt	No	No	No
Pihema, Wayne	Contact from Elmes	No	No	No
Rix, Rebecca	Energy Efficiency and Conservation	No	No	No
Rowswell, Nicci	MAF - Biosecurity New Zealand	No	No	No
Scott, Anthony	CEO of Science New Zealand	No	No	No
Smith, Anne	Carbon Zero (in Christchurch, so holding	No	No	No
Taniguchi-Singh, Mei	Ministry of Tourism	No	No	No
Warren, Deanna	Scion (forestry science)	No	No	No
Wendt, Mele	Executive Director, Fulbright	No	No	No
Wright, Dr. Jan	Parliamentary Commisioner for the	No	No	No
Coffey, Shaun	CEO Industrial Research	Yes	No	
General	Museums Aotearoa	Yes	No	
Hans (from Sue VG)	Golden Springs	Yes	No	
Laing, Dr. Andrew	National Institute of Water and			
Laing, Dr. Andrew	Atmospheric Research	Yes	No	
MacDonald, Bridget	Te Papa Tourism and Marketing	Yes	No	
	National Center for Biosecurity and			
Roswell, Nicci	Infectious Disease	Yes	No	
Taepa, Monoa	School of Māori Studies	Yes	No	

Thompson, Julian	Geological and Nuclear Science	Yes	No	
Davenport, Sally	Victoria University	Yes	Yes	No
Dickson, James	Museum of Wellington, City &Sea	Yes	Yes	Yes
Dr. Jan White	Accident Compensation Commission	Yes	Yes	Yes
Farrar, Mark	Senior Advisor - City Communities	Yes	Yes	MMN
Frame, Bob	Landcare Research New Zealand Ltd	Yes	Yes	No
Human, Izak	Ministry of Education	Yes	Yes	Yes
Keller, Liz	International Team at MoRST	Yes	Yes	MMN
McDavitt, Ruth - Finlay,	Grow Wellington Project Manager	Yes	Yes	Yes
Menzies, Malcolm	Victoria U's Commercialization Arm	Yes	Yes	Yes
Meylan, Richard	Royal Society of NZ	Yes	Yes	No
Newton, David	Supervising Chaplains	Yes	Yes	Yes
Nicholas, Darcy	Porirua City Council - General Manager	Yes	Yes	Yes
Poutasi, Dr. Karen	CEO - New Zealand Qualifications	Yes	Yes	MMN
Prendergast, Kerry	Mayor 'O' Wellington	Yes	Yes	No
Whatman, Richard	Dept. of Labour	Yes	Yes	Yes

## Decision Matrix Findings

		Percieved Ability/Willingness to		
Sponsor	Organization	Sponsor	Stated Ability / Willingness to Sponsor	Likeliness to sponsor
Dickson, James	Museum of Wellington, City &Sea	High	High	Highly Likely
Human, Izak -				
Mackay, Sam	Ministry of Education	High	High	Highly Likely
McDavitt, Ruth -				
Finlay, Steven	Grow Wellington Project Manager	High	High (Can Provide Sponsor Companies	Highly Likely
Menzies,				
Malcolm	Victoria U's Commercialization Arm	High	High	Highly Likely
Nichalas Davos		High (Some lasting confusion about		
Nicholas, Darcy	Porirua City Council	project)	High	Highly Likely
Newton, David				
Newton, David	Victoria U's Human FM Radio Staion	High	High	Highly Likely
Whatman,				
Richard -				
Rarere, George	Department of Labour	High	High	Highly Likely
Dr. Jan White		Med (High Ability/Medium		
Dr. Jan White	Accident Compensation Commision	Willingness)	High	Somewhat Likely
Poutasi, Dr.	New Zealand Qualifications			
Karen	Authority	High	Med (High Ability, Med Willingness)	Somewhat Likely
Farrar, Mark	Senior Advisor - City Communities	Low (High Ability/Low Willingness)	Med	Unlikely To Sponsor
Kallas I is		Med (High Ability/Medium		
Keller, Liz	International Team at MoRST	Willingness)	Med	Unlikely To Sponsor
Prendergast,				
Kerry	Mayor 'O' Wellington	Low (Mayor cannot employ anyone)	Low (Cannot sponsor personally)	Unlikely To Sponsor
Meylan,	Royal Society of NZ	Low	Low	Unlikely To Sponsor

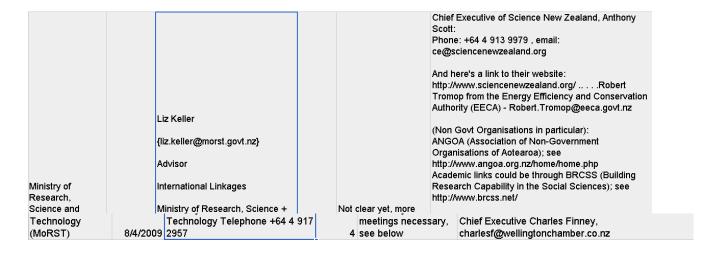
# **Description of Sponsor Meetings**

Name of Sponsor	Date of Meeting	Contact Info	Are they intereste	Ability to provide projects	Additional Contacts Given
		Malcolm Menzies - Malcolm.Menzies@vuw.ac.nz (Project Manager of VUW's Commercialization Arm)		They can definately provide projects to	
Victoria University		Dr. Kevin Crume - kevin.crume@vuw.ac.nz		students but are unsure of how many	Stephen Finlay @ Grow Wellington
Commercialisation Arm	1/4/2009	(Research Office Portfolio Manager)		groups they can accomodate	Jeff Ashford @ CEED (Victoria U entity)

Additional Notes: Both men were very interested in setting this up. We explained everything fully and they seemed very pleased with what our group was offering them. Very positive vibes were given off indeed.

		Councillor Ian McKinnon QSO JP			Sub entity:
		- Deputy Mayor of City of			
		Wellington			Mark Farrar - Senior Advisor, City Communities
City of Wellington	1/4/2009	(ian.mckinnon@wcc.govt.nz)	5	we'll see	(mark.farrar@wcc.govt.nz)

Additional Notes: Essentially the Mayor can only support a cause, he cannot fund it or put it into being. Knowing this, the Mayor had us talk to Mark Farrar who is in charge of one of the subset groups who does what the Council decides to do. Mark Farrar was interested and said he would do his best to determine if there are sufficient resources to do this... We will see is the conclusion...



Additional Notes: Essentially Liz seemed unprepared for the meeting in general. She was quite unprepared to let us know anything about what MoRST could provide us in the future but it seems like she is interested nonetheless, more contact and further meetings will have to be made for this to go anywhere however.

			State Services Commision - Commisioner lan Rennie (lan.Rennie@ssc.govt.nz)
		They misunderstood our online	Dept. of Education - Karen Sewell (Karen.Sewell @minedu.govt.nz)
New Zealand Qualifications Authority	Dr. Karen Poutasi - CE of NZQA - 9/4/2009 (karen.poutasi@nzqa.govt.nz)	communications so they will have to 5 reconsider	Accident Compensation Commision - Dr. Jan White (Jan.White@acc.co.nz)

Additional Notes: Dr. Poutasi was very interested in our offer, at first she misunderstood the timetable of the project idea but after we clarified the idea of WPI's project system she really got into it, she also gave us some good new contacts. She will have to get back to us but the whole situation is very promising.

New Zealand DDI +6443820080 Fax +6443820080 Mob +64272408665 ruth.mcdavitt@growwellington.co.rz  Ruth McDavitt  20/04  New Zealand DDI +6443820080 Fax +6443820080 Fax +6442820080 Fax match us up with many small companies, but forsee baing able to find a Along with attending an information sessions where there will be many buisnesses for us to talk with.	
---	--

Additional Notes: They are very interested and have been working to match up university students with small businesses for internships.

		Queens Warf PO Box 893 Wellington New Zealand Tel 044961943		
		Fax 044961949	Can provide only one	
		museumofwellingtoneducation@wr	project per year for	
James Dickson	20/04	www.museumofwellington.co.nz	7 one group	None

Additional Notes: Is very excited to work with the students at WPI and will write up a few of his project ideas and e-mail them to us in the next week.

Darcy Nicholas - General
Manager Pataka Museum of Arts
& Cultures, Community Services Porirua City Council

Darcy Nicholas 21/4 dnicholas@pcc.govt.nz 6 6

Matt Crawshaw
Good Cents
Wesley Community Action
Can provide only one
project per year for
one group

Matt Crawshaw
Good Cents
Wesley Community Action
Cell: 021 290 0891
Office: 04 237 7923

Additional Notes: Darcy Nicholas is a really mover and shaker; he is apparently very good at getting things moving and opening up new lines of communication. During the meeting he immediately outlined his all-encompassing plan for bettering his community. Our group had to explain to him that if he wanted to be able to sponsor a group in the future he would need to be able to set manageable goals and checkpoints for the individual project groups. He seemed to understand although he would definitely need to be made absolutely sure of things before a project is given because of his tendency for seeing the big picture. Other than that, he was very interested in what we had to offer and could provide great sponsorship opportunities.

		Denise Cosgrove - General			
		Manager People & Business		Can provide projects	
Accident		Services		and are willing to liase	
Compensation				further but don't know	
Commision (ACC)	24/04	Denise.Cosgrove@acc.co.nz	5	for sure how much yet	None.

Additional Notes: Denise was quite interested in what we were offering her. She had a way about her that was very understated so it is hard to tell just how interested she is in our proposal, but it is safe to say that she would very much like to discuss things further and continue contact onward. The ACC has a huge budget and a bigger list of project tasks to give out so as long as their interest remains, they will be very good at sponsoring projects. Possible examples of projects were aimed at refining the claim process in which reports are filed as well as streamlining the release of data to the public via the internet

		Izak Human - Manager: International Liaison, International Division (Izak.Human@minedu.govt.nz)			WellTech - Wellington Institute of Technology - Linda Sissons
Ministry of Education	24/4	Sam Mackay - Senior Advisor, International Division, Strategy and System Performance (Sam.Mackay@minedu.govt.nz)	6	Can provide multiple projects and multiple groups, just unsure.	NZ Embassy in Washington DC - Education Counselor - Mike Woods Rob Rabell - International Office (of Victoria)

Additional Notes: Both Izak and Sam were very knowledgeable. We took the time to fully explain everything about the project to them and they received all of the points that we made very well. They were extremely pleased about the idea of us sending students from America to New Zealand and about the whole globalization idea. One idea they had for a project was to evaluate how technology was used to teach students and if it was being used with the same efficacy in impoverished areas as it was in well off areas.

		Richard Meylan / Manager			
		Education/ DDI: +64 4 470 5753 /			
		MOB: +64 21 840 283			
Royal Society of		4 Halswell Street, Thorndon, PO		Cannot provide any	None explicitly, however Richard promised to contact
New Zealand	27/04	Box 598,	3	projects	people in other organizations for us

Additional Notes: Richard was very interested in what we had to say. He started by asking us to reiterate what we had said in our email to him so that he could revise his understanding to be accurate. After we were done explaining our purpose, Richard said that he had a very good comprehension of everything and that he didn't think that he could sponsor a project for WPI. His reasons were simple: the Royal Society was a primarily policy-forming organization and it would have a hard time both accommodating 5 students (indeed, the Royal Society's offices consist of three Victorian style houses-turned-offices) and also formulating a problem as discrete as what WPI expects for students. Richard went on to say that he could help us out by spreading the word of our presence to the numerous organizations that the society has connections with in the Wellington area.

		Richard Whatman Group Business Advisor, Work Directions Department of Labour   Te Tari Mahi PO Box 3705   56 the Terrace   Wellington   New Zealand Tel: +64 4 915 4011(ddi)   +64 4			
		915 4040 (fax)			briefly mentioned:
		+64 27 286 7133 (cell) Email: richard.whatman@dol.govt.nz			Motu Institute
					The young foundation (they called it a 'do-tank'
Department of		George Rarere also attended although I do not have his contact		can provide projects but how many is	instead of a think tank)
Labour	30/4	info	6	unsure	NZCSI.org - 'center for social innovation'

Additional Notes: The meeting with Richard Whatman and George Rarere went very well. The two men were very engaging and understood our proposal from the get go. Once the basics were covered, the two men proceeded to outline three possible projects that the department of labour can provide. The first of these has to do with organizing the hiring of migrant horticultural and viticultural workers so that the same organizations year after year are getting the same workers. This means that the workers are guaranteed yearly salary and also that the organizations quickly have a skilled labor force that can harvest with increased effect and produce more profit. The second project idea was a little bit more specific, it involved developed an application that could be loaded on cell phones to allow them to read barcodes while at the same time bar-coding everything in the agriculture industry from workers to packages to the plants themselves to allow for very strictly monitored harvesting plans. The increased efficiency allows for increased profit margins. The third project idea was only briefly discussed and it involves streamlining the way that meat and other cattle products are handled and shipped overseas, possibly by robotic process. At the end of the meeting, it was very clear that the men were both very interested in our proposal. So much so that they asked for multiple copies of all of our pamphlets and business cards to give to further organizations.

# N Appendix N: Housing Information

# Subjective Criteria

Subjective Housing Criteria Use the text fields to describe the reasoning behind the Likert scale selection.	Cultural Immersion Does the accommodation lend itself to cultural immersion, would there be frequent and engaging contact with locals?  1 2 3 4 5
Name of Accommodation	Isolated from community O O O Constructive social contact with community  Cultural Immersion
Address of Facility	Comments
Primary Contact of the Accommodation	Quality of the Immediate Surroundings Would you enjoy spending time in the Immediate surroundings of the accommodation?  1 2 3 4 5
Facility Cleanliness Is the floor grundy? Is there dust? Are windows clean?	Not at all O O O Definitely
1 2 3 4 5 Dirty O O O Clean	Quality of the Immediate Surroundings Comments, what sways your opinion?
Facility Cleanliness Comments	Ammenities Are there provided amenities of high quality and/or quantity?  1 2 3 4 5
Hospitality exhibited by Staff/Director How helpful, easy to work with, and genuine is the person?	None O O O Lots
1 2 3 4 5  Abrasive O O O O Out-going and kind	Ammenities What ammenities are provided?
Hospitality exhibited by Staff/Director Comments	Equality of Personal Space How equal is the distribution of personal space, such as the bedrooms, beds, and bathrooms 1 2 3 4 5
Work Atmosphere of Accommodation Is lighting sufficient? Is it quiet (condusive to an early night sleep)? Is there comfortable work space (desk or lounge area).	Very Uneven O O O Even
1 2 3 4 5  Dark, noisy, and uncomfortable O O O Pleasant, relaxing, and well lit	Equality of Personal Space Comments
Work Atmosphere of Accommodation Comments	Submit Powered by Google Docs

# Subjective Criteria Housing Report

Name of Accommodation	Address of Facility	Primary Contact of the Accommodation	Facility Cleanliness	Facility Cleanliness	Hospitality exhibited by Staff/Director	Hospitality exhibited by Staff/Director		Work Atmosphere of Accommodation
Annaday Homestay	39 Wadestown Rd	David Denton		cleaned once a 5 week		They are pleasant day to day, and even 5 took us on a road trip	;	They were very helpful and seven provided us a whiteboard
Tinakori Lodge	182 tinakori rd, thornadon, Wellington NZ	Neville		Very well kept, nice 5 facility Well kept, but a genuine		Owner was very nice, also business like, conservative about letting students use 4 the stove in the kitchen  Kenny was very outgoing in his effort to	4	The rooms were slightly small, but there is a public lounge available with couches and table Rooms have comfortable size, but house 4 to 6 students each,
Wellywood Backpackers	58 Tory St Wellington NZ	Kenny Roache		backpackers, so 4 nothing fancy		answer all my questions and seemed to 5 get along well with his staff	3	Space in common area 3 provides lounge space
Capital Nomad Backpackers	118 Wakefield St Wellington NZ	Adnin Alias		Well kept, but a genuine backpackers, so 4 nothing fancy		Very pleasant and easy going 5 atmosphere	2	Unsure whether the 1st floor lounge area would prove noisy for occupants above
Bay Plaza Hotel	40-44 Oriental Parade, Wellington NZ	Eileen Crowley		Very upscale and 5 well kept facility		4 Helpful, well organized  Jill is very frank about things, she is also	4	Plenty of space, quiet, t reasonable light, desk
Abel Tasman	169 Willis Street	Jill Murphy - General Manager		Very Clean - It is a hotel so it is 5 regularly cleaned		very accomodating and mentioned that she would be willing to make renovations 5 to the facility to accomodate us		unsure as to how noisy it is at night. I think it will be fine t overall, minor city noises
Quest Atrium	154 The Terrace Wellington NZ	Julz Glass		Very upscale and 5 well kept facility		Julz was very kind and helpful, seemed 4 to have a good relationship with the staff		Very nice space, although the lighting was a bit low
Lambton Court Apartments	120 Lambton Quay Wellington NZ	Richard		Very upscale and 5 well kept facility		Richard was polite and helpful, seemed 4 to have good relationship with staff		Liberally spaced apartment with tables and couches, well lit
Quest Wellington	Cnr Lambton Quay & Hunter S Wellington	t Anu Sarin		Well kept, nice 4 facility Brand new, well kept, upscale		She told us what we needed, but was very busy and sidetracked at the time, noticed confusion between her and the 3 staff	3	Plenty of space, quiet, reasonable light
Century City Apartments	72 Tory St	Paula Muollo, Sunen		corporate 5 apartments		4 Helpful, well organized		Lots of space, couches w. 5 coffee table, kitchen table

Cultural Immersion	Cultural Immersion	Quality of the Immediate Surroundings	Quality of the Immediate Surroundings	Ammenities	Ammenities	Equality of Personal Space	Equality of Personal Space	Score Percentag	е
	We eat dinner with them 5 every night		there is access to the city, but we are still in the suburbs with open space and pleasant 5 greens		Breakfast, dinner, cookies, fruit, 5 whiteboard, lounge		One room with 4 twin beds, but of good size, with office off of it, Another with queen bed 4 and shared bath	34	97
	Potential to dine with others, although there is nothing formally established, 2 otherwise similar to a hotel		There is a major road and highway in front of facility, a 5 3 or 10 min walk to cafe's		A nice sunroom/lounge, small landscaped yard behind house, 2 small TV's in rooms		Some rooms larger than others, two double rooms and 4 one or two single rooms	24	69
	The lounge floor seemed very 4 social		In lively central part of the city, with small cafes etc, 5 min from 5 shore		Full kitchen, laundry, lounge 3 area with pool table and tv room		Everyone would be in equally 5 sized bunk beds	29	83
	Opportunities to casually talk with travelers, both foriegn and native, in the common 4 space		Right across from City Hall, plenty of cafe's, very close to 5 the shore		Nightly 'snack meal' provided, full kitchen facilities and 3 common space		All rooms very similar, some 4 beds double, some twin	27	77
	In lively central part of city, but 2 no inherent contact		In lively central part of the city, with small cafes etc, pretty 4 close to shore		standard hotel, no meal included, upscale restaurant on 2 first floor		Two beds in room, one twin, 3 one double	24	69
	It is a hotel so there will be very little inherent immersion, TONs of travel pamphlets in 2 the foyer though		Lots of restaurants and stores very nearby, all of the good stuff is mostly to the North of 4 the city though		Beds,one chair, TV, bathroom. Conference room can be provided, so can a 'kitchen' 2 room for the whole group to use		5 Three twin beds in one room	27	77
	Corporate apartment, so no inherent immersion, but close to cafes/lively part of 2 downtown		Yes, it is the middle of the city, 4 bit far from the shore, but		Full kitchen, laundry, gym access (lap pool), some 4 balconies, flat screen television		Two similar rooms of good size with double beds, one 2 small room with twin bed	25	71
	In lively central part of city, but 2 otherwise no inherent contact		In lively central part of the city, with small cafes etc, 5-10 min 3 from shore		Full kitchen, laundry, some balconies, flat screen TV's, 3 Desk		One room with double bed, another with two singles, but 3 evenly proportioned rooms	25	71
	In lively central part of city, but 2 no inherent contact		In lively central part of the city, with small cafes etc, pretty 3 close to shore		Full kitchen, laundry, off-site 3 gym access, some balconies		One very large room with queen bed, one smaller room 2 with two twin beds	20	57
	Corporate apartment, so no inherent immersion, but close to cafes/lively part of 2 downtown		In lively central part of the city, with small cafes etc, 5-10 min 4 from shore		Glass pool overhanging sidewalk on top story, gym, very nice kitchen and patio, flat 4 screen TV		Two very similar large bed 5 rooms with double beds	29	83

### Objective Housing Criteria Checklist

yes no comments

Fire safety multiple clearly marked fire exits fire extinguishers working smoke detectors barred windows exposed electrical wires

if yes, what floor? where?

Security
secure entrances (deadbolt locks)
solid external doors
locks on all windows
no broken windows - all function
screens/sterms on windows
Any sort of security system in place
peephole at front door

Describe access: key card, key, concierge/front desk staff, etc.

working appliances (if available) stovetop

stovetop
oven
microwave
refridgerator
laundry facilities
hot water in kitchen
hto water in bathroom
landline telephone
high speed internet

gas or electric? If gas, how supplied gas or electric? If gas, how supplied

if no - how close by?

what is it?

cost?

Neighborhood safe surroundings well lit outside at night Accessible to public transportation Access to shopping - for necessities Access to restaurants Describe locale: residential, urban, business district, etc.

Transportation easy access to public transportation bus line metro/subway reliable taxi service walking distance to sponsor

Multi-floor building working elevator multiple stairways fire escape

Co-ed apartments locks on bedroom doors locks on bathroom doors separate bathrooms?

Facilities emergency medical services medical clinic (non-emergency) dental clinic mental health facilities Embasy or consulate (if available) fire house police station

ADA Compliance wheelchair accessible ADA accommodated bathroom & shower

Price
B-term (ex. Oct. 27 - Dec 17, 2009)
C-term (ex. Jan 14 - March 5, 2010)
D-term (ex. March 15, May 4, 2010)
When peak and off-peak tourist season are
Cost of Internet
Bandwidth usage limit

how long of a walk?

indicate which floors will be used

Name, Address, and proximity to housing

how close?

# Objective Housing Criteria Checklist Report

Category			Annaday Homestay			Bay Plaza Hotel			Capital Nomad Backpackers
	yes	no	comments	yes	no	comments	yes	no	comments
Fire safety									
multiple clearly marked fire exits		X		X X			X		English and
fire extinguishers working smoke detectors				×			×		fire hose
barred windows		x		^	x		^	х	
exposed electrical wires		x			x			х	
-									
Security secure entrances (deadbolt locks)			key	x		key card			key card
secure entrances (deadboit locks)				X V			X V		
locks on all windows				x			x		
no broken windows - all function				х			х		
screens/sterms on windows		х			х			х	
Annual of annual and an almost an al			alasta alla da succión a constante del const						
Any sort of security system in place peephole at front door		×	electronic security system, friendly dog	Х		employees at counter	Х	×	employees at counter
peephole at front door		×			X			×	
working appliances (if available)									
3.11									
stovetop			gas		х		х		gas and electric stoves, 8 burners each
over			gas		Х		X		one electric oven
microwave					X		X		
refridgerator laundry facilities				Ļ-	٨		×		
hot water in kitcher				^	x		×		
hot water in bathroom				х	_		x		
landline telephone				х			х		
high speed interne				х			х		
Neighborhood									
safe surroundings	х	-	residential	х		CBD	х	-	CBD
well lit outside at night		-	residential	X		CBD	X	-	CBD
Accessible to public transportation  Access to shopping - for necessities			residential residential	X		CBD CBD	X		CBD CBD
Access to shopping 1to necessition			residential	^ ¥		CBD	Ŷ		CBD
Access to restaurants	^		residential	^		000	^		OLD
Transportation									
easy access to public transportation	х		200 Ft	х		20 Ft	х		20 Ft
bus line				х			х		
metro/subway		х			х			х	
reliable taxi service	×			Х			Х		
walking distance to sponsor		-						-	
Multi-floor building									
working elevator		х		х			х		
multiple stairways		X		X			X		
fire escape		X		х			Х		
Co-ed apartments									
locks on bedroom doors	x			х			x		
locks on bathroom doors					х			х	
separate bathrooms?	х				х		х		
Facilities									
emergency medical services				X			X		
medical clinic (non-emergency)				×			×		
dental clinic mental health facilities				x x			X		
Embasy or consulate (if available)				x			x		
fire house				х			х		
police station				х			х		
ADA Compliance									
wheelchair accessible		х		х			х		
ADA accommodated bathroom & shower		Х		Х			Х		
Price (prices per bed per night)				L I					
									4 bed dorms \$26.00; 6 bed dorms \$24.00;
B-term (ex. Oct. 27 - Dec 17, 2009)			1-4 bed bedrooms, \$53.76			1 room, queen bed twin bed, \$135			8 bed dorms \$22.00; Quad Ensuite \$28.00
C torm (ov. lon 44 Morah 45 0040)			1 4 had hadraams \$64.50			1 room, guoon had tuin had \$450.75			4 bed dorms \$28.00; 6 bed dorms \$26.00;
C-term (ex. Jan 14 - March 15, 2010)			1-4 bed bedrooms, \$64.50			1 room, queen bed twin bed, \$168.75			8 bed dorms \$24.00; Quad Ensuite \$30.00
									4 bed dorms \$26.00; 6 bed dorms \$24.00;
D-term (ex. March 15, May 4, 2010)			1-4 bed bedrooms, \$53.76			1 room, queen bed twin bed, \$135			8 bed dorms \$22.00; Quad Ensuite \$28.00
D									
Does peak and off-peak tourist season matter? Cost of Internet			free wireless			\$50/week (wireless)			\$50 per month (wireless)
Bandwidth usage limit			no bit torrent or large file downloads			none			φου ρει ποπιπ (wireless)
			2 Short or large life downloads						

		Abel Tasman			Tinakori Lodge			Quest Atrium			Lambton Court Apartments
yes	no	comments	yes	no	comments	yes	no	comments	yes	no	comments
X			x			x			x x		
X Y			X			X			X		
Î-	x		^	х		^	x		^	x	
	x			x			x			x	
		key card			key			elevator - key card, rooms - key			key
х			х			х			х		
х			Х			х			х		
X			x x			X			x x		
X	_		х	v		X			X	_	
	X			^			×			×	
×		employees at counter	x		owner and employees	×		employee at counter	x		Employee at counter
	х			х			х			х	
$\vdash$	х			х		х		electric	Х		electric
$\vdash$	Х			х		Х		electric	х		electric
X			X			X			X		
X			X			X			X		
X			X			X			X		
X			X			X			X X		
×			x			×			x		
х х			^ Y			Y Y			x		
^			^			^			^		
$\vdash$											
x		CBD	x		residential	x		CBD	x		CBD
x		CBD	X		residential	x		CBD	x		CBD
x		CBD	х		residential	x		CBD	X		CBD
х		CBD	х		residential	х		CBD	x		CBD
х		CBD	х		residential	х		CBD	х		CBD
х		20 Ft	х		200 Ft	х		20 Ft	х		20 Ft
х		2 blocks to nearest route (bus 14)	х			х			х		
	X			х			х			x	
х			х			х			х		
х				x		х			х		
х				х		х			х		
х			х			х			х		
х						х				x	
х							х			х	
$\vdash$	х						х		х		depends on room
$\vdash$											
X			X			X			X		
X			X			X	-		x x		
Ŷ			Y			Y Y	-		x		
x			x			x			X		
x			x			x			x		
x			x			x			x		
		_									
х		they are accessible to an extent		х		х					
	х	more accessible facilities at seperate location		х		х					
$\vdash$											
					\$50-73 a bed twin, \$85 for single, no meals,			for 2 brm, 3 bed, \$63/night/bed; for 1 brm			(2) 2 brm, 3 bed \$60/night/bed (GST incl) (+) 1
		surcharge on top of D-term price			rm service once a week (dscnted rate)			1 bed \$149/night/bed			brm, 1 bed \$125/night/bed (GST incl) (+) 1
$\vdash$		go on top or a torn/ price			22. Noo onoo a mook (asomed rate)						
		surcharge on top of D-term price			Not an option, has annual regulars						
$\vdash$		go on top or a torn/ price			opilon, nao amitar regulare						
					\$50-73 a bed for twin, \$85 for single, no						
		\$50 a bed twin, \$43 a bed triple, 2 special \$50			meals, rm service once a week (discounted						
$\vdash$		singles, no meals, rm service 2x a week			rate)			•			
						1		rates do not change w. season, clientele is			rates do not change w. season, clientele is
$\perp$								corporate and government based			corporate and government based
		\$60/week (wireless)			\$20/gigabyte			\$100/seven week stay (wireless)			\$10/day (wireless)
		none		1	none	1		900 megabytes per day		ı	100 megabytes

			1					
		Quest Wellington		T	Century City Apartments			Wellywood Backpackers
yes	no	comments	yes	no	comments	yes	no	comments
x			х			х		
x			x			х		
х			х			х		
	х			х			х	
	х			х			х	
		lkov			kov oard 24 bour oansiaras			kov
x		key	х		key card, 24 hour concierge	x		key
×			X			X		
x			x			x		
x			X			x		
	x			х			х	
					employee at counter 24/7;			
					cameras; key card access at front			
х		employee at counter	х		door during nighttime	х		employee at counter
	х			х			х	
x		electric	v		electric	v		nas
x		electric	x x			X X		gas gas
x			X		C.CO.NO	X		944
x			x			x		
x			x			x		
x			x			X		
х			х			х		
х			х			х	L	
х			х			х		
х	1	CBD	х		CBD	х	<u> </u>	CBD
Х		CBD	Х			х		CBD
Х		CBD	Х			х		CBD
Х		CBD	х			х		CBD
Х		CBD	х	-	CBD	Х		CBD
_		20 Ft	х		20 Ft	х		20 Ft
x		2011	x			x		2011
	x		^	х		^	х	
x			x	<u> </u>		х		
					9 floors total, any floor between 2-			probably 4th floor, top floor has
x			х		8 could be used	x		common space
x			x			x		
x			x			X		
	х			х		х		
	х			х		х		
х		depends on room		х		х		
х			х			х		
х	1		х			х	<u> </u>	
X			X			X		
x x	-		X			X		
_	1		x x			x x		
x			x			x		
						_		
			х			х		
				х		х		
								<u> </u>
							-	
		(4) 2 hrm 2 had \$67/55-648 - 1.4 h						
		(4) 2 brm, 3 bed \$67/night/bed; 1 brm, 1bed, \$139/night/bed			\$54/night/bed			\$23/night/bed
		1553, \$100/Highlebod			φο π. ngripbou			
		ı,						-
		III			•			•
	1	Complimentary wireless			\$50/week (wireless)			free wireless
	1	İ		1	10 gigabytes per week		ı	within reason

# Housing Information Summary

		0	Applicable Date		
Name of Housing	Address	Basic Safety from Objective Criteria Checklist	Applicable Data  Appliances	Location and Transportation	Subjective Criteria Score
		Pass, Questionable, Fail	Full Kitchen=FK; Microwave/Fridge=MF; Nothing=N; [Laundry=L]	Suburb, Public Transport = SP Suburb, No Public Transport = SN Central Business District = CBD	
Annaday Homestay	39 Wadestown Rd 182 tinakori rd.	Pass	FKL	SP	97
Tinakori Lodge	thornadon, Wellington	Pass	MF L	SP	69
Wellywood Backpackers	58 Tory St	Pass	FKL	CBD	83
Capital Nomad Backpackers	118 Wakefield St Wellington NZ	Pass	FK L	CBD	77
Bay Plaza Hotel	40-44 Oriental Parade, Wellington NZ	Pass	L	CBD	69
Abel Tasman	169 Willis Street	Pass	(MF with longterm contract) L	CBD	77
Quest Atrium	154 The Terrace Wellington NZ	Pass	FK L	CBD	71
Lambton Court Apartments	120 Lambton Quay Wellington NZ	Pass	FK L	CBD	71
Quest Wellington	Cnr Lambton Quay & Hunter St Wellington	Pass	FK L	CBD	57
Century City Apartments	72 Tory St	Pass	FK L	CBD	83

	Generally Applicable Data				Student Specific Data				
	Name of Housing	Rate of Most Comparable Accommodations		Internet Cost at Housing for Term	Total Housing Cost Over Term	Description of Accommodations	Cheaper Rates		C or B term increased rate
		Prices Per Bed Per Night (NZD)	Price per night per bed for 50 days	(NZD)	(NZD)	bedroom = brm room = rm	yes, no	yes, no	
	Annaday Homestay				\$2,688	3 one room, 1-4 beds	no	no	\$3225 for C term
Т	Finakori Lodge	\$50.	\$2,500	\$120	\$2,620	one room, 2 beds	no	yes	C term not possible
	Vellywood Backpackers	\$23	\$1,150	\$0	\$1,150	) one room, 4-6 beds	yes	yes	no seasonal dependence
	Capital Nomad Backpackers	\$28.	\$1,400	\$100	\$1,500	Quad Ensuite	yes	no	\$1600 for C or B term
	Bay Plaza Hotel	\$67.5	\$3,375	\$350	\$3,725	5 1 room, 2 beds	no	no	\$4562 for C term C and B term.
A	Abel Tasman	\$43.	\$2,150	\$420	\$2,570	1 room, 3 beds	no	yes	surcharge on D term price
C	Quest Atrium	\$63.	\$3,150	\$100	\$3,250	) 2 brm, 3 bed	no	no	no seasonal dependence
	ambton Court Apartments	\$60.	\$3,000	\$500	\$3,500	) 2 brm, 3 bed	no	no	no seasonal dependence
	Quest Vellington	\$67.	\$3,350	\$0	\$3,350	) 2 brm, 3 bed	no	no	C term not possible
	Century City Apartments	\$54	\$2,700	\$350	\$3,050	) 2 brm, 2 bed	no	no	no seasonal dependence

Name of Housing	Cost of Room	Room Cost Over Term	Internet Cost at Housing for Term	Total Housing Cost Over Term	Description of Accommodations	C or B term increased rate
	Prices Per Bed Per Night (NZD)	Price per night per bed for 50 days	(NZD)	(NZD)	bedroom = brm room = rm	
Annaday Homestay				\$3533.	1 brm, 1 bed	\$4147 for C term
Tinakori Lodge	\$120.	\$6000.	\$120	\$6120.	1 brm, 1 bed	Surcharge for C term
Wellywood Backpackers						
Capital Nomad Backpackers						
Bay Plaza Hotel	\$135.	\$6750.	\$350	\$7100.	1 rm, 1 bed	\$8787.50 for C term
Abel Tasman	\$50.	\$2500.	\$420	\$2920.	1 rm, 1 bed	surcharge for C or B term
Quest Atrium	\$149.	\$7450.	\$100	\$7550.	1 brm, 1 bed	no seasonal dependence
Lambton Court Apartments	\$125.	\$6250.	\$500	\$6750.	1 brm, 1 bed	no seasonal dependence
Quest Wellington	\$139.	\$6950.	\$0	\$6950.	1 brm, 1 bed	no seasonal dependence
Century City Apartments	\$93.	\$4650.	\$350	\$5000.	1 brm, 1 bed	no seasonal dependence

# **Housing Contacts**

Hotel/Motel	Address 169 Willis Street Wellington	Website	General Phone	General Email	Primary Contact Arjun Singh, Hotel	Contact Email	Contact phone (if different)	Site Visit 1 (date) 3/20/09, 11:00am (Scott.
Abel Tasman Hotel	City 40-44 Oriental Parade.	abeltasmanhotel.co.nz	04 385 1304	stay@abeltasmanhotel.co.nz	Manager	hotelmgr@primehotels.co.nz		Charlie)
Bay Plaza Hotel	Wellington 110-116 Wakefield Street.	bayplaza.co.nz	04 385 7799	reservations@bayplaza.co.nz	Eileen Crowley	ECrowley@bayplaza.co.nz		3/20/09, 11:00am (Nate)
West Plaza Hotel	Wellington 28 Cambridge Terrace	westplaza.co.nz	04 473 1440	reservations@westplaza.co.nz				
Cambridge Hotel Central City Apartment	Wellington City 130 Victoria Street	cambridgehotel.co.nz	04 385 8829	cambridgehotel@trinitygroup.co.nz				
Hotel Lambton Court Serviced	Wellington City 120 Lambton Quay	centralcityhotel.co.nz	04 385 4166	reservations@ccah.co.nz				3/24/09, 1:30pm (Nate,
Apartments	Wellington City 70-72 Riddiford Street	lambtoncourt.co.nz	04 931 2999	info@lambtoncourt.co.nz	Richard	info@lambtoncourt.co.nz	931 2999	Charlie)
Southgate Motor Inn	Newton Wellington City 37 Pipitea St. Thorndon.	southgate.co.nz	04 939 9292	southgate@clear.net.nz				
Quest at St Pauls Apts	Wellington	queststpauls.co.nz	0800 50 80 23	reservations@stpauls.co.nz	Julz Glass,			3/24/09, 12pm (Nate,
Quest Atrium Capital Nomad	154 The Terrace Wellington	questatrium.co.nz http://nomadshostels.com/hos	0800 200 122	reservation@questatrium.co.nz	General Manager	gm@questatrium.co.nz		Charlie)
Backpackers	118 Wakefield St, Wellington	tels/new-zealand/wellington-	+64 (0)4 978 7800	info@nomadscapital.com	Adnin Alias	adnin@nomadsworld.com		3/20/09, 11:30am (Nate)
Century City Limited	many locations, will see what company contact suggests 160 Adelaide Rd. Wellington	http://www.centurycity.co.nz	(04) 474 2146	paula@centurycity.co.nz	Paula Muollo; Sunen	paula@centurycity.co.nz sunen@centurycityhotel.co.nz	021 754 954	
Loafers Lodge	NZ 6001 Cnr Lambton Quay & Hunter	http://www.loaferslodge.co.nz	(04) 389 6492	luke@loaferslodge.co.nz	Luke	luke@loaferslodge.co.nz	0273 050 277	3/24/09, 2:30pm (Nate,
Quest Wellington	St Wellington	questwellington.co.nz	+64(04)-916 0700	anu@sarin.co.nz	Anu Sarin	anu@sarin.co.nz enquiriesdesk@tinakorilodge.co.		Charlie) 3/23/09 1:00pm (Nate,
Tinakori Lodge	182 tinakori rd, thornadon 39 Wadestown Road.	tinakorilodge.co.nz http://www.tavis.co.nz/annada	+64 4 939 3478	enquiriesdesk@tinakorilodge.co.nz	Neville	nz		Charlie)
Annaday Homestay Wellywood Backapackers	Wadestown	y http://wellywoodbackpackers.	+64 4 4991827	annaday@tavis.co.nz	Anne Denton	annaday@tavis.co.nz kenny@wellywoodbackpackers.c		3/15/09, 4:00 (group)
Hostel	58 Tory Street, Te Aro	co.nz	+64 4 381 3899	info@wellywoodbackpackers.co.nz	Kenny Roache	o.nz		4/22/09, 4:00 (Nate)

## Canadian Hotel Guide Rating Criteria

#### Rating Criteria

- <u>Amenities</u>
- Cleanliness
- Location Comfort
- Service
- Value
- Recommendation

#### Amenities

Our guests assess the physical design and appearance of the hotel, as well as its features and quest perks

Guests evaluate the overall state of the hotels rooms, lobby, and common areas of the hotel, with an emphasis on the rooms themselves. It's good for a hotel to have a lot of Amenities, but it's also important that the facilities are clean and well taken care of

When assessing location, guests judge hotel's location within the city, proximity, and street loudness. Other pluses include minimal travel times to city attractions, transportation hubs, shopping areas, restaurants and business districts.

When it comes to quality of life (comfort is king), guests rate the hotel using real-world testing rather than relying on the hotels marketing. Rating is based on the quality of stay the hotel provides, including the bed, bathrooms and general appointments.

When you're looking for a hotel, service is the key separator in distinguishing a good hotel from the best hotel. The only way to determine this is to stay there and live the guest experience that the hotels provides. The guests review the hotel based on timeliness, friendliness, and access to services, plus a small bonus is given for a quick check in/out

Was the hotel worth the money spent? Guests are asked if they felt the hotel charges the right amount for the service that they provide. Rates the hotel's value for the dollar?

Would you recommend the hotel to someone else? Simple enough!

### What the Numbers Mean



#### 10.0 (Perfect):

Тор 📥

This exceedingly rare score is reserved for a hotel that is as perfect as it could be. A hotel that receives this rating could not be reasonably improved upon in any meaningful way. Guests unequivocally reco

A hotel that receives a rating in this range scores high on all of its rating criteria. It succeeds at meeting all of its intended users' needs and has no meaningful drawbacks. It would be difficult, though not impossible, to improve

#### 8.0 to 8.9 (Very good):

A hotel that receives a rating in this range is superior in so many ways that its relatively few drawbacks are not very important.

While the strengths of a hotel scoring in this range certainly outweigh its weaknesses, it has some faults that certain guests should be aware of.

This range represents a hotel that is dead average for its market. Its strengths and weaknesses balance each other out, making it adequate for most guests but not a standout. If you can find it at an extremely low price, it may well be worth booking, but be on the lookout for a better hotel.

#### 5.0 to 5.9 (Mediocre):

tel that scores in this range is merely average in the negative sense—in other words, mediocre. These hotels tend to have enough weaknesses to dampen their strengths. A much better hotel probably exists in its city, so you should consider others first.

#### 4.0 to 4.9 (Poor):

Hotels that just aren't well run tend to fall into this range. While they may have some positive qualities, the overall package simply lacks the cohesive quality that makes other hotels successful.

You probably should not consider a hotel in this range or lower. It has few positive qualities, if any, and its weaknesses outweigh them

#### 2.0 to 2.9 (Terrible):

A hotel that receives a rating in this range scores low on all of its rating criteria. It does not satisfy any of its guests' needs and has no meaningful strengths. It would be difficult, though not impossible, to find a worse hotel in its city.

A hotel in this range would have virtually no effective or fully functional features. The rare hotel that falls into this bottom-of-the-barrel range has no redeeming qualities at all.

#### **Appendix O: Housing Email Correspondence** 0

### **Mass Produced Emails**

#### 7 week housing January to March - Worcester Polytechnic Institute

Nesbitt, Nathan Taylor

Sent: Wednesday, March 18, 2009 1:58 PM

Bcc stay@abeltasmanhotel.co.nz; reservations@bayplaza.co.nz; reservations@westplaza.co.nz; cambridgehotel@trinitygroup.co.nz; reservations@ccah.co.nz; info@lambtoncourt.co.nz; southgate@dear.net.nz; reservations@stpauls.co.nz; reservation@questatrium.co.nz

I am part of a project group from Worcester Polytechnic Institute, a university in the United States. My groups goal here is to set up a project centre for WPI, in which about 28 students annually come to Wellington for seven weeks to work on pre-assigned school projects for credit.

I am interested in the potential of housing the students in your facility, and am curious what kind of accommodations you might have, and how much you would charge for such an extended stay.

If you would like to meet in person, my group is currently in Wellington, and we would enjoy speaking with you in person about potential housing. If you do not think that this arrangement would interest you, would you mind suggesting anywhere else that we might look for such housing?

Nathan T Nesbitt Physics Major 2011 Society of Physics Students Treasurer Jazz Group Secretary 978-273-2247 Mail Box # 3343

#### **IQP Project Center Housing Accommodations**

You forwarded this message on 4/22/2009 10:07 AM.

Nesbitt, Nathan Taylor

Sent: Tuesday, April 21, 2009 4:20 PM

Dear Chrysanthe Demetry,

I am part of the IQP project team conducting a feasibility study for a project center in New Zealand. My focus is on the accommodations available here. I was hoping that you could provide some input on the housing at Bangkok, where the ISGD wesbite listed you as a center director.

Questions:

1. What kind of housing is offered at the site for students (with brief description)? (hotel, corporate apartment complex, hostel, bed and breakfast, etc.)

- 2. Do faculty live with the students? What kind of accommodations are provided for faculty?
- 3. Do you think it is preferable for faculty and students to live in the same facilities, or seperate? (example, faculty living the in the same hotel as the students versus a hotel down the street)

thank you for your time

Nathan T Nesbitt Wellington Project Initiative Worcester Polytechnic Institute Physics Major 2011 ntn@wpi.edu

### **Response of Center Directors**

### **RE: IQP Project Center Housing Accommodations**

Jiusto, J. Scott

Sent: Friday, April 24, 2009 11:58 AM

To: Nesbitt, Nathan Taylor

#### Nate -

Answers below. Good luck.

SI

From: Nesbitt, Nathan Taylor Sent: Tuesday, April 21, 2009 5:36 PM To: Jiusto, J. Scott Subject: IQP Project Center Housing Accommodations

Dear Scott Jiusto

I am part of the IQP project team conducting a feasibility study for a project center in New Zealand. My focus is on the accommodations available here. I was hoping that you could provide some input on the housing at Cape Town, where the ISGD wesbite listed you as a center director.

#### Questions:

1. What kind of housing is offered at the site for students (with brief description)? (hotel, corporate apartment complex, hostel, bed and breakfast, etc.) Backpacker lodge (mostly double rooms in a converted house, casual but very friendly and nice).

2. Do faculty live with the students? What kind of accommodations are provided for faculty? Faculty live 1 block away in separate apartments. Nothing fancy, but comfortable and convenient.

3. Do you think it is preferable for faculty and students to live in the same facilities, or seperate? Separate – while we visit with students plenty at the lodge and in the field, good for all to have

(example, faculty living the in the same hotel as the students versus a hotel down the street)

thank you for your time

Cheers

Nate

#### RE: IQP Project Center Housing Accommodations

Ault, Holly Keyes

Sent: Thursday, April 23, 2009 7:49 PM

Hi Nathan,

Housing in Melbourne is quite expensive relative to many of the other project center sites, and this has been a real challenge for us over the past few years. I am sure that all sites have their own unique situations. In Melbourne, there are many universities that target a large and growing population of international students. Many students, particularly from Asia, choose to study in Australia, particularly Melbourne. As a result, decent, affordable short term housing is very, very difficult to find.

1) Since its inception, the Melbourne project center students and faculty have been housed in "serviced apartments". These are apartment-style accommodations (1 or 2 bedrooms, living room and kitchen), outfitted with kitchen equipment and linens, and serviced weekly (vacuuming, light cleaning, change of linens). Laundry facilities are available on site. The apartments are rented out for both short and long term, and operated somewhat like a hotel (desk clerk on duty during the day/evening). We have been fortunate to have an excellent relationship with the apartment owner/manager.

For the first years of the project center, the apartments were located in East Melbourne, about 1km from the city center, convenient to public transport. Three years ago (2006), the apartment owners sold these flats and bought into a new downtown high rise apartment building. We had a number of problems with the new owners in East Melbourne in 2006, and decided that it would be best to move to the city along with our trusted apartment owners. This has been slightly more expensive, but the location is extremely convenient. This year 4/7 sponsors are within walking distance of the apartments. The building has an excellent security system and many amenities including a fitness center with pool and tennis courts.

- 2) The faculty currently live in the same building with the students, although there were a few years when we were in East Melbourne when the faculty lived in a separate building across the park (same owners). The faculty have the same accommodations as the students, but of course each faculty member has his/her own apartment.
- 3) From my perspectives both as center director and faculty advisor (London x2 and Namibia, separate locations; Denmark, Australia x2, DC, same building), I prefer to have the faculty and students housed in the same building. Reasons:
- a) Students are more likely to seek out faculty for both project-related and casual interactions if housed in the same building. I feel that I had much better relationships with the students in Copenhagen, Melbourne and DC, and this promoted better project work as well as general communications about non-project issues. Sometimes a social situation ("Prof. A, can you show us how to make apple pie?" "Do you have any laundry soap?" "How do we get to the train station?") or simply meeting in the hallway can lead to an informal discussion of how the projects are going, or stresses caused by situations back home, or weekend plans, or...
- b) Students and faculty can more easily exchange materials such as report drafts, whether hard copy or electronic (memory sticks); this is particularly important in places where the internet access is limited, as it is in Namibia, or even in Australia, where even though the internet is readily available, the download charges are significant.
- c) Faculty are more aware of the student housing situation and can discuss any problems or issues with the apartment manager/owner as situations arise. The internet is not working (may impact submission of student work, for example), the students are making too much noise (less likely if the faculty live next door or upstairs), students chronically coming in late, messy rooms, broken appliances, ...

Good luck with your project! Let me know if you have any further questions.

From Namibia,

Prof. A

#### Re: IQP Project Center Housing Accommodations

Peder C. Pedersen [pedersen@ece wpi edu]

Sent: Thursday, April 23, 2009 2:19 AM

#### Hi Nathan

student and faculty housing is a very critical aspect of a project site. In Denmark, the students and faculty stay in furnished apartments (called Nine Small Homes <a href="http://www.9smaahjem.dk/?layout=1">http://www.9smaahjem.dk/?layout=1</a>). The faculty advisor has a larger apartment to accommodate meetings

There are pros and cons to the advisor staying at the same location, but overall I find it an advantage

Peder C. Pedersen

For the

### RE: IQP Project Center Housing Accommodations

Peet, R. Creighton

Sent: Wednesday, April 22, 2009 7:32 PM

To: Nesbitt, Nathan Ta

Hi Nathan

My answers appear below.

Prof. Peet

From: Nesbitt, Nathan Taylor Sent: Tuesday, April 21, 2009 6:06 PM

To: Peet, R. Creighton
Subject: IQP Project Center Housing Accommodations

Could you also provide this information for Namibia? Thank you for your input.

1. What kind of housing is offered at the site for students (with brief description)?

(hotel, corporate apartment complex, hostel, bed and breakfast, etc.)

The student housing in Namibia is in a state of transition. Through this year our students have been housed in student dorms on the Polytechnic of Namibia's campus in suites with four to six students per suite, in The student housing in Namibia's in a state of transition. Inrough this year our students have been housed in student forms on the Polytecnnic of Namibia's campus in surtes with four to six students per suite, in be used by all the male students living in neighboring suites. The problem with this is that the students in the flat with kitchen equipment (but no real cooking is allowed) are not always in or up at the time when the students living in he other flats would like to use the equipment. The female side has more than one suite with refrig, microwave and hotpot. However, this year all seven female students were housed in a house with four bedrooms, a full living room and dining room areaand a full kitchen. This house is right next to the gated campus, but not inside it. This house in previous years was used by WPI faculty as their housing. Because this house has a full kitchen, it has become a general place for both male and female students to congregate, cook, do laundry, watch TV and socialize. I think this may be somewhat undesirabe for some female students, who may want more privacy, but the bedroom area is at one end of the house and thus some privacy is provided in that way. This house and the dorms also have some wi-fi internet service, but in general internet access in Namibia is not reliable, so it is not always available.

Unfortunately student housing in Namibia from next year onwards will not be available at the Polytechnic of Namibia, so I am now in the process of looking for alternative housing. I am looking for housing that is affordable and preferably will allow students to cook for themselves. There are such furnished apartments in Windhoek, but the location is also important, i.e. the housing needs to be within walking distance of shopping and where the project sponsors are located. Also being near the Polytechnic is desirable because our students work with Polytechnic students on some of the projects here. Because there is no real public transportation system in Windhoek, and because security is a potential problem, i.e. students should not be walking around alone, especially at night, because they could get mugged, a safe neighborhood is also essential, and the building(s) must also be secured from unwanted intruders. This can be done if there is 24-hour guard service available. In any case, I can not tell you right now what the housing for next year will

2. Do faculty live with the students? What kind of accommodations are provided for faculty?

The faculty have lived in a four bedroom house right next to campus (see above) or in furnished apartments in a high-rise apartment building on the Polytechnic of Namibia campus. This means that the faculty are very accessible to the students without being in the same building. The apartments in the high-rise building, which is likely to continue to be the preferred housing for faculty, are fully furnished and have a full kitchen, dining room area, living room area, bathroom and one or two bedrooms. There is no internet access in these flats, but there is satellite TV. Once our students have to live off of the Polytechnic campus, I may want to house the faculty in or near where the students are living. The main reason for this would be provide better security. Since I do not know what the student housing will be at this time, I can't say for sure what the housing will be, but safe, fully furnished and spacious accommodations will be the main criteria in making my decision.

Do you think it is preferable for faculty and students to live in the same facilities, or seperate? (example, faculty living the in the same hotel as the students versus a hotel down the street)

In general, I think that faculty should live near the students to promote communication and better supervision of students' behavior. This is especially important in a country like Namibia where there are some security concerns. Students are generally naive about these issues and can get into trouble if not adequately supervised. Nevertheless, the faculty also need to have some degree of privacy and the ability to have time and space to work without being interrupted by students. And the students probably also feel that they want to have their privacy away from faculty as well. In Namibia, if the faculty do not stay in the Polytechnic's high-rise apartment building, then I am not sure where they will stay. I have discussed this whove. The faculty should not live far away from the students, however, as they need to be readily available in emergencies, and public transport and communication systems are not always good. The faculty will have a car to use throughout the term, however.

Cheers

#### RE: IQP Project Center Housing Accommodations

Peet, R. Creighton

Sent: Wednesday, April 22, 2009 6:56 PM

To: Nesbitt, Nath

Hi Nathan.

I provide my answers below.

Prof. Peet

From: Nesbitt, Nathan Taylor Sent: Tuesday, April 21, 2009 5:49 PM To: Peet, R. Creighton Subject: IQP Project Center Housing Accommodations

Dear Creighton Peet.

I am part of the IQP project team conducting a feasibility study for a project center in New Zealand. My focus is on the accommodations available here. I was hoping that you could provide some input on the housing at Hong Kong, where the ISGD wesbite listed you as a center director.

What kind of housing is offered at the site for students (with brief description)? (hotel, corporate apartment complex, hostel, bed and breakfast, etc.)

The students are housed in furnished apartments in a high-rise building with either two or three students per apartment. Each student has his/her own small bedroom, and there is a shared living area, bathroom and kitchen alcove where some cooking can be done. The apartment building is located in a typical Cantonese neighborhood and not in a wealthy or touristy part of the city. Each apartment also has cable TV and internet access, as well as a telephone from which local calls can be made at no extra charge.

2. Do faculty live with the students? What kind of accommodations are provided for faculty?

The faculty were housed in apartments in the same apartment building with the students for two years, but since then I have housed them in separate and somewhat larger furnished apartments in a different part of town for the last two years. The apartments have internet access and cable TV and local telephone service, but the location of the apartments is in a more upscale part of town and may also have exercise facilities and other amenities that the students' apartment building doesn't have. The reason for moving faculty to a different building was not necessarily to get them away from the students, but because faculty wanted more space and amenities than what the students had. Because transportation is very good in Hong Kong, it is easy for the faculty to get to the students' apartment building in about 15-20 minutes.

3. Do you think it is preferable for faculty and students to live in the same facilities, or seperate? (example, faculty living the in the same hotel as the students versus a hotel down the street)

In general I favor faculty living as close to the students as possible to enable better communication between faculty and students and for faculty to be able to keep a finger on the pulse of the whereabouts and behaviors of the students to help keep them safe, not to be intrusive in their lives. Obviously the faculty also need some privacy, so being in the same building is not essential, but being within an easy walk or quick ride of the students' housing is a good idea. The cost of housing will always be a factor as well, of course.

thank you for your time

Cheers

Nate

#### RE: IQP Project Center Housing Accommodations

Davis, Paul W

Sent: Wednesday, April 22, 2009 6:39 PM
To: Nesbitt, Nathan Taylor

Cc: Golding, Dominic

- 1. International student dorm; see http://www.IESResHall.com.
- Faculty live about 20-30 min away from students in mid-range corporate serviced apartments.
   Faculty and students deserve a little separation say 5 min away or separate floors of a large hotel. I wish faculty were closer to students in London, but faculty housing in the same neighborhood as the student dorm is too expensive

Note that faculty work where they live, unlike students who typically spend their days at a sponsor's office or site. Many advisors also enjoy entertaining students for dinner or other social events in their flats. So faculty need decent quality, because they spend so much time in it, and a little space for entertaining students, not to mention accommodating spouses or other family who may accompany them

Students should be located close to public transport and the heart of their city, in the sense of experiencing easily the best their location has to offer.

Of course, both faculty and students require well-maintained, reliably managed housing in safe neighborhoods.

#### RE: IQP Project Center Housing Accommodations

Sent: Wednesday, April 22, 2009 3:21 PM

To: Nesbitt, Nathan

Answers are the same as in Venice

Fabio Carrera, Ph.D. WWW | Blog | Wiki | Fb | Tw Cell: (508) 615-5333 | Skype: carrerawpi Anniversary Web S

in Santa Fe until May 10 Santa Fe Project Center

### **RE: IQP Project Center Housing Accommodations**

Carrera, Fabio

Sent: Wednesday, April 22, 2009 3:19 PM

To: Nesbitt, Nathan Taylor

Answers below

Fabio Carrera, Ph.D. WWW | Blog | Wiki | Fb | Tw Cell: (508) 615-5333 | Skype: carrerawpi Venice Anniversary Web Site

in Santa Fe until May 10 Santa Fe Project Center Wiki

From: Nesbitt, Nathan Taylor Sent: Tuesday, April 21, 2009 6:03 PM To: Carrera, Fabio

Subject: IQP Project Center Housing Accommodations

Dear Fabio Carrera,

Could you also provide this information for Venice? Thank you for your input.

Questions:

- 1. What kind of housing is offered at the site for students (with brief description)? (hotel, corporate apartment complex, hostel, bed and breakfast, etc.)
- 2. Do faculty live with the students? What kind of accommodations are provided for faculty? No. apartments also
- ${\it 3. }\ \ {\it Do\ you\ think\ it\ is\ preferable\ for\ faculty\ and\ students\ to\ live\ in\ the\ same\ facilities,\ or\ seperate?}$ (example, faculty living the in the same hotel as the students versus a hotel down the street) separate

#### RE: IQP Project Center Housing Accommodations

Vernon-Gerstenfeld, Susan

Sent: Wednesday, April 22, 2009 2:47 PM

To: Nesbitt, Nathan Taylor

Short term condo studios- 3 people to a studio..nice building. Faculty are there too.

Dr. Susan Vernon-Gerstenfeld Director of Academic Programs and Planning for Interdisciplinary and Global Programs Director of Project Centers in Puerto Rico and Costa Rica WPI/IGSD 100 Institute Road Worcester, MA 01609

tel: 508~831~5708

### **RE: IQP Project Center Housing Accommodations**

Vernon-Gerstenfeld, Susan Sent: Wednesday, April 22, 2009 2:46 PM
To: Nesbitt, Nathan Taylor

Go to http://www.taironainn.com/sitio/english/content/location.htm
That's where we live in Costa Rica, but housing varies a lot from place to place. Yes, advisors live in the same building...preferable in my mind, tho that isn't the case in Boston or London.

Dr. Susan Vernon-Gerstenfeld Director of Academic Programs and Planning for Interdisciplinary and Global Programs Director of Project Centers in Puerto Rico and Costa Rica WPI/IGSD 100 Institute Road

Worcester, MA 01609

tel: 508-831-5708

### RE: IQP Project Center Housing Accommodations

Vaz, Richard F

Sent: Tuesday, April 21, 2009 10:00 PM To: Nesbitt, Nathan Taylor

- 1. Faculty in Bangkok live in a hotel run by a local university. The rooms are fairly standard hotel rooms. There is no kitchen; all meals are eaten out.
- $2. \ \ Students in Bangkok live in a university dormitory that is about a 10 minute walk from the advisors' lodging.$
- 3. I don't have a strong preference regarding whether faculty and student live in the same facility. I do think it is important for students and faculty to live within a 10-15 minute walk from each other.

# P Appendix P: Cellular Phone Service Summary

Service	VERIZON	AT&T		SPRINT	T- MOBILE
Call send	\$1.99 / min	\$2.29 / min		\$2.29 / min	\$1.99 / min
Call receive					
Txt send	\$0.50 / text	\$0.50 / text		No info	\$0.35 / text
Txt receive	\$0.05 / text		0	No info	\$0.20 / text
LOCAL NZ CARRIERS					
	VODAFONE	TELECOM			
cost of phone	100		129		
cost of calling the states	0.89		0.49		
cost of call out of country	0.89		1.49		
Text message in NZ	\$0.20		0.2		
International texting	\$0.30		0.3		

## Cost of calling in New Zealand

Number of	AT&T and SPRINT	T-MOBILE and VE	RIZON	Vodafone	Telecom
Minutes					
1	3.52		3.06	100.89	129.49
2	7.03		6.11	101.78	129.98
3	10.55		9.17	102.67	130.47
4	14.07		12.23	103.56	130.96
5	17.59		15.28	104.45	131.45
6	21.10		18.34	105.34	131.94
7	24.62		21.40	106.23	132.43
8	28.14		24.45	107.12	132.92
9	31.66		27.51	108.01	133.41
10	35.17		30.57	108.90	133.90
11	3.52 per minute	3.06 per minute		.89 per minute	.49 per minute

# Cost of Sending Text Messages

	AT&T and VERIZON	T-MOBILE	VODAFONE	TELECOM
1	0.77	0.54	100.20	129.20
2	1.54	1.08	100.40	129.40
3	2.30	1.61	100.60	129.60
4	3.07	2.15	100.80	129.80
5	3.84	2.69	101.00	130.00
6	4.61	3.23	101.20	130.20
7	5.38	3.76	101.40	130.40
8	6.14	4.30	101.60	130.60
9	6.91	4.84	101.80	130.80
10	7.68	5.38	102.00	131.00
11	0.77 per text	0.54 pertext	0.20 per text	0.20per text

## Cost of Receiving Text Messages

	VERIZON	AT&T	T-MOBILE	VODAFONE	TELECOM
1	0.08	0.00	0.31	100.00	129.00
2	0.15	0.00	0.61	100.00	129.00
3	0.23	0.00	0.92	100.00	129.00
4	0.31	0.00	1.23	100.00	129.00
5	0.38	0.00	1.54	100.00	129.00
6	0.46	0.00	1.84	100.00	129.00
7	0.54	0.00	2.15	100.00	129.00
8	0.61	0.00	2.46	100.00	129.00
9	0.69	0.00	2.76	100.00	129.00
10	0.77	0.00	3.07	100.00	129.00
11	0.08 per text	0.00 per text	0.31 per text	0.00 per text	0.00 per text

Cost of Sending and Receiving equally

	VERIZON and T-MOBILE	АТ&Т	VODAFONE	TELECOM
1	0.86	0.78	100.20	129.20
2	1.72	1.56	100.40	129.40
3	2.58	2.34	100.60	129.60
4	3.44	3.13	100.80	129.80
5	4.30	3.91	101.00	130.00
6	5.16	4.69	101.20	130.20
7	6.02	5.47	101.40	130.40
8	6.88	6.25	101.60	130.60
9	7.74	7.03	101.80	130.80
10	8.60	7.82	102.00	131.00
11	0.86 per pair	0.78 per pair	0.20 per pair	0.20 per pair

# **Q** Appendix **Q**: Grocery Costs and Analysis

# Example Shopping List with total cost and total calories

Department	Food	Cost	unit	Calories
Dairy				
	Yogurt	5.29	kg	920
	Milk	3.35	2L	1055
	Butter	4	4 sticks	3240
	Cheese	11	kg	4059
Produce				
	Potatoes	1.29	kg	700
	Lettuce		1 head	76
	Carrots	2.5	1.5 kg	625
	Avacados		for 5	1610
	Broccoli	2	1 bunch	414
	Tomatoes	3	kg	179
	Cucumber	2	1	45
	Cellery	2.29	1 bunch	135
Meat (for cooking)	-			
	Lamb	17.99	kg	2721
	Hamburger	15.49	kg	1760
	Steak	19.99	kg	2209
	Eggs	3.69	12	888
	Chicken	23.99	kg	1717
	Sausage	9	kg	3460
Snacks				
	Crackers	3	box	450
	Biscuits	2.5	12	1272
	Pita Bread	2.5	6	462
	icecream	3.79	2L	1853
Add-ons				
	Peanut butter	2.29	jar	2135
	Marmalade	2	jar	1230
	Honey	4	jar	2062
	Jam	2	jar	1400
	tomato sauce	3	500 g	156
	humus	3	container	984
Carbohydrates				
	Pasta	1.69	1lb	1643
	Bread Loaf	2	loaf	1311
Fruit				
	Apples	2.75	kg	522
	Pears	3.69	kg	579
	Bananas	2.99	kσ	890

## Calculations to find average cost per calorie

<b>Total Calories</b>	42762
Total Cost	172.82
Average Cost per calorie	0.004041439

## Average Caloric Intake and Cost for Women

	Average	Woman	Average Active Woman		
	Calories	Cost	Calories	Cost	
Daily	1940	7.8404	2206	8.915413685	
Weekly	13580	54.8827	15442	62.4078958	
Whole Term	95060	384.1792	108094	436.8552706	

## Average Caloric Intake and Cost for Men

	Averag	ge Man	Average Active Man		
	Calories	Cost	Calories	Cost	
Daily	2550	10.30566858	3170	12.81136055	
Weekly	17850	72.13968009	22190	89.67952388	
Whole Term	124950	504.9777606	155330	627.7566671	

# **R** Appendix R: Wellington Restaurant Survey

## Average Meal Price collected from Low, Middle, and High End Restaurants

Low (\$0-14)	Avg Price	Mid (\$15-24)	Avg Price	High (\$25+)	Avg Price
Fish and Chippery	8.00	Backbencher	20.00	Scapa	27.00
Satay Kingdom	8.00	La Bella Italia	La Bella Italia 20.00		40.00
A-Roy Thai		Cafe Neo	17.00	Green Parrot	27.00
Underground		Monteith's Brewery	24.00	Shed 5	25.00
Chow Mein Cube	10.00	Front Page Cafe	15.00	Dockside R & B	36.00
Gasoline		India Bistro	18.00	Loaded Hog	25.00
Ripe Cafe	7.00	Mac's Brewery	18.00	Le Metropolitan	29.00
<b>Boulcott Pies</b>		Wagemama	20.00	Logan Brown	44.00
Hell Pizza	8.00	J.J. Murphy	10.00		
Charcoal Kitchen	9.00	Tulsi Indian	18.00		
Satay Noodle House	8.00	Kayu Manis	17.00		
Mr Bun	13.00	Ernesto Cafe	18.00		
		Great India Kitchen	19.00		

## Calculations to find the total cost of dining out seven times a term

Low Average	8.96
Mid Average	18.00
High Average	31.63
Total Average	19.53
Total Cost Per Term	136.69

## S Appendix S: Scholastic Emergency Services Summary

### Scholastic Emergency Services: Global Emergency Medical Assistance

If you are a student insured with this insurance plan, you and your insured spouse and minor child(ren) are eligible for Scholastic Emergency Services (SES). The requirements to receive these services are as follows: International Students, insured spouse and insured minor child(ren): You are eligible to receive SES worldwide, except in your home country.

Domestic Students, insured spouse and insured minor child(ren): You are eligible for SES when 100 miles or more away from your campus address and 100 miles or more away from your permanent home address or while participating in a Study Abroad program.

SES includes Emergency Medical Evacuation and Return of Mortal Remains that meet the U.S. State Department requirements. The Emergency Medical Evacuation services are not meant to be used in lieu of or replace local emergency services such as an ambulance requested through emergency 911 telephone assistance. All SES services must be arranged and provided by SES, any services not arranged by SES will not be considered for payment.

### Key Services include:

- · Medical Consultation, Evaluation and Referrals
- Foreign Hospital Admission Guarantee
- · Emergency Medical Evacuation
- Critical Care Monitoring
- · Medically Supervised Repatriation
- Prescription Assistance
- · Transportation to Join Patient
- · Care for Minor Children Left Unattended Due to a Medical Incident
- · Return of Mortal Remains
- Emergency Counseling Services
- · Lost Luggage or Document Assistance
- Interpreter and Legal Referrals

Please visit your school's insurance coverage page at <a href="www.uhcsr.com/wpi">www.uhcsr.com/wpi</a> for the SES Global Emergency Assistance Services brochure which includes service descriptions and program exclusions and limitations.

To access services please call:

(877) 488-9833 Toll-free within the United States

(609) 452-8570 Collect outside the United States

Services are also accessible via e-mail at medservices@assistamerica.com.

When calling the SES Operations Center, please be prepared to provide:

- 1. Caller's name, telephone and (if possible) fax number, and relationship to the patient
- 2. Patient's name, age, sex, and Reference Number
- 3. Description of the patient's condition
- 4. Name, location, and telephone number of hospital, if applicable
- 5. Name and telephone number of the attending physician
- 6. Information of where the physician can be immediately reached

SES is not travel or medical insurance but a service provider for emergency medical assistance services. All medical costs incurred should be submitted to your health plan and are subject to the policy limits of your health coverage. All assistance services must be arranged and provided by SES. Claims for reimbursement of services not provided by SES will not be accepted. Please refer to your SES brochure for Program Guidelines as well as limitations and exclusions pertaining to the SES program.

# T Appendix T: Sample IQP Abstracts: Windhoek & Venice

## Windhoek, Namibia

Place	Year	Project title	abstract	Call number	Authors
Namibia	2006	Water Conservation in Windhoek Schools	The goal of this project was to provide the Windhoek, Namibia Department of Infrastructure, Water and Technical Services with a set of recommendations that would help to reduce water consumption within the City's schools. Through our research we found the following sources of inefficiency; faulty infrastructure, vandalism, insufficient maintenance, inefficient use, and lack of water awareness and conservation education. Our recommendations include infrastructure improvements, vandalism prevention methods, maintenance expansion, water saving devices, and educational programs for both learners and administrators.	06E036I	Scott Tang, Richard Gilley, Amanda Tarbet, Rebekah Sullivan

Namibia	2006	Tourist Information Kiosks in Windhoek	Tourism is the third largest contributor to Namibia's GDP; however, the Capital City of Windhoek has not yet fully benefited from this. Access to information was identified as a weakness in the 2006 Tourism Strategy; one proposed solution is the implementation of 24-hour touch screen tourist information kiosks. Drawing from our interviews with tourism stakeholders we made recommendations regarding the design and placement of these kiosks. We also determined a maintenance plan and budget to ensure the long-term functionality of the kiosks.	06E040I	Robert Lavado, Adam Basilio, Linsley Kelly, Melissa Byrne
Namibia	2006	Erosion and Flood Control in Otjomuise	The settlement of Otjomuise in Windhoek, Namibia experiences flooding and erosion problems during the rainy season. The goal of this project, sponsored by the Namibia Housing Action Group, was to increase community capacity to solve rainwater problems, and was achieved using participatory methods to assess problems and develop and	06E038I	Ethan Ray, Nicole Labbe, Nicholas McBride

implement solutions. The results of this project showed evidence of sustainability for community-based initiatives in Otjomuise. A broader outreach was initiated using knowledge exchange meetings and an informational and inspirational pamphlet. Namibia 2006 Enhancing The goal of this 06E034I Brenden Understanding of project, sponsored by Brown, Joanna **Utility Services** the Desert Research Bridge, Kyle Foundation of Robichaud, Namibia, was to Benjamin Thistle recommend an awareness raising process to assist communities in enhancing their understanding of city services and bills. This project investigates the differences in perceptions, comprehension, and communication between communities. to find what factors influence a community's ability to organize bill payment. The findings were used to make recommendations that would allow other communities to benefit from what has been successful in communities with a high rate bill payment.

Namibia	2006	Energy Demonstration Trailer Assessment	The Energy Demonstration Trailer is a mobile showcase of renewable energy and energy efficient technologies. The trailer was developed by the Habitat Research and Development Centre in Namibia, with the intention to enhance awareness of sustainable energy alternatives. Our project involved preparing the trailer for use by expanding the trailer's educational capacities. We conducted three demonstrations with the trailer and assessed its performance and the audience's interactions. Modifications were made to the trailer based on the assessment, along with recommendations for additional improvements.	06E035I	Sara Praschak, Steven Feroli, Tarra Epstein, Andrew Kennedy
Namibia	2006	Development of the Bushblok Industry in Namibia	Bush encroachment in a cause of desertification in Namibia and contributes to the decline of the cheetah's habitat. In an effort to combat bush encroachment and habitat loss, the Cheetah Conservation Fund's subsidiary company CCF Bush	06E037I	Robert Sazanowicz, Samuel Feller, Jilian Wise, Julia Mahony

			Pty. Ltd. has developed the Bushblok product, a compressed wood fuel log created from processed invader bush. Through market research, we made recommendations to CCF Bush to develop domestic usage of the product, including a business plan to enter the residential wood		
			fuel market.		
Namibia	2005	Addressing Water Misconceptions in Katatura	Namibia is the driest country south of the Sahara. The administration of Windhoek, the capital, predicts that by the year 2020, the water demand will be greater than the supply. Many residents in Katatura, a mainly black section of Windhoek, have misconceptions about the quality of water they receive. The goal of this project, sponsored by the Desert Research Foundation of Namibia, was to develop a presentation to educate residents of Katatura about the quality of their water.	05E019I	Courtney Nowill, Marissa Cartwright, Jonathan Rivers, Gissel Morales
Namibia	2005	Aquaculture of the Kabeljou in Namibia	Working in conjunction with the Ministry of Fisheries and Marine Resources of Namibia, we made recommendations for	05E020I	Patrick Weiser, Michael Ragusa, Danya Decoteau, Danielle

			lowering the costs of a land-based kabeijou aquaculture industry. We performed a costbenefit analysis on three major areas of a kabeijou aquaculture industry which are live feed, inert feed, and fish containment units. Although we recommended methods that would reduce yearly costs by N\$ 10.9 million, we concluded that a kabeijou aquaculture industry is still not feasible in Namibia at this time.		Flannery
Namibia	2005	Assessing Prepay Water Metering in Windhoek	Collecting revenue for water from citizens in the informal settlements of Windhoek, Namibia using the standard monthly billing system has been problematic. The current system is not socially equitable in that a large majority of residents do not pay their water bill, forcing others to pay more to compensate for the short fall. A pilot study is currently being conducted by the Department of Infrastructure, Water and Technical Services of the City of Windhoek evaluating prepay water meters as a solution to this non-payment. This project	05E038I	Paul Kastner, J. Michael McHugh, Anne St. Martin, Jacquelyn Youssef

			investigates advantages and problems associated with the two metering schemes through professional interviews and community surveys. Information obtained from this research is used to make recommendations for improving the metering systems.		
Namibia	2005	Energy Demonstration Trailer	Namibia has few power plants to produce electricity of its own and imports 50% of its electricity from South Africa. Currently, residents of both rural and urban communities have little knowledge about renewable energy and energy efficiency and therefore are unable to employ any of these technologies or techniques to conserve energy. In an effort to disseminate information about renewable energy and energy efficiency and new found energy efficiency and new found energy efficient materials, a conceptual design of an energy demonstration trailer was created.	05E005I	Andrew Thayer, Nathan Birmingham, Elizabeth Gottardi, Amanda Otterman

## Venice, Italy

Venice, Italy	2009	Divertimi: A Tourist Guide to a Unique and Enriching Experience	This project lays a foundation for the development of an etourism website by Azienda di Promozione Turistica della Provincia di Venezia, the provincial tourism authority in the Veneto region of Italy. Our design employs individual and group profiling to recommend destinations and attractions. Social networking and various forms of user-generated narratives support travel recommendations. Finally, we propose a system for offering a personalized trip package based on user interests.	09C002I	Daniel Paul Cianfrocco, ECE Cordero Greg Marrero, ME Lindsay Mullins, ME Danielle M Volpe, EV
Venice, Italy	2008	Museo Arzana: Preserving the Traditional Boats of Venice	In Venice, traditional boats are the most important reminder of the city's ancient connection with the sea. Since the introduction of motorboats, traditional boats have begun to disappear and are in danger of being forgotten. This project, in association with the organization Arzana, worked towards the preservation and restoration of traditional boats. Our group created an informative brochure, and website that allows for donations, which will increase Arzana's ability to restore traditional boats.	08C026I	Bryan M Bigda, ME Michelle L Dubuke, BIO Daniel S LaTorella, PH Jennifer Marie Richards, BE
Venice, Italy	2008	Pressing Issues: A Venetian Socioeconomic Overview	This project discusses and assesses the current condition of tourism, retail, and cargo delivery as well as the social and economic implications of each in Venice, Italy. Through analysis of official Comune di Venezia data, interviews with important people, and personal observation our team was able to gain insight on these issues,	08C022I	Jonathan Bahlatzis, MGE Sophia Mary D'Angelo, CH Hamlet V Nina, ME Ilan Shomorony, ECE

			conduct an assessment of these three activities, graphically represent our data, as well as make suggestions for more efficient documentation and planning.		
Venice, Italy	2009	Living in Venice	This project revealed that Venetian community life is threatened by high cost of living and housing. Through interviews and investigations on quality of life in Venice, residents expressed concern that tourism was an underlying cause for the problems in the city. One problem was the decrease in resident population. Venetians also feel that tourism is related to the rise of non-residential housing. Increase of non-residential housing, or vacation homes lowered the availability of affordable housing for Venetians.	09C001I	Jenny M Lund, CE Joshua D Luther, IMG Tobin Patrick McGee, CM Stephanie M Miskell, CM
Venice, Italy	2000	Monitoring pollution on Murano an analysis of the artistic glass industry of Murano, Italy.	This project, sponsored by the Comune di Venezia, analyzes the problem of pollution associated with the artistic glass industry on the island of Murano in Venice, Italy. We obtained information to create a computer-based pollution monitoring system, which allows users to visualize and track the pollution on Murano. This system will be used by the Comune di Venezia to help glass manufacturers come into compliance with Italian environmental regulations on air, noise, and liquid pollutants by Dec. 31, 2002.	MPMA-E00	Cottreau, Nicholas Jason MGE Cavanna, Brian Joseph CM Student author Black, Joshua Cranston BBT Student author
Venice, Italy	2008	Traffic and Its Impacts	This project contributed to the ongoing development of an autonomous agent model of Venetian boat traffic by collecting detailed turning-movement counts at 17	08C024I	Marc Joseph Balboa, ME Michelle Lynn Carbonneau,BIO Kyle Feeley, BIO Lester Li, CM

			intersections and updated indices for boat produced noise and wake pollution. These intersections had never before been studied nor had any of their traffic-related environmental concerns been assessed. The team identified the major contributors of each pollution type and recommended speed limit enforcement and more efficient traffic regulation as methods by which to mitigate potential environmental concerns.		
Venice, Italy	2007	Reviving the History of the Venetian Scuole: Public Education through an Interactive Website	This project was the first at Worcester Polytechnic Institute to research, study, and analyze no longer existing Venetian institutions known as scuole. The scuole were akin to confraternities, artisan guilds, and devotional societies. Our group created a database cataloguing 920 scuole, and maps showing 63 scuole locations, 170 altars commissioned by the scuole, and 181 public displays of art from the scuole. The team also produced a series of tours including virtual, walking, and scavenger hunt types. All of these products as well as general and specific scuole history were entered into a self created website that can be hosted for the public.	07C015I	Chelsea Lynn Bierkan, CE Jennifer M Gosselin, BIO Justin M Pelkowski, ME Katharine H Woodman, CE
Venice, Italy	2007	Murano Energy Reduction: An Investigation of Technologies to Reduce Fuel Consumption in Artistic Glass Furnaces	This project, sponsored by the Stazione Sperimentale del Vetro, a research laboratory funded by the glass industry located in Murano, Italy, assessed the technologies available for increasing fuel efficiency in artistic glass furnaces. The project team collected and analyzed data on natural gas consumption and emissions for different	07C012I	Keith G Ferry, ME Nicholas C McMahon, ME Andrea L Portnoy, BIO Jacob H Troiano, ME

		increase in efficiency but warrant further studies. The project concludes by recommending a testing procedure to further assess both oxycombustion and recuperative burners.		
Venice, 2007 Italy	The Decline of Venetian Food Stores as a Gauge for Social Change in the City	This project explored various dimensions of change in the availability of food in Venice using a triangulated research method, with the purpose of developing a comprehensive understanding of the variables affecting the transformation of retail within the last fifty years. By contrasting and complementing empirical data in the form of charts, maps, and databases with the oral and written testimonies of Venetian citizens, a greater awareness of the existing dynamics was obtained and presented through a documentary video.	07C004I	Lesley A Bright, BE Sara I Duran, ECE Stephen L Parsons, ME Luis M Rodriguez, IE
Venice, 2005 Italy	Facilitating the exchange and reusability of information in the city of Venice.	This project focuses on implementing 'City Knowledge' principles for Urbanistica and Edilizia Privata of Venice by extracting reusable information from private building permits. Pellestrina was used as a sample to model and demonstrate a theoretical system. We gathered information from archived permits, and digitized it via Microsoft Access and MapInfo. Scenarios were modeled using collected data, demonstrating the system's benefits. We conclude with an	FERI- E05	Patrick Allen Chris Fontana Nathan Hebert

technologies and compared it

analysis of benefits, and give recommendations on implementing and improving the proposed system.