



PROJECT-BASED LEARNING SURVEY ANALYSIS

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Institute

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INTRODUCTION

Goals

Methodology

Demographic information



INTRODUCTION

OVERVIEW

In this report, Hanover Research presents the results of the 2021 Project-Based Learning survey conducted by Worcester Polytechnic Institute (WPI), as well as some comparisons to the 2012 study.

KEY OBJECTIVES

- Determine the effects of Project-Based Learning (PBL) on the participants (WPI alumni) of the most recent survey; highlighting areas of success and opportunities for improvement.
- Compare how responses differ based on key demographics (graduation year, gender, underrepresented characteristics).
- Identify any differences, changes and trends with 2012 study.

SURVEY ADMINISTRATION & SURVEY SAMPLE

- The survey was administered online in April 2021 using the Qualtrics platform via a contact list distributed by Worcester Polytechnic Institute.
- The analysis includes a total of 2,263 respondents following data cleaning.

RESPONDENT QUALIFICATIONS

- Must be a WPI alumni.

INTRODUCTION

METHODOLOGY

- After data collection, Hanover identified and removed low-quality respondents.
- Statistically significant differences (95% confidence level) between groups are noted with an asterisk (*).
- Answer options marked with † are truncated for clarity and brevity. For the full text and response data, please consult the accompanying data supplement.

INTRODUCTION: 2021 AND 2012 RESPONDENT CHARACTERISTICS



Survey Year (n=4,762)

2012	53%
2021	47%



Undergraduate Major (n=4,337)

Engineering	70%
Life sciences	9%
Physical science, math, or computer science	16%
Other	5%



Gender (n=4,312)

Male	69%
Female	30%
Non-binary	<1%
Not specified above	0%



Race/Ethnicity (n=1,830)

Caucasian/White	89%
Asian	6%
Hispanic/Latino	4%
Black/African American or African	1%
Middle Eastern or North African	1%
Indigenous/Native American/Alaska Native	0%
Native Hawaiian or Other Pacific Islander	0%
Not specified above	2%



Residence (n=167)

Massachusetts	45%
United States (but outside New England)	33%
New England (but outside Massachusetts)	19%
Outside United States	3%

KEY FINDINGS



SUMMARY OF KEY FINDINGS

In the most recent survey conducted in 2021, respondents report positive impact from projects across all areas.

- 2021 survey respondents report positive impact from formal project experience (through GPS, HUA, IQP, and/or MQP) across all areas surveyed. Significant impact areas include:
 - Overall enrichment and personal character development
 - Professional and career development
 - World views and ethical responsibilities
- This impact was consistently high across experiences, genders, ethnicities and age groups with some notable differences. The main differences noted:
 - Alumni with at least one off-campus experience report higher impact across all areas in comparison to the alumni with only on-campus experiences
 - BIPOC alumni in general report a slightly lower sense of belonging but they connect and maintain strong relationships with the WPI community
 - Female alumni in general report to have had opportunities and to have made professional connections at WPI that they would have not had in other universities

Overall, across all 39 areas, respondents of the 2021 survey reported higher impact from WPI formal project experience (through GPS, HUA, IQP, and/or MQP) when compared to 2012 survey respondents.

- 2021 survey respondents reported significantly greater impact from formal project experience (through GPS, HUA, IQP, and/or MQP) across all areas (personal, professional and their worldviews) when compared to 2012 respondents .
- As previously noted and similar to 2012 survey respondents, 2021 respondents with at least one off-campus experience reported more positive impact than on-campus experiences. However, the increase in positive results noted above were consistent across all (on- and off-campus experiences) and were not only as a result of higher off-campus participation. While the increased participation in off-campus projects did increase the positive impact results when reported in total, it was not the main driver of the increases.

TRENDS OF OVERALL WPI EXPERIENCES

Long-Term Impact of WPI Experiences
On- vs. Off-Campus Project Participation
Projects Within Courses
Great Problems Seminar



LONG-TERM IMPACT OF WPI EXPERIENCES

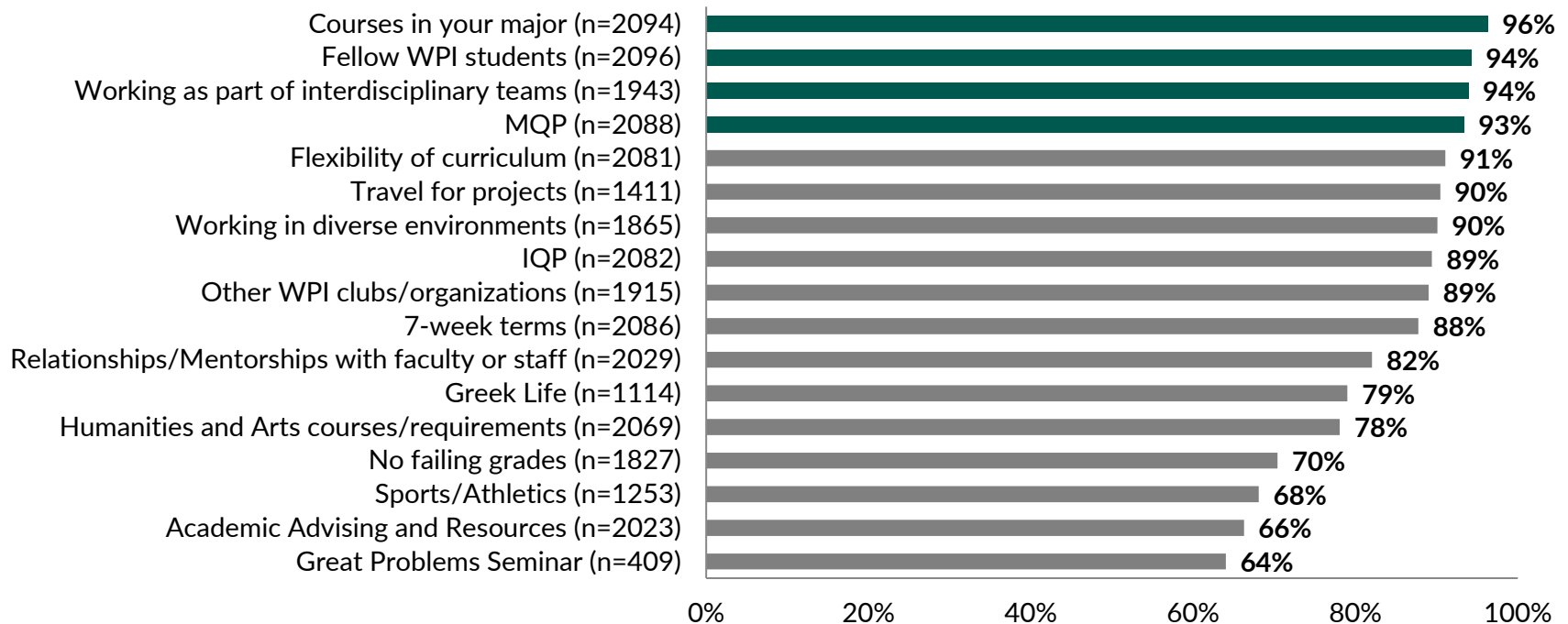
2021
Survey

Courses in their Major, Fellow WPI Students, Participation in interdisciplinary teams, and the Major Qualifying Project (MQP) were the most impactful aspects of the WPI education as reported by respondents in 2021.

Great Problems Seminar (GPS), Academic Advising, and Sports/Athletics were reported to be the least impactful aspects.

For each of the following aspects of your time as an undergraduate at WPI, indicate how and to what extent it affected you after having completed your undergraduate studies at WPI.

% Somewhat or Very Positively



ASPECTS OF WPI EXPERIENCE BY GENDER

2021
Survey

In 2021, while most of the top five most impactful WPI aspects overlap between gender groups, female respondents are also more likely to report high impact from travel for projects (96%) and working in diverse environments (95%).

	Male (n=201-1,121) [A]	Female (n=147-705) [B]	Non-Binary or Gender Not Specified (n=4-20) [C]
Courses in your major	97%	97%	95%
Fellow WPI students	94%	95%	95%
Working as part of interdisciplinary teams	92% B	97% A	88%
MQP	93%	94%	85%
Flexibility of curriculum	91%	92%	85%
Travel for projects	86% B	96% A	93%
Working in diverse environments	87% B	95% AC	69% B
IQP	88% B	92% A	80%
Other WPI clubs/organizations	86% B	94% A	89%
7-week terms	87% B	91% AC	70% B
Relationships/Mentorships with faculty or staff	82%	84%	74%
Greek Life	78% C	82% C	33% AB
Humanities and Arts courses/requirements	79%	78%	74%
No failing grades	68% B	73% A	75%
Sports/Athletics	64% B	78% A	67%
Academic Advising and Resources	67%	66%	63%
Great Problems Seminar	47% B	60% A	25%



ASPECTS OF WPI EXPERIENCE BY ETHNICITY

2021
Survey

In 2021, aspects of the WPI experience also differ by the respondent's BIPOC status. While both groups report Courses in Your Major, Working as Part of Interdisciplinary Teams, and MQP to be most influential, BIPOC respondents are slightly more likely than White respondents to report high impact from travel for projects (92% vs. 90%) and the IQP (91% vs. 89%). Whereas White respondents are more likely than BIPOC respondents to report high impact from fellow WPI students (95% vs. 90%, respectively).

	BIPOC (n=72-269) [A]	White (n=277-1,558) [B]
Courses in your major	96%	97%
Fellow WPI students	90% B	95% A
Working as part of interdisciplinary teams	93%	94%
MQP	93%	93%
Flexibility of curriculum	90%	91%
Travel for projects	92%	90%
Working in diverse environments	89%	91%
IQP	91%	89%
Other WPI clubs/organizations	89%	89%
7-week terms	90%	88%
Relationships/Mentorships with faculty or staff	83%	83%
Greek Life	69% B	81% A
Humanities and Arts courses/requirements	79%	78%
No failing grades	74%	69%
Sports/Athletics	61% B	70% A
Academic Advising and Resources	68%	66%
Great Problems Seminar	56%	51%



ASPECTS OF WPI EXPERIENCE BY DECADE

2021
Survey

In 2021, respondents who graduated between 2010-2019 report similar most impactful WPI aspects as respondents from other graduation decades. That said, these respondents are also more likely to report high impact from travel for projects (94%) and working in diverse environments (92%) than previous graduation decades.

	1980-1989 (n=20-237) [A]	1990-1999 (n=42-474) [B]	2000-2009 (n=53-586) [C]	2010-2019 (n=294-800) [D]
Courses in your major	97% D	98% D	98% D	94% ABC
Fellow WPI students	95%	94%	94%	94%
Working as part of interdisciplinary teams	94%	94%	94%	94%
MQP	97% BD	94% AD	96% D	90% ABC
Flexibility of curriculum	95% D	92% D	92% D	88% ABC
Travel for projects	74% BCD	84% ACD	93% AB	94% AB
Working in diverse environments	88% D	85% CD	92% B	92% AB
IQP	95% BCD	91% AD	89% A	87% AB
Other WPI clubs/organizations	91%	87%	89%	89%
7-week terms	86%	86% D	87%	90% B
Relationships/Mentorships with faculty or staff	88% BD	82% A	82%	80% A
Greek Life	82%	80%	77%	79%
Humanities and Arts courses/requirements	86% CD	81% D	77% A	74% AB
No failing grades	81% BCD	73% A	67% A	67% A
Sports/Athletics	77% CD	73% CD	64% AB	64% AB
Academic Advising and Resources	79% BCD	69% AD	69% AD	58% ABC
Great Problems Seminar	45%	31% D	42% D	56% BC

Note: The letters [A or B] indicate statistically significant differences (95% confidence level). The largest five percentages in each column is filled in as green.

THE SHARE OF ON- VS. OFF-CAMPUS PROJECTS

2021
Survey

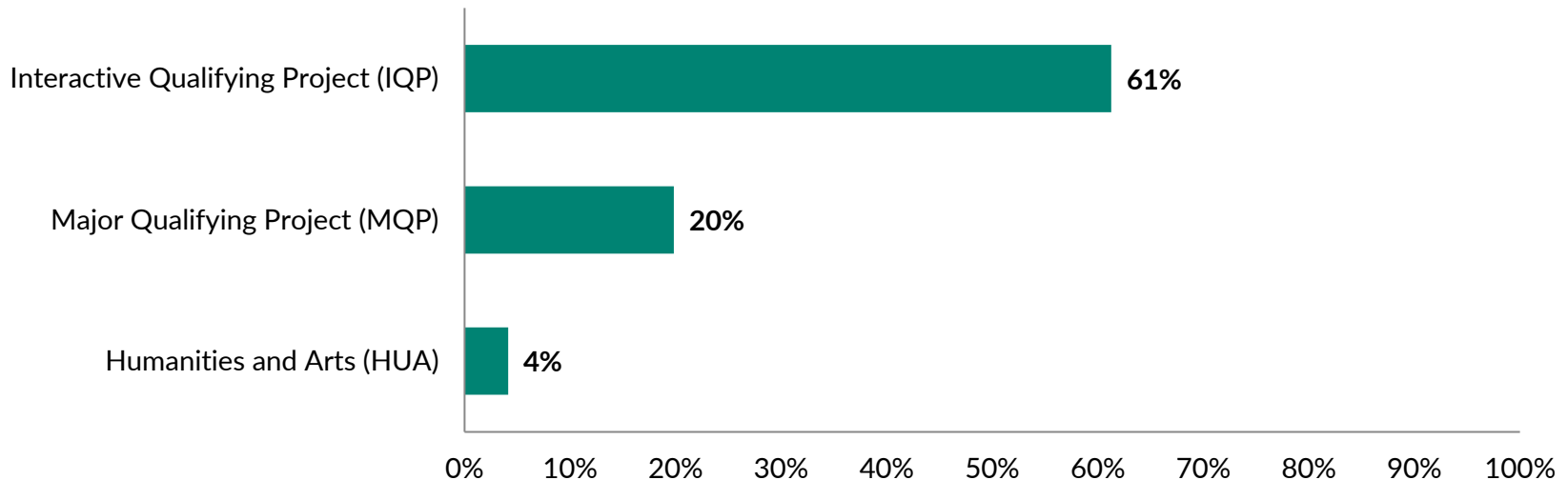
In the 2021 survey:

- The most common off-campus project work is the Interactive Qualifying Project (IQP) with almost two-thirds completed off-campus.
- One-fifth of Major Qualifying Projects (MQPs) were completed off campus.
- As expected, the majority of HUA projects are completed on campus.

When you completed your project work, did you do so "off campus" or "on campus"?

(n=2,098)

% Off Campus



THE SHARE OF ON- VS. OFF-CAMPUS PROJECTS

2021 vs.
2012

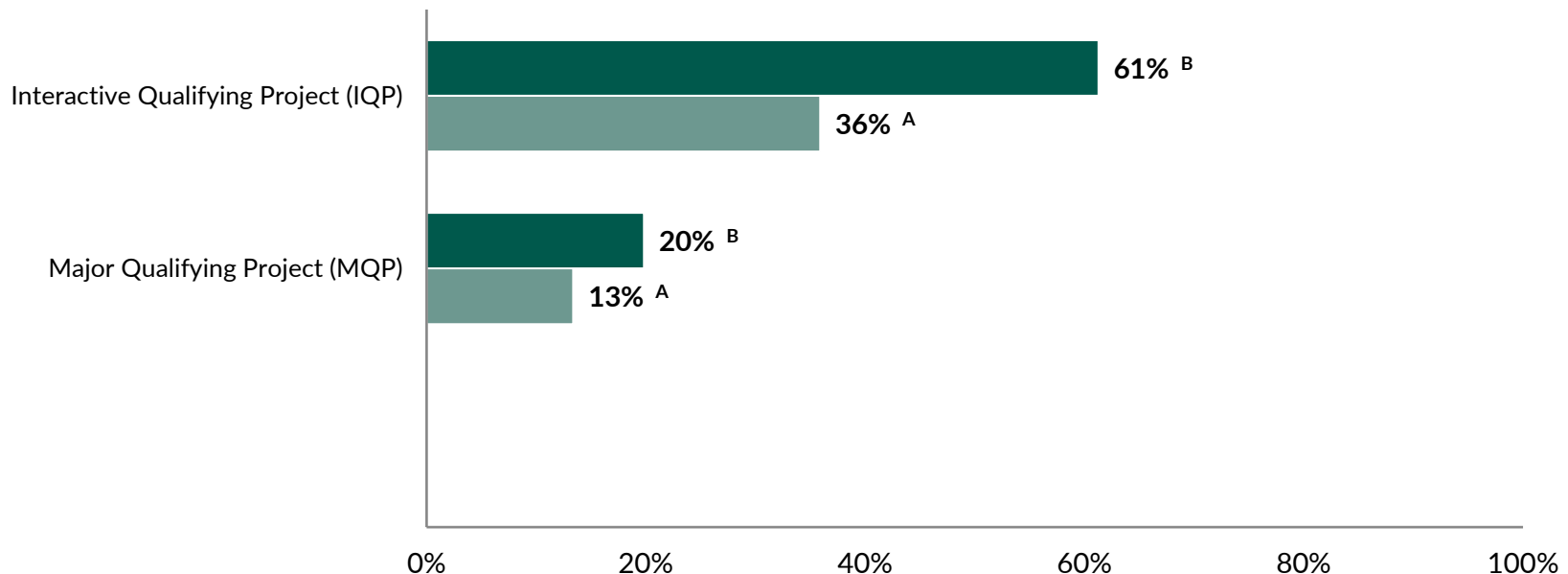
The share of respondents who participated in off-campus projects significantly increased as compared to the 2012 study.

- The share of respondents in 2021 participating in off-campus IQPs almost doubled as compared to 2012 respondents.
- The share of respondents in 2021 participating in off-campus MQPs increased by nearly 50% as compared to 2012 respondents.

When you completed your project work, did you do so "off campus" or "on campus"?

% Off Campus

■ 2021
(n=1847-2098) [A] ■ 2012
(n=2520-2522) [B]



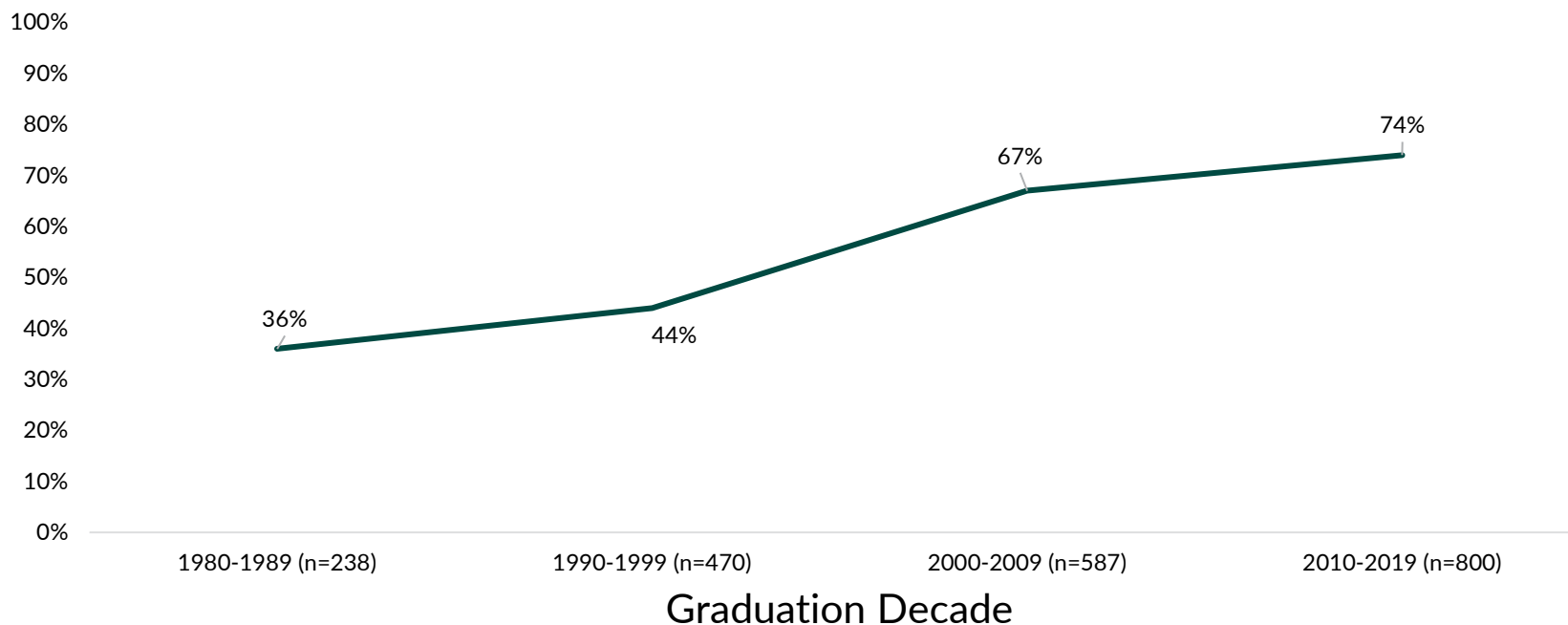
OFF CAMPUS BY DECADE OF GRADUATION

2021
Survey

In the 2021 survey:

- As expected most recent graduates had a higher share of off-campus IQPs.
- Three-quarters of the respondents who graduated between 2010 and 2019 completed an off-campus IQP as compared to just one-third of graduates from the 1980's.

What Percentage of Interactive Qualifying projects (IQP) were Off-Campus



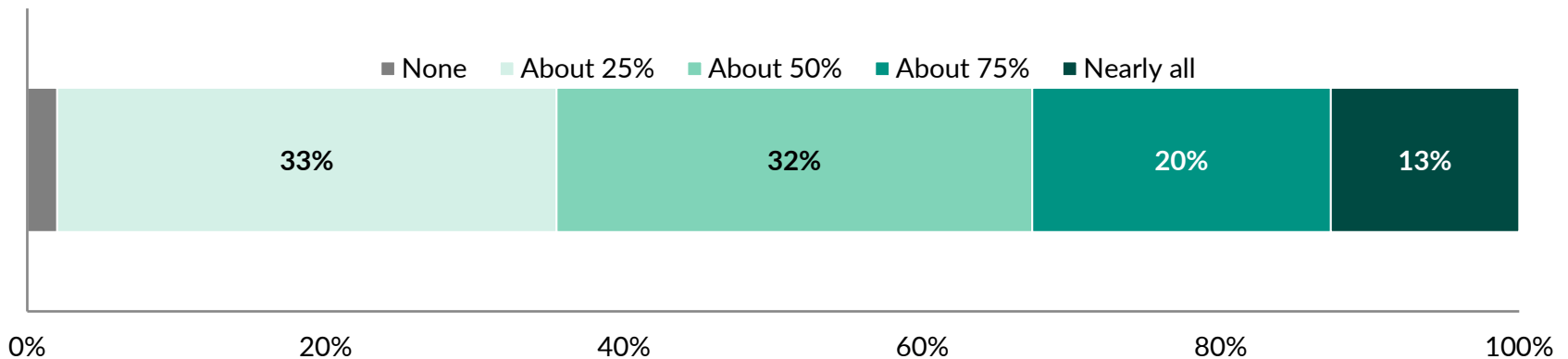
ALMOST ALL RESPONDENTS INDICATE THEY HAD PROJECTS WITHIN THEIR COURSES AT WPI

2021
Survey

In the 2021 survey:

- 98% of respondents indicated that they had projects in at least some courses at WPI.
- Two-thirds of respondents indicated that they had projects in 50% or more of their courses at WPI.
- One-third of respondents indicated that they had projects in 75% or more of their courses at WPI.

What percentage of your courses included project work at WPI?
(n=2,044)



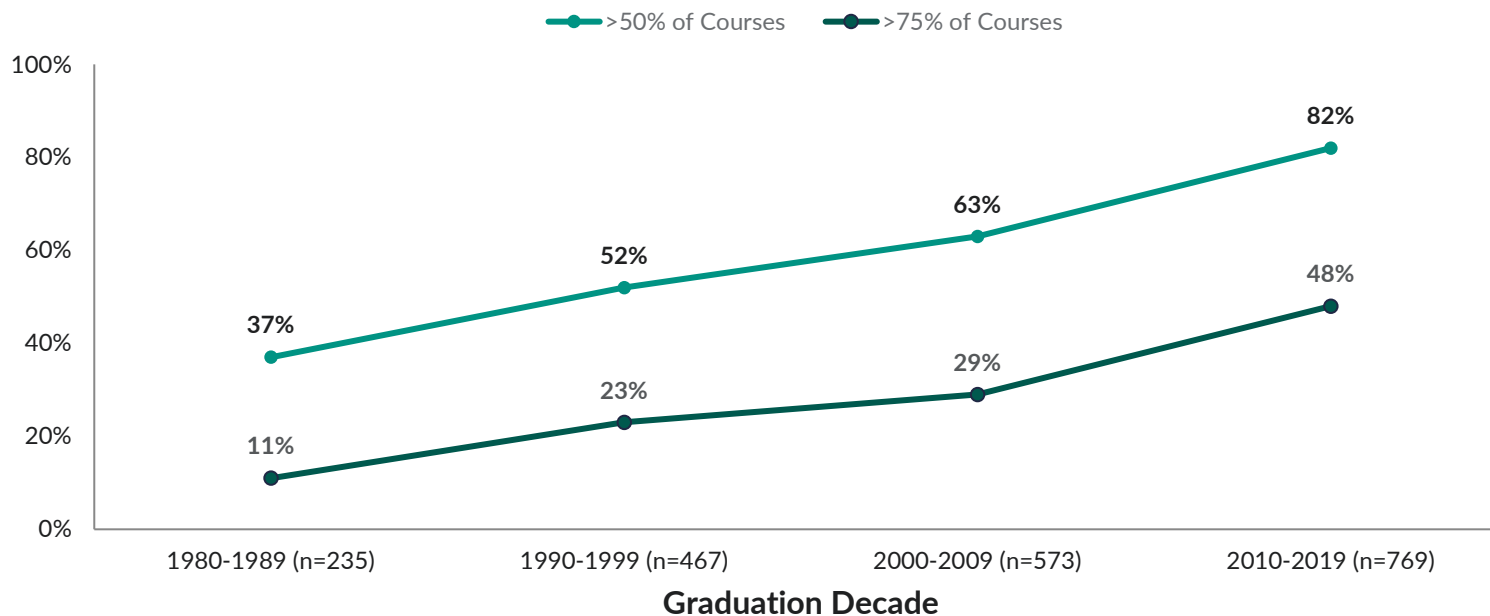
PROJECTS IN COURSEWORK AT WPI HAS INCREASED FOR THE MOST RECENT GRADUATES

2021
Survey

In the 2021 survey:

- Almost half of the most recent graduates indicated 75% or more projects in their coursework.
- 82% of the most recent graduates indicated more than half of their courses included projects.
- The share of respondents who indicated projects in their coursework increased significantly with graduates from the most recent decade as compared to graduates from the 1980's.

What percentage of your courses included project work at WPI?



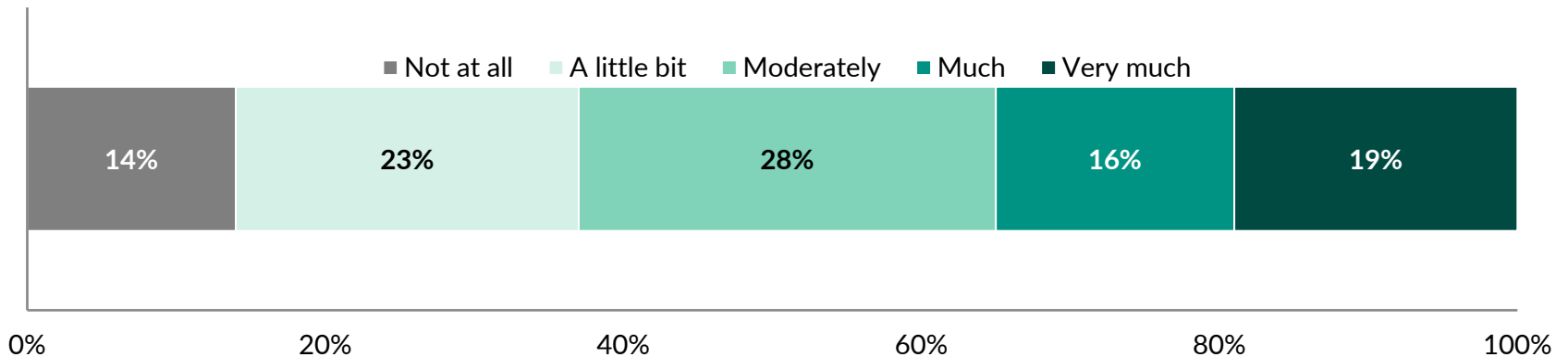
GREAT PROBLEMS SEMINAR (GPS) PARTICIPATION IMPACT ON PROJECTS

2021
Survey

In the 2021 survey:

- 86% of respondents who completed a GPS course indicated that they gained some preparation for the upcoming project work from taking the GPS.
- About 2/3 of the respondents reported they were moderately to very prepared for project work by taking the GPS.

To what extent did taking the GPS prepare you for project work in subsequent years?
(n=210)



PERSONAL IMPACT OF WPI PROJECTS

2021 Personal Areas of Impact
2021 vs. 2012 Personal Areas of
Impact

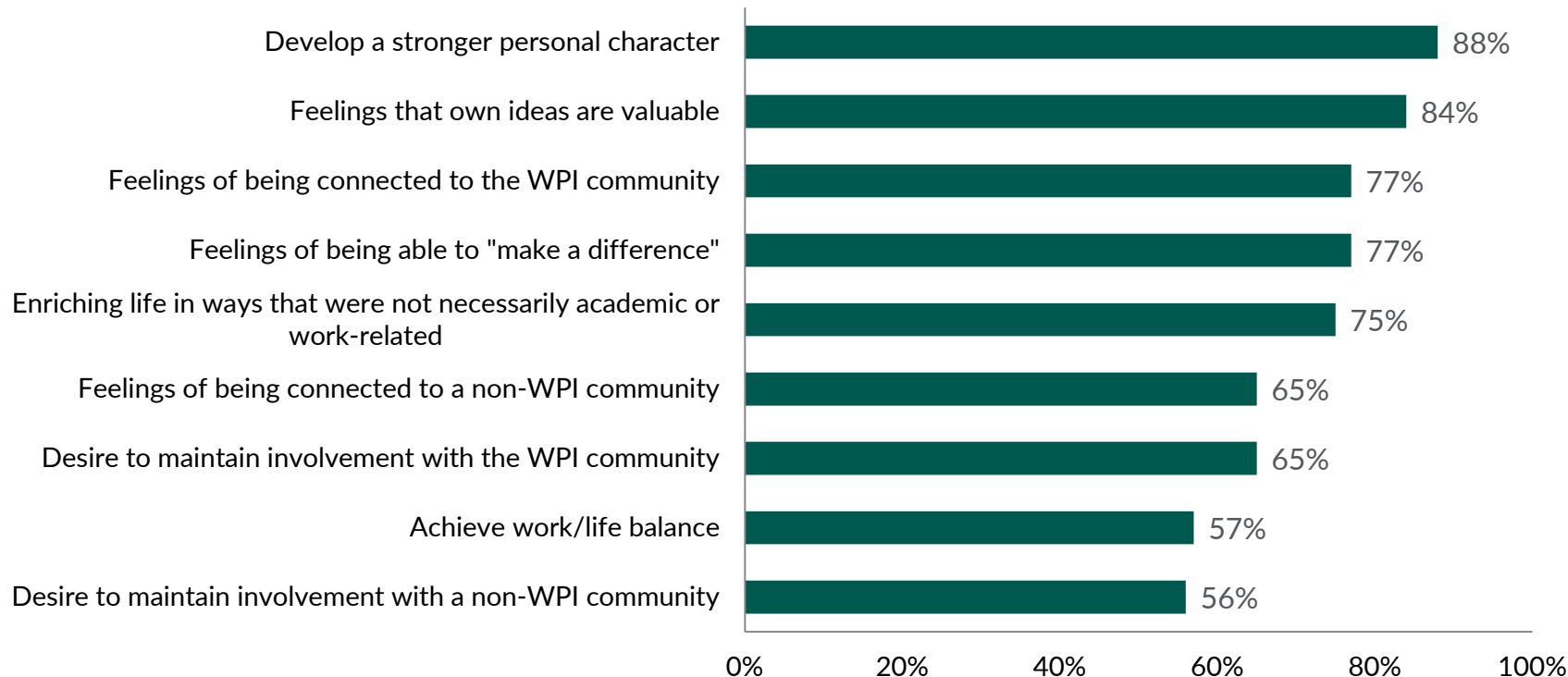


PERSONAL AREAS OF IMPACT

2021
Survey

In 2021, the top personal areas impacted by project work were reported to be: “Develop a stronger personal character”, “Feeling that own ideas are valuable”, “Enriching life in ways that were not necessarily academic or work related”, and “Feeling of being able to make a difference”.

Indicate the extent to which your WPI formal project experience (through GPS, HUA, IQP, and/or MQP)
contributed to:
% Moderately, Much or Very Much



PERSONAL AREAS OF IMPACT

2021
Survey

In the 2021 survey:

- Generally respondents with off-campus project experience and those who identify as female reported higher personal impact overall across all attributes.
- The greatest personal impact differences between White and BIPOC respondents is with feelings of being connected to the WPI community and desire to maintain involvement with a non-WPI community (+6% greater impact for White respondents).

2021 Personal Impact of WPI Project Work						
Area of Impact	Percentage Responding "Moderately," "Much," or "Very Much"					
	No off-campus project	≥ 1 off-campus project	Male	Female	BIPOC	White
Develop a stronger personal character	84% (n=611)	91% (n=1231)	87% (n=1111)	91% (n=702)	87% (n=263)	89% (n=1553)
Feelings that own ideas are valuable	80% (n=626)	86% (n=1295)	83% (n=1111)	87% (n=702)	83% (n=266)	85% (n=1551)
Enriching life in ways that were not necessarily academic or work-related	48% (n=574)	88% (n=1227)	71% (n=1083)	82% (n=688)	77% (n=257)	75% (n=1518)
Feelings of being able to "make a difference"	70% (n=621)	80% (n=1290)	74% (n=1104)	81% (n=702)	77% (n=265)	77% (n=1543)
Feelings of being connected to the WPI community	62% (n=587)	79% (n=1296)	74% (n=1112)	81% (n=702)	71% (n=265)	78% (n=1551)
Achieve work/life balance	51% (n=587)	60% (n=1260)	56% (n=1069)	61% (n=675)	58% (n=259)	57% (n=1490)
Feelings of being connected to a non-WPI community	50% (n=567)	72% (n=1287)	62% (n=1069)	71% (n=682)	66% (n=256)	65% (n=1495)
Desire to maintain involvement with the WPI community	57% (n=618)	69% (n=1289)	62% (n=1107)	70% (n=694)	62% (n=261)	65% (n=1543)
Desire to maintain involvement with a non-WPI community	40% (n=556)	62% (n=1262)	52% (n=1053)	61% (n=664)	60% (n=250)	54% (n=1467)

PERSONAL AREAS OF IMPACT

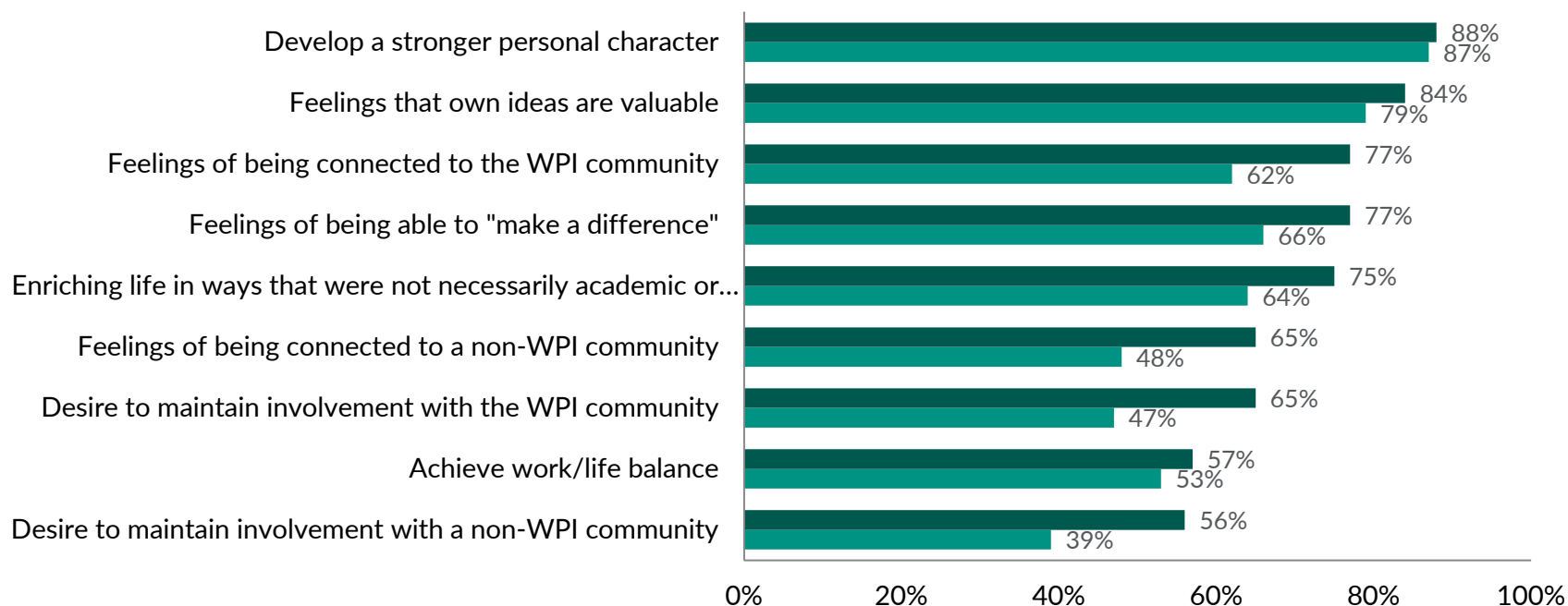
2021 vs.
2012

- Respondents indicated a greater impact in all personal areas in 2021 as compared to 2012.
- There is significant increases reported on the impact project work had on “Feelings of being connected to a non-WPI community” and the “Desire to maintain involvement with both the WPI and non-WPI community” in 2021 vs. 2012.

Indicate the extent to which your WPI formal project experience (through GPS, HUA, IQP, and/or MQP)
contributed to:

% Moderately, Much or Very Much

■ 2021 ■ 2012



PERSONAL AREAS OF IMPACT

2021 vs.
2012

- Both male and female respondents indicate improvements on personal areas of impact in 2021 vs. 2012, with the greatest increases being in "Feelings and desire for community connections and involvement".
- Overall female respondents indicate greater impact in personal areas.

Personal Areas of Impact	Male			Female		
	2012	2021	2021 vs 2012	2012	2021	2021 vs 2012
Develop a stronger personal character	86% (n=1863)	87% (n=1111)	1%	90% (n=595)	91% (n=702)	1%
Feelings that own ideas are valuable	79% (n=1860)	83% (n=1111)	4%	79% (n=592)	87% (n=702)	8%
Enriching life in ways that were not necessarily academic or work-related	62% (n=1801)	71% (n=1083)	9%	71% (n=575)	82% (n=688)	11%
Feelings of being able to "make a difference"	65% (n=1850)	74% (n=1104)	9%	70% (n=590)	81% (n=702)	11%
Feelings of being connected to the WPI community	61% (n=1842)	74% (n=1112)	13%	67% (n=589)	81% (n=702)	14%
Achieve work/life balance	51% (n=1779)	56% (n=1069)	5%	60% (n=582)	61% (n=675)	1%
Feelings of being connected to a non-WPI community	46% (n=1765)	62% (n=1069)	16%	55% (n=565)	71% (n=682)	16%
Desire to maintain involvement with the WPI community	45% (n=1846)	62% (n=1107)	17%	54% (n=593)	70% (n=694)	16%
Desire to maintain involvement with a non-WPI community	38% (n=1751)	52% (n=1053)	14%	45% (n=561)	61% (n=664)	16%

PERSONAL AREAS OF IMPACT

2021 vs.
2012

- Respondents with both off-campus and no off-campus project experience indicate improvements on personal areas of impact in 2021 vs. 2012, with the greatest increases being in “Feelings and desire for community connections and involvement”.
- Overall, respondents with off-campus project experience indicate greater impact in personal areas.

Personal Areas of Impact	No off-campus project			≥ 1 off-campus project		
	2012	2021	2021 vs 2012	2012	2021	2021 vs 2012
Develop a stronger personal character	83% (n=1438)	84% (n=611)	1%	92% (n=1044)	91% (n=1231)	-1%
Feelings that own ideas are valuable	76% (n=1433)	80% (n=626)	4%	82% (n=1043)	86% (n=1295)	4%
Enriching life in ways that were not necessarily academic or work-related	48% (n=1371)	48% (n=574)	0%	85% (n=1030)	88% (n=1227)	3%
Feelings of being able to "make a difference"	62% (n=1421)	70% (n=621)	8%	72% (n=1043)	80% (n=1290)	8%
Feelings of being connected to the WPI community	60% (n=1418)	62% (n=587)	2%	65% (n=1039)	79% (n=1296)	14%
Achieve work/life balance	48% (n=1365)	51% (n=587)	3%	61% (n=1035)	60% (n=1260)	-1%
Feelings of being connected to a non-WPI community	39% (n=1328)	50% (n=567)	11%	59% (n=1028)	72% (n=1287)	13%
Desire to maintain involvement with the WPI community	43% (n=1423)	57% (n=618)	14%	52% (n=1042)	69% (n=1289)	17%
Desire to maintain involvement with a non-WPI community	31% (n=1312)	40% (n=556)	9%	49% (n=1025)	62% (n=1262)	13%

PERSONAL AREAS OF IMPACT

2021 vs.
2012

- The percentage of respondents with one or more off-campus project experience in 2021 was higher than 2012, impacting sample bias.
- Weighted data for sample bias shows that the increases in the personal areas of impact due to project work from 2012 to 2021 is slightly overstated due to higher off-campus participation, but still significant.

Personal Areas of Impact	All respondents			Weighted Data for Off/On Campus		Change due to higher off-campus participation
	2012	2021	2021 vs 2012	2021	2021 vs 2012	2021 vs 2012
Develop a stronger personal character	87% (n=2482)	88% (n=1844)	1%	87% (n=1844)	0%	1%
Feelings that own ideas are valuable	79% (n=2476)	84% (n=1922)	5%	83% (n=1922)	4%	1%
Enriching life in ways that were not necessarily academic or work-related	64%	75%	11%	65%	1%	10%
	(n=2401)	(n=1802)		(n=1802)		
Feelings of being able to "make a difference"	66%	77%	11%	74%	8%	3%
	(n=2464)	(n=1912)		(n=1912)		
Feelings of being connected to the WPI community	62%	77%	15%	69%	7%	8%
	(n=2457)	(n=1912)		(n=1912)		
Achieve work/life balance	53%	57%	4%	55%	2%	2%
	(n=2400)	(n=1848)		(n=1848)		
Feelings of being connected to a non-WPI community	48%	65%	17%	60%	12%	5%
	(n=2356)	(n=1855)		(n=1855)		
Desire to maintain involvement with the WPI community	47%	65%	18%	62%	15%	3%
	(n=2465)	(n=1908)		(n=1908)		
Desire to maintain involvement with a non-WPI community	39%	56%	17%	50%	11%	6%
	(n=2337)	(n=1819)		(n=1819)		

PROFESSIONAL IMPACT OF WPI PROJECTS

Professional Areas of impact

Career Preparation & Satisfaction



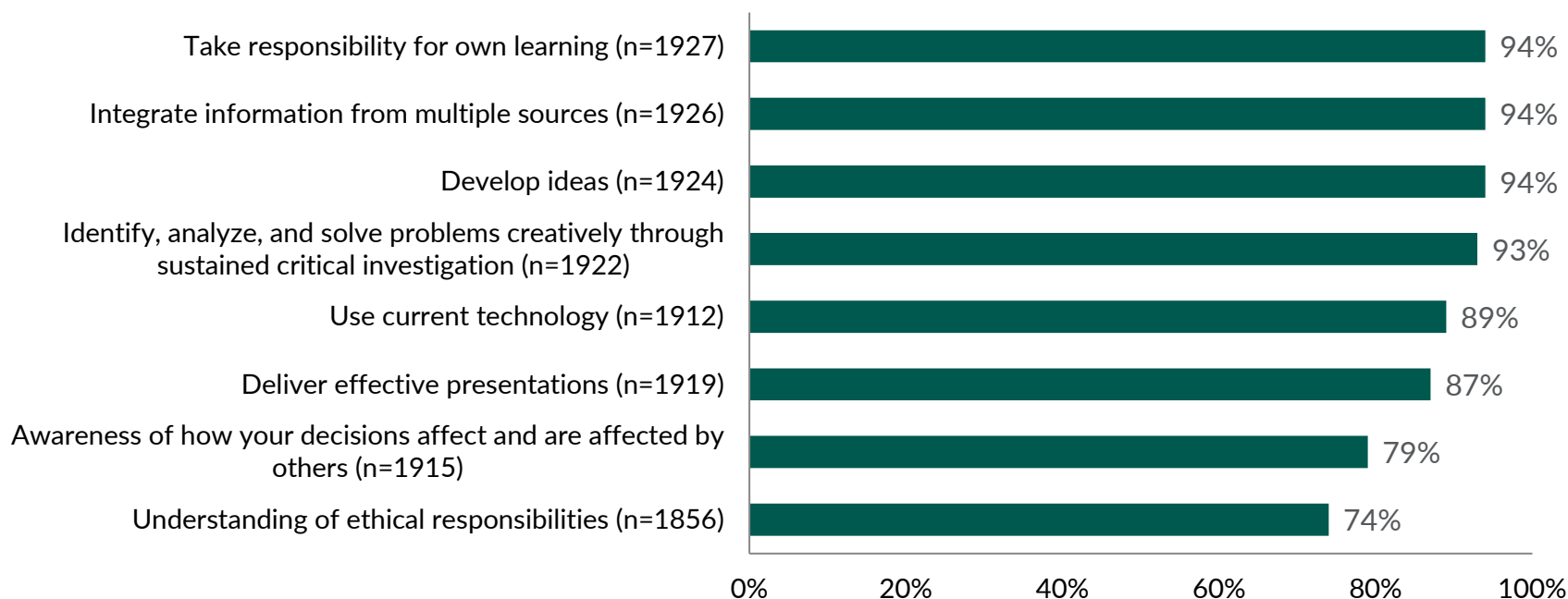
PROFESSIONAL AREAS OF IMPACT – PROFESSIONAL ABILITIES

2021
Survey

In 2021, respondents indicated that their project experience enhanced their ability to “Take responsibility for their own learning”, “Integrate information from multiple sources”, “Develop Ideas” and “Identify, analyze, and solve problems creatively through sustained critical investigation” vs. other professional abilities areas.

Indicate the extent to which your formal project experience at WPI (through GPS, HUA capstone (enquiry seminar/practicum or sufficiency), your IQP, and/or your MQP) enhanced your ability to:

% Moderately, Much or Very Much

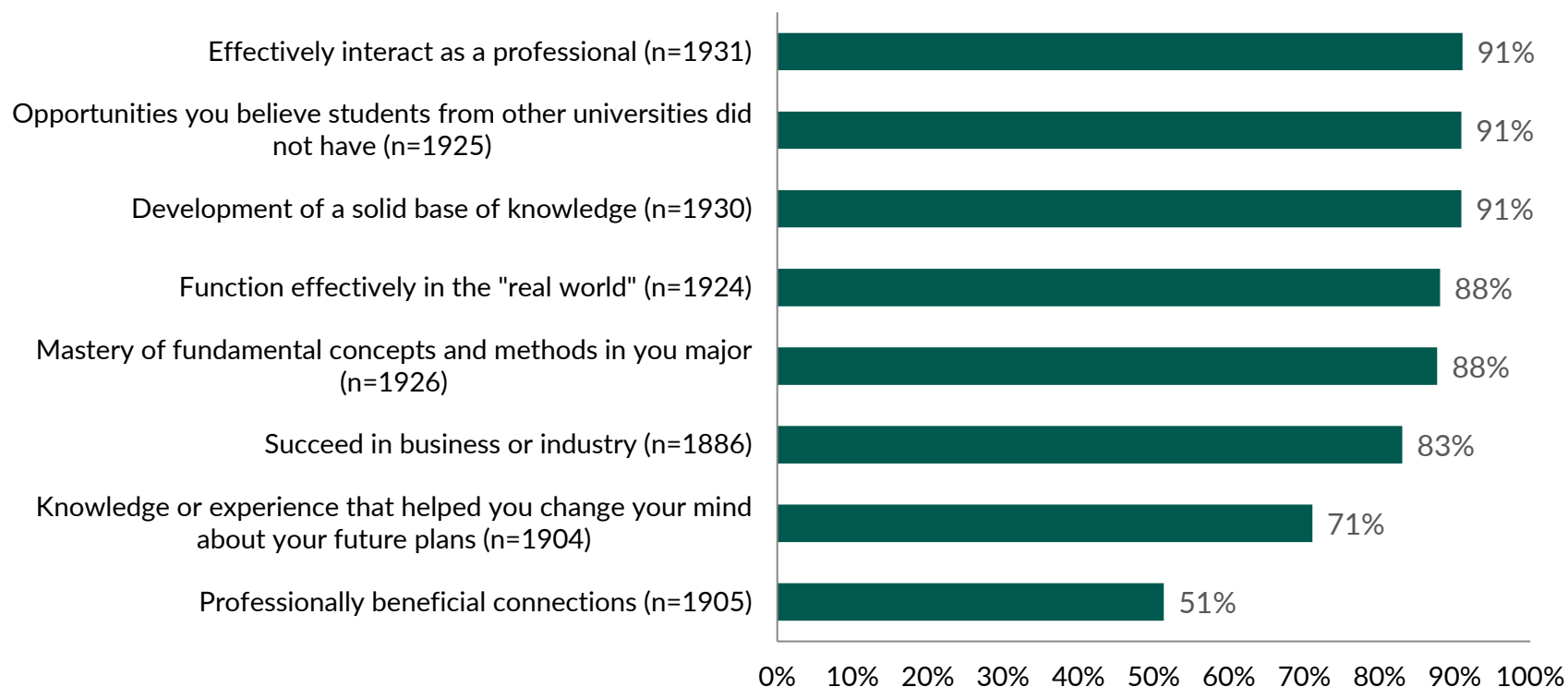


PROFESSIONAL AREAS OF IMPACT – PROFESSIONAL ADVANCEMENT

2021
Survey

In 2021, respondents indicated that their project experience contributed to the “Effectively interact as a professional”, “Opportunities students of other universities did not have”, and “Development of a solid base of knowledge” vs. other professional advancement areas.

Indicate the extent to which your WPI formal project experience (through GPS, HUA capstone (enquiry seminar/practicum or sufficiency), your IQP, and/or your MQP) contributed to:
% Moderately, Much or Very Much



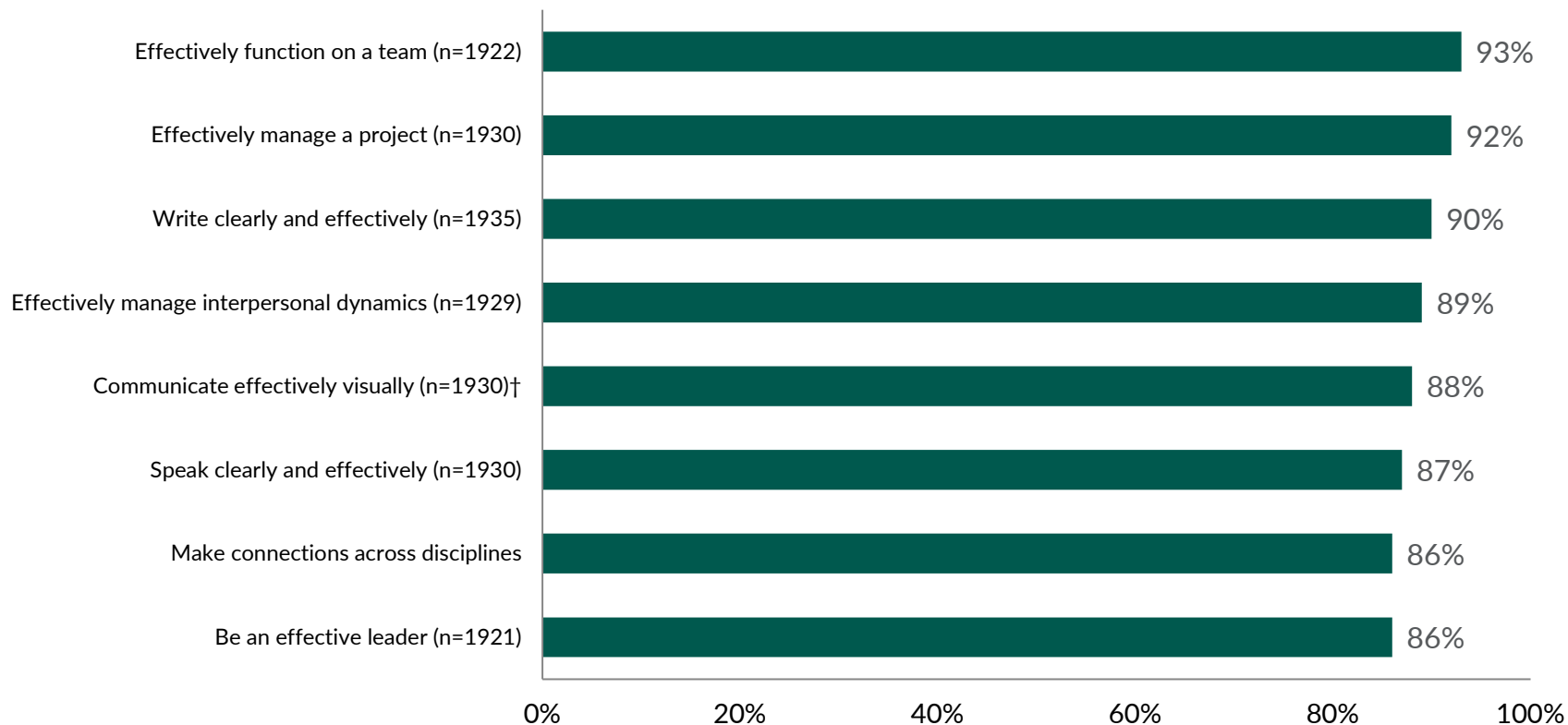
PROFESSIONAL AREAS OF IMPACT – INTERPERSONAL & COMMUNICATION SKILLS

2021
Survey

In 2021, respondents indicated that their project experience enhanced their ability to “Effectively function on a team”, “Effectively manage a project”, and “Write clearly and effectively” vs. other interpersonal & communication areas.

Indicate the extent to which your (through GPS, HUA capstone (enquiry seminar/practicum or sufficiency), your IQP, and/or your MQP) at WPI enhanced your ability to:

% Moderately, Much or Very Much



PROFESSIONAL AREAS OF IMPACT

2021
Survey

In the 2021 survey*:

- Respondents with at least one off-campus project experience reported the same or higher impact from project work across all but one professional attribute vs. respondents with no off-campus project experience, with several significant increases.
- Respondents that identify as female reported higher impact from project work across all professional attributes.

*Please reference the chart on slide 31.

	2021 Professional Impact of WPI Project Work							
	Area of Impact	Percentage Responding "Moderately," "Much," or "Very Much"						
		All Respondents	No off-campus project	≥ 1 off-campus project	Male	Female	BIPOC	
Interpersonal and Communications Skills	Speak clearly and effectively	87% (n=1930)	79% (n=628)	91% (n=1301)	85% (n=1119)	91% (n=703)	88% (n=269)	88% (n=1555)
	Communicate effectively visually	88% (n=1930)	82% (n=627)	91% (n=1302)	87% (n=1117)	90% (n=704)	89% (n=269)	88% (n=1554)
	Be an effective leader	86% (n=1921)	80% (n=623)	89% (n=1297)	85% (n=1114)	89% (n=698)	88% (n=268)	86% (n=1547)
	Make connections across disciplines	86% (n=1917)	82% (n=622)	88% (n=1294)	86% (n=1112)	88% (n=698)	88% (n=268)	86% (n=1544)
	Write clearly and effectively	90% (n=1935)	87% (n=632)	91% (n=1302)	89% (n=1121)	91% (n=704)	90% (n=270)	90% (n=1557)
	Effectively manage a project	92% (n=1930)	89% (n=628)	94% (n=1301)	91% (n=1120)	95% (n=700)	91% (n=269)	93% (n=1553)
	Effectively manage interpersonal dynamics	89% (n=1929)	85% (n=628)	92% (n=1300)	89% (n=1117)	91% (n=703)	92% (n=268)	89% (n=1554)
	Function effectively on a team	93% (n=1922)	89% (n=624)	94% (n=1297)	92% (n=1113)	94% (n=700)	94% (n=269)	93% (n=1546)
Professional Abilities	Understand ethical responsibilities	74% (n=1856)	63% (n=592)	79% (n=1263)	70% (n=1069)	80% (n=684)	79% (n=255)	73% (n=1499)
	Deliver effective presentations	87% (n=1919)	79% (n=620)	92% (n=1298)	86% (n=1111)	90% (n=699)	88% (n=268)	87% (n=1544)
	Aware of how decisions affect/are affected by others	79% (n=1915)	72% (n=618)	83% (n=1296)	77% (n=1107)	83% (n=701)	81% (n=267)	79% (n=1543)
	Develop ideas	94% (n=1924)	94% (n=630)	94% (n=1298)	94% (n=1114)	95% (n=701)	94% (n=270)	94% (n=1548)
	Integrate information from multiple sources	94% (n=1926)	91% (n=630)	95% (n=1295)	93% (n=1117)	96% (n=701)	94% (n=270)	94% (n=1550)
	Solve problems	93% (n=1922)	92% (n=626)	94% (n=1295)	92% (n=1112)	95% (n=701)	93% (n=269)	93% (n=1547)
	Take responsibility for own learning	94% (n=1927)	93% (n=629)	95% (n=1297)	94% (n=1116)	95% (n=702)	96% (n=270)	94% (n=1551)
	Use current technology	89% (n=1912)	90% (n=622)	88% (n=1289)	88% (n=1111)	89% (n=693)	90% (n=269)	88% (n=1537)
Professional Advancement	Knowledge or experience that informed for future plans	71% (n=1904)	64% (n=621)	74% (n=1282)	70% (n=1107)	72% (n=689)	73% (n=264)	71% (n=1535)
	Professionally beneficial connections	51% (n=1905)	44% (n=614)	55% (n=1290)	50% (n=1102)	54% (n=695)	52% (n=264)	51% (n=1535)
	Develop a solid base of knowledge	91% (n=1930)	90% (n=631)	91% (n=1298)	90% (n=1119)	92% (n=702)	91% (n=269)	91% (n=1555)
	Opportunities that students elsewhere did not have	91% (n=1925)	83% (n=629)	95% (n=1295)	89% (n=1116)	94% (n=701)	89% (n=268)	91% (n=1552)
	Function effectively in the "real world"	88% (n=1924)	84% (n=627)	89% (n=1296)	86% (n=1115)	91% (n=701)	85% (n=269)	88% (n=1550)
	Succeed in business or industry	83% (n=1886)	81% (n=614)	84% (n=1271)	82% (n=1102)	85% (n=679)	80% (n=264)	84% (n=1518)
	Mastery of fundamental major concepts and methods	88% (n=1926)	89% (n=628)	87% (n=1297)	87% (n=1117)	88% (n=701)	84% (n=269)	88% (n=1552)
	Interact effectively [as a professional/within a professional capacity]	91% (n=1930)	89% (n=628)	92% (n=1302)	91% (n=1117)	91% (n=701)	94% (n=235)	90% (n=1695)

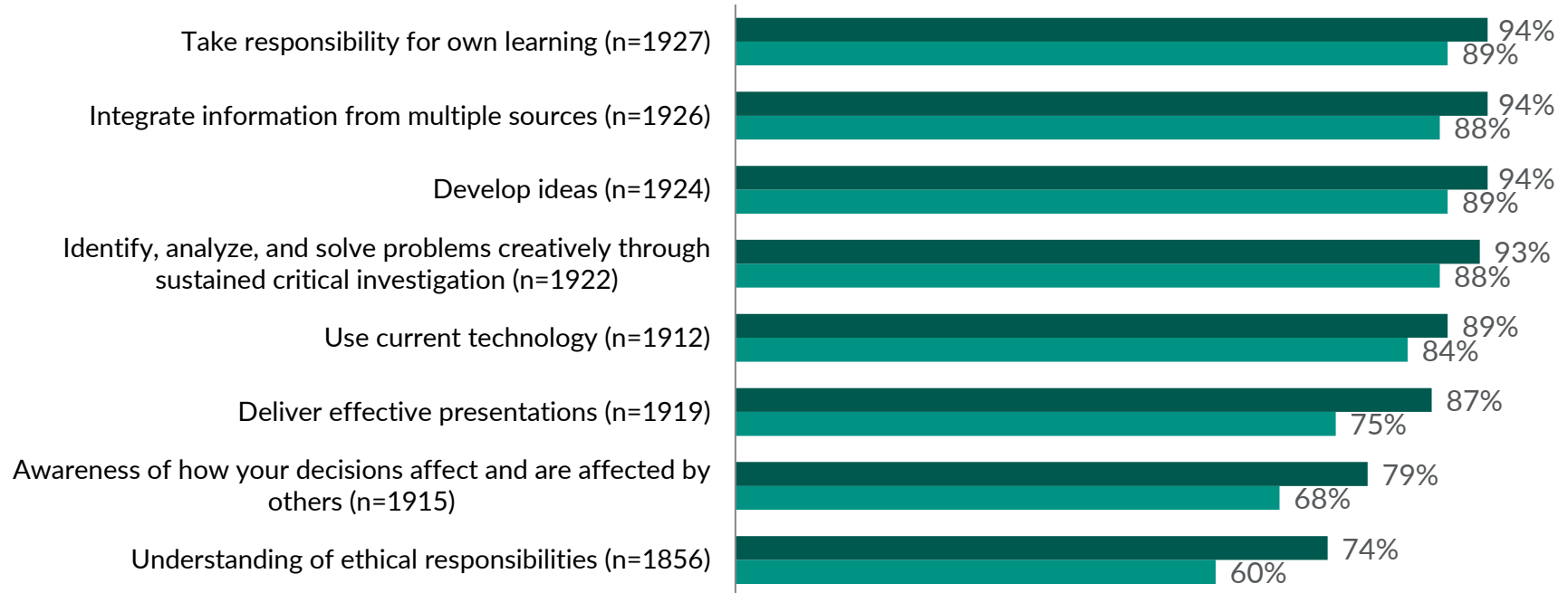
PROFESSIONAL AREAS OF IMPACT – PROFESSIONAL ABILITIES

2021 vs.
2012

Respondents in 2021 indicated that their project experience enhanced their professional abilities across all areas to a greater extent than respondents in 2012.

Indicate the extent to which your formal project experience at WPI (through GPS, HUA capstone (enquiry seminar/practicum or sufficiency), your IQP, and/or your MQP) enhanced your ability to:
% Moderately, Much or Very Much

■ 2021 ■ 2012

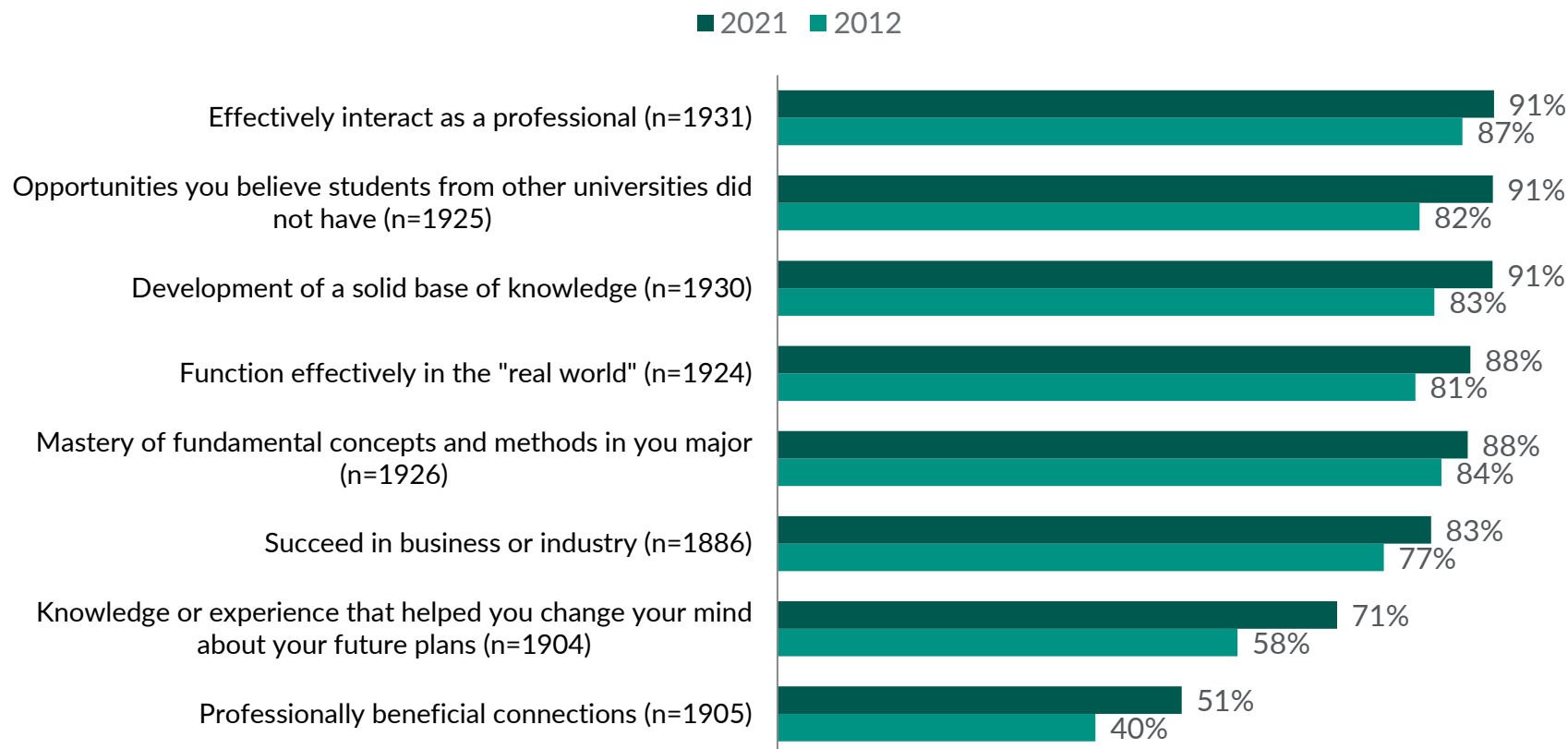


PROFESSIONAL AREAS OF IMPACT – PROFESSIONAL ADVANCEMENT

2021 vs.
2012

Respondents in 2021 indicated that their project experience enhanced their professional advancement across all areas to a greater extent than respondents in 2012.

Indicate the extent to which your WPI formal project experience (through GPS, HUA capstone (enquiry seminar/practicum or sufficiency), your IQP, and/or your MQP) contributed to:
% Moderately, Much or Very Much



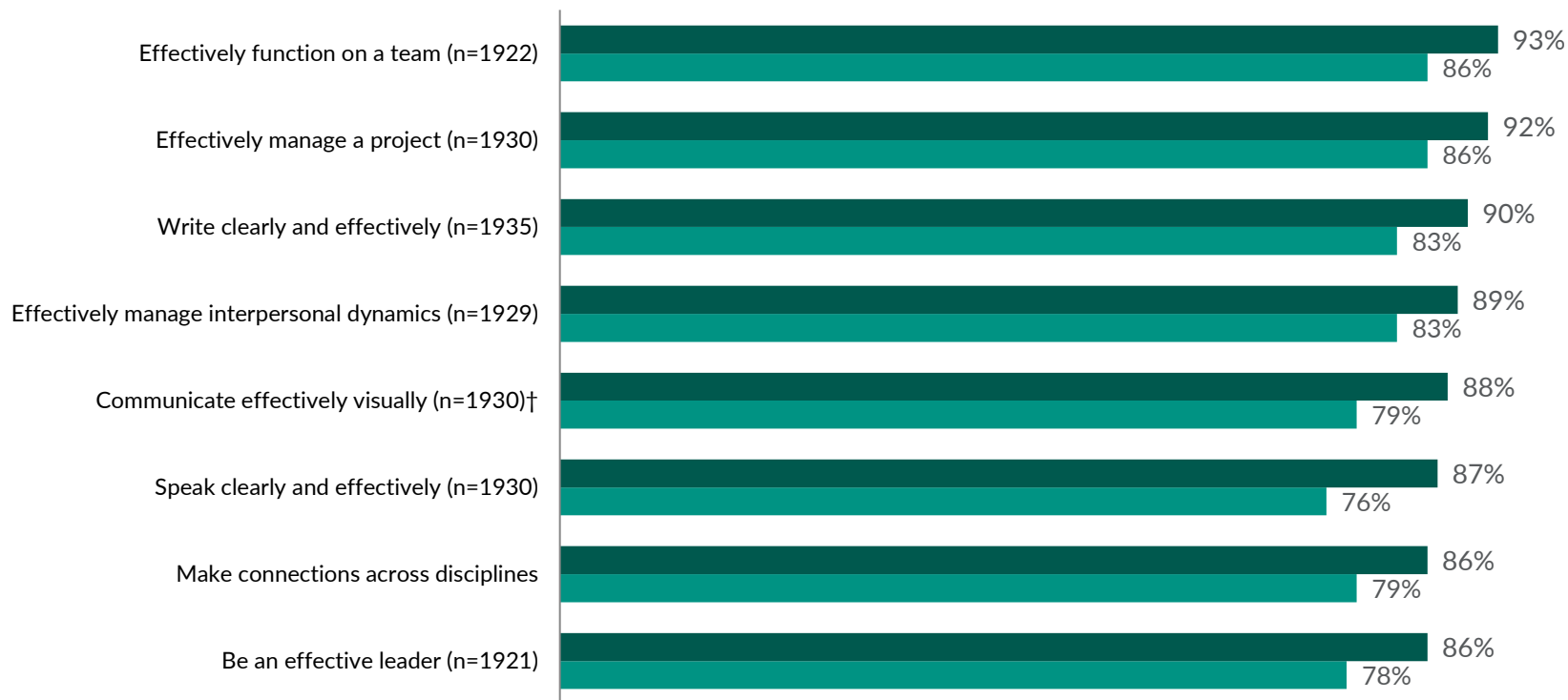
PROFESSIONAL AREAS OF IMPACT – INTERPERSONAL & COMMUNICATION SKILLS

2021 vs.
2012

Respondents in 2021 indicated that their project experience enhanced their interpersonal & communication skills across all areas to a greater extent than respondents in 2012.

Indicate the extent to which your (through GPS, HUA capstone (enquiry seminar/practicum or sufficiency), your IQP, and/or your MQP) at WPI enhanced your ability to:
% Moderately, Much or Very Much

■ 2021 ■ 2012



Professionally Relevant Areas of Impact		Male			Female		
		2012	2021	2021 vs 2012	2012	2021	2021 vs 2012
Interpersonal and Communications Skills	Speak clearly and effectively	75% (n=1849)	85% (n=1119)	10%	81% (n=593)	91% (n=703)	10%
	Communicate effectively visually	78% (n=1850)	87% (n=1117)	9%	83% (n=590)	90% (n=704)	7%
	Be an effective leader	76% (n=1821)	85% (n=1114)	9%	83% (n=570)	89% (n=698)	6%
	Make connections across disciplines	78% (n=1851)	86% (n=1112)	8%	82% (n=591)	88% (n=698)	6%
	Write clearly and effectively	82% (n=1867)	89% (n=1121)	7%	87% (n=596)	91% (n=704)	4%
	Effectively manage a project	86% (n=1851)	91% (n=1120)	5%	89% (n=591)	95% (n=700)	6%
	Effectively manage interpersonal dynamics	81% (n=1851)	89% (n=1117)	8%	88% (n=588)	91% (n=703)	3%
	Function effectively on a team	85% (n=1817)	92% (n=1113)	7%	90% (n=577)	94% (n=700)	4%
Professional Abilities	Understand ethical responsibilities	58% (n=1741)	70% (n=1069)	12%	67% (n=559)	80% (n=684)	13%
	Deliver effective presentations	74% (n=1840)	86% (n=1111)	12%	81% (n=586)	90% (n=699)	9%
	Aware of how decisions affect/are affected by others	66% (n=1829)	77% (n=1107)	11%	73% (n=580)	83% (n=701)	10%
	Develop ideas	89% (n=1862)	94% (n=1114)	5%	91% (n=593)	95% (n=701)	4%
	Integrate information from multiple sources	87% (n=1864)	93% (n=1117)	6%	91% (n=594)	96% (n=701)	5%
	Solve problems	87% (n=1860)	92% (n=1112)	5%	89% (n=593)	95% (n=701)	6%
	Take responsibility for own learning	89% (n=1862)	94% (n=1116)	5%	90% (n=594)	95% (n=702)	5%
	Use current technology	84% (n=1850)	88% (n=1111)	4%	85% (n=585)	89% (n=693)	4%
Professional Advancement	Knowledge or experience that informed for future plans	57% (n=1849)	70% (n=1107)	13%	64% (n=587)	72% (n=689)	8%
	Professionally beneficial connections	39% (n=1844)	50% (n=1102)	11%	45% (n=589)	54% (n=695)	9%
	Develop a solid base of knowledge	83% (n=1866)	90% (n=1119)	7%	86% (n=594)	92% (n=702)	6%
	Opportunities that students elsewhere did not have	79% (n=1861)	89% (n=1116)	10%	88% (n=596)	94% (n=701)	6%
	Function effectively in the "real world"	80% (n=1853)	86% (n=1115)	6%	86% (n=588)	91% (n=701)	5%
	Succeed in business or industry	77% (n=1844)	82% (n=1102)	5%	80% (n=584)	85% (n=679)	5%
	Mastery of fundamental major concepts and methods	85% (n=1865)	87% (n=1117)	2%	84% (n=595)	88% (n=701)	4%
	Interact effectively [as a professional/within a professional capacity]	87% (n=1865)	91% (n=1117)	4%	87% (n=595)	91% (n=701)	4%

Professionally Relevant Areas of Impact		No off-campus project				≥ 1 off-campus project		
		2012	2021	2021 vs 2012		2012	2021	2021 vs 2012
Interpersonal and Communications Skills	Speak clearly and effectively	71% (n=1433)	79% (n=628)	8%		84% (n=1057)	91% (n=1301)	7%
	Communicate effectively visually	75% (n=1434)	82% (n=627)	7%		84% (n=1054)	91% (n=1302)	7%
	Be an effective leader	74% (n=1389)	80% (n=623)	6%		83% (n=1048)	89% (n=1297)	6%
	Make connections across disciplines	76% (n=1432)	82% (n=622)	6%		82% (n=1049)	88% (n=1294)	6%
	Write clearly and effectively	82% (n=1453)	87% (n=632)	5%		85% (n=1058)	91% (n=1302)	6%
	Effectively manage a project	84% (n=1436)	89% (n=628)	5%		90% (n=1054)	94% (n=1301)	4%
	Effectively manage interpersonal dynamics	79% (n=1430)	85% (n=628)	6%		87% (n=1056)	92% (n=1300)	5%
	Function effectively on a team	83% (n=1396)	89% (n=624)	6%		90% (n=1043)	94% (n=1297)	4%
Professional Abilities	Understand ethical responsibilities	54% (n=1311)	63% (n=592)	9%		67% (n=1021)	79% (n=1263)	12%
	Deliver effective presentations	69% (n=1417)	79% (n=620)	10%		83% (n=1056)	92% (n=1298)	9%
	Aware of how decisions affect/are affected by others	63% (n=1396)	72% (n=618)	9%		74% (n=1046)	83% (n=1296)	9%
	Develop ideas	88% (n=1445)	94% (n=630)	6%		90% (n=1049)	94% (n=1298)	4%
	Integrate information from multiple sources	87% (n=1445)	91% (n=630)	4%		90% (n=1053)	95% (n=1295)	5%
	Solve problems	87% (n=1444)	92% (n=626)	5%		89% (n=1048)	94% (n=1295)	5%
	Take responsibility for own learning	88% (n=1443)	93% (n=629)	5%		90% (n=1053)	95% (n=1297)	5%
	Use current technology	84% (n=1427)	90% (n=622)	6%		85% (n=1047)	88% (n=1289)	3%
Professional Advancement	Knowledge or experience that informed for future plans	52% (n=1421)	64% (n=621)	12%		68% (n=1038)	74% (n=1282)	6%
	Professionally beneficial connections	34% (n=1415)	44% (n=614)	10%		49% (n=1041)	55% (n=1290)	6%
	Develop a solid base of knowledge	83% (n=1441)	90% (n=631)	7%		84% (n=1046)	91% (n=1298)	7%
	Opportunities that students elsewhere did not have	75% (n=1434)	83% (n=629)	8%		90% (n=1046)	95% (n=1295)	5%
	Function effectively in the "real world"	78% (n=1432)	84% (n=627)	6%		86% (n=1049)	89% (n=1296)	3%
	Succeed in business or industry	76% (n=1423)	81% (n=614)	5%		80% (n=1044)	84% (n=1271)	4%
	Mastery of fundamental major concepts and methods	85% (n=1440)	89% (n=628)	4%		84% (n=1047)	87% (n=1297)	3%
	Interact effectively [as a professional/within a professional capacity]	85% (n=1440)	89% (n=628)	4%		88% (n=1044)	92% (n=1302)	4%

2021
vs.
2012

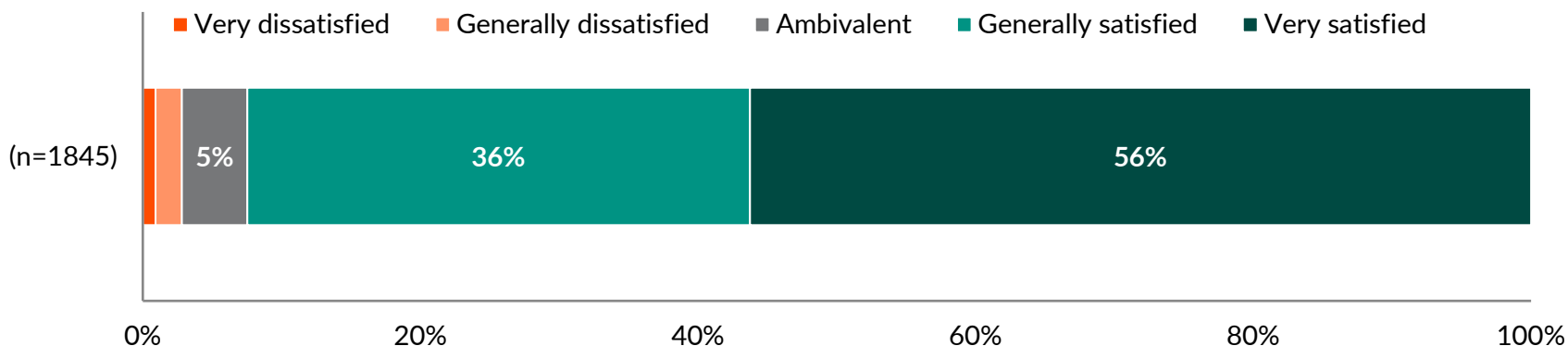
	Professionally Relevant Areas of Impact	All Respondents			Weighted Data for Off/On Campus		Change due to higher Off-Campus participation	2021 vs. 2012
		2012	2021	2021 vs 2012	2021	2021 vs 2012	2021 vs 2012	
Interpersonal and Communications Skills	Speak clearly and effectively	76%	87%	11%	84%	8%	3%	
		(n=2490)	(n=1930)		(n=1930)			
	Communicate effectively visually	79%	88%	9%	86%	7%	2%	
		(n=2488)	(n=1930)		(n=1930)			
	Be an effective leader	78%	86%	8%	84%	6%	2%	
		(n=2437)	(n=1921)		(n=1921)			
	Make connections across disciplines	79%	86%	7%	85%	6%	1%	
		(n=2481)	(n=1917)		(n=1917)			
	Write clearly and effectively	83%	90%	7%	89%	6%	1%	
		(n=2511)	(n=1935)		(n=1935)			
Professional Abilities	Understand ethical responsibilities	86%	92%	6%	91%	5%	1%	
		(n=2490)	(n=1930)		(n=1930)			
	Effectively manage a project	83%	89%	6%	88%	5%	1%	
		(n=2486)	(n=1929)		(n=1929)			
	Effectively manage interpersonal dynamics	86%	93%	7%	91%	5%	2%	
		(n=2439)	(n=1922)		(n=1922)			
	Function effectively on a team	60%	74%	14%	70%	10%	4%	
		(n=2332)	(n=1856)		(n=1856)			
	Deliver effective presentations	75%	87%	12%	85%	10%	2%	
		(n=2473)	(n=1919)		(n=1919)			
Professional Advancement	Aware of how decisions affect/are affected by others	68%	79%	11%	77%	9%	2%	
		(n=2442)	(n=1915)		(n=1915)			
	Develop ideas	89%	94%	5%	94%	5%	0%	
		(n=2494)	(n=1924)		(n=1924)			
	Integrate information from multiple sources	88%	94%	6%	93%	5%	1%	
		(n=2498)	(n=1926)		(n=1926)			
	Solve problems	88%	93%	5%	93%	5%	0%	
		(n=2492)	(n=1922)		(n=1922)			
	Take responsibility for own learning	89%	94%	5%	94%	5%	0%	
		(n=2496)	(n=1927)		(n=1927)			
Professional Advancement	Use current technology	84%	89%	5%	89%	5%	0%	
		(n=2474)	(n=1912)		(n=1912)			
	Knowledge or experience that informed for future plans	58%	71%	13%	68%	10%	3%	
		(n=2459)	(n=1904)		(n=1904)			
	Professionally beneficial connections	40%	51%	11%	49%	9%	2%	
		(n=2450)	(n=1905)		(n=1905)			
	Develop a solid base of knowledge	83%	91%	8%	90%	7%	1%	
		(n=2487)	(n=1930)		(n=1930)			
	Opportunities that students elsewhere did not have	82%	91%	9%	88%	6%	3%	
		(n=2480)	(n=1925)		(n=1925)			
Professional Advancement	Function effectively in the "real world"	81%	88%	7%	86%	5%	2%	
		(n=2481)	(n=1924)		(n=1924)			
	Succeed in business or industry	77%	83%	6%	82%	5%	1%	
		(n=2467)	(n=1886)		(n=1886)			
	Mastery of fundamental major concepts and methods	84%	88%	4%	88%	4%	0%	
		(n=2487)	(n=1926)		(n=1926)			
	Interact effectively [as a professional/within a professional capacity]	87%	91%	4%	90%	3%	1%	
		(n=2484)	(n=1930)		(n=1926)			

CAREER SATISFACTION

2021
Survey

In 2021, almost all of respondents (92%) report they are satisfied with their career with over half of the respondents being very satisfied.

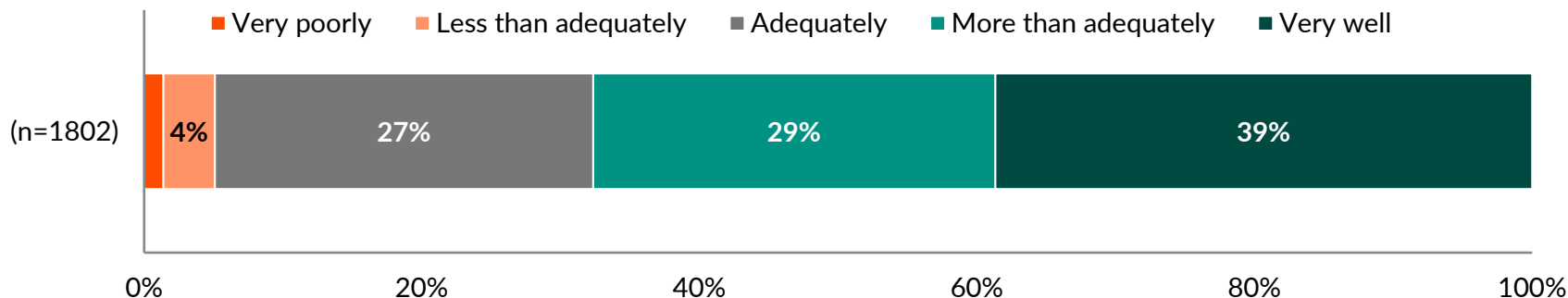
Overall, how satisfied are you with your career thus far?
(n=1,845)



In 2021, almost all respondents (95%) report that their project experience at WPI prepared them for their current career.

How well did your project experience at WPI prepare you for your current career?

(n=1,802)

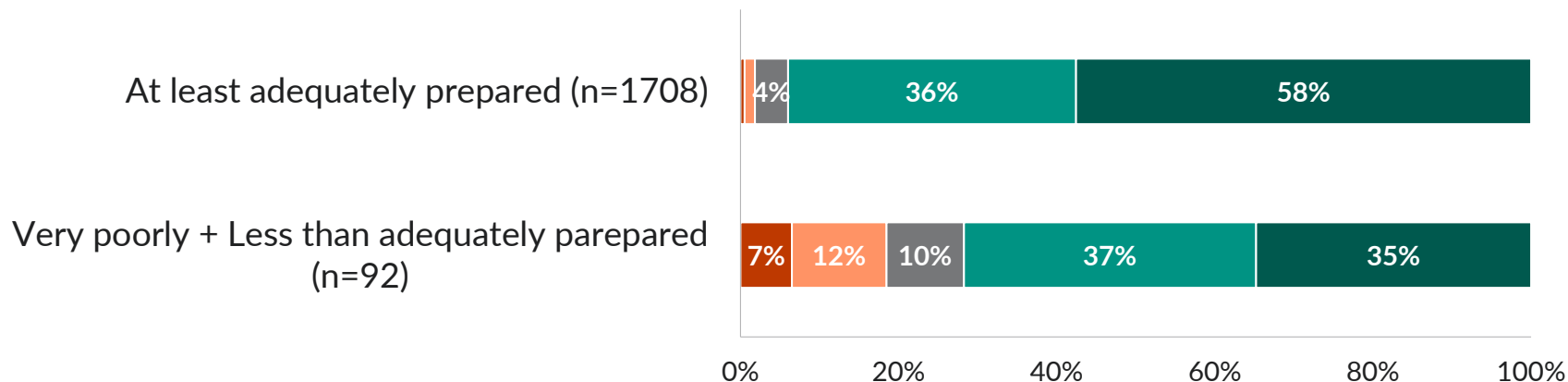


In 2021, respondents who report that project experience at least adequately prepared them for their current career are more likely to be satisfied with their career thus far than those who perceive lower levels of career preparation (94% vs. 72%, respectively).

- Additionally, White respondents are slightly more likely than BIPOC respondents to be satisfied with their career thus far (93% vs. 88%, respectively).
- There are no meaningful differences in career satisfaction between those who completed one or more project off campus or other demographic/background variables (race/ethnicity, gender, BIPOC status).

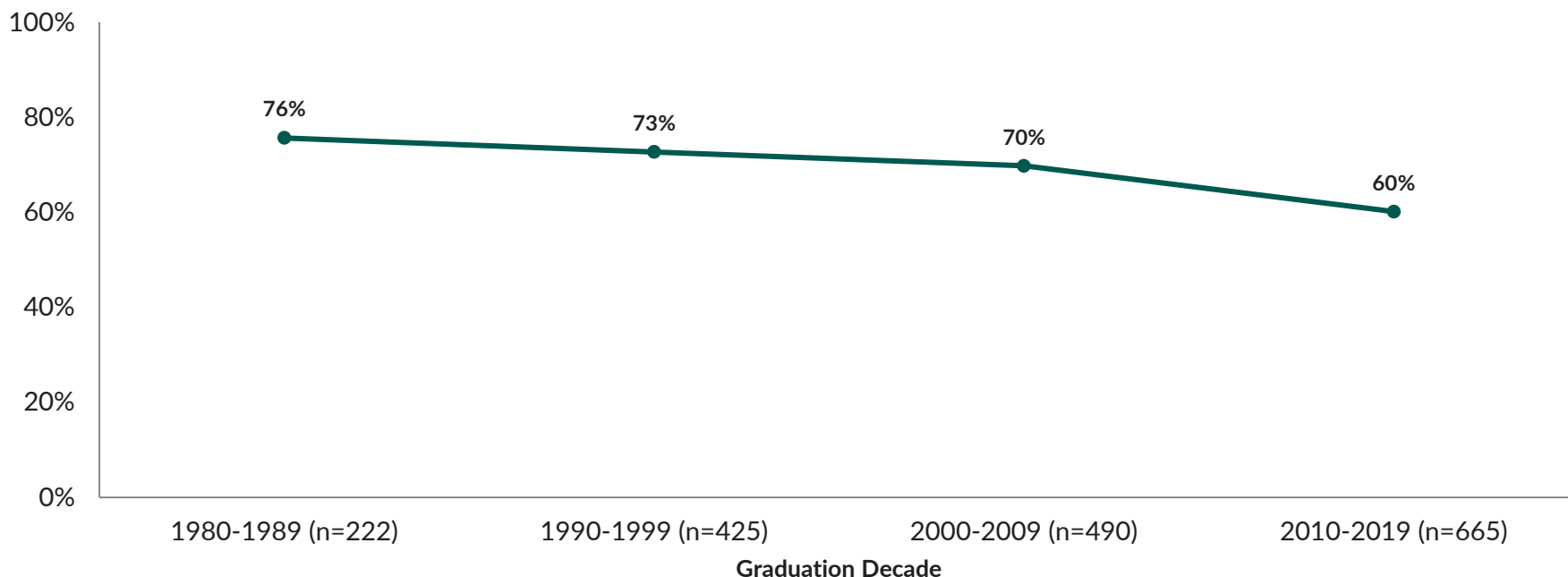
Overall, how satisfied are you with your career thus far?

■ Very dissatisfied ■ Generally dissatisfied ■ Ambivalent ■ Generally satisfied ■ Very satisfied



In the 2021 survey, the perceived career impact of the WPI project experience was reported to be higher with respondents from earlier graduating decades.

How well did your project experience at WPI prepare you for your current career?
% More than adequately or Very well



WORLD VIEWS IMPACT OF WPI PROJECTS

World Views

Community Impact

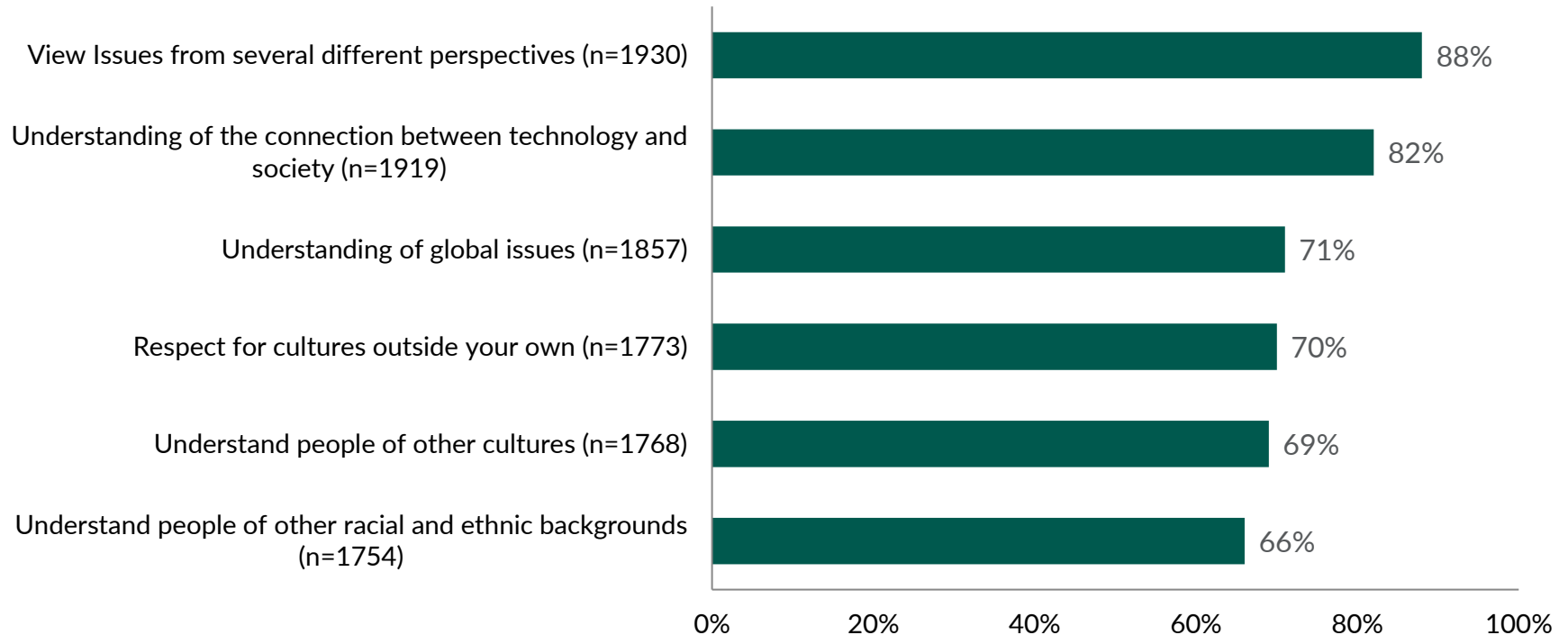


WORLD VIEWS AREAS OF IMPACT

2021
Survey

In 2021, respondents indicated that their project experience enhanced their ability to “View issues from several different perspectives” and the “Understanding of the connection between technology and society” vs. world view areas.

Indicate the extent to which your formal project experience at WPI (through GPS, HUA capstone (enquiry seminar/practicum or sufficiency), your IQP, and/or your MQP) enhanced your ability to:
% Moderately, Much or Very Much



WORLD VIEWS AREAS OF IMPACT

2021
Survey

Generally, 2021 respondents with off-campus project experience, who identify as female, and as BIPOC reported higher impact overall across all world view attributes.

2021 Impact of WPI Project Work on World Views of Alumni

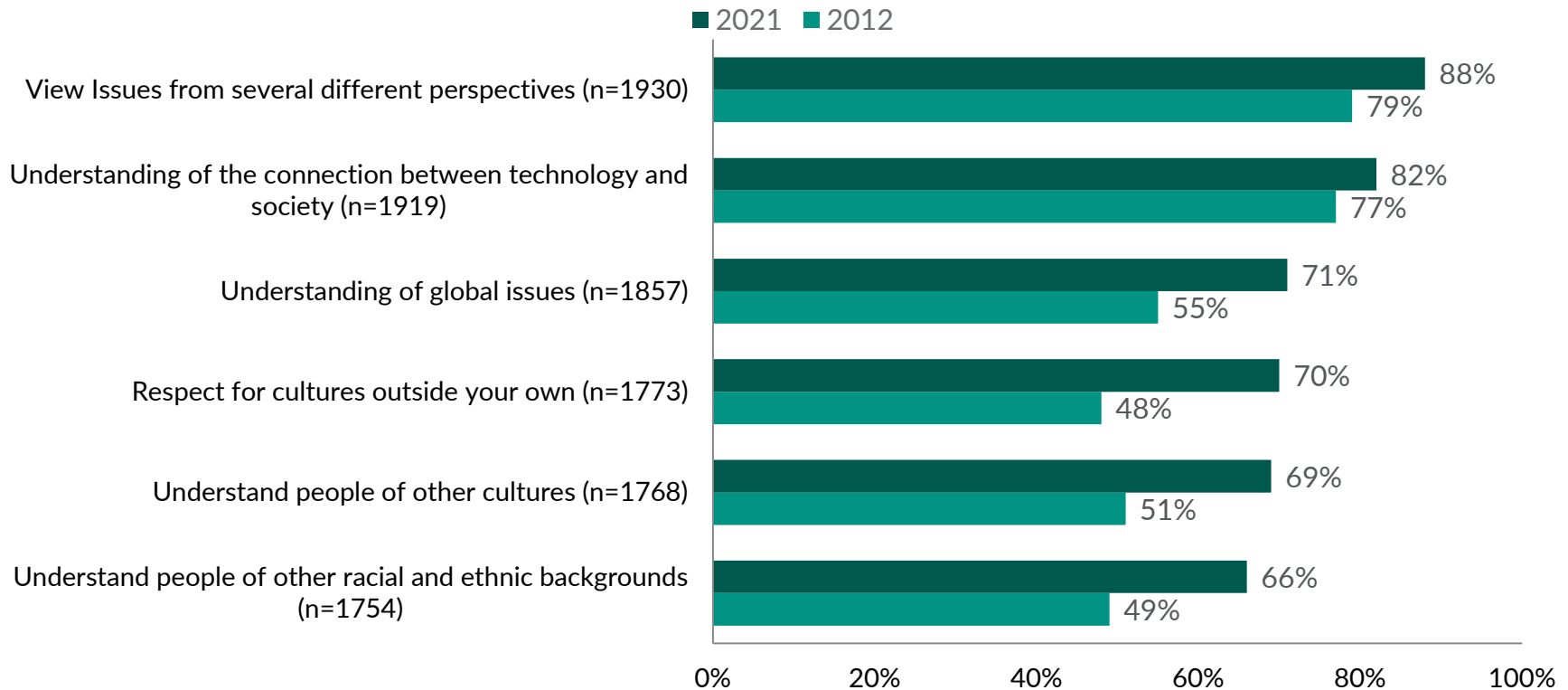
Area of Impact	Percentage Responding "Moderately," "Much," or "Very Much"						
	All Respondents	No off-campus project	≥ 1 off-campus project	Male	Female	BIPOC	White
View Issues from several different perspectives	88% (n=1930)	80% (n=630)	91% (n=1299)	87% (n=1119)	90% (n=703)	89% (n=270)	87% (n=1553)
Understanding of the connection between technology and society	82% (n=1919)	79% (n=626)	83% (n=1292)	80% (n=1115)	85% (n=699)	86% (n=269)	81% (n=1252)
Understanding of global issues	71% (n=1857)	53% (n=584)	79% (n=1272)	68% (n=1073)	76% (n=679)	77% (n=247)	70% (n=1496)
Respect for cultures outside your own	70% (n=1773)	44% (n=533)	81% (n=1239)	65% (n=1023)	77% (n=652)	77% (n=247)	68% (n=1427)
Understand people of other cultures	69% (n=1768)	47% (n=528)	79% (n=1239)	66% (n=1011)	74% (n=657)	73% (n=251)	68% (n=1417)
Understand people of other racial and ethnic backgrounds	66% (n=1754)	48% (n=530)	74% (n=903)	64% (n=1000)	71% (n=655)	70% (n=249)	65% (n=1405)

WORLD VIEWS AREAS OF IMPACT

2021 vs.
2012

Compared to 2012 respondents, all world views areas of impact increased for 2021 respondents.

Indicate the extent to which your formal project experience at WPI (through GPS, HUA capstone (enquiry seminar/practicum or sufficiency), your IQP, and/or your MQP) enhanced your ability to:
% Moderately, Much or Very Much



WORLD VIEWS AREAS OF IMPACT

2021 vs.
2012

Both respondents who identify as male and female reported a significant level of increase in the world views areas of impact when compared to 2012, with a greater increase for male respondents.

	Male			Female		
World Views Areas of Impact	2012	2021	2021 vs 2012	2012	2021	2021 vs 2012
View Issues from several different perspectives	78%	87%	9%	85%	90%	5%
	(n=1845)	(n=1119)		(n=587)	(n=703)	
Understanding of the connection between technology and society	76%	80%	4%	79%	85%	6%
	(n=1853)	(n=1115)		(n=589)	(n=699)	
Understanding of global issues	53%	68%	15%	62%	76%	14%
	(n=1743)	(n=1073)		(n=548)	(n=679)	
Understand people of other cultures	48%	66%	18%	64%	74%	10%
	(n=1452)	(n=1011)		(n=467)	(n=657)	
Understand people of other racial and ethnic backgrounds	45%	64%	19%	61%	71%	10%
	(n=1462)	(n=1000)		(n=480)	(n=655)	
Respect for cultures outside your own	44%	65%	21%	62%	77%	15%
	(n=1524)	(n=1023)		(n=489)	(n=652)	

WORLD VIEWS AREAS OF IMPACT

2021 vs.
2012

Both respondents who had an off-campus experience and no off-campus experiences reported a similar level of increase in world views areas of impact when compared to 2012.

	No off-campus project			≥ 1 off-campus project		
World Views Areas of Impact	2012	2021	2021 vs 2012	2012	2021	2021 vs 2012
View Issues from several different perspectives	77% (n=1426)	80% (n=630)	3%	83% (n=1054)	91% (n=1299)	8%
Understanding of the connection between technology and society	75% (n=1433)	79% (n=626)	4%	79% (n=1043)	83% (n=1292)	4%
Understanding of global issues	45% (n=1306)	53% (n=584)	8%	68% (n=1017)	79% (n=1272)	11%
Understand people of other cultures	36% (n=1009)	47% (n=528)	11%	68% (n=951)	79% (n=1239)	11%
Understand people of other racial and ethnic backgrounds	38% (n=1032)	48% (n=530)	10%	61% (n=951)	74% (n=903)	13%
Respect for cultures outside your own	33% (n=1079)	44% (n=533)	11%	65% (n=963)	81% (n=1239)	16%

WORLD VIEWS AREAS OF IMPACT

2021 vs.
2012

Weighted data for sample bias shows that the increases in the world views areas of impact due to project work from 2012 to 2021 is slightly overstated due to higher off-campus participation, but still significant.

World Views Areas of Impact	All Respondents			Weighted Data for Off/On Campus		Change due to higher off- campus participation
	2012	2021	2021 vs 2012	2021	2021 vs 2012	2021 vs 2012
View Issues from several different perspectives	79% (n=2480)	88% (n=1930)	9%	85% (n=1930)	6%	3%
Understanding of the connection between technology and society	77% (n=2476)	82% (n=1919)	5%	81% (n=1919)	4%	1%
Understanding of global issues	55% (n=2323)	71% (n=1857)	16%	64% (n=1857)	9%	7%
Understand people of other cultures	51% (n=1960)	69% (n=1768)	18%	63% (n=1768)	12%	6%
Understand people of other racial and ethnic backgrounds	49% (n=1984)	66% (n=1754)	17%	60% (n=1754)	11%	6%
Respect for cultures outside your own	48% (n=2042)	70% (n=1773)	22%	61% (n=1773)	13%	9%

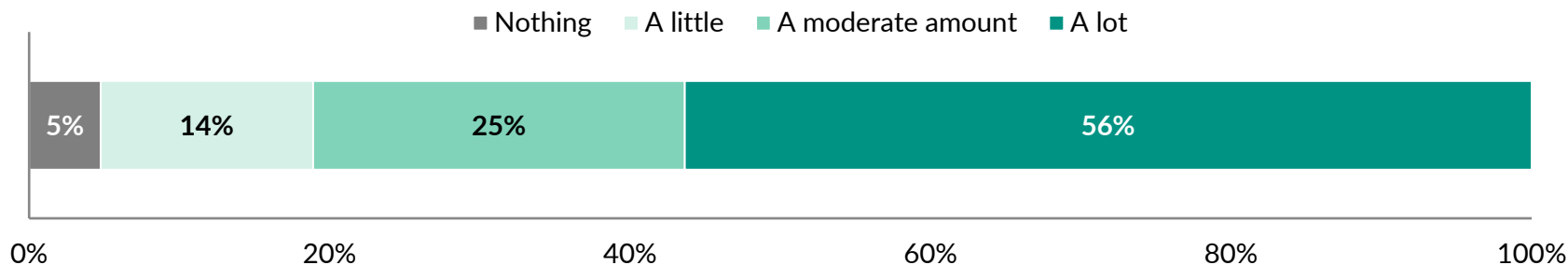
COMMUNITY IMPACT

2021
Survey

In 2021, respondents reported that they learned a lot about the members of their local community through their IQP project work.

- Almost all respondents (95%) report that they learned something about the members of their respective communities during their IQP experience., with over half reporting they learned a lot.

How much did you learn about working with members of the local community during your IQP experience? (Local community refers to where you did your IQP off campus.)
(n=1,217)



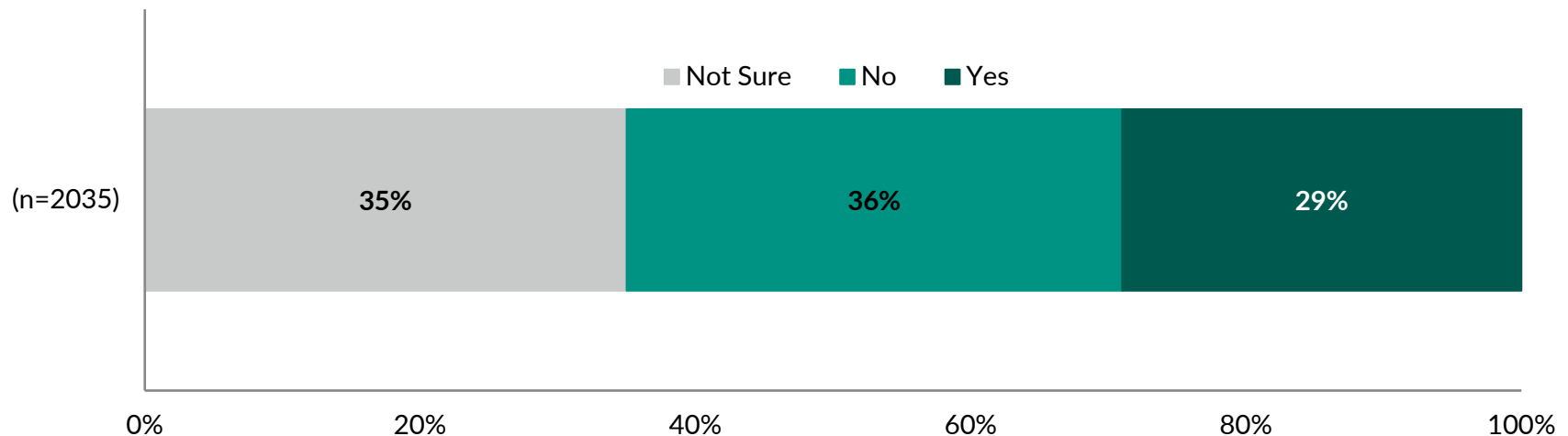
COMMUNITY IMPACT

2021
Survey

In 2021, respondents reported that they tend to be unsure or doubtful of their project's impact on local communities.

- Almost one-third of respondents agree that their IQP project had a particular impact on their local community.
- Respondents who completed their IQP on campus are much more likely than those who completed off campus to report no particular impact (56% vs. 24%, respectively).

Would you say that your IQP project had a particular impact on the local community? (n=2035)



QUALITATIVE DATA

Alumni Open-Ended Responses



“It was the project-based learning, cross functional teams, and the objective to present the solution that formed the **foundation of my career success** today. Being able to accomplish the IQP [Interactive Qualifying Project] at London's Project center opened up my world and forever changed me positively. My professor was instrumental to establishing my focus and ability to juggle real-life tasking that is today the work/life balance time management.” —*WPI Alumnus '92, Electrical Engineering*

“Participating in the IQP [Interactive Qualifying Project] and MQP [Major Qualifying Project] process gave me many tools and resources to become **successful in my career**. Right out of school, I entered into a leadership development program within my hiring company. I often had to work within cross-functional teams across several continents to solve problems and be able to provide presentations to upper-level management. Being part of the WPI project system prepared me and gave me the confidence to deliver well-developed and creative presentations that were well received across many cultural and academic backgrounds.” —*WPI Alumnus '06, Chemical Engineering*

“I specifically aimed to start my career in a role where I could get more global experience due to the appreciation and passion I gained for experiencing new cultures during my IQP [Interactive Qualifying Project]. I would end up traveling to 7 countries and spending over a year abroad in my first four years out of school. My IQP helped **set me up for success** in those professional experiences abroad.” —*WPI Alumnus '15, Biomedical Engineering*

“[Project-Based Learning] is the "crown jewel" of the WPI undergraduate education experience and is an excellent experience **preparation for the working world** after college.” —*WPI Alumnus '95, Environmental Engineering*

“These projects really give you a taste of what you are expected to do at work: independent work, check-ins with your boss, piecing things together and figuring out how to communicate know-how, questions, thoughts, and reflections to others, and to be a teammate and/or leader. I was definitely more **prepared to enter the workforce** than many of my peers.” —*WPI Alumnus '99, Biology and Biotechnology*

“I believe that project work was one of the most valuable experiences at WPI and **differentiates alumni in their careers**. In my current job I work on many multidisciplinary teams, and it is obvious that there are so many people [that] may be very intelligent but are unable to work effectively on a team. Lack of this skill set is difficult to overcome and can make a team less productive.” —*WPI Alumnus '99, Biotechnology*

CAREER PREPAREDNESS/SUCCESS (CONT.)

2021
Survey

"I specifically **got my first job** because of the interdisciplinary and project-based learning experience."

—*WPI Alumnus '94, Electrical and Computer Engineering*

"In hindsight, the experience itself is almost unheard of—being able to graduate in 4 years having studied abroad, learned a new language, and having worked in my industry. All my formal project experiences at WPI have **set me up for success in various arms of my career** from working with foreign team members daily, to taking initiative and working outside of my comfort zone." —*WPI Alumnus '12, Biomedical Engineering*

"The experience I gained while doing my MQP [Major Qualifying Project] really was the **underpinning of my career**. It allowed me to get my foot into a job that gave me a huge breadth across many technical areas that has served me as I moved into industry and allowed me to apply and re-apply these lessons as I moved forward in my career." —*WPI Alumnus '03, Computer Science*

"My experience at WPI was one that **shaped my career** and set the stage for my **success in the real world**."

—*WPI Alumnus '10, Industrial Engineering*

"I truly think that the formal project experience I received at WPI has helped me to **stand-out and thrive in my professional career**. IQP [Interactive Qualifying Project] and MQP [Major Qualifying Project] are huge undertakings for an undergraduate and being able to eloquently speak about them in job interviews was very advantageous for me. Even today I find that the "soft skills" I learned in school regarding teamwork, project management, interpersonal relationships and others have helped to prepare me for the real world.

—*WPI Alumnus '16, Biomedical Engineering*

ENRICHING LIFE NOT NECESSARILY ACADEMIC OR WORK-RELATED LIFE CHANGING EXPERIENCE

2021
Survey

"I worked very closely with a gentleman that provided a livelihood for families in the informal settlements of Cape Town. John and I still stay in touch to this day and he has taught me tremendous **values that go far beyond work and school** with regards to the importance of family and community." —*WPI Alumnus '15, Mechanical Engineering*

"Working as part of a team is an essential life skill that is not taught as a default by many institutions. I'm forever thankful WPI is one that forces you to learn it—and travel, especially long-term travel, is **enriching in so many ways**." —*WPI Alumnus '11, Mechanical Engineering*

"A fellow classmate and I established an afterschool program at a local self-sufficient community, where the majority of the residents were ethnically and racially diverse. Growing up in a small town, it was some of the first interaction I had with people from different backgrounds (yes, this was 20 years ago!). I **found myself drawn to the idea of helping others** and today am a board member of an organization that does comparable work." —*WPI Alumnus '99, Actuarial Mathematics*

"Spending time in Cape Town South Africa was a **life changing experience**. I was able to learn from the local community we worked with a great deal. Learned about culture, struggle, and joy of living where they live." —*WPI Alumnus '13, Mechanical Engineering*

"**I was fundamentally transformed** during my time at WPI. I can think of no other life event that could have done as much." —*WPI Alumnus '16, Mechanical Engineering*

"I've returned to my IQP [Interactive Qualifying Project] country over 45 times since the project ended. At the time of this writing, I visit Costa Rica once a month. I learned to speak a second language fluently and **started a family with a local after the project**." —*WPI Alumnus '15, Robotics Engineering*

"I am still very proud of the work that I did for my HUA [Humanities & Arts], IQP [Interactive Qualifying Project], and MQP [Major Qualifying Project]. The work was very meaningful to me at the time, and I was motivated to put a lot of effort into it. Also, spending 2 months in Copenhagen was one of the best experiences of my life. Living within a different community/culture for an extended period is **life changing** and I developed strong friendships with the other students who I traveled with." —*WPI Alumnus '09, Chemistry*

"I learned that I loved China! Since I did my MQP [Major Qualifying Project] in Hong Kong, I have spent most of the time up till now living either in Hong Kong or mainland China. I've learned Mandarin Chinese and have **started a family here**." —*WPI Alumnus '10, Society, Technology & Policy*

ENRICHING LIFE NOT NECESSARILY ACADEMIC OR WORK-RELATED LIFE CHANGING EXPERIENCE (CONT.)

2021
Survey

“My IQP [Interactive Qualifying Project] in Denmark eventually **led to applying for and completing my Master's in Switzerland** (where I currently reside), which I do not think would have been a consideration without the trip for the IQP.” —*WPI Alumnus '16, Robotics Engineering*

“My IQP [Interactive Qualifying Project] **experience at WPI was easily the most cherished experience of my life**. Our advisors were incredible and our community sponsors were so welcoming, but beyond that the other WPI students were just as hardworking and driven to make a difference as I was, which made this program so much more rewarding. I desperately want to return to Cape Town to show my husband and son some of the wonderful places where I made memories with the incredible people that I grew to know and love over that 7 week program!”

—*WPI Alumnus '12, Biomedical Engineering*

“The culture of WPI is rooted in projects, and this focus on collaboration and creative problem-solving has had **far-reaching effects on my life both personally and professionally after leaving WPI**. The strong sense of self-efficacy developed through rising to the challenge of these projects has served me well in uncountable ways.” —*WPI Alumnus '12, Biomedical Engineering*

“Completing IQP [Interactive Qualifying Project] was by far the biggest part of my WPI experience. IQP **taught me more about life and myself than engineering and opened my eyes to what I really wanted to do with my career**. I am so grateful to have had the opportunity to grow during my IQP experience.” —*WPI Alumnus '15, Mechanical Engineering*

Being able to go abroad for my IQP [Interactive Qualifying Project] was one of the **most formative, impactful, and memorable aspects of my undergraduate years** at WPI. Living in another country for seven weeks was a tremendous learning opportunity that I wish everyone could experience.” —*WPI Alumnus '17, Computer Science*

“I am incredibly grateful for my project experiences at WPI. It definitely **shaped me to be the person and the professional that I am today**.” —*WPI Alumnus '17, Mechanical Engineering*

“I had an amazing four years at WPI. Even 20 years on I still stress that **WPI was a changing factor in my life experience**. Was it a hard, challenging school? Yes. But at the end you come out ready for any job you set your sites on.”

—*WPI Alumnus '02, Computer Science*

“**[Project-Based Learning] was life changing** and the best education experience ever.” —*WPI Alumnus '98, Mechanical Engineering*

“The project-based learning made me **feel empowered with ownership of my education**. It was fantastic and I would recommend it to others.”
—*WPI Alumnus '06, Applied Physics*

“The WPI Plan (Suff, IQP, MQP) **provides a lot of self-learning and self-awareness of discipline, passion, ethics, and give back to team, to community, etc.** This approach and structure allows and/or forces a WPI student to grow their character in many directions, while developing their technical education skills—team dynamics, interpersonal skills, self-discipline, self-values, team values, self-confidence, team confidence, etc.”
—*WPI Alumnus '96, Industrial Engineering*

“WPI students completing the project-based curriculum have a stronger work ethic, are more self-aware in a team setting, and **take responsibility for their own learning**. As a hiring manager, I prefer to hire WPI students/alumni not because they are from my alma mater, but because they are more qualified for team projects in the workplace.” —*WPI Alumnus '13, Biomedical Engineering*

“[Project-Based Learning] changed the way I approached the world. It greatly influenced my transition from child (dependent) to adult (responsible/empowered). It taught me how to solve problems. How to define them, to identify what I knew and didn't know, **how to take on learning what I needed**, and maybe most importantly, how to adapt to inevitable problems and embrace the value of failure.”
—*WPI Alumnus '88, Electrical Engineering*

“Our project involved the creation of a community-driven effort to restore education and intramural activities for the children of the community, as well as to give the adults hands-on activities to upkeep their neighborhood. Since we let the community tell us what they were most interested in, and they let us know what they had envisioned for the future of the neighborhood, **we created a sustainable program based on those interests which has allowed it to persist so long.**” —*WPI Alumnus '15, Mechanical Engineering*

“**Positive impact.** Our project has continued to expand since 2008. I have remained in touch with community members and occasionally assisted with sourcing materials for sustainable erosion control and gardening measures. Additionally, members of the community who were children at the time are now pursuing engineering degrees and have reached out for help understanding options at university and for encouragement when school (high school, university) gets hard.”

—*WPI Alumnus '09, Biomedical Engineering*

“I loved WPI as a student, but it wasn't clear to me just how much I benefited from the form of education WPI provided until after I had graduated. I have continued to be leaps and bounds ahead of my peers throughout my continued education (I am a veterinarian, and now in law school), in my work environment, and as a volunteer for professional organizations. Examples are that **I interact more effectively with others, I am better at listening and trying to develop solutions that will benefit everyone, and I am better at learning new material.**”

—*WPI Alumnus '07, Biotechnology*

“**Project work transformed my educational (and later professional) mindset** from passive repetition to an active/proactive (empowered) participant. I became actively responsible and vested in my educational and problem-solving process.” —*WPI Alumnus '88, Electrical Engineering*

“Completing my Sufficiency, IQP [Interactive Qualifying Project], and MQP [Major Qualifying Project] projects was difficult and required a lot of hard work. Completing them **taught me to plan and persevere, how to work with others in a team, how to write, and how to present my work to others.** I see many new hires at my place of work who are sorely lacking these skills. They did not go to WPI.”

—*WPI Alumnus '91, Aerospace Engineering*

“My 35 years of professional experience—through 4 industries and 3 technical disciplines—have been nothing but working on projects with other engineers and professionals. **The group project experiences that I had at WPI provided an invaluable background.**”

—*WPI Alumnus '86, Mechanical Engineering*

“The ‘WPI Plan’ was a framework that created an environment of how to learn by doing and tying the theoretical to the practical. This built a tremendous amount of self-confidence and motivation to excel both at WPI and later throughout my career. In addition, the term system helped us develop a strong work ethic and to persevere through 7-week course work. This developed the skill of absorbing lots of information quickly and prioritizing key focus areas and still excel in the coursework. That framework has had a **huge impact in the professional world to support solving big complex problems faster than others.**” —*WPI Alumnus '99, Mechanical Engineering*

PROFESSIONAL SKILLS AND MINDSET (CONT.)

2021
Survey

“The skills I learned working as part of a team going through the ups and downs, successes, and failures of a project I still use to this day over 30 years later. I believe the WPI project experience along with the 7-week terms taught me so much and were **the foundation that carried me through what has been a fun and interesting engineering career.** The 7-week term teaches time management and though stressful, it provides focus and forces one to develop the ability to learn on one's own and draw on others for guidance when you are struggling or providing guidance when others in the study group struggle. **Those skills are exactly what engineering teams do in the real world.**”

—WPI Alumnus '87, Electrical Engineering

“**In industry, it isn't what you know today, but more importantly what you are able to learn.** WPI and its **project-based curriculum taught me how to learn** and feel comfortable with the unknowns.” —WPI Alumnus '00, Electrical Engineering

OPPORTUNITIES THAT STUDENTS ELSEWHERE DON'T HAVE

2021
Survey

“While many university programs work around a capstone model for major areas of study, the nature of WPI projects encouraging students to step away from adjacent course work and focus on deliberate **projects provides opportunity of intensive concentration that may not be found in other university programs.**” —*WPI Alumnus '03, Electrical Engineering*

“**WPI is unique in the fact that it offers students the "once-in-a-lifetime" opportunity of traveling abroad to work with sponsors. Different from other study abroad programs,** the IQP [Interactive Qualifying Project] and MQP [Major Qualifying Project] **projects allow students to directly connect and collaborate with people from different countries while working in a team setting with students from different disciplines.** Overall, this allows students to grow outside of their area of expertise and develop useful communication/presentation skills that can be used in a professional setting.” —*WPI Alumnus '17, Civil Engineering*

“**I have yet to hear about another college that provides a WPI style experience similar to what I had** during my MQP [Major Qualifying Project] at NASA. I consider myself lucky to have been able to take advantage of the opportunity and it is something that I can still refer back to as a career builder.” —*WPI Alumnus '94, Mechanical Engineering*

“Working on long-term projects along with a team of other engineers is what I've done in the workplace in the 25 years since graduation and I felt that **my project experience with my projects at WPI prepared me for that in ways that graduates of other universities don't experience.**” —*WPI Alumnus '96, Electrical & Computer Engineering*

“I am forever grateful for the WPI project plan curriculum. **This curriculum is what made WPI stand out against other schools** and ultimately led me there in the first place. I have never regretted this decision.” —*WPI Alumnus '05, Biomedical Engineering*

“I think the project-based atmosphere at WPI is easily the most effective and rewarding program I have experienced to date. I am now an academic, so I have experienced the scholastic efforts of multiple universities and I am still impressed with the real-world challenges that were presented to us as students at WPI. I sincerely believe that **WPI prepares its students not only for their future jobs better than any other school, but also teaches us to grow as generous, hardworking people, which is a metric not met by most other education platforms.**” —*WPI Alumnus '12, Biomedical Engineering*

OPPORTUNITIES THAT STUDENTS ELSEWHERE DON'T HAVE (CONT.)

2021
Survey

“The project-based learning at WPI should be a model for other schools across the country. In purposeful moderation or engagement, it provides rich and deep learning experiences, reinforcing positive qualities for solving the world's problems today and working with other people who may be different from ourselves.” —*WPI Alumnus '15, Chemical Engineering*

“The project program was the primary reason I chose WPI. I had **incredible opportunities there that I couldn't have had at other schools.** The real world is project-based, so I think it's extremely valuable experience.” —*WPI Alumnus '04, Electrical and Computer Engineering*

“There is **no better way in my mind to understand who you will be out there in the "real world" than to take part in the WPI project curriculum**, particularly the IQP [Interactive Qualifying Project] experience. This is the project that best simulates what day to day work is like (working on real life problems with interdisciplinary teams, possibly outside your normal geography) and shapes you into the person you'll be at work.” —*WPI Alumnus '12, Chemical Engineering*

“I feel the formal projects truly **prepared me for life in the real world**. Everything at work is project based. The skills gained at WPI like teamwork, presentations, project summaries, data analysis, multitasking, organization etc. all were learned or strengthened during my IQP [Interactive Qualifying Project] or MQP [Major Qualifying Project]. While I am not an official Project Manager, there are many times I have assumed the role because of the skills and confidence I gained from my project work.”B—*WPI Alumnus '90, Electrical Engineering*

“Having the experience **working on team projects at WPI was far more useful in "the real world" than I ever thought it would be** when I was a student. Outside WPI, most people genuinely have no clue how to collaborate with others, so having the experience I did working on team projects such as my IQP [Interactive Qualifying Project] and MQP [Major Qualifying Project] made it possible for me to not only be more comfortable in a team environment, it also made collaborating with others who didn't have any experience working in teams more successful.” —*WPI Alumnus '95, Electrical & Computer Engineering*

“Project work is key to **prepare students for real life work.**” —*WPI Alumnus '85, Chemical Engineering*

“The **opportunity to learn by doing hands on work in the real world making an impact has been so important to me**. I also enjoyed learning in environments where there isn't always a right answer but needing to think critically and logically to come to good solutions was key. This makes me a better scientist, employee, and world citizen.” —*WPI Alumnus '10, Biology & Biotechnology*

“Being assigned to a real-world problem. The best feeling as a student is knowing your work will actually impact someone/something and that it is taken seriously. **Through my project experience, I was able to provide potential solutions to real organizations looking to tackle a challenge**. With the help of advisors, I was able to produce work that made me feel valuable, intelligent, and victorious.” —*WPI Alumnus '17, Civil Engineering*



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