

Results from the 2020 Survey of Incoming Freshmen

Summary Report

Survey Background

A web-based survey was administered in the summer of 2020 to all incoming first-time, first-year students at Virginia Tech. This survey was designed in consultation with a group of faculty members with experience working with undergraduate students and administered by the Office of Analytics and Institutional Effectiveness. The purpose of the survey was to gather information regarding incoming students' previous learning experiences and perceptions of their future collegiate learning and engagement. This survey assesses four core elements: students' high school experiences; their purpose in coming to Virginia Tech; how they hope to be challenged and grow; and their anticipated university involvement.

The survey was designed to provide information for faculty and staff about Virginia Tech's incoming students. This survey contains institutionally-focused questions rather than the generic items contained on national instruments such as the Cooperative Institutional Research Program Survey and the National Survey of Student Engagement.

Limitations

Since student participation in the survey was voluntary, the results may not be generalizable to the entire population of incoming freshmen. Many responses indicate only what incoming students *intend to do* while they are at Virginia Tech.

Participant Demographics

- Of 7,103 incoming students invited to participate in the survey, 3,615 responded, resulting in a response rate of 50.8%.
- Of those students who completed the survey's demographic questions:
 - 49.9% were female (See Table 1 in Appendix A).
 - 61.8% identified as White (non-Hispanic), 14.5% as Asian/Pacific Islander, 8.3% as Hispanic, and 6.0% as African American (See Table 2 in Appendix A).
- 64.6% of students indicated that they will be transferring at least four credit hours into Virginia Tech. Of those students, 23.0% indicated that they would be transferring more than 16 credit hours (See Table 3 in Appendix A).
- The top ten intended majors for freshmen entering Virginia Tech in August 2020 are:
 1. Computer Science – 7.3% (256 responses)
 2. Mechanical Engineering – 7.0% (248 responses)
 3. Biological Sciences – 6.2% (217 responses)
 4. Aerospace Engineering – 4.7% (166 responses)
 5. Business Information Technology – 3.4% (119 responses)
 6. Human Nutrition, Foods, and Exercise – 3.2% (113 responses)
 7. Computer Engineering – 3.1% (109 responses)
 8. Architecture – 2.8% (100 responses)
 9. Civil Engineering – 2.6% (91 responses)

10. Animal and Poultry Sciences – 2.5% (88 responses)

Results: High School Experiences

- 78.0% of students graduated with a GPA greater than 3.75. Of those students, 61.6% indicated that they graduated with a 4.0 or better (See Table 4 in Appendix B).
- When students were asked about instructional methods used in their high school classes:
 - The most commonly reported method was “teacher lecture.”
 - 87.8% indicated that teacher lecture was used more than 50% of the time in their high school classes, with 64.4% indicating that teacher lecture was used more than 75% of the time (See Table 5 in Appendix B).
 - The second most commonly used instructional method was “projects using technology.”
 - 66.2% of students reported that this instructional method was used in their high school classes more than 50% of the time, with 44.2% indicating that projects using technology were used more than 75% of the time (See Table 5 in Appendix B).
- When students were asked to report their **level of confidence to successfully complete a challenging task in a high school class** (See Table 6 in Appendix B):
 - 65.0% reported that they felt “confident” or “extremely confident”;
 - 31.6% reported that they felt “somewhat confident”;
 - 2.1% of students reported that they were “not at all confident”; and
 - 1.3% of students reported that they never had a challenging task in high school.

Results: Reasons for Attending Virginia Tech

- 50.1% of students reported that their **primary reason for pursuing an undergraduate degree** at Virginia Tech was to help them get a job. An additional 35.1% of students indicated that **their primary motivation was to develop a strong foundation for success in graduate, law, or medical school** (See Table 7 in Appendix C).
- 56.8% of students reported that they anticipated their **principal activity upon graduation** to be employment, while 36.3% planned to attend graduate or professional school. The next most frequent response was military service with 5.0% (See Table 8 in Appendix C).
- Of the students responding, 81.5% indicated that they anticipate graduating with their undergraduate degrees in four years. 7.5% of the respondents (268 students) anticipate taking longer to complete their degree (See Table 9 in Appendix C).
- When incoming freshman were asked **what excited them the most about coming to Virginia Tech**, many students talked about meeting new people, the Hokie spirit and community, independence, and new learning opportunities.
- When incoming freshman were asked **what concerned them most about entering Virginia Tech**, many students talked about time management, establishing a social life, and managing the new workload.

Results: Personal Growth and Openness to Change

- When students were asked **which skills and abilities, they need to improve upon** the most to be successful, the five most frequent responses were oral communication skills (13.6%); computer/technology skills (9.8%); critical thinking/analysis skills (9.2%); knowledge of global issues (9.1%); and written communication skills (8.2%) (See Table 10 in Appendix D).
- In contrast, the five least frequent responses were ethical reasoning (2.9%); quantitative reasoning (4.8%); information literacy/library skills (5.0%); scientific reasoning (5.9%); and the ability to communicate with people different from themselves (7.3%) (See Table 10 in Appendix D).
- As a group, students who participated in the survey believe they will be challenged more intellectually than socially (See Table 11 in Appendix D).
 - A total of 89.7% of respondents indicated that they **expect to be challenged intellectually** “often” or “all of the time” while at Virginia Tech (See Table 11 in Appendix D).
 - In contrast, 49.2% of respondents indicated that they **expect to be challenged socially** “often” or “all of the time” (See Table 12 in Appendix D).
- When asked “**Do you think you will be the same person or a different person by the time you complete your degree?**” 65.2% of students reported that they expect to change while at Virginia Tech (See Table 13 in Appendix D).

Results: Anticipated University Involvement

- When asked about expectations for their future participation at Virginia Tech, students indicated that they were most likely to participate in (1) an internship, field experience, co-op, or practicum; (2) organizations or clubs designed for people in my primary major; and (3) Organization focused on special interest/hobby (See Table 14 in Appendix E).
- In contrast, students indicated that they would be least likely to participate in (1) Student government; (2) Arts organization (music, theatre, dance); and (3) Organizations related to cultural or ethnic heritage

Additional Information

For more information on the 2020 Survey of Incoming Freshmen, please contact Bethany Bodo, Director, Institutional Effectiveness, Office of Analytics and Institutional Effectiveness, at bbodo@vt.edu.

Appendix A – Participant Demographics

Table 1. What is your gender?

<u>Gender</u>	<u>Count</u>	<u>Percent</u>
Female	1798	49.9%
Male	1779	49.4%
Other	5	0.1%
Prefer not to respond	18	0.5%
Total	3600	100%

Table 2. What is your racial or ethnic background?

<u>Race/Ethnicity</u>	<u>Count</u>	<u>Percent</u>
African American	214	6.0%
Asian/Pacific Islander	522	14.5%
Hispanic/Latino	299	8.3%
Native American	10	0.3%
White (non-Hispanic)	2222	61.8%
Multi-racial	211	5.9%
None of the above categories	41	1.1%
Prefer not to answer	74	2.1%
Total	3593	100%

Table 3. How many credits will you be transferring into Virginia Tech?

<u>Response</u>	<u>Count</u>	<u>Percent</u>
0	541	15.5%
1-3	692	19.8%
4-6	573	16.4%
7-10	424	12.2%
11-13	249	7.1%
14-16	206	5.9%
More than 16	802	23.0%
Total	3487	100%

Appendix B – High School Experiences

Table 4. Which of the following best describes your high school G.P.A.?

Grade Point Average	Count	Percent
Less than 2.5	1	0.03%
2.5-2.75	2	0.06%
2.76-3.00	17	0.5%
3.01-3.25	73	2.0%
3.26-3.50	234	6.5%
3.51-3.75	463	12.9%
3.76-4.00	1078	30.0%
Greater than 4.00	1727	48.0%
Total	3595	100%

Table 5. What percent of the time were the following instructional methods used in your high school classes?

Method	Percentage of Time Used						
	Less than 10%	10 – 25%	26 – 50%	51 – 75%	76 – 90%	More than 90%	More than 50%*
Discussion and debate	16.1%	32.2%	23.3%	17.0%	8.7%	2.8%	28.5%
Student presentations	13.0%	30.2%	23.8%	18.2%	10.6%	4.2%	33.0%
Teacher lecture	0.6%	2.6%	8.9%	23.4%	37.5%	26.9%	87.8%
Role plays	71.3%	19.0%	5.6%	2.2%	1.0%	0.8%	4.0%
Art and drama activities	57.4%	25.8%	8.8%	4.2%	2.1%	1.7%	8.0%
Projects using technology	3.5%	11.7%	18.6%	21.9%	25.3%	18.9%	66.1%
Group projects	2.5%	14.8%	25.6%	29.3%	20.6%	7.3%	57.2%
Research projects	6.9%	21.1%	26.1%	22.5%	16.6%	6.8%	45.9%
Case studies	41.9%	27.6%	15.1%	8.7%	4.6%	2.1%	15.4%

*This column shows the total percentage of students reporting that a particular instructional method was used in their high school classes either 51-75%, 76-90%, or more than 90% of the time.

Table 6. When you were working at a challenging task in a high school class, how confident were you that you would succeed?

Response	Count	Percent
I never had a challenging task in high school	48	1.3%
Not at all confident	77	2.1%
Somewhat Confident	1138	31.6%
Confident	1936	53.7%
Extremely Confident	405	11.2%
Total	3604	100%

Appendix C – Reasons for Attending Virginia Tech

Table 7. What do you see as your primary reason for pursuing an undergraduate degree at Virginia Tech?

Primary Reason	Count	Percent
To help me get a job	1809	50.1%
To help me develop a strong foundation for success in graduate school	1269	35.1%
To broaden my knowledge base and strengthen skills such as writing and critical thinking	445	12.3%
To take classes to transfer to another institution	15	0.4%
My parents made me attend	6	0.2%
At this point, I am not really sure	67	1.9%
Total	3611	100%

Table 8. Which of the following is most likely to be your principal activity upon graduation?

Principal Activity	Count	Percent
Employment	2042	56.8%
Graduate or professional school	1305	36.3%
Military service	182	5.1%
Volunteer activity (e.g., Peace Corps)	21	0.6%
Starting or raising a family	12	0.3%
Other	32	0.9%
Total	3615	100%

Table 9. When do you think you will graduate with your undergraduate degree?

Response	Count	Percent
In 3 years	152	4.2%
In 3.5 years	247	6.9%
In 4 years	2929	81.5%
In 4.5 years	109	3.0%
In 5 years	151	4.2%
More than 5 years	8	0.2%
Total	3615	100%

Appendix D – Personal Growth and Openness to Change

Table 10. Which of the following skills and abilities do you feel you need to improve upon the most to be successful? (Students could select up to three)

<u>Skill/Ability</u>	<u>Count</u>	<u>Percent</u>
Oral communication	1728	13.6%
Computer/technology	1244	9.8%
Critical thinking/analysis	1168	9.2%
Knowledge of global issues	1158	9.1%
Written communication	1046	8.2%
Leadership	1082	8.5%
Interpersonal (social)	1008	7.9%
Organizational ability	978	7.7%
Ability to communicate with people different from myself	930	7.3%
Scientific reasoning	750	5.9%
Information literacy/library skills	631	5.0%
Quantitative reasoning	615	4.8%
Ethical reasoning	369	2.9%
Total	12707	100%

Table 11. During your time at Virginia Tech, how often do you think you will be challenged intellectually?

<u>Response</u>	<u>Count</u>	<u>Percent</u>
Not at all	3	0.1%
Rarely	14	0.4%
Occasionally	354	9.8%
Often	2479	68.8%
All the time	755	20.9%
Total	3604	100%

Table 12. How often do you think you will be challenged socially?

<u>Response</u>	<u>Count</u>	<u>Percent</u>
Not at all	38	1.1%
Rarely	329	9.1%
Occasionally	1466	40.6%
Often	1377	38.2%
All the time	397	11.0%
Total	3607	100%

Table 13. Do you think you will be the same person or a different person by the time you complete your degree?

<u>Response</u>	<u>Count</u>	<u>Percent</u>
The same	25	0.7%
Mostly the same	280	7.8%
More the same than different	950	26.3%
More different than the same	1544	42.8%
Mostly different	471	13.0%
Different	340	9.4%
Total	3610	100%

Appendix E – Anticipated University Involvement

Table 14. In which of the following do you think you will participate while at VT?

<u>Type of Activity</u>	<u>Not Likely</u>	<u>Probably</u>	<u>Yes</u>
Internship, field experience, co-op, or practicum	4.0%	39.3%	56.7%
Community service/volunteer work as part of a course	7.9%	51.4%	40.7%
Community service/volunteer work outside of course requirements	17.2%	47.9%	34.9%
University learning community (e.g., Galileo, Hypatia, Da Vinci, Residential Leadership)	59.0%	17.3%	23.8%
Research project with a faculty member	22.6%	57.1%	20.4%
Study abroad - break week or short-term	36.9%	41.3%	21.8%
Study abroad - at least a semester	47.9%	32.2%	19.9%
Attend a professional or scholarly meeting or conference	13.6%	57.2%	29.2%
Give a talk or exhibit work at a professional, scholarly, cultural, or artistic conference or meeting	47.1%	43.6%	9.2%
Intramural sports	32.5%	39.9%	27.6%
Intercollegiate sports	71.4%	21.7%	6.9%
Organizations or clubs designed for people in my primary major	6.4%	56.9%	36.7%
Social fraternity or sorority	61.7%	25.1%	13.2%
Student government	80.1%	17.4%	2.4%
Arts organization (music, theatre, dance)	69.0%	21.6%	9.4%
Organization focused on special interest/hobby	7.5%	57.6%	34.9%
Organization related to cultural or ethnic heritage	65.1%	25.0%	9.9%