

2020

# Trends in Online Education: Gender Differences

Exploring differences in the challenges and experiences of men and women in online education through feedback from recent online degree program graduates.



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# Executive Summary

The latest report from BestColleges provides insight into the gender differences among online students. This report presents student perceptions of the many challenges of online learning, their need for support, and the future of online education, as well as new student demographic profiles. An extension of our [2020 Online Education Trends Report](#), new data was collected from 505 individuals who graduated from online degree programs between 2015 and 2020. The perspectives gathered in this study further inform the development of new online degree programs and the services that support online student success.

## KEY FINDINGS

### Online Student Demographics

- Half (50%) of all male participants were enrolled in computer science, engineering, and related majors, compared to only 12% of women.
- A majority of female (50%) and male (64%) students were employed full time while earning their degrees.
- While the majority of all survey participants were white, female students represented more diversity, including African American or Black (19%); Hispanic or Latino/a (9%); and Asian, Pacific Islander, or Asian Indian (8%) ethnicities.

### Challenges of Online Learning

- Forty-two percent of all participants agreed that women face more challenges as online students.
- Seventy-two percent of male students reported that access to required technology and internet connectivity was a challenging part of their online education experience, compared to only 44% of women.

### Supporting Student Success

- Overall, male and female students reported that their primary sources of support were in the areas of finances (22%), family (19%), academics (17%), and work/ employer (15%).
- Female students were more likely to rely on family support, whereas male students were more likely to rely on career planning and employer support.
- Forty-two percent of men reported wanting more support from their schools with technology skills and computer literacy, compared to just 14% of women.
- Both men (44%) and women (32%) indicated a need for more support with time-management skills.

## The Future of Online Education

- Seventy percent of all survey participants said that COVID-19 will have a positive impact on the perception of online education, including 77% of men and 64% of women.
- Men and women have similar advice for future online students: be persistent and dedicated to your coursework (29%) and manage your time well (26%).

# Introduction

The latest report from BestColleges provides insight into the gender differences among online students from a survey of 505 individuals who graduated from online programs between 2015 and 2020. Findings are reported in four main categories: online student demographics, the challenges of online learning, supporting student success, and the future of online education.

## PROJECT GOALS

The primary goal of BestColleges' research initiative is to track long-term trends related to online learners and online education offerings. This new report provides an in-depth look at student demographics by gender. The perspectives shared by survey participants help to inform the ongoing development of online degree programs and the many services that support students from enrollment to graduation.

## METHODOLOGY

During August 2020, BestColleges conducted a survey of individuals who graduated from online degree programs. The survey respondents were fielded by Lucid LLC. The 505 survey participants — 58% female (n=295) and 42% male (n=210) — graduated from online degree programs within the past six years (i.e., 2015-2020). For the purposes of this study, online degree programs were defined as “programs in which courses take place predominantly online with no required face-to-face sessions, but may incorporate on-site activities such as residencies, fieldwork, and practicum requirements.” All data was self-reported.

## RATIONALE

Gender has been a topic of relevant research over the years, focusing on the many factors related to student success in higher education. For example, recent studies have found that there are differences by gender in level of engagement and how that can affect success in different subject areas online (Morante et al., 2017). Another study found that managing multiple roles (e.g., spouse, parent, employee, student), developing self-confidence as a student, and obtaining external support (e.g., childcare) impact the success of adult female college students (Lin, 2016).

The data reported here reflects the experience of online learning by students who chose online degree programs and graduated prior to the coronavirus outbreak's effects on college campuses. However, these findings could provide a baseline for comparison with students entering college post-COVID-19, as well as information about the success of those students who became online students not by choice, but as a result of campus closures. The findings also add to the research related to the changing roles of men and women (e.g., remote work, childcare) experienced during the pandemic (Alon et al., 2020; Carnevale, 2020; Linde & González, 2020).

# Online Student Demographics

The biggest demographic differences between men and women were found in the areas of academic major, level of study, employment and income, age, ethnic background, and marital status. Highlights of these differences are provided in this section. Complete demographic data is presented in the Appendix.

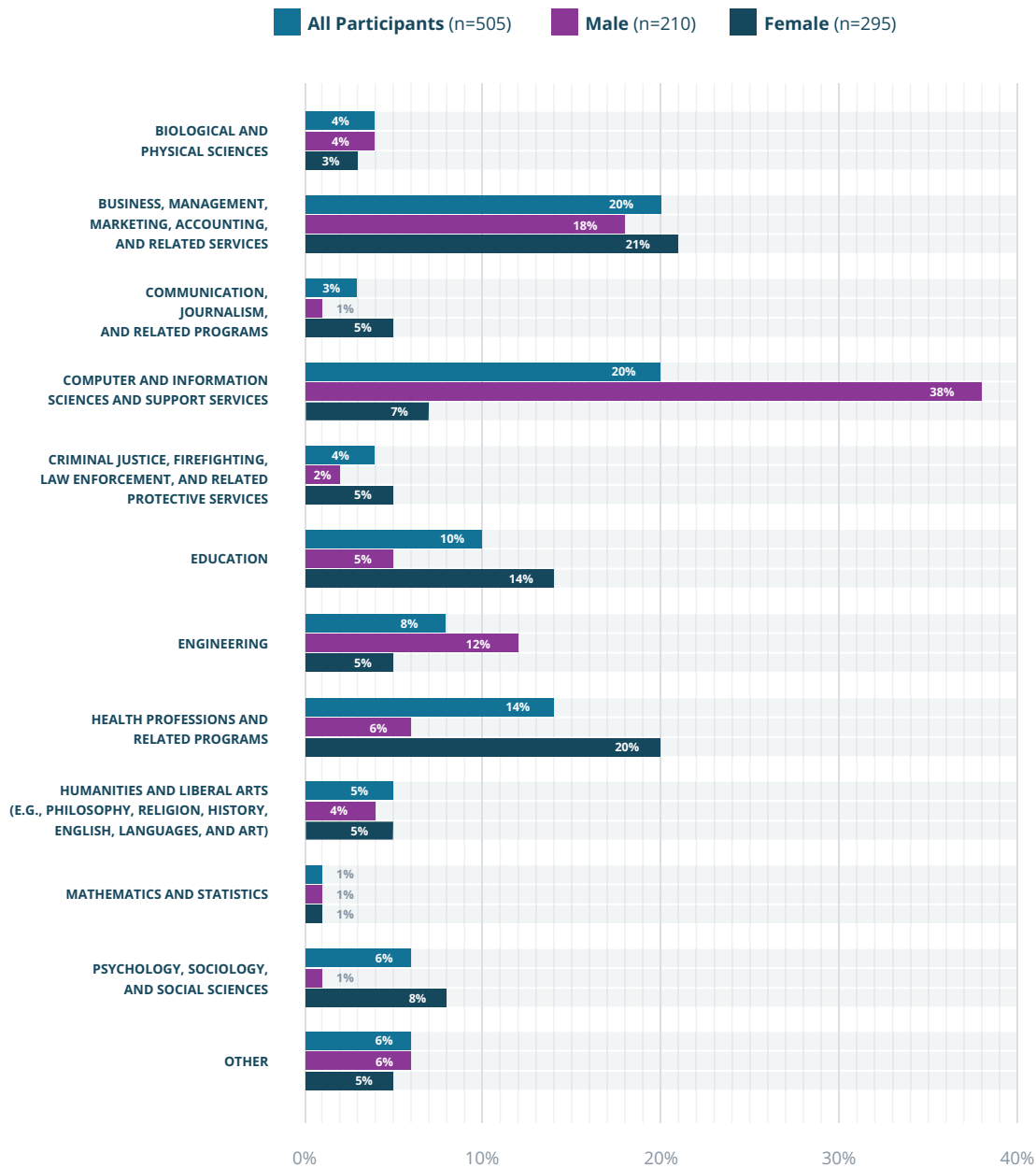
## ACADEMIC MAJOR

While the top majors pursued by online students in this new survey were similar to findings in our annual Online Education Trends Report, there are trends related to gender and enrollment in several areas, including major. The top five majors of participants were as follows:

- Computer and information sciences and related majors: 20%
- Business and related majors: 20%
- Health professions and related majors: 14%
- Education: 10%
- Engineering: 8%

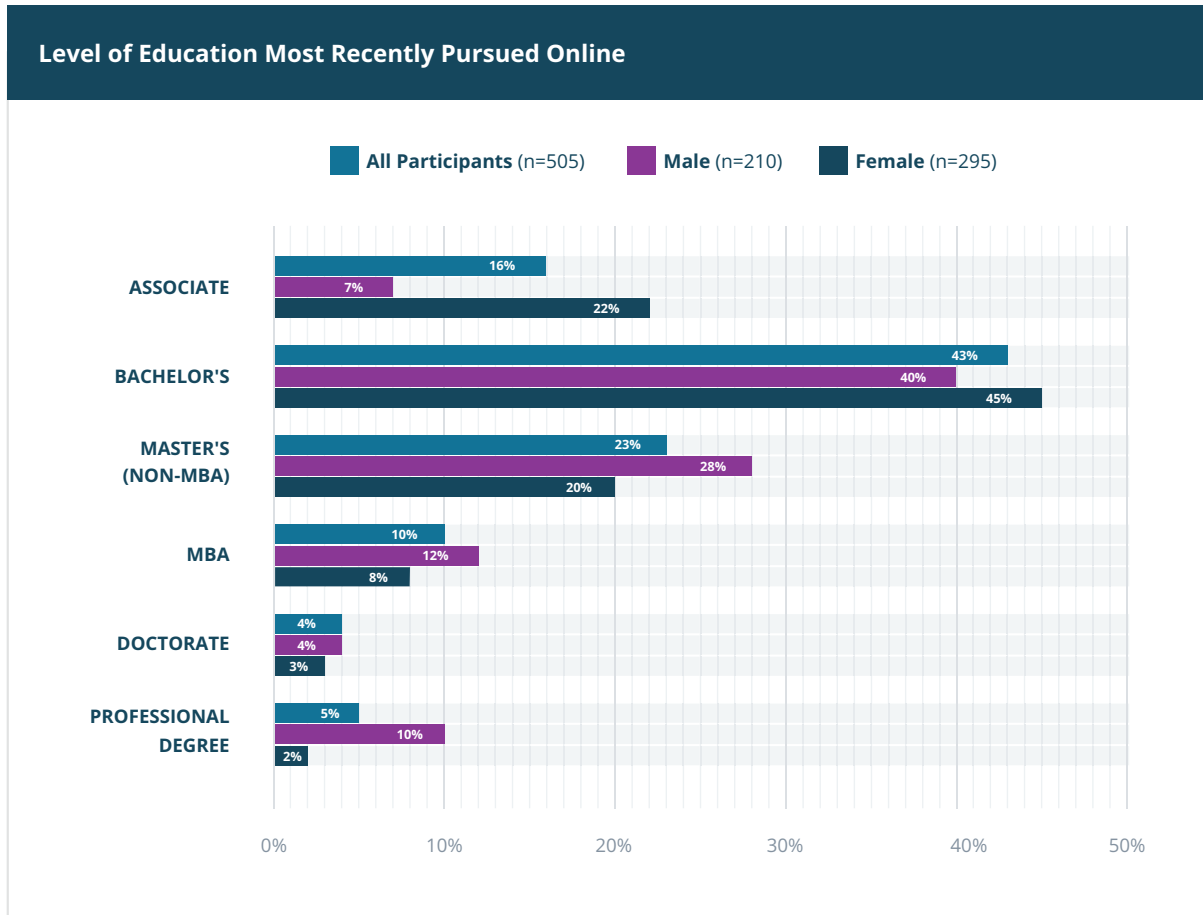
Similar numbers of male and female students chose to pursue degrees in business, but male students were more likely to report studying computer and information sciences and engineering. Female students, in contrast, were more likely to report studying health professions and education, in addition to social sciences and communication-related majors.

### Academic Major/Field Pursued Online



## DEGREE LEVEL

In this survey, participants represented both undergraduate (59%) and graduate (42%) levels of study. Female students were more likely to be enrolled in undergraduate programs, particularly at the associate level, whereas male students were more predominant at the graduate level in both non-MBA and professional degree programs.



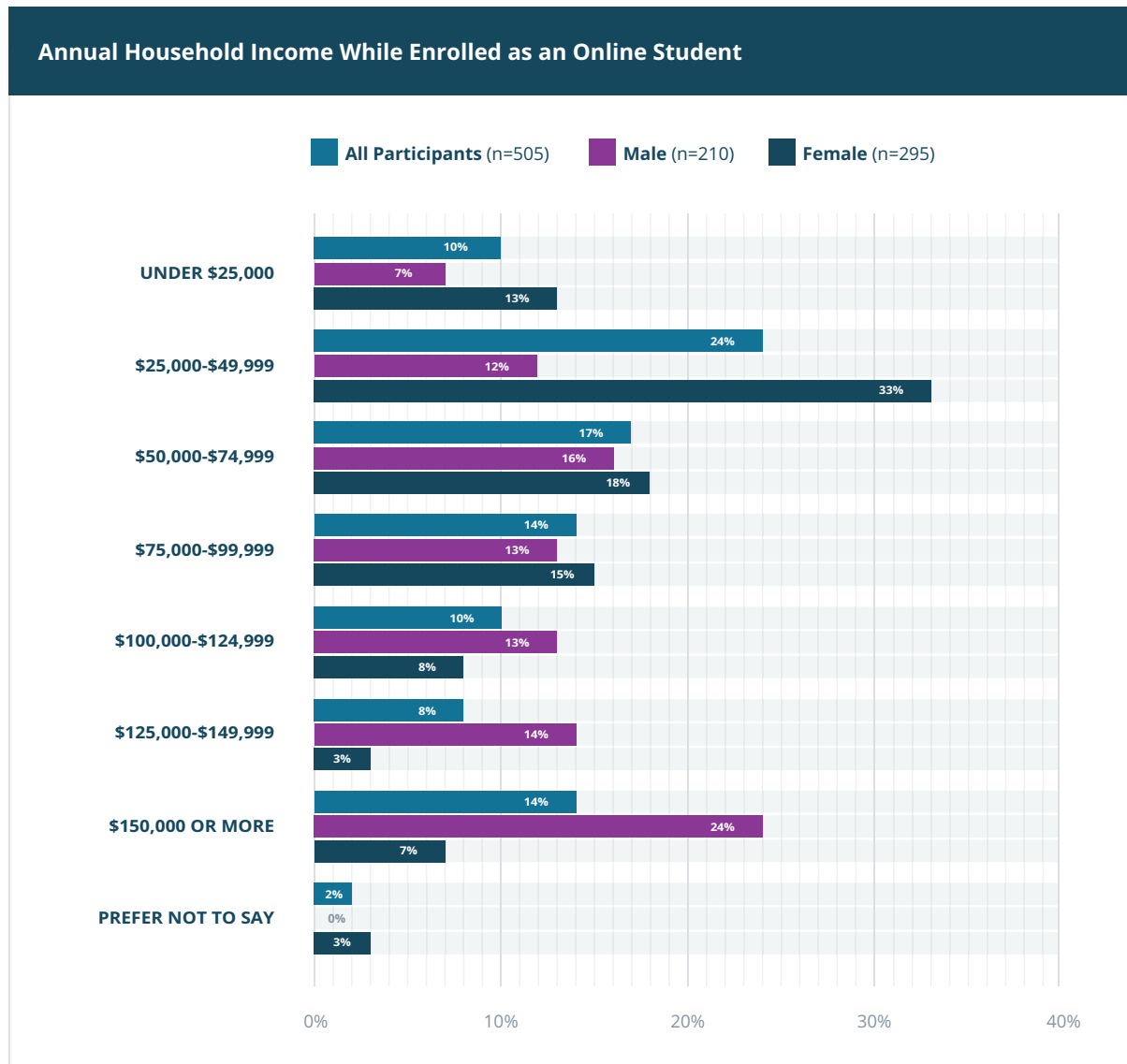
Overall, the majority of survey participants were enrolled in their online programs full time (75%). There were no significant differences in enrollment status between men and women.



## EMPLOYMENT AND INCOME

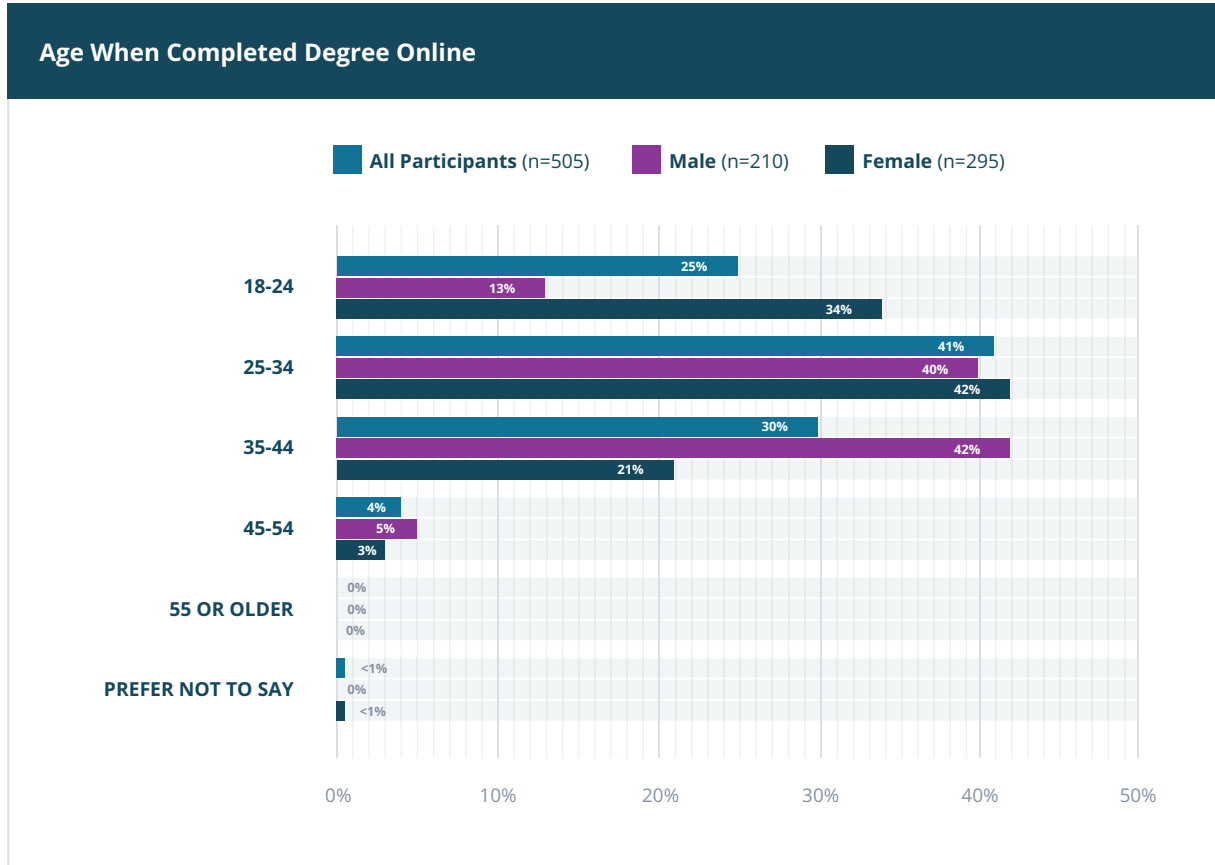
The majority of participants (56%) reported being employed full time while they were pursuing their degrees online, including 50% of female students and 64% of male students. There were few other differences in employment status between men and women.

There were, however, notable differences in income level. Generally, women reported having lower income than men while enrolled in their online degree programs, with the most significant differences found in the lowest and highest income brackets. Female students earned less, with 46% reporting an annual household income of less than \$50,000. In comparison, male students reported higher household incomes, with 38% earning \$125,000 or more annually.



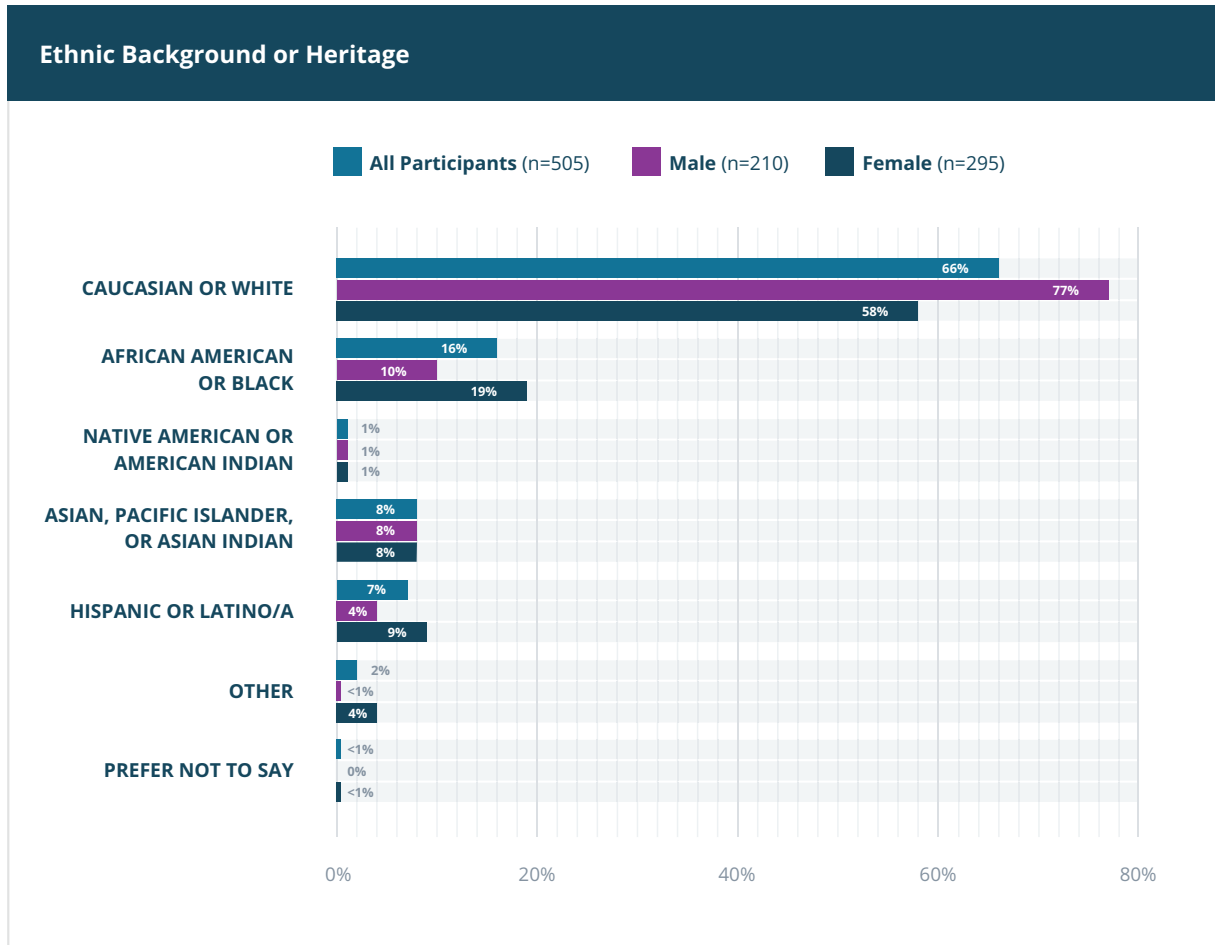
## AGE

The men responding to the survey tended to be older than the women were when completing their degrees online. The most striking differences are in the youngest age range (18-24 years old), which is typically considered the age range of traditional college students. This group was proportionally more female. By contrast, in the 35-44 age range, a greater proportion of participants were male.



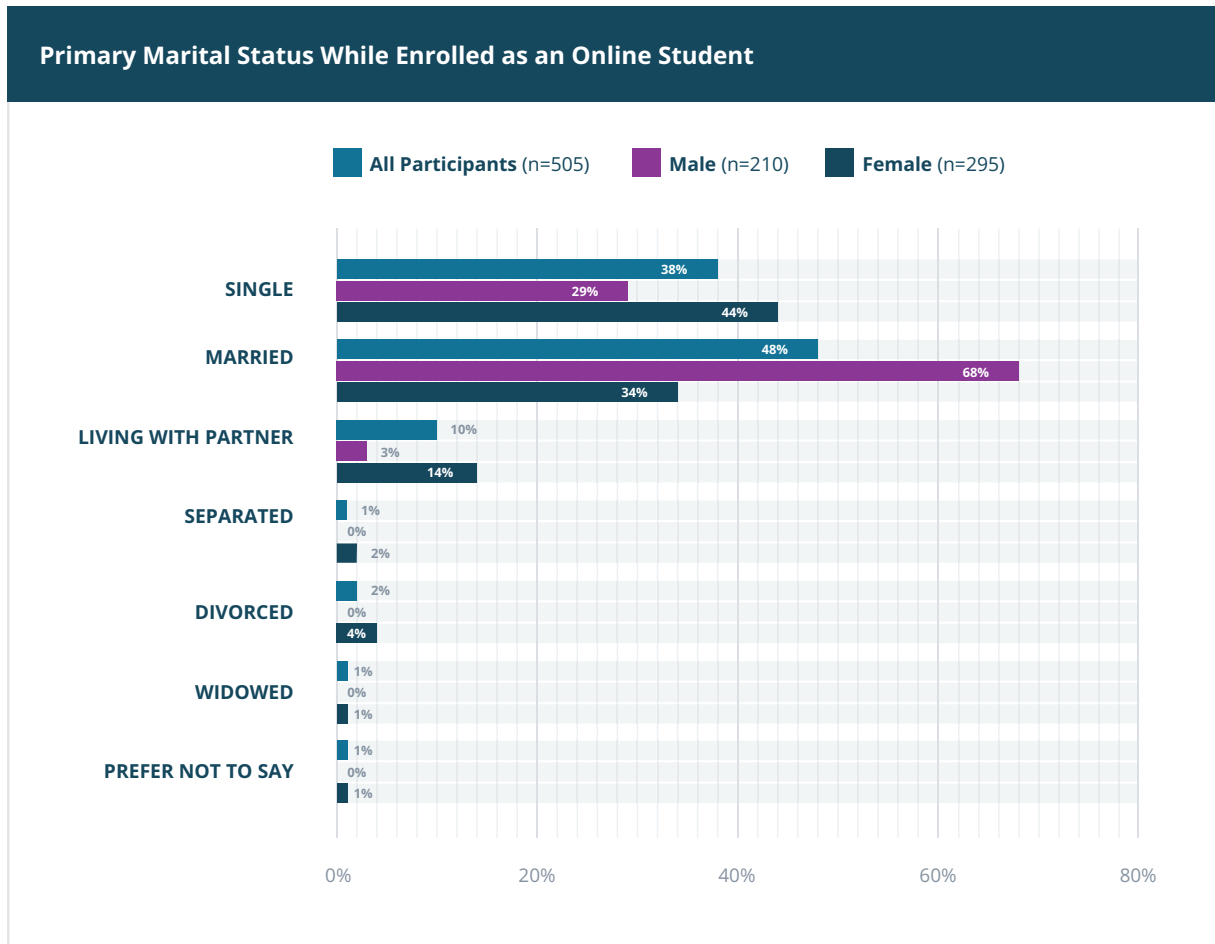
## ETHNIC BACKGROUND OR HERITAGE

Similar to the participants in our annual trends study (BestColleges, 2020), the majority of this study’s participants indicated that they were “Caucasian or White” (66%). This is especially true of the male participants (77%). A smaller majority of female participants were also white (58%), but this group was significantly more “African American or Black” and “Hispanic or Latino/a” than male respondents.



## MARITAL STATUS AND CHILDREN

The overwhelming majority of male respondents reported being either married (68%) or single (29%), whereas women also reported other statuses, i.e., living with a partner, separated, divorced, or widowed. Additionally, while 68% of men were married while studying online, 63% of women were single, living with a partner, divorced, or widowed.



Men (68%) were also more likely than women (55%) to report having children at home when pursuing a degree online.



## BEST COLLEGES INSIGHT

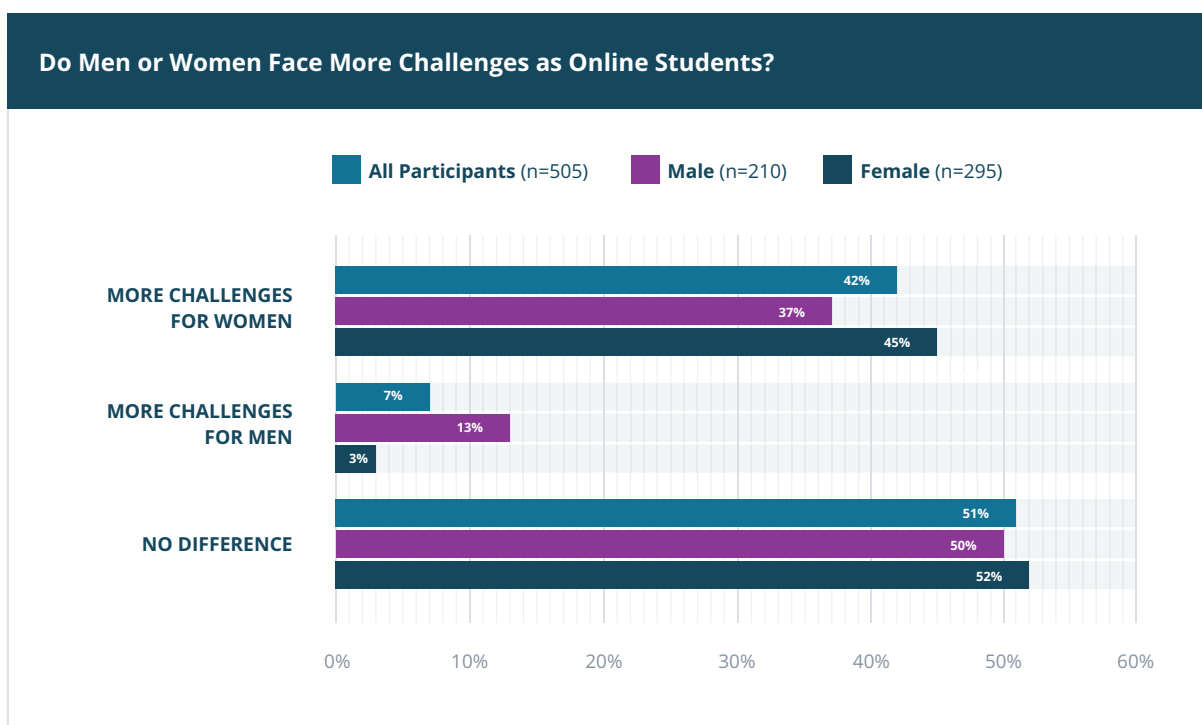
Online degree programs provide opportunities for female students — particularly in minority ethnic groups and at lower income levels (and perhaps at a younger age) — to pursue college degrees. Male students participating in this study were less diverse ethnically, reported higher earning levels while enrolled, and were older while pursuing their degrees. More men than women were also enrolled in graduate-level programs and in majors with the potential for higher future earnings.

# Challenges of Online Learning

Participants were asked to share their perceptions of challenges they encountered while studying online. They reported their perception of differences in these challenges as experienced by men and women, as well as the overarching impact of these challenges across gender.

## PERCEPTION OF GENDER DIFFERENCES

Do men and women face *different* challenges as online students? The majority of participants (65%) said yes. This perception was similar for both male (67%) and female (63%) respondents. When asked if men or women face *more* challenges as online students, about half (51%) of all participants said there was no difference here, while 42% said women face more challenges.



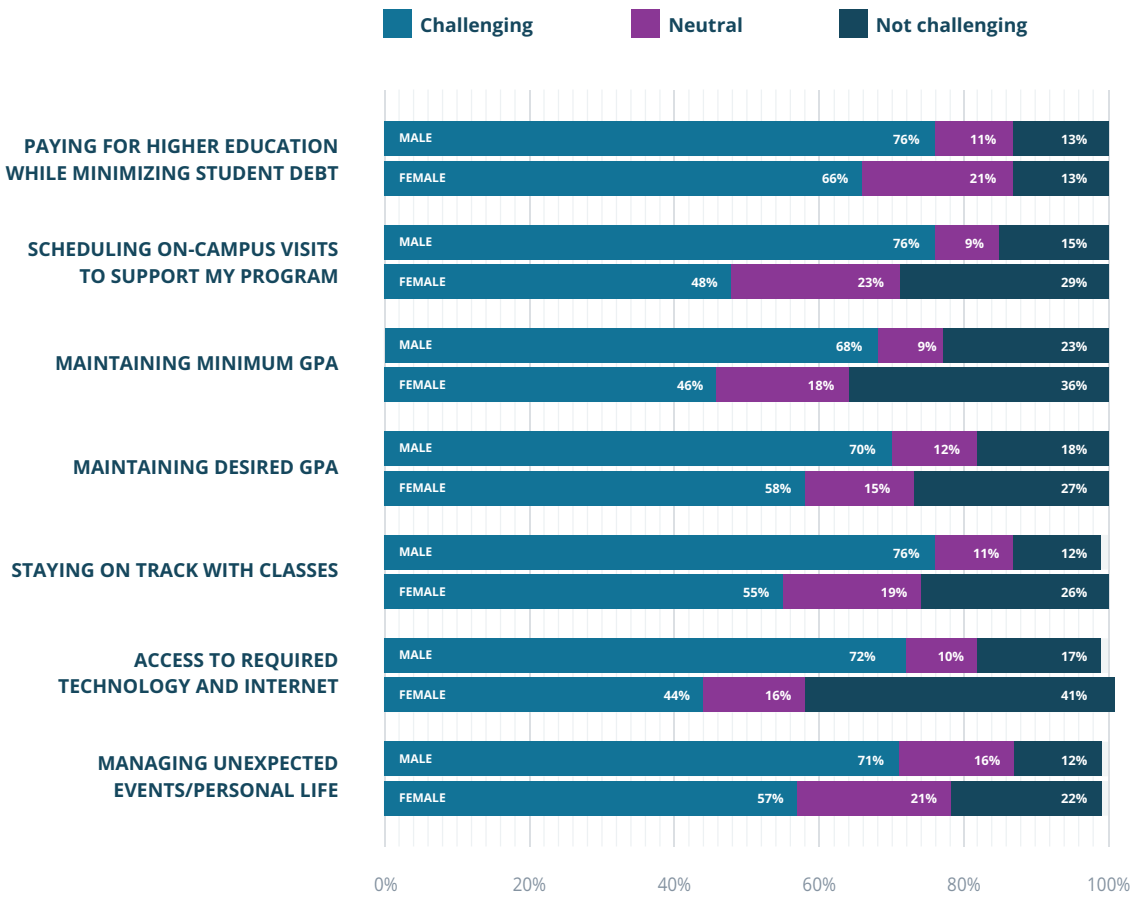
## CHALLENGES TO REACHING GRADUATION

Both men and women indicated that their biggest roadblock to graduation was related to finances. A majority of men (76%) and women (66%) shared that paying for their education while also minimizing debt posed a major challenge to completing their programs.

Gaining access to the technology and internet requirements of online learning was the challenge with the most significant difference between male and female respondents. Seventy-two percent of men reported this as a challenging part of their student experience, whereas only 44% of women indicated a similar level of challenge posed by technology.

Challenges to Reaching Graduation, by Gender

Male (n=210) Female (n=295)



BEST COLLEGES INSIGHT

Overall, women were viewed as having more challenges than men as online students. Both men and women emphasized the financial challenges of earning a degree. And men — more so than women — shared that having access to the technology and internet connection required by their online degree programs posed a major challenge. This could be related to the fact that a greater proportion of men enrolled in more technical majors (i.e., computer science and engineering) and/or at higher degree levels.

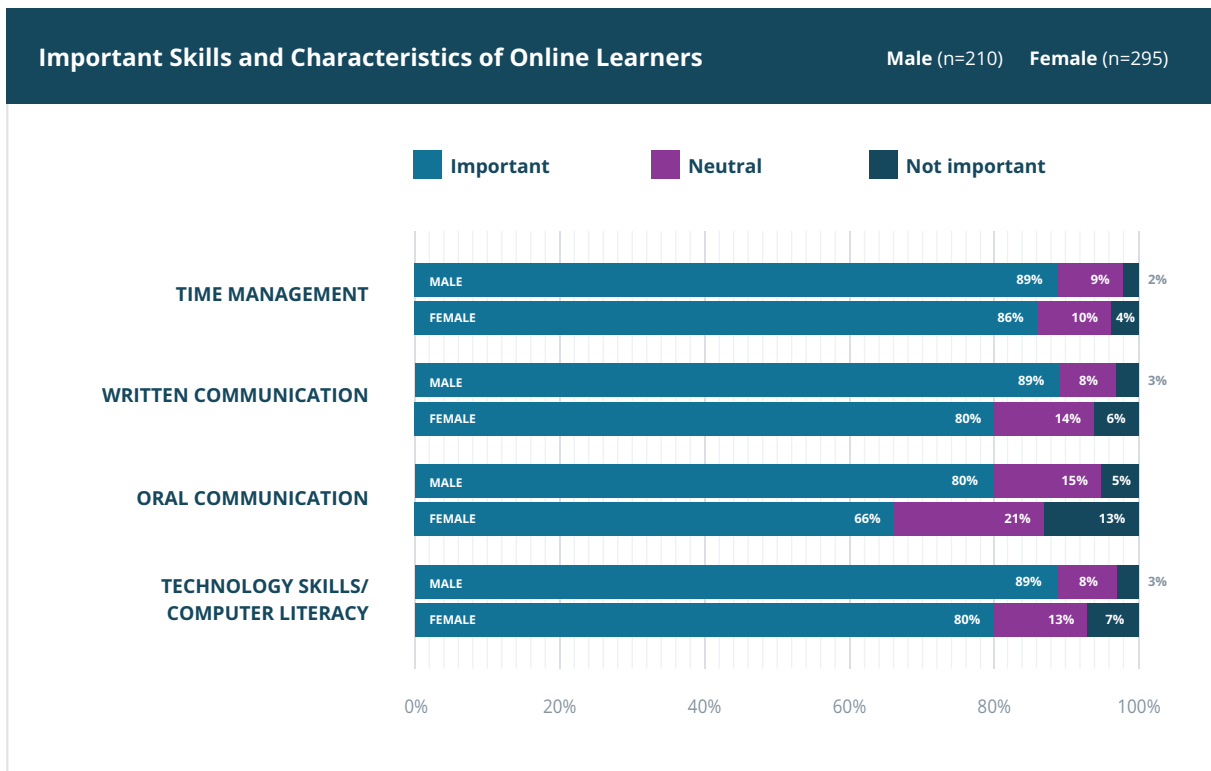
# Supporting Student Success

Many online students cite “flexibility” and “convenience” as primary reasons for choosing to learn online versus through a traditional campus-based program (BestColleges, 2020). Many of these students pursued their degrees while also working full time, fulfilling family obligations, and maintaining social connections. Online students are busy; they require a variety of support and resources and must develop specific skills to reach graduation.

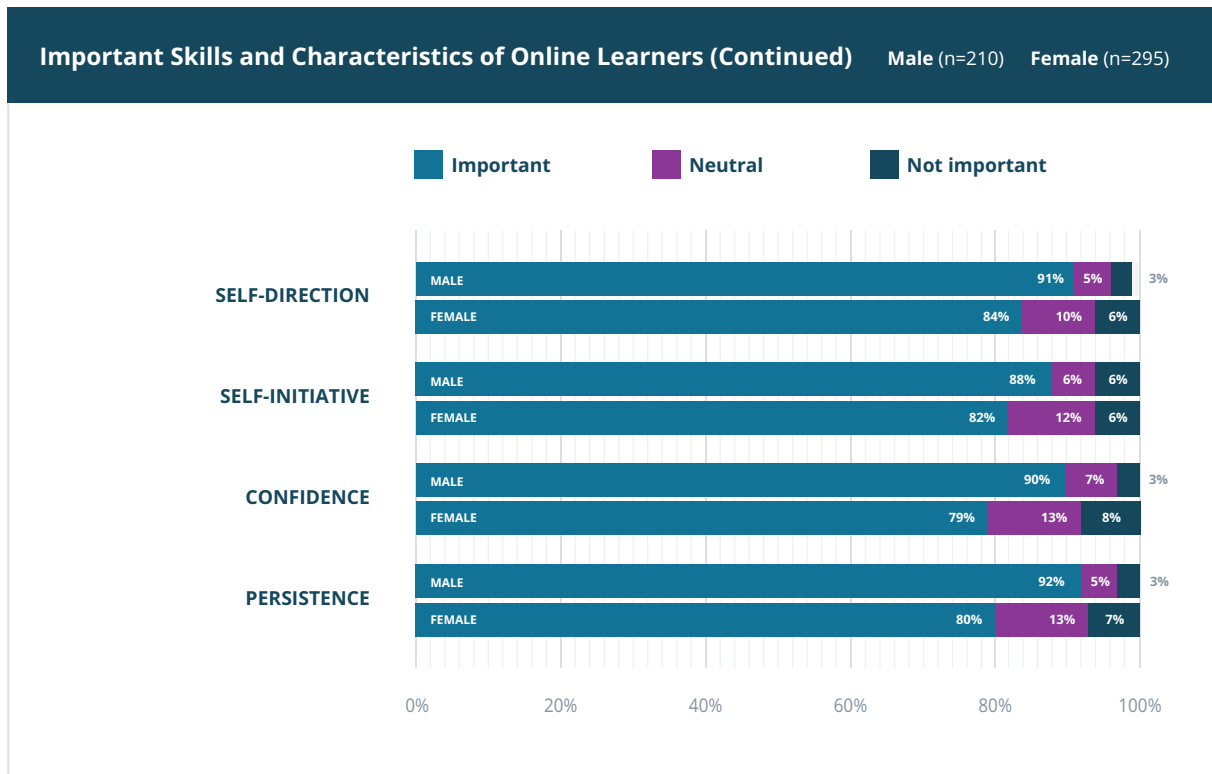
## SKILLS AND CHARACTERISTICS OF ONLINE STUDENTS

Successful online students typically possess specific skills and characteristics that help them stay on track while balancing school, work, and family roles (Minnesota State Colleges and Universities, n.d.; Roper, 2007). Our survey participants weighed in on the skills and characteristics that were the most important in their journey to graduating from an online program.

There was general agreement among male and female students participating in this study. Time management, persistence, self-direction, self-initiative, and confidence were all perceived as important to their success.







Women were somewhat less likely to say oral communication skills were important. This could be related to the difference in academic majors pursued by men and women, and the fact that female students reported spending less time in synchronous (i.e., scheduled, real-time) sessions in their online classes.

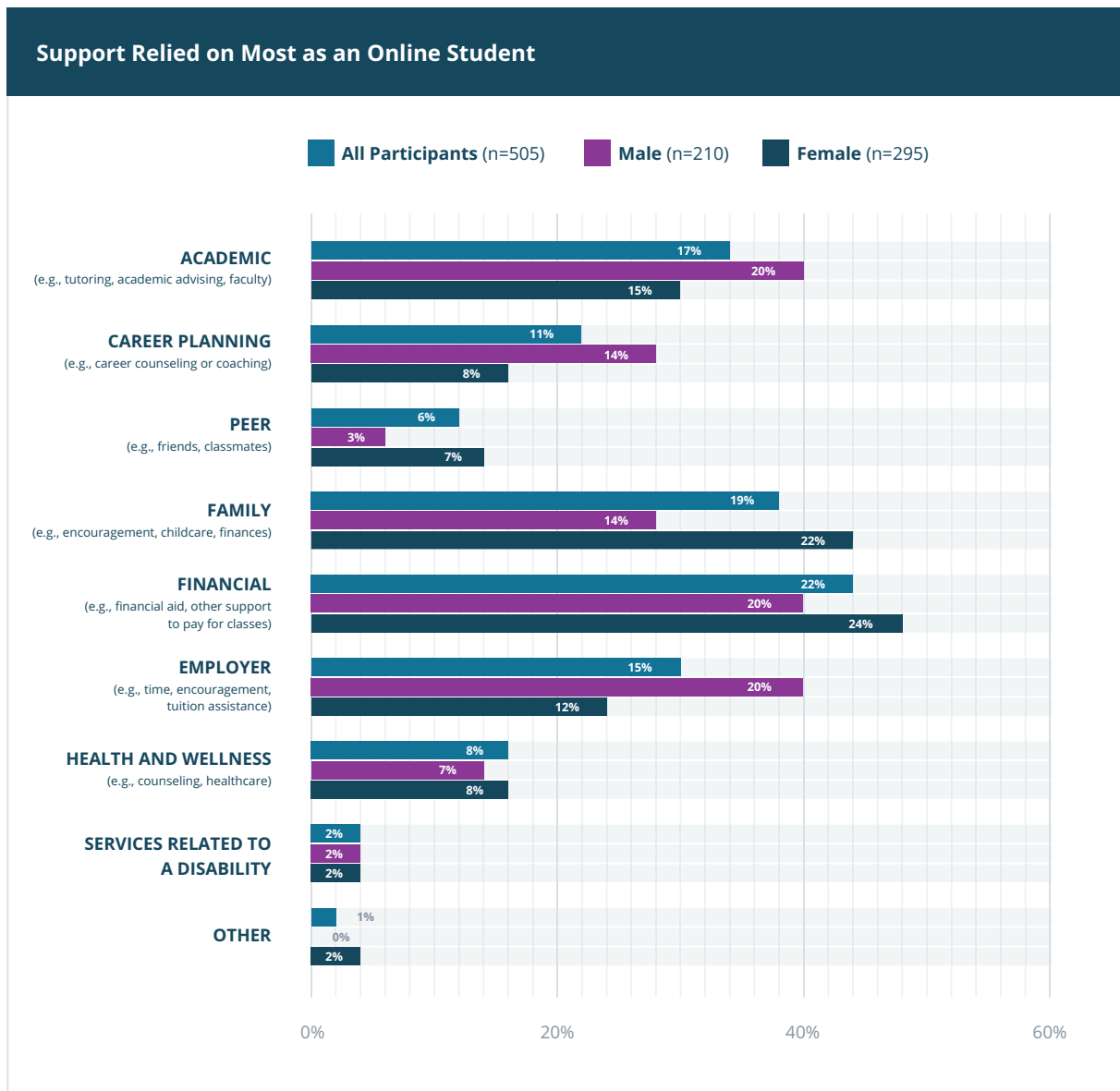
## SOURCES OF SUPPORT

No college student is alone in their pursuit of a degree. Many services have been established both on physical campuses and in online formats to provide different types of support, including advising, tutoring, financial aid, and healthcare. Additionally, successful online students often receive support from noninstitutional sources, such as their families, friends, and employers.

We asked students to share their thoughts about the support they relied on the most, as well as the areas in which they wish they had received stronger support from their colleges and universities.

## Sources Relied on Most

Male and female students reported that their primary sources of support were, as a whole, in the areas of finances (22%), family (19%), academics (17%), and work/employer (15%). Some small differences were found between men and women in three areas of support. Women were more likely than men to rely on family support, whereas men were more likely to rely on career planning and employer support while pursuing a degree online.



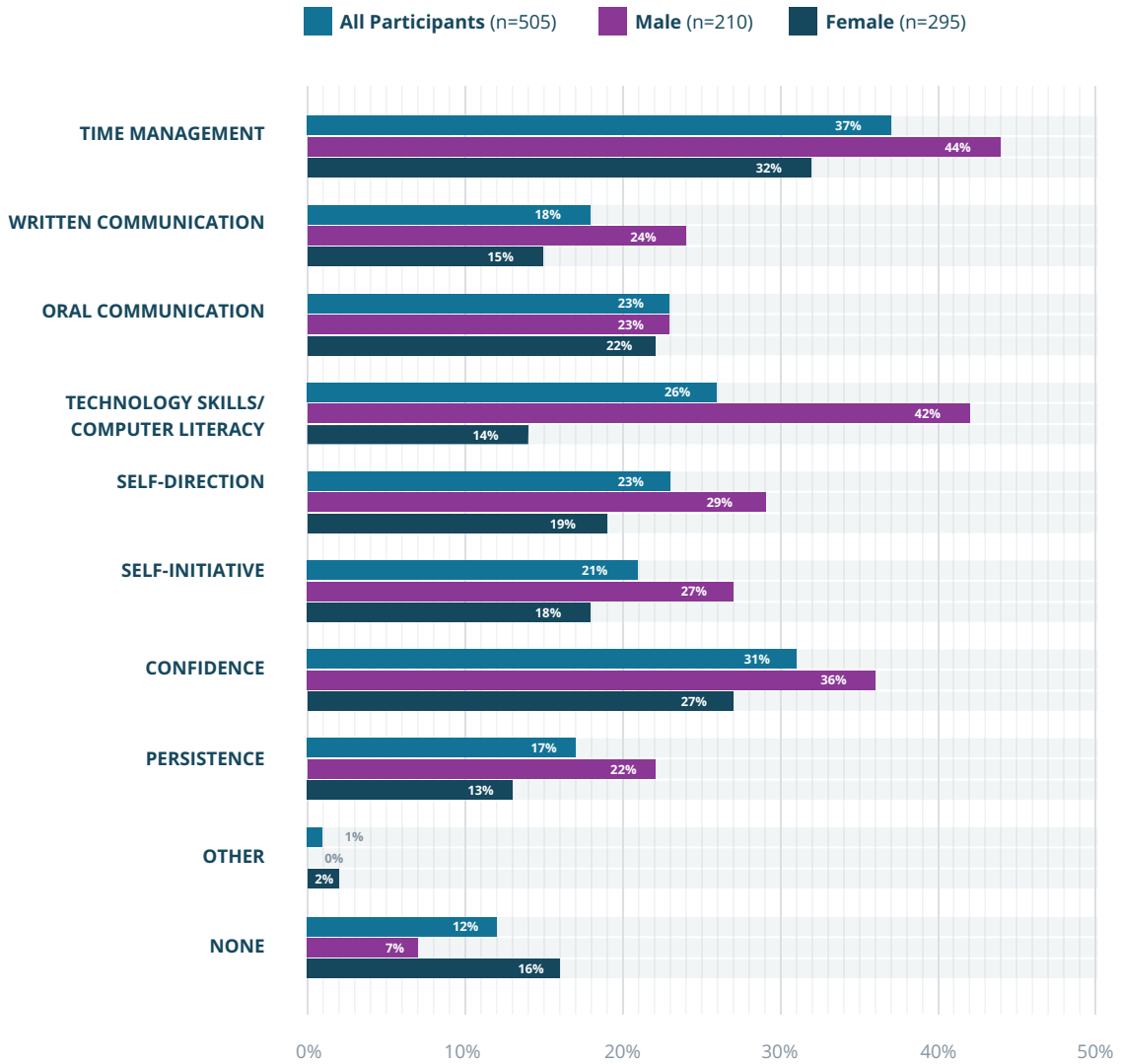
## Additional Support Wanted

A number of students participating in this study shared that they wished their colleges had provided more support and help with skills development while they were enrolled. There were also some differences between responses from men and women.

Men were more likely to say support was needed at all. Specifically, they wished they had more assistance in the areas of time management (44%), technology skills and computer literacy (42%), developing confidence (36%), having initiative (27%), and being persistent in their studies (22%). Meanwhile, female participants wanted more institutional support with time management (32%), developing confidence (27%), and oral communication (22%).

The most striking difference between men and women lies in the area of technology skills and computer literacy. Whereas 42% of male participants said they wished they had more institutional support with these skills, only 14% of women participants felt the same.

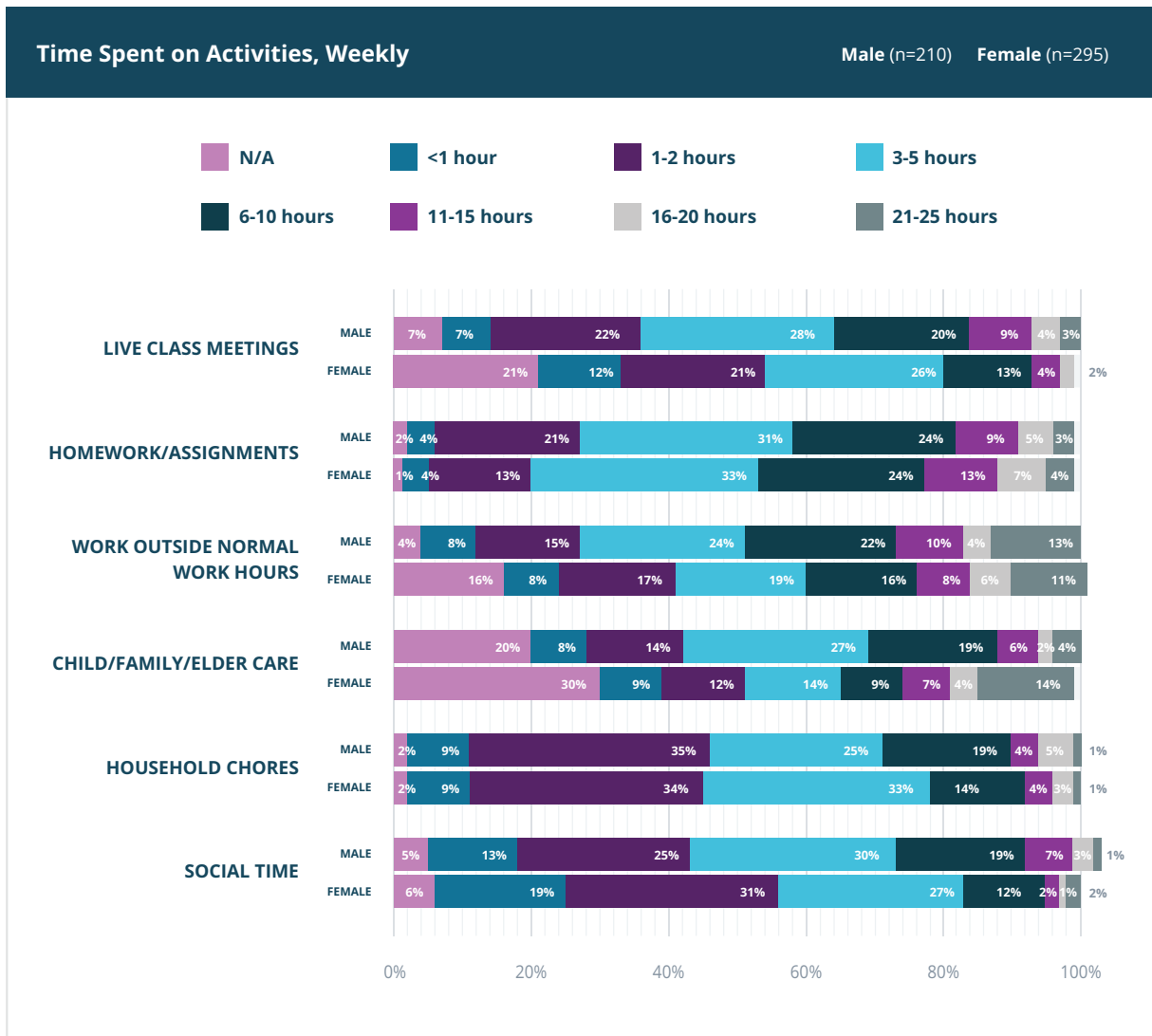
### Additional Support Wanted From the Institution



## WEEKLY TIME EXPECTATIONS

Adding college coursework to an already busy schedule can be challenging. While estimates of the time required to be successful in an online class vary, the University of North Carolina at Greensboro recommends students plan for eight hours per week for a three-credit class at the undergraduate level and 12 hours per week for a graduate-level course (Paul, 2014).

In this study, participants shared estimates of how much time they spent each week on coursework and on completing the requirements of other life roles, such as childcare. Both men and women reported spending time not only completing class assignments, but also working outside normal work hours, providing childcare or eldercare, completing household chores, and participating in social activities.



As the data indicates, fewer women than men reported spending time in live class meetings, which could be due to the differences in majors or levels of education by gender. If so, this could indicate that computer science, engineering, and/or graduate-level courses feature more synchronous sessions.

Interestingly, 20% of men and 30% of women said that family care was not part of their weekly time schedule. This aligns with the finding that a larger percentage of women (44% vs. 32%) reported not having children at home when they enrolled in their online programs. Furthermore, men (96%) were more likely than women (84%) to spend time working outside normal work hours, which makes sense when recalling that men also reported a stronger reliance on employer support (20% vs. 12%) while earning their degrees online.

It is critical for online students to have realistic expectations for the time it will take to complete their online course requirements and to plan for support accordingly. When taking on the added responsibilities of online learning, students turn to a variety of support resources from their schools, families, and employers.



## BEST COLLEGES INSIGHT

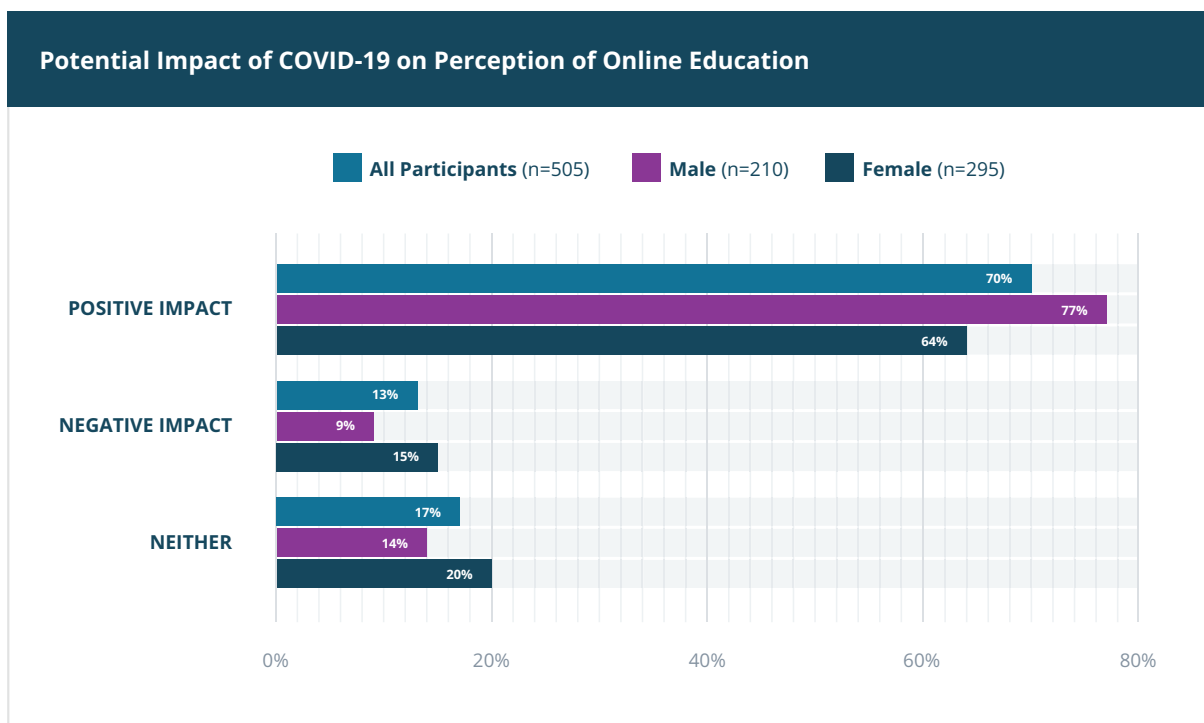
As COVID-19 continues to impact college students and move more learning online, colleges and universities should review how time-management awareness and skills training can benefit students. Both men and women indicated a need for more support with developing time-management skills. Communicating realistic expectations in terms of program completion timelines and the time required for individual courses could also improve the online student experience.

# The Future of Online Education

The coronavirus outbreak caused significant disruptions to higher education in 2020, including widespread campus closures and a shift to remote learning options in the spring (St. Amour, 2020). While the majority of our survey participants completed their online programs prior to 2020, they did share their ideas about how COVID-19 might impact online education. They also provided advice for those who are considering enrolling in online degree programs in the future.

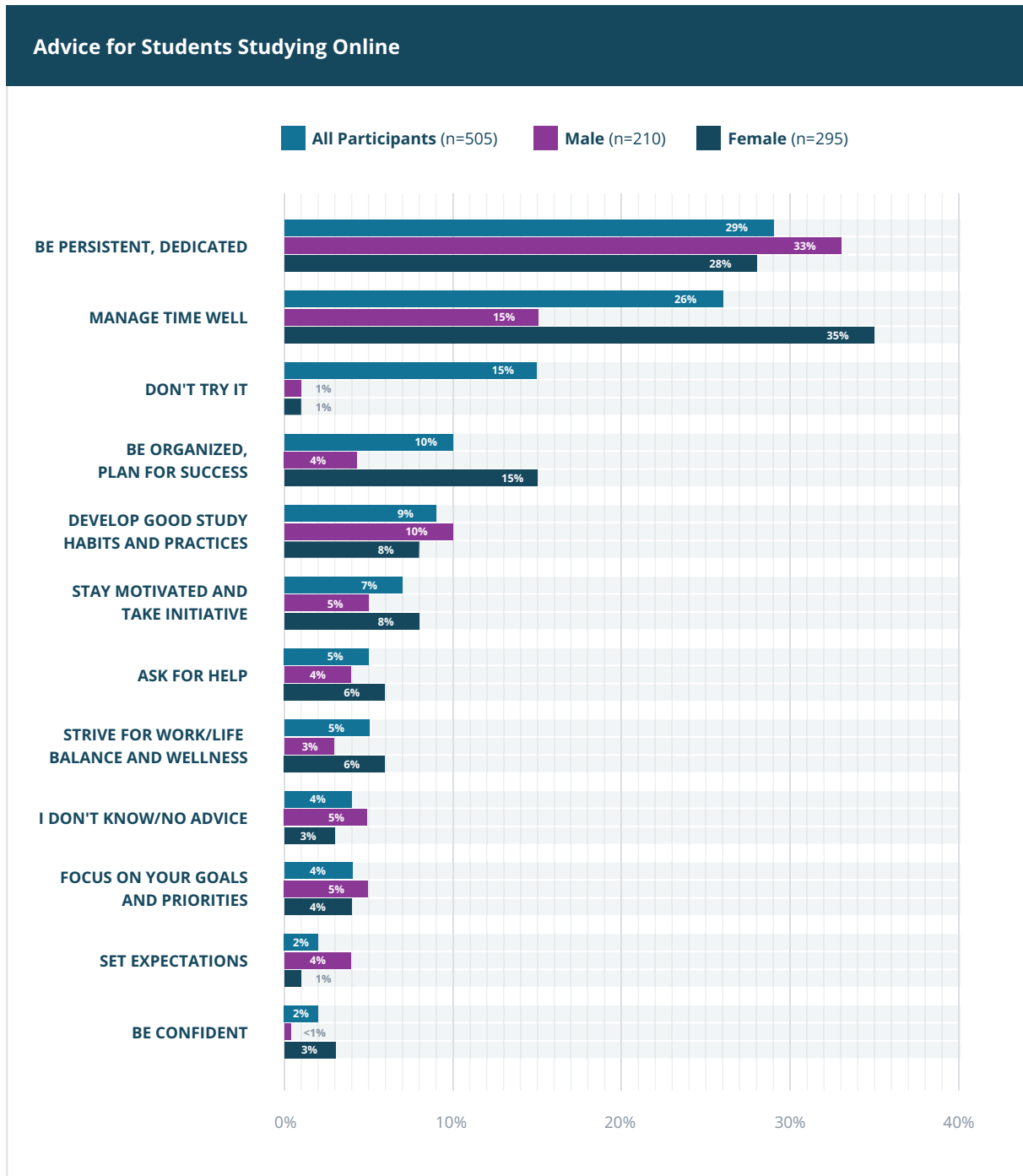
## IMPACT OF COVID-19

When asked if the increase in online learning that resulted from COVID-19 would have an impact on the perception of online education, 70% of respondents said the impact would be positive. This reaction was stronger with male students (77%) than with female students (64%).



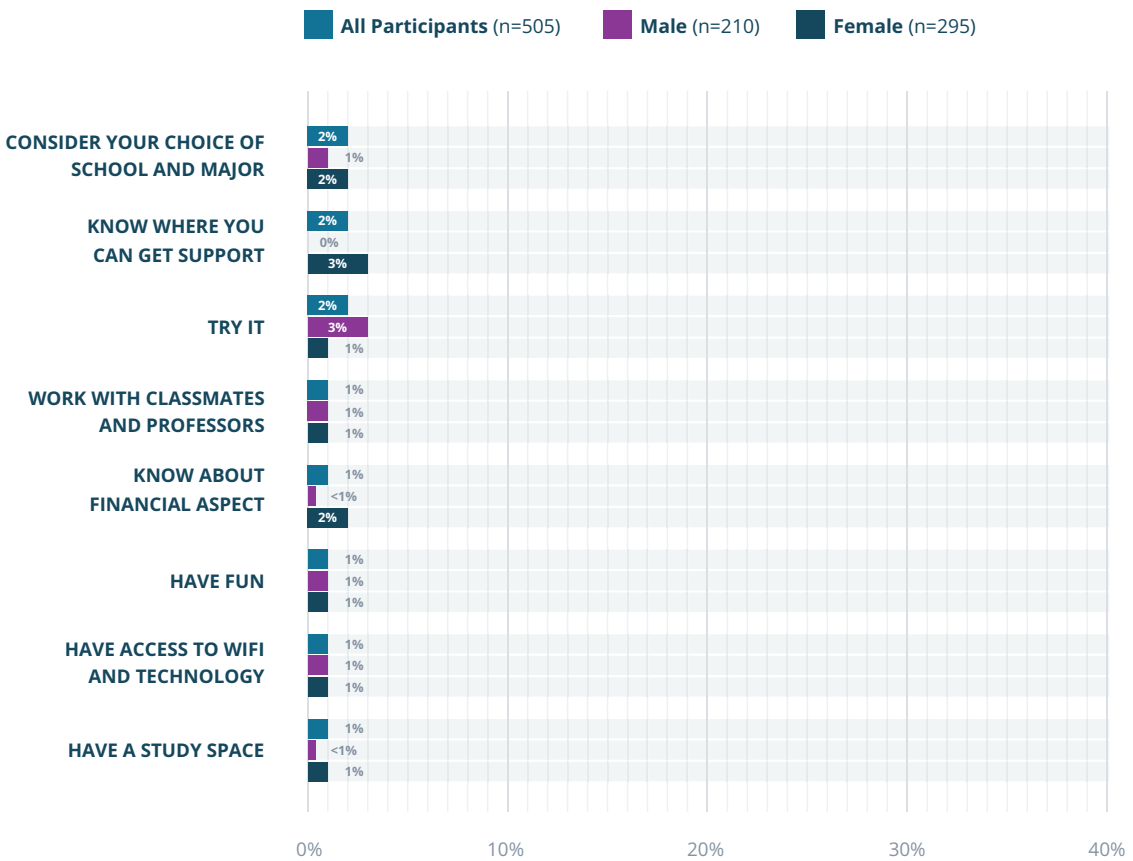
## ADVICE FOR FUTURE STUDENTS

Participants in this study shared their advice for online students in an open-ended format. Many of the emerging themes relate to the skills and characteristics necessary to be successful as an online student, and the need for numerous kinds of support.





Advice for Students Studying Online (Continued)



BEST COLLEGES INSIGHT

Though costs were a major concern for both male and female participants, neither provided a lot of advice in this area. Altogether, the top two areas for advice include being persistent (29%) and managing time well (26%). Women also recommend being organized and having a plan for success, whereas men advise future students to develop good study habits and practices.

# Conclusion

Overall, we found that while there are some key differences in what men and women experience as online students, many stereotypes no longer ring true, and all students can benefit from developing strong skills (e.g., time management, technology), accessing support services, and persisting along the journey to earning a degree. Our insights can help those developing online programs and planning services to support students with the challenges of online learning as they manage multiple life roles, navigate the financial commitment of higher education, and rely on assistance from a wide variety of institutional and external sources. Understanding gender differences among online students is just one way we can strive to improve the online learning experience.

## Online Education Increases Access to Higher Education for Women

- Online degree programs provide opportunities for female students — particularly in minority ethnic groups and at lower income levels (and perhaps at a younger age) — to pursue college degrees. Male students participating in this study were less diverse ethnically, reported higher earning levels while enrolled, and were older while pursuing their degrees. More men than women were also enrolled in graduate-level programs and in majors with the potential for higher future earnings.

## Men Want Additional Technology Support

- Overall, women were viewed as having more challenges than men as online students. Both men and women emphasized the financial challenges of earning a degree. And men — more so than women — shared that having access to the technology and internet connection required by their online degree programs posed a major challenge. This could be related to the fact that a greater proportion of men enrolled in more technical majors (i.e., computer science and engineering) and/or at higher degree levels.

## Time-Management Skills Are Essential for Every Student's Success

- As COVID-19 continues to impact college students and move more learning online, colleges and universities should review how time-management awareness and skills training can benefit students. Both men and women indicated a need for more support with developing time-management skills. Communicating realistic expectations in terms of program completion timelines and the time required for individual courses could also improve the online student experience.

## Future Online Students Should Commit to Being Successful

- Though costs were a major concern for both male and female participants, neither provided a lot of advice in this area. Altogether, the top two areas for advice include being persistent (29%) and managing time well (26%). Women also recommend being organized and having a plan for success, whereas men advise future students to develop good study habits and practices.

# Contributors



## About Melissa A. Venable, Ph.D.

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*Melissa A. Venable, Ph.D., is an online education advisor for BestColleges. In this role, she leads an annual survey research project reporting online education trends found through student and school administrator feedback. Melissa is an adjunct faculty member and course designer at Saint Leo University and a certified career coach with a background in career development services. She earned her doctorate in instructional technology at the University of South Florida, and she has research interests in distance education and support services for online students.*

## ABOUT BESTCOLLEGES

BestColleges empowers students to make smarter educational decisions and find schools that best fit their needs through proprietary research, user-friendly guides, and hundreds of unique college rankings. As a trusted education advisor, BestColleges also provides a wide array of college planning, financial aid, and career resources to help students realize life goals and overcome educational challenges as they prepare for careers after college.

## DATA NOTES

1. Percentages reported in this document have been rounded, resulting in some totals adding up to just under or over 100%.
2. In instances in which participants were able to select more than one response, percentages may add up to more than 100%.
3. All data is self-reported.

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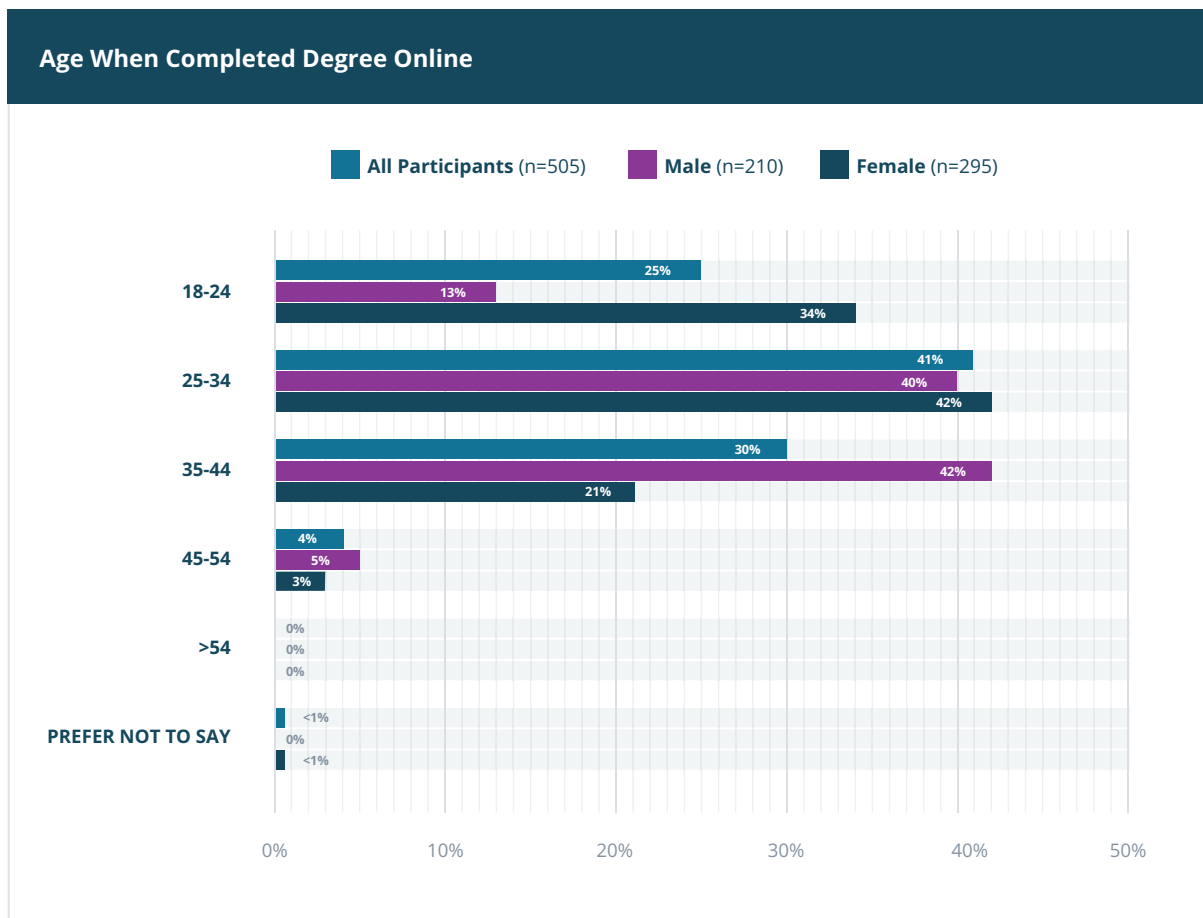
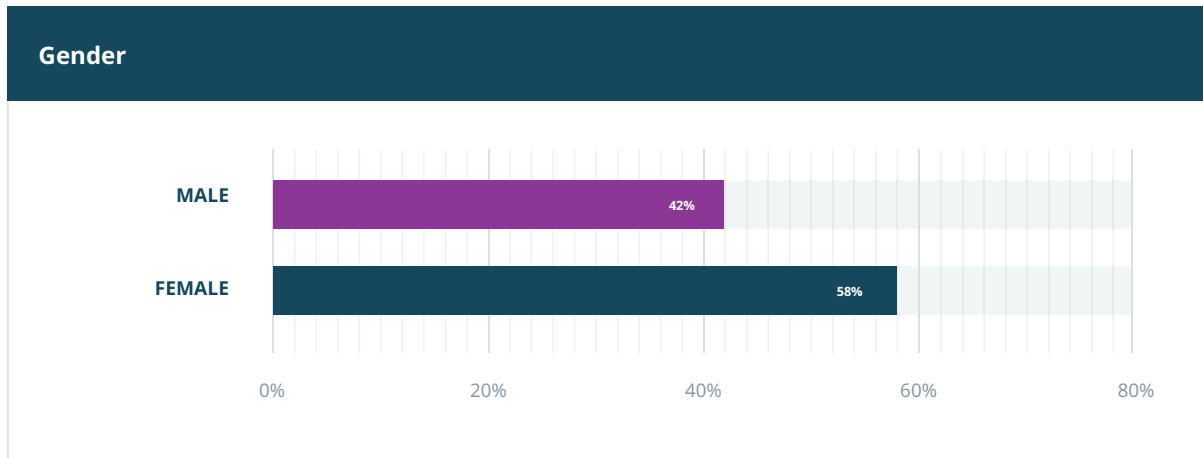
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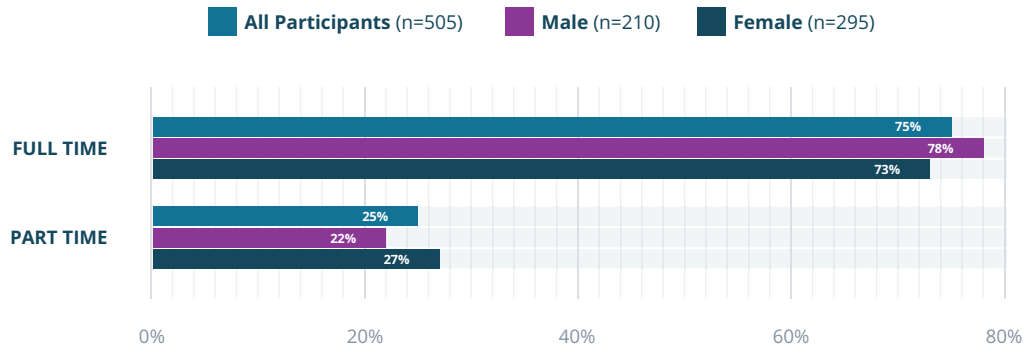
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## APPENDIX: ONLINE STUDENT DEMOGRAPHICS

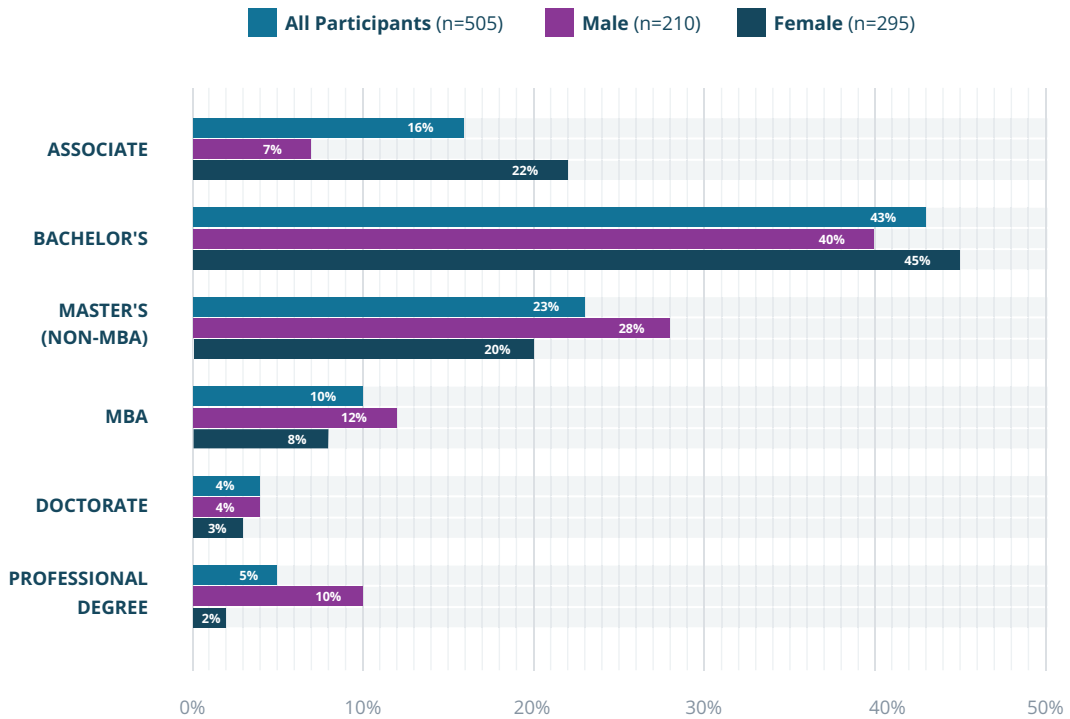
Data collection – Lucid LLC, (n=505)



### Enrollment Status

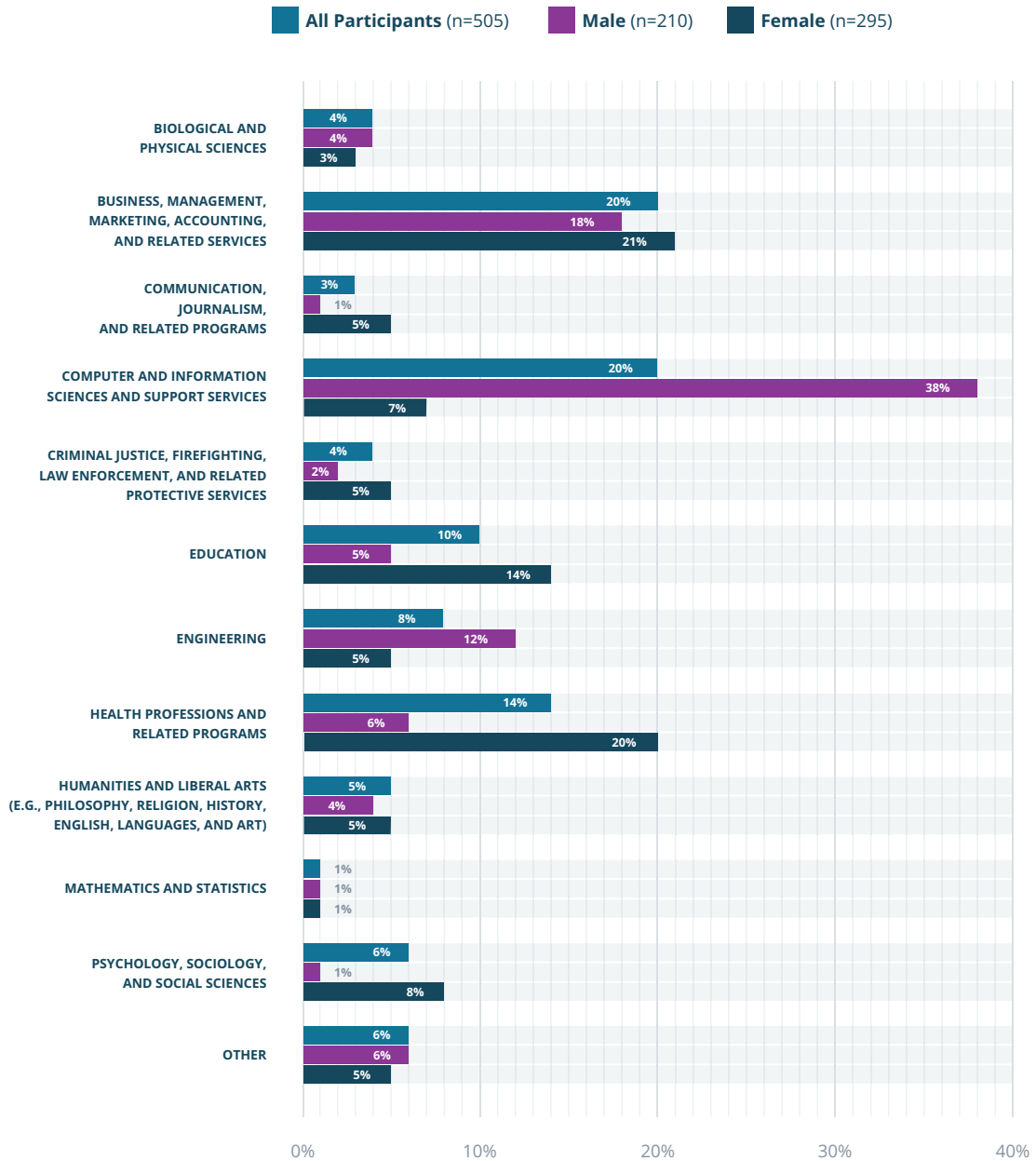


### Level of Education Most Recently Pursued Online

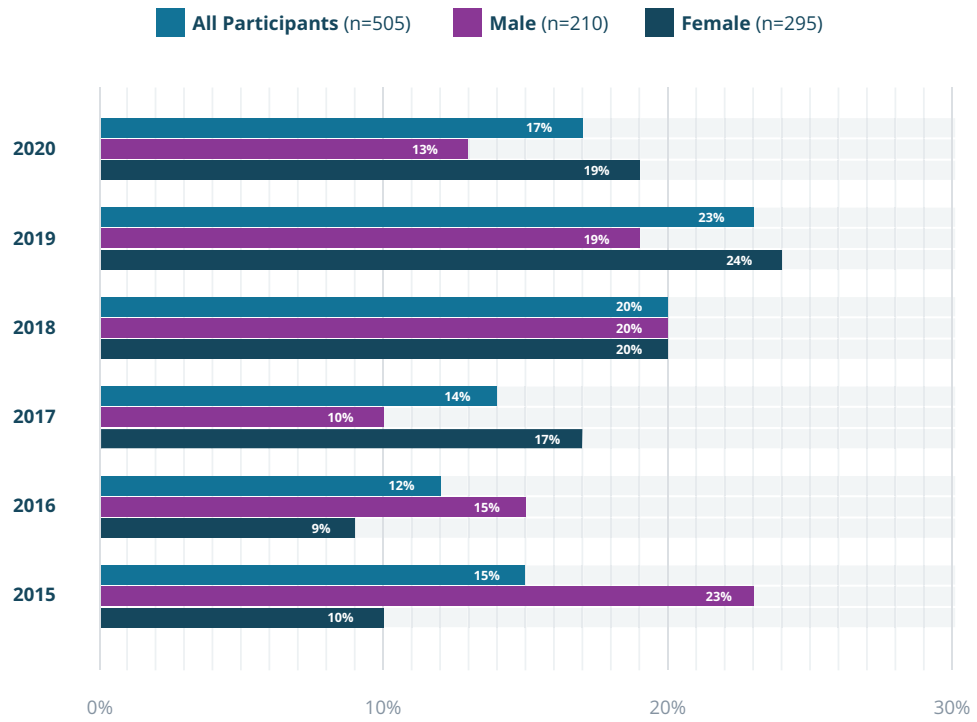




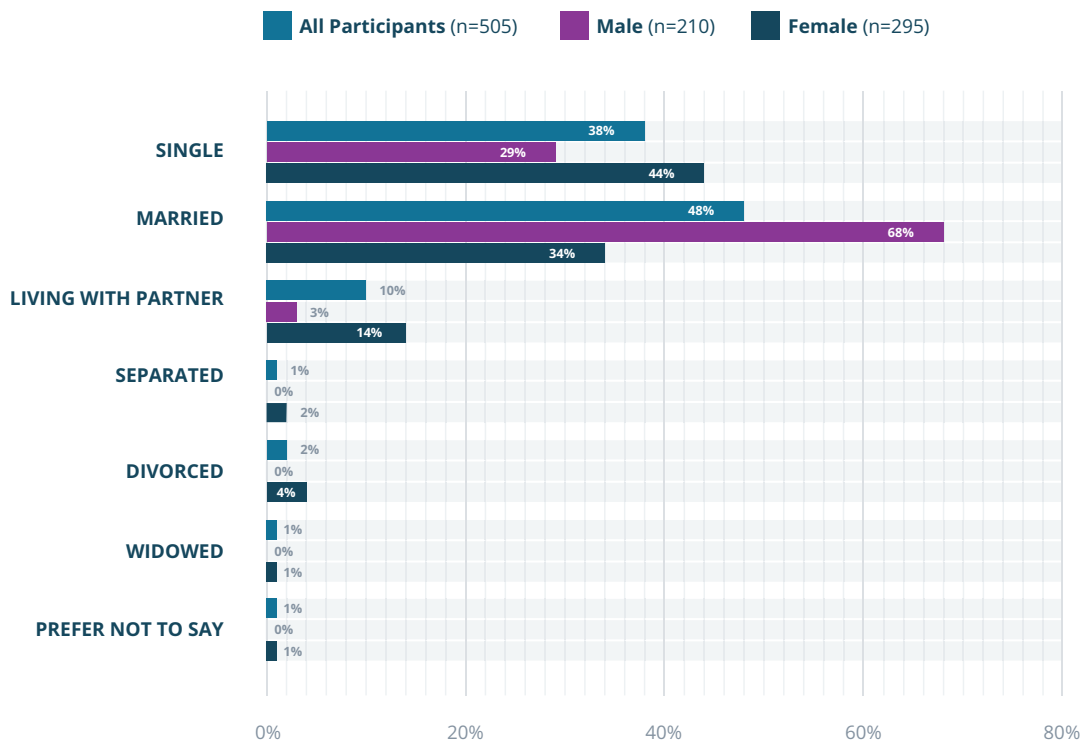
### Academic Major/Field Pursued Online



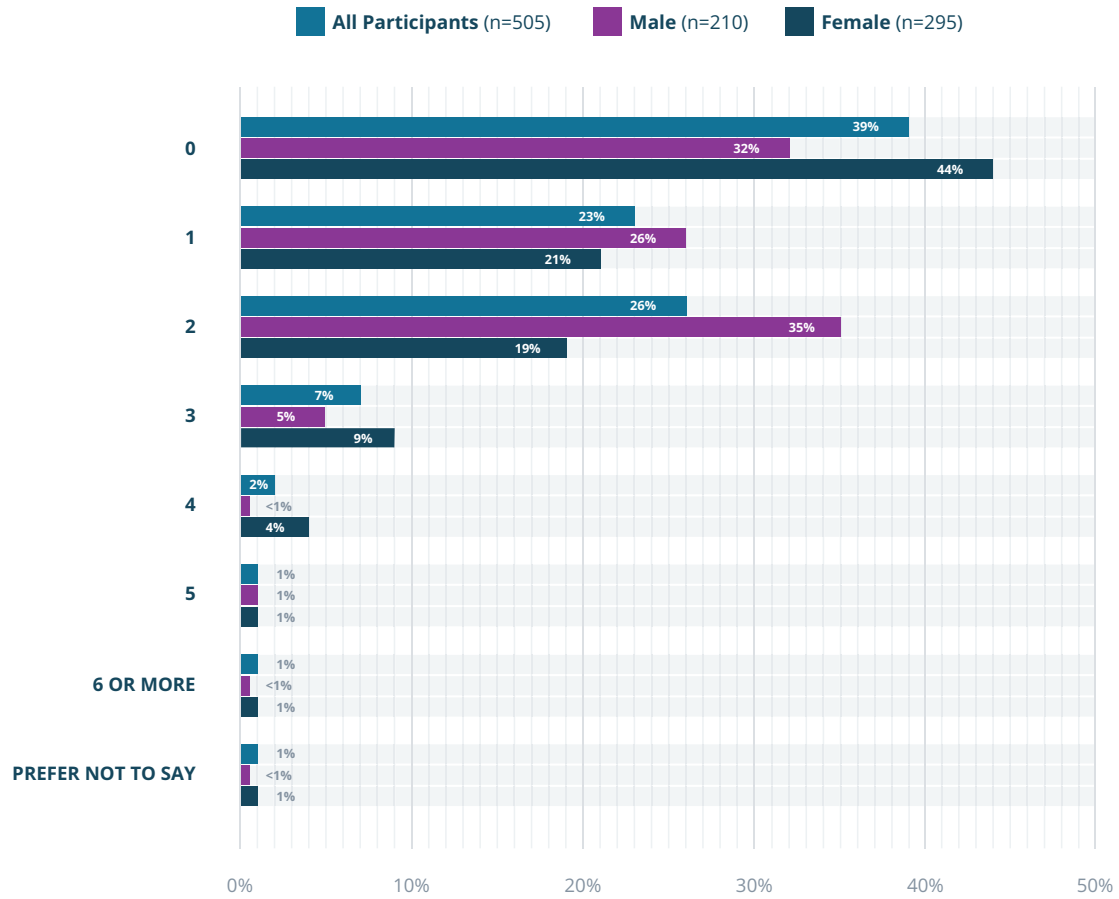
### Year Graduated From an Online Degree Program



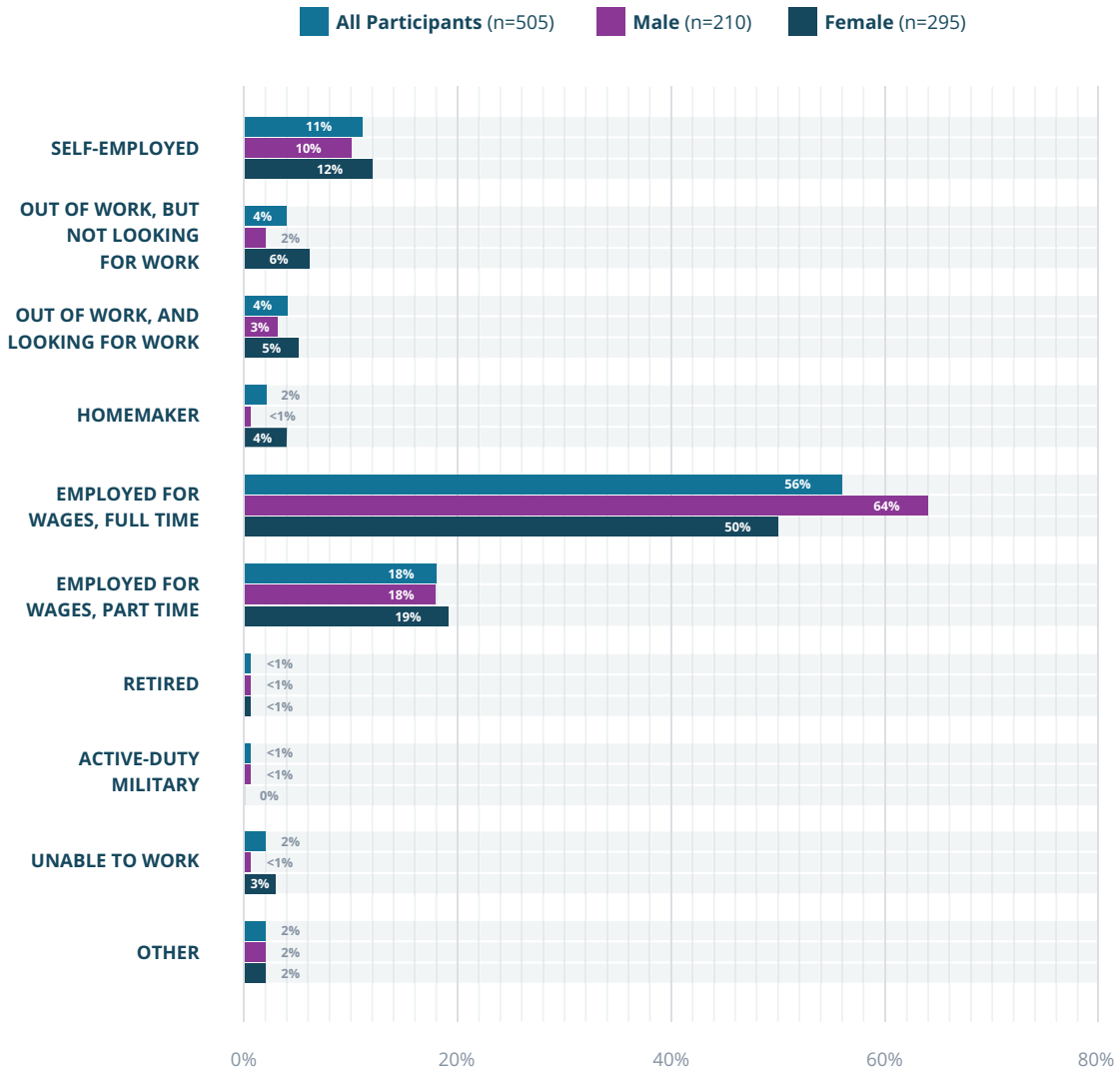
### Primary Marital Status While Enrolled as an Online Student



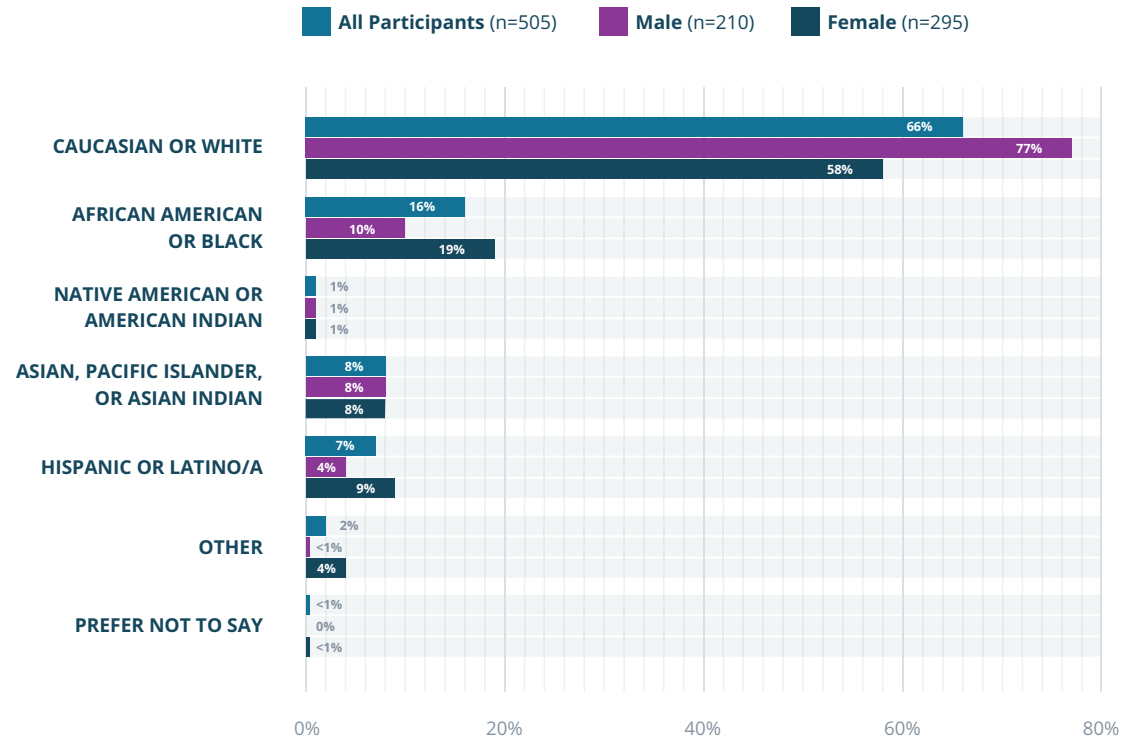
### Number of Children Under the Age of 18 Living at Home While Enrolled as an Online Student



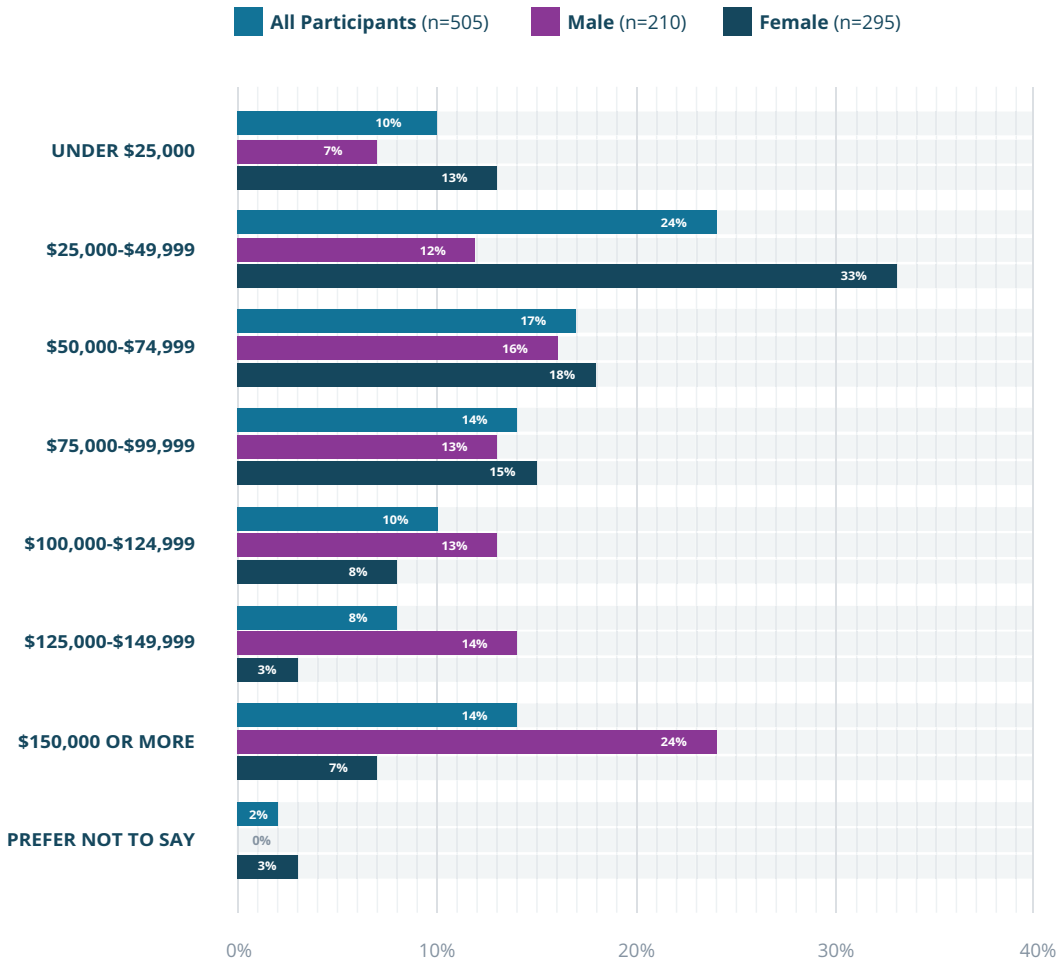
### Employment Status While Enrolled as an Online Student



### Ethnic Background or Heritage



### Annual Household Income While Enrolled as an Online Student





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