

GEORGIA INSTITUTE OF TECHNOLOGY

INSTITUTIONAL MISSION AND STUDENT BODY PROFILE

The Georgia Institute of Technology (Georgia Tech) is a science and technology-focused research university with a profound commitment to developing leaders who advance technology and improve the human condition. Georgia Tech's motto of "Progress and Service" is achieved through effectiveness and innovation in teaching and learning, research advances, and entrepreneurship in all sectors of society.

A member of the Association of American Universities (AAU), Georgia Tech seeks to influence major technological and policy decisions. For 20 years, Georgia Tech has been ranked among the top ten public universities in the United States by U.S. News and World Report. The Institute is consistently rated among the top universities in the nation for the graduation of underrepresented minorities in engineering, computer science, and mathematics. Georgia Tech also awards more engineering degrees to women than any other U.S. institution. The typical Georgia Tech undergraduate is of traditional age (\leq 24), enters as a first-year student, lives on campus, attends full-time, and is seeking a first undergraduate degree.

In fall 2019 Georgia Tech attained a record high enrollment of 16,159 undergraduates, 80% of whom were enrolled in STEM majors¹. In addition to its undergraduate population, the Institute had a fall 2019 enrollment of 20,331 graduate students for a total enrollment of 36,490. Between fall 2011 and fall 2019, the Institute experienced a 16% increase in undergraduate enrollment. In 2019-20, a record 3,934 degrees were earned by undergraduates, a 37% increase since 2011-12, when 2,873 degrees were conferred. Graduates continue to be in demand, as reflected in data from our 2020 survey of undergraduate degree recipients. Employment offers, with a median starting salary of \$75,000, were made to 80% of our undergraduates by the time they graduated. Appendix B illustrates undergraduate enrollment and degree trends.

Georgia Tech values the diversity of its student population. In 2019-20, Tech achieved a historic high in its undergraduate female enrollment of 6,326 students, representing a 41% increase from fall 2011 when undergraduate female enrollment was 4,489. The proportion of women has risen from 32% of the undergraduate student body in 2011-12 to 39% in 2019-20. Enrollment of underrepresented minorities has risen by 40% since fall 2011, comprising 18% of the undergraduate student body in fall 2019.

As a founding member of *American Talent Initiative*², Georgia Tech will continue its partnership with more than 120 public and private institutions, all with six-year graduation rates of 70% or higher, to increase the number of low-income, first-generation and Pell-eligible undergraduates nationwide. For more than ten years, the Tech Promise program, offered to dependent Georgia residents whose families have an annual income of less than \$33,300 and who are seeking their first undergraduate degree, has increased access to Georgia Tech's programs for low-income students from across the state. Serving 171 students in 2019-20, this program is designed to bridge a gap in the financial aid support system, picking up where other financial aid options leave off.

Six years ago, Georgia Tech created the Atlanta Public Schools (APS) Scholars Program, which offers automatic acceptance and financial scholarships for APS valedictorians and salutatorians. During 2019-20, there were 34 APS scholars in the program, eight of which graduated during the academic year. All but two of the continuing scholars remained in good academic standing through summer 2020. Additionally, in 2016, Georgia Tech partnered with *Achieve Atlanta*³, a non-profit organization designed to help Atlanta Public Schools students access, afford, and earn postsecondary credentials. The collaboration provides scholarship support to APS graduates earning *Achieve Atlanta* scholar status and facilitates interventions designed to increase the number of APS graduates who attend Georgia Tech, while aiding their degree progression once enrolled. As of spring 2020 there were 45 registered *Achieve Atlanta* scholars, 40 of which were actively receiving scholarship support⁴. Forty-three of the 45 *Achieve Atlanta*

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¹ STEM majors include students in the Colleges of Computing, Engineering, and Sciences

² https://americantalentinitiative.org

³ https://achieveatlanta.org/

⁴Twenty of the 45 Achieve Atlanta Scholars were also APS Scholars

scholars completed spring 2020 with a cumulative GPA of 2.0 or higher, and two of the 43 graduated in spring 2020, representing the initial graduates under the partnership.

With the fall 2018 freshman cohort, Georgia Tech launched the Georgia Tech Scholars program, guaranteeing admission to valedictorians and salutatorians from every high school in the state who meet all stated Board of Regents academic requirements for entry into a research university. The fall 2019 freshman cohort included 167 Georgia Tech Scholars, a 22% increase from fall 2018. Preliminary, pre-census data indicate that the fall 2020 freshman cohort includes 158 Georgia Tech Scholars. Additionally, Georgia Tech created two transfer pathways, the Georgia First Pathway and the Talent Initiative Pathway, designed to increase enrollment of first-generation and limited income students, respectively. The Georgia First Pathway, open to first-generation students who are Georgia residents and were denied first-year admission to Georgia Tech, produced 63 transfer students in fall 2020. Established in fall 2019 and supporting the *American Talent Initiative*, the Talent Initiative Pathway is open to Federal Pell Grant recipients. During 2019-20, 694 students were offered the Georgia First Pathway admissions option for transfer in fall 2021, while 910 students were offered the Talent Initiative Pathway option.

As of fall 2019 Georgia Tech had achieved a first-to-second-year retention rate of 97% for the first-time, full-time freshman 2018 cohort and a six-year graduation rate of 90% for the 2013 first-time, full-time cohort. The 97% retention rate has been maintained for five consecutive years, and our 90% graduation rate is a record high for the Institute. Data from fall 2020 indicate that the first-to-second year retention rate for first-time, full-time freshmen in the 2019 cohort is 97% for the sixth straight freshman cohort, while the six-year graduation rate for students in the 2014 first-time, full-time cohort is another record high of 91%. See Appendix A for a historical illustration of institutional retention and graduation rates.

Georgia Tech's positive enrollment trends, retention and graduation rates, and number of degrees conferred highlight the Institute's ability to meet the workforce needs of the twenty-first century.

INSTITUTIONAL COMPLETION GOALS, HIGH-IMPACT STRATEGIES, ACTIVITIES AND OUTCOMES

GOAL: INCREASE THE NUMBER OF UNDERGRADUATE DEGREES AWARDED BY USG INSTITUTIONS.

Strategy 1: Provide targeted K-12 outreach to pique interest in STEM and provide programming to retain currently enrolled STEM majors.

Strategy 2: Implement programming to promote the academic success of underrepresented minorities.

Strategy 3: Provide high-impact curricular and co-curricular opportunities to enhance engagement and academic development.

GOAL: PROVIDE INTENTIONAL ADVISING TO KEEP STUDENTS ON TRACK TO GRADUATE.

Strategy 4: Provide interventions to promote the success of students who are underperforming academically or who may be at risk for not continuing their education.

GOAL: RESTRUCTURE INSTRUCTIONAL DELIVERY TO SUPPORT EDUCATIONAL EXCELLENCE AND STUDENT SUCCESS.

Strategy 5: Implement peer-led instruction for students in traditionally challenging gateway courses.

Strategy 6: Implement summer online undergraduate courses and on-campus summer session initiatives to help students stay on track to graduation.

⁵ Based on fall 2020 data as of August 19, 2020

STRATEGY 1: PROVIDE TARGETED K-12 OUTREACH TO PIQUE INTEREST IN STEM AND PROVIDE PROGRAMMING TO RETAIN CURRENTLY ENROLLED STEM MAJORS.

RELATED GOAL: INCREASE THE NUMBER OF UNDERGRADUATE DEGREES AWARDED BY USG INSTITUTIONS.

As a science and technology-focused institution, Georgia Tech's STEM activities are central to its mission. The sustained economic impact made possible through a better-prepared STEM workforce is significant, and graduating a larger number of STEM students to meet workforce needs is a high priority for Georgia Tech.

Georgia Tech is involved in an array of outreach activities specifically designed to attract K-12 students. The Center for Education Integrating Science, Mathematics, and Computing (CEISMC) conducts a comprehensive summer program to expose K-12 students to STEM topics and careers. Additional K-12 outreach programs are conducted by the Center for Engineering Education and Diversity (CEED), and Women in Engineering (WIE), both units within the College of Engineering. In 2019-20, even with the cancellation of several scheduled in-person events due to Covid-19, CEISMC, CEED and WIE combined to host more than 50 K-12 STEM programs, shifting many activities online. CEED alone offered 136 sessions through six programs impacting more than 3,500 participants.

Through the School of Mathematics and the department of Professional Education, Georgia Tech offers distance mathematics courses to dual enrolled high school students. In 2019-20, *Distance Math* served students in 58 Georgia high schools with 474 enrolled in fall and 466 enrolled in spring. Plans to offer distance computer science courses to dual enrolled high school students were developed during 2019-20. *Distance Computer Science* was offered for the first time in fall 2020.

In addition to providing K-12 outreach for students, CEISMC has designed and implemented professional learning initiatives for STEM teachers for over 20 years. For details on CEISMC's Teacher Education Partnerships, see https://www.ceismc.gatech.edu/outreach. Although Georgia Tech does not offer an education degree, a preprofessional advisor jointly positioned with CEISMC and Pre-Graduate Pre-Professional Advising (in the Office of Undergraduate Education) counsels students who have a future interest in K-12 teaching. During 2019-20, 28 students participated in 57 pre-teaching advising sessions.

Summer bridge programs ease the transition from high school to Georgia Tech. *Challenge* is a five-week summer residential program for underrepresented minority students coordinated by the Office of Minority Educational Development (OMED). While many bridge programs offer remedial pathways as a transitional model, *Challenge* at Georgia Tech provides advanced pathways through academic, professional, and culturally intense courses and workshops designed to enhance transitional success based on constructivist learning.

Support mechanisms for currently enrolled students span the campus. These opportunities include STEM-specific living learning communities, mentoring programs, scholarships, student organizations, first-year seminar classes, leadership development opportunities, one-to-one tutoring, and supplemental instruction for traditionally challenging STEM courses.

Through the Career Center, 837 undergraduates registered for 959 semester-long, major-related co-op positions in 2019-20. Of this total, 93% of the positions were STEM related. In addition, 1,386 undergraduates registered for 1,531 semester-long internships, 87% of which were STEM related. The co-op/internship program provides in-depth access to STEM opportunities, helps students form connections between theory and application, strengthens students' motivation to stay on course to graduation, and increases the number of employment offers students receive prior to and upon graduation.

One measure of progress for our STEM recruitment strategy involves the number of students enrolled in STEM majors. Tech has achieved an increase in STEM enrollment from 10,389 students in 2010-11 to 12,885 students in 2019-20. As of fall 2019, 80% of Georgia Tech students were seeking a STEM degree.

Efforts to engage and retain more women students represent one of our best opportunities for increasing the number of STEM majors. Since fall 2010, the number of women enrolled in STEM majors at Georgia Tech increased from 2,794 (27% of undergraduate STEM enrollment) to 4,752 (37% of undergraduate STEM enrollment) in fall 2019. Once enrolled, women at Georgia Tech consistently graduate at a higher and faster rate than men. For the 2013

cohort, the six-year graduation rate for women was 91% compared to an 89% rate for men. Similarly, women in STEM majors had a 91% six-year graduation rate compared to an 89% rate for men. Data from fall 2020 indicate that for the fall 2014 cohort the six-year graduation rate for women increased to 92%. See Appendix D for overall STEM graduation rates and STEM graduation rates by gender. *Table 1* illustrates enrollment of women in STEM from 2010 through 2019.

Table 1: STEM Enrollment Fall 2010-Fall 2019

	Fall									
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	10,389	10,718	11,459	11,701	11,822	12,330	12,611	12,508	12,763	12,885
Women	2,794	2,989	3,300	3,474	3,637	3,976	4,225	4,378	4,521	4,752
% Women	27%	28%	29%	30%	31%	32%	34%	35%	35%	37%

Additionally, the overall number of STEM degrees earned is a key measure of our success for this strategy. In 2019-20, 3,335 STEM degrees were earned, a 55% increase from the number of STEM degrees earned in 2011-12.

Table 2: Number of STEM Degrees Earned

2011- 12	2012- 13	2013- 14	2014- 15	2015- 16	2016- 17	2017- 18	2018- 19	2019- 20
	10	11	13	10		10	13	40
2,157	2,389	2,578	2,577	2,779	3,039	2,968	3,115	3,335

Georgia Tech continues to be a U.S. leader in the number of STEM students enrolled and the number of degrees conferred each year.

STRATEGY 2: IMPLEMENT PROGRAMMING TO PROMOTE THE ACADEMIC SUCCESS OF UNDERREPRESENTED MINORITIES.

Related goal: Increase the number of undergraduate degrees awarded by USG institutions.

Georgia Tech's forthcoming strategic plan, including a strategic theme devoted to expanding access, confirms our aspiration to be an institution that pursues excellence and embraces diversity in all forms. A high priority for our CCG plan involves outreach and programming for underrepresented minority (URM) students, who have frequently experienced lower retention and graduation rates compared to their Asian and White peers. As of fall 2019, 2,851 students, 18% of all undergraduates, were underrepresented minorities.⁶

To encourage academic excellence, the Office of Minority Educational Development (OMED), a unit within the Center for Student Diversity and Inclusion, provides programming specifically targeted to promote the success of underserved minorities.

- Challenge is a five-week, academic intensive summer residential program for incoming first-year students. During Challenge, students are immersed into the Georgia Tech environment; they live in on-campus housing, take classes taught by Georgia Tech professors, and participate in cultural, professional, and academic workshops and activities. Challenge is designed to help prepare incoming first-year students for a successful college career by equipping them to navigate the 7 C's (computer science, chemistry, calculus, communication, career development, cultural competency, and community service).
- Edge is a year-long peer mentoring program designed to support first-year and transfer students (both academically and socially) through their first academic school year at Georgia Tech. The Edge mission is to help new Georgia Tech students develop and refine strategies for a successful college transition and experience. Edge pairs highly engaged enrolled students with incoming students and transfer underrepresented minority students to assist them both academically and socially throughout their first year at Georgia Tech.
- AAMI (African American Male Initiative) is a nine-time award-winning grant program aimed to cultivate innovative talent through targeted cultural and gender-based initiatives for Black males. AAMI is the first-

⁶ For CCG, underrepresented minorities include students who self-identified as Hispanic or Latino, African American or Black, American Indian or Alaskan Native, Native Hawaiian or other Pacific Islander or two or more races where at least one race is URM; includes U.S. citizens and permanent residents.

- ever statewide initiative specifically focused on increasing post-secondary education attainment among African American males.
- *ILARC* (*Interactive Learning and Resource Center*) hosts drop-in and appointment tutoring services, guided study groups, topic-specific review sessions (concept classes by graduate students), and GPA planning.

Metrics used to assess the success of this strategy include:

- Average GPA of *Edge* participants compared to the average GPA of non-participating matched peers at the end of the first year.
- Average GPA of *Challenge* summer program participants compared to the average GPA of non-participating matched peers at the end of the first semester.
- First-semester average GPA and first-to-second-year retention rate of *AAMI* participants compared to non-participating matched peers.
- Retention and graduation rates for underrepresented minorities at Georgia Tech compared with overall campus rates.

A measure of progress is for program participants to academically outperform matched non-participating peers. Our ultimate goal is for our underrepresented students to attain or exceed the retention and graduation rates of the overall student population. See Appendix E for detailed *Challenge* and *AAMI* outcomes.

Progression metrics for 2019-20 demonstrate positive program-level outcomes:

- For the 296 URM students participating in *Edge* (peer mentoring), the average cumulative GPA achieved at the end of the first year was 3.16 compared to 3.12 for URM non-participants.
- For *Challenge* (137 fall enrolled URM participants), average GPA's were higher for African American/Black students and Hispanic students compared to GPA's of non-participating matched peers. Moreover, 29 *Challenge* participants completed their first semester with a 4.0 GPA and 108 participants had a 3.0 or higher GPA at the end of their first semester.
- For AAMI (169 undergraduate participants), average GPA's were higher for participants compared to GPA's of non-participating matched peers. AAMI participants had an average first-semester GPA of 3.14 compared to a 2.89 GPA for non-participating African American males. AAMI participants graduate at a rate of 84.8% compared to 71.9% for non-participating peers. AAMI continues to demonstrate the importance of peer leadership in raising expectations and cultivating a climate of excellence.

In fall 2019, the overall URM first-to-second-year retention was 95% (compared with a 97% overall rate), while the six-year URM graduation rate for the 2013 cohort was 85% (compared with a 90% overall rate). URM six-year graduation rates have improved from 72% for the 2006 cohort to 85% for the 2013 cohort. Considering the Institute's two largest URM groups, six-year graduation rates for the fall 2013 cohort were 76% for Black or African American students and 94% for Hispanic or Latino students. Data from fall 2020 indicate that the six-year URM graduation rate for the fall 2014 cohort increased to 87%. See Appendix F for URM graduation rates.

STRATEGY 3: PROVIDE HIGH-IMPACT CURRICULAR AND CO-CURRICULAR OPPORTUNITIES TO ENHANCE ENGAGEMENT AND ACADEMIC DEVELOPMENT.

RELATED GOAL: INCREASE THE NUMBER OF UNDERGRADUATE DEGREES AWARDED BY USG INSTITUTIONS.

Georgia Tech offers high-impact curricular and co-curricular opportunities to enhance engagement and academic development. According to the Association of American Colleges and Universities, these teaching and learning

practices have been widely tested and found to have a positive impact on student retention and engagement.⁷ Among these options are a first-year seminar (GT 1000), living learning communities, an undergraduate research program, a

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⁷ George D. Kuh, High-Impact Educational Practices: What They Are, Who Has Access to Them, and Why They Matter (Association of American Colleges and Universities, 2008).

study abroad program, and experiential learning (internships, co-op, and service learning). Participation levels in these optional programs are significant, and the graduation rates for program participants are among the highest at Georgia Tech. For example, the six-year graduation rate for students in the 2013 cohort who participated in the co-op program was 97%, while the six-year graduation rate for students in the 2013 cohort who participated in the internship program was 96%. Similarly, students in the 2013 cohort who participated in undergraduate research had a 96% graduation rate. See Appendix C for graduation rates of participants in select high-impact academic enrichment programs.

Innovation is inspired through options such as Create-X, InVenture, and VIP (the Vertically Integrated Projects Program). Georgia Tech is also promoting student engagement through Student Life via a wide range of services, programs, and more than 550 student organizations. Georgia Tech Health & Well-Being promotes, nurtures, and enriches a culture of health, well-being, and caring for Georgia Tech students.

The Center for Assessment, Referral & Education (CARE), which opened in August 2019, provides a single point of entry for access to all mental health resources and services on and off campus. CARE is staffed by licensed mental health professionals who specialize in college mental health and assessment. During 2019-20, CARE demonstrated its success by quickly referring students to available resources and freeing up capacity in both the Counseling Center and Stamps Psychiatry. On average students were assigned to the Counseling Center or Stamps Psychiatry 1.5 days after their CARE assessment with most assignments occurring the day of the assessment. The Counseling Center saw more than a 60% reduction in time devoted to initial assessments, which allowed for reallocation of resources to therapy. Before CARE opened, there was a minimum 2-week wait for Stamps Psychiatry appointments. Afterwards, the wait time decreased to a maximum of 1.5 weeks with a 50% reduction in appointments overall, indicating that students were routed efficiently by CARE.

During 2019-20, Georgia Tech devoted additional resources toward growing its living learning communities (LLCs), serving 817 first-year students and more than 500 upper-level students in eight communities. In summer 2019, iGniTe, our First-Year Summer Launch Program, enrolled 500 first-year participants, an increase of 49% in comparison with summer 2018. By establishing virtual communities and offering remote coursework in response to Covid-19, iGniTe served 739 first-year students in summer 2020, an increase of 48% in comparison with summer 2019.

Table 3: Retention rates for 2019 participants in first-year LLCs

Living Learning Community	N (participants)	% retained to Fall 2020*	
Explore	233	97%	
Grand Challenges	217	99%	
Global Leadership	113	97%	
Honors Program	202	94%	
iGniTe	500	96%	
Impact	54	96%	

^{*}As of end of Phase II registration for fall 2020 but prior to October 2020 census date.

In 2019-20, 2,084 (68%) of incoming first-time students participated in the first-year seminar, GT 1000, and 97% of these students were retained to fall 2020. GT 1000 leaders partnered with Exploratory Advising to create an academic plan reflection, a common assignment designed for use across GT 1000 sections. The reflection tool provides GT 1000 students with critical questions to consider and address as they craft their degree map and develop an academic plan for timely graduation.

STRATEGY 4: PROVIDE INTERVENTIONS TO PROMOTE THE SUCCESS OF STUDENTS WHO ARE UNDERPERFORMING ACADEMICALLY OR WHO MAY BE AT RISK FOR NOT CONTINUING THEIR EDUCATION.

Related Goal: Provide intentional advising to keep students on track to graduate.

Although the majority of students enter Georgia Tech well prepared academically, after enrollment some students do not perform as anticipated and may be at risk for not completing their degrees. They include: (1) students with unsatisfactory midterm grades; (2) students who return to the Institute after academic dismissal; (3) students on probation or warning; (4) students who end their first year in academic distress; (5) returning students not registered for fall semester during the Phase I early registration period; and (6) non-continuing students.

Outreach to these students comes from multiple points on campus, with departments reaching out to their own constituents, while key allies in support units intervene to assist "at risk" students. One of the key allies, the Center for Academic Success (CAS), was established, in part, to assist Georgia Tech with its retention and completion goals. During 2019-20, CAS was reorganized into complementary units of Tutoring and Academic Support (TAS) and Undergraduate Advising and Transition (UAT). The Director of Retention and Graduation Initiatives/Assistant Registrar, reporting jointly to the Associate Vice Provost for Undergraduate Education and the Associate Vice Provost for Enrollment Management/Registrar, helps to operationalize Georgia Tech's retention-progression-graduation (RPG) initiatives. TAS and UAT along with OMED and the Director of Retention and Graduation Initiatives/Assistant Registrar collaborate to monitor and assist "at-risk" students. TAS, UAT and OMED provide a range of services (see https://tutoring.gatech.edu/, https://davising.gatech.edu/, and https://omed.gatech.edu/) for students in need of academic support. Even considering the unanticipated, rapid shift of their services to remote format in March 2020 as a consequence of Covid-19, TAS and UAT together served more than 5,400 Georgia Tech students through 40,394 connections in 2019-20, while OMED served 2,009 students through 10,327 connections.

Academic advising at Georgia Tech, while decentralized across colleges and schools, benefits from the leadership of the Director of Undergraduate Advising and Transition, reporting to the Vice Provost for Undergraduate Education. A key component of our Momentum Year plan, academic advising successfully navigated the shift from in-person to remote appointments in spring 2020 due to Covid-19, while planning the implementation of a new advising technology platform launched in fall 2020.

Midterm Progress Reports

Georgia Tech's early alert system provides useful feedback for students adjusting to an academically rigorous environment. We identify students who are off track in a given semester with Midterm Progress Reports (MPR's) for 1000- and 2000-level courses. Submitted 40 percent into the term, MPR's allow faculty in these courses to assess student performance with an "S" (Satisfactory) or "U" (Unsatisfactory). All students with U's are contacted by Tutoring and Academic Support (TAS) and Undergraduate Advising and Transition (UAT), offered tutoring, academic coaching and success resources, and encouraged to meet with relevant faculty and their academic advisor. Additionally, we *require* that all first-year students with two or more midterm U's meet with their academic advisor or a UAT staff member. Registration holds are typically used to enforce the mandatory advisement. During advisement, students receive guidance, encouragement, and referrals to campus resources where necessary.

Our MPR strategy impacts many students. During fall 2019, 38,148 midterm grades were collected for 1000- and 2000-level courses, and 2,971 U's were assigned to 2,194 students. During spring 2020, 30,670 midterm grades were entered for 1000- and 2000-level courses, and 2,577 U's were assigned to 1,906 students. With support from the Registrar's Office, we achieved a faculty midterm grade response rate of 98% for fall 2019 and 94% for spring 2020.

In fall 2019, UAT and TAS reported 36% of students receiving midterm U's accessed their support services following outreach at midterm. In spring 2020, 25% accessed UAT and TAS supports services following midterm outreach. In fall 2019, 53% of U grades converted to A/B/C/S grades by the end of the semester; in spring 2020, 57% of U grades converted to A/B/C/S.

Students Returning from Academic Dismissal

GT 2100, Seminar on Academic Success, was approved in 2013 specifically in relation to Georgia Tech's CCG goal to provide increasing support for students who are permitted to return on contract after academic dismissal. The seminar, taught by UAT staff, offers opportunities for reflection, skill development, and one-on-one academic coaching. The inaugural class, taught in spring 2014, was optional, and the course became mandatory in fall 2014. From the course's beginning in 2014 through spring 2020, 261 of 491 GT 2100 students (53%) have either graduated or remained enrolled. Intervention outcomes represent a significant improvement over our pre-initiative baseline graduation rate of 14%.

Students on Academic Probation or Academic Warning

In fall 2019, 3% of our 16,159 undergraduates were on academic probation or warning with 193 students on probation and 297 on warning at the beginning of the term.⁸ Based on the promising results from GT 2100 for

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⁸ See http://www.catalog.gatech.edu/rules/6 for academic standing rules at Georgia Tech.

students returning from academic dismissal, in fall 2015 we piloted a section of GT 2100, designated as GT 2100 B, for students in academic difficulty (participation is voluntary), and the course has been offered most semesters since its inception. Of the 88 students who have taken GT 2100 B since its inception, 72% remain enrolled or graduated.

In summer 2019 a new course, GT 2801: Study Strategies Seminar, was created to specifically target students on probation. GT 2801 provides solution-based opportunity to learn skills, strategies, and ways of thinking that will assist in restoring scholastic standing. Offered for the first time in fall 2019, 58 students enrolled during fall and spring semesters combined. Forty-two of the 58 students (72%) achieved good academic standing following participation in the course.

Even with the positive outcomes associated with GT 2100 B and now GT 2801, we are concerned that most students on academic probation or warning do not voluntarily seek assistance. For example, well below half of these "at-risk" students participated in UAT or TAS programming or Clough Commons tutoring during 2019-20.

Table 4: Percentage of students on probation or warning using TAS, UAT or Clough Commons tutoring*

	Fall 2019	Spring 2020
Academic Probation	24%	34%
Academic Warning	26%	21%

^{*}Excludes GT 2100 students

While certain colleges and schools at Georgia Tech require academic advising for their own students on academic warning or probation, there is no required institutional intervention for these students, other than for those returning from academic dismissal. Advisor focus groups conducted in summer 2019 revealed that there is a need to develop common advising practices for serving students identified as at risk. The Academic Advising Council, which counsels the Director of Undergraduate Advising and Transition and the Office of Undergraduate Education on policies, communication, assessment, and strategies related to advising, planned to draft recommendations for an atrisk advising model by spring 2020. While the impact of Covid-19 delayed development of the model, the Council will revisit this topic in 2020-21.

Students Ending Their First Year in Academic Distress

In summer 2019, 94 students who ended their first year in academic distress (as defined by ending the year on academic probation or warning or in good academic standing with a GPA of 2.00 or below) received a letter from the Vice Provost for Undergraduate Education encouraging them to take proactive steps to improve their academic progress by meeting with their advisor and utilizing campus resources, several of which were delineated in the letter. The goal was to inform students that the Institute monitors their academic progress and to connect them with interventions early, while they still had time to change their trajectory. A majority of students contacted (73%) achieved good academic standing during their second year, while preliminary data indicate that 73 students (78%) were retained to fall 2020. By summer 2020, 56% of these students participated in some type of service offered by TAS or UAT. The Institute's first-year intervention project continued for a fourth year in summer 2020.

Students Not Registered for Fall Semester by the End of Phase I

An annual Non-Registered Student Survey, distributed to students who did not register for fall semester during Phase I registration, was institutionalized in 2014. Historically, not registering for classes during Phase I is a red flag for students who may not be returning or who may be experiencing a barrier to returning. Students who need assistance to register are referred as needed by the Director of Retention and Graduation Initiatives/Assistant Registrar to academic advisors, UAT, TAS, the Career Center, the Dean of Students, the Office of Scholarships and Financial Aid, the Center for Assessment, Referral and Education, and the Registrar's Office. In summer 2020, 590 students were surveyed, and a summary report was prepared to capture demographics, trends, and issues related to non-registration. See Appendix G for a description of the population, the number of students surveyed and response rates.

Non-Continuing Student Outreach

Annual outreach to "non-continuing" students (defined as students who are in good academic standing but have not been enrolled for three-to-five consecutive semesters) has also been institutionalized. The population contacted includes only those students for whom we had no information (based on academic advising notes) or students who were both in good academic standing and demonstrating good academic progress (e.g. few "W's" in coursework). Students who already transferred to another institution (based on the National Student Clearinghouse) are excluded.

This outreach, conducted by the Director of Retention and Graduation Initiatives/Assistant Registrar, helps to detect the primary reasons students in good academic standing leave the Institute and to identify those who may need assistance to return to Georgia Tech. Students who would like to be readmitted are assisted individually. While a report is prepared to analyze demographics and issues related to non-continuing students, the primary value of the outreach is attempting to re-establish communication between Georgia Tech and students who have left the Institute but who are eligible to return. In fall 2019, outreach was conducted to 30 students as part of this project. See Appendix H for the number of students contacted and response rates.

STRATEGY 5: IMPLEMENT PEER-LED INSTRUCTION FOR STUDENTS IN TRADITIONALLY CHALLENGING GATEWAY COURSES.

RELATED GOAL: RESTRUCTURE INSTRUCTIONAL DELIVERY TO SUPPORT EDUCATIONAL EXCELLENCE AND STUDENT SUCCESS.

Innovation in teaching and learning is a key component of Georgia Tech's mission. In alignment with this mission, Georgia Tech provides supplemental instruction, called Peer-Led Undergraduate Study (PLUS), through TAS. These services support student success in more than twenty traditionally challenging courses, including calculus, linear algebra, physics, and chemistry. Departmental support for PLUS expands our support in chemistry, mathematics, biomedical engineering, and chemical and biomedical engineering.

The number of visits represents markers of success for PLUS. During summer 2019, 72 students participated in PLUS for a total of 178 visits. During fall 2019, 3,410 students participated for total of 13,622 visits. During spring 2020, before we transitioned to remote delivery of services due to Covid-19, 1,946 students participated for a total of 5,487 visits. After the transition to remote delivery, individual student attendance data for PLUS sessions was not collected. Valuable for gauging the impact of this strategy is the percentage of participation by students enrolled in courses for which PLUS was offered. In fall 2019, 28% of students enrolled in courses for which PLUS was offered participated in the program; in spring 2020, based on data prior to the transition to remote delivery, 22% of enrolled students participated.

To determine if PLUS is successful, we compare students' final grades in courses for PLUS regular vs. non-regular participants. Throughout 2019-20 regular participants in PLUS (5 or more visits) consistently outperformed their peers who did not participate.

- In summer 2019, 98% of PLUS regular participants (5 or more visits) earned a grade of A/B/C/S compared to 91% of their peers in the same classes who did not participate in PLUS.
- In fall 2019, 95% of PLUS regular participants earned a grade of A/B/C/S compared to 90% of their peers in the same classes who did not participate in PLUS.
- In spring 2020, 95% of PLUS regular participants earned a grade of A/B/C/S compared to 91% of their peers who did not participate in PLUS.

See Appendix I for outcomes by course.

In our second year of collaboration with Gateways to Completion (G2C), a task force was created to investigate how best to support the success of students enrolled in foundational physics courses. Members of the task force participated in the in the Change Accelerator Program sponsored by Georgia Tech's Center for Deliberative Intervention (https://cdi.gatech.edu/). Subsequently, the task force focused on how to empower students completing gateway coursework in physics and calculus to apply their knowledge successfully within major-specific courses. The task force met individually with subsets of students and faculty to study how teaching and learning in gateway courses impacted success in major coursework. The initial research revealed that there were no significant barriers to knowledge transfer between gateway physics and calculus courses and major-specific courses. The task force is currently exploring their findings in greater depth.

STRATEGY 6: IMPLEMENT SUMMER ONLINE COURSES AND ON-CAMPUS SUMMER SESSION INITIATIVES TO HELP STUDENTS STAY ON TRACK TO GRADUATION.

RELATED GOAL: RESTRUCTURE INSTRUCTIONAL DELIVERY TO SUPPORT EDUCATIONAL EXCELLENCE AND STUDENT SUCCESS.

Summer Session Initiatives (SSI) increased student, non-duplicative headcount by 26% from 4,148 in 2019 to 5,212 in 2020. This growth can be attributed to several programs introduced to make summer sessions more attractive and accessible for Georgia Tech students. One initiative, the iGniTe Summer Launch Program, enables first-year students an opportunity to begin their college career during the late summer term. For Georgia residents, enrollment increased by 27%, growing from 415 students in 2019 to 527 in 2020. All iGniTe participants enroll in Georgia Tech's freshman seminar, GT 1000, along with two other courses that meet a core or major requirement. In summer 2020, over 170 students enrolled in STEM courses, including more than 70 in Calculus (MATH 1550), a key gateway course. Enrollment in ENGL 1102 grew from 160 students in summer 2019 to 300 students in summer 2020, representing an 88% increase. Another initiative, the Summer Minor and Certificate Program, grew to 16 course options in summer 2020 by adding eight new alternatives, including Building and Construction, Chinese, Computing and Humans, French, Leadership Studies, Linguistics, Middle East and North African Studies, and Sustainable Cities.

The per credit hour tuition model adopted in summer 2018 can also account for continued summer enrollment growth by making courses more affordable and allowing students greater flexibility with course planning. The per credit hour model offers students more options when selecting course combinations and the ability to concurrently enroll in online and face-to-face courses. For example, in summer 2020 enrollment for Physics I and Physics II, critical gateway courses for many academic programs at Georgia Tech, increased by 25%.

While all summer 2020 coursework shifted to remote delivery due to Covid-19, the Summer Online Undergraduate Program (SOUP) refers to a high-priority strategy initiated in summer 2013 to offer opportunities for students to take online classes during the summer semester. The courses, planned in collaboration with Georgia Tech Professional Education, allow us to engage with students who may not otherwise study on-campus during typical summer semesters. From a baseline of 12 courses offered in summer 2013, Tech expanded to 106 SOUP undergraduate courses by summer 2020. The number of total course registrations increased from 112 in 2013 to 4,423 in 2020.

MOMENTUM YEAR UPDATE

Throughout 2019-20, Georgia Tech emphasized Purposeful Choice for its Momentum Year plan. Specifically, Georgia Tech committed to developing a coherent distributed advising model that embeds recommendations from the April 2018 Advising Task Force *Report and Recommendations* into the overall advising structure while emphasizing the following strategies:

- Promotion of best practices and professional development for professional advisors and faculty advisors.
- Acquisition of a common IT infrastructure to support communications and record keeping with relevance to academic advising.
- Hiring of key personnel to provide exploratory advising (e.g., change of majors or exploration of interdisciplinary pathways) and analytics support.

Guided by the Momentum Year Sustainability Plan developed during Momentum Summit III in February 2020, we implemented several activities related to our strategies, despite the impact of Covid-19 on in-person operations.

Strategy or activity	Implement the use of a single, centralized CRM platform for all academic advising related activities.	
Summary of	As outlined in the 2018 Advising Task Force Report and Recommendations, work to acquire	
Activities	and implement a common IT infrastructure supporting communications and record keeping	
	within a distributed academic advising model.	
Outcomes/Measures	Procurement of a new customer relationship management (CRM) platform, Salesforce Advisor	
of progress	Link, completed in spring 2020; Design, training and implementation for the system conducted	
1 3	spring and summer 2020; Dedicated IT support for the new system deployed in summer 2020;	
	CRM launched fall 2020.	

Lessons Learned and Plans for the Future	Training for academic advisors and introduction of new tools within the CRM system will continue throughout 2020-21.
Changes because of COVID-19	Planning and implementation of the CRM launch, which involved constituents across Georgia Tech units and the CRM provider, continued successfully through the shift to remote operations. In-person meetings and training sessions for academic advisors were held virtually. Advisors successfully prepared for the launch of the new system while adjusting to advising students remotely.
Strategy or activity	Utilize campus communication channels to communicate goals and actions related to academic advising.
Summary of Activities	With the phase in of the new CRM platform, UAT successfully communicated across Georgia Tech's advising community, circulating status updates about the system and training opportunities.
Outcomes/Measures of progress	Communication through campus newsletters, the Georgia Tech Academic Advisors Network (GTAAN) and email promoted the advantages of the new CRM, the transition plan, and training opportunities for stakeholders.
Lessons Learned and Plans for the Future	Within our distributed advising model, publishing information related to academic advising, particularly use of the new CRM, exploratory advising, and change of major practices, is critical. Throughout 2020-21, information related to these topics will be circulated in departmental and campus newsletters, social media platforms, and parent newsletters/listservs.
Changes because of COVID-19	GTAAN meetings, normally conducted face-to-face, moved online. Training sessions and communications strategies were reimagined for a virtual environment.
Strategy or activity	Hire key personnel to provide exploratory advising.
Summary of Activities	Develop goals and responsibilities for an exploratory advisor position; budget for and identify an exploratory advisor, positioning the new advisor within UAT.
Outcomes/Measures of progress	Exploratory advisor on staff by summer 2019.
Lessons Learned and Plans for the Future	Continue to expand opportunities for students to explore their chosen major and alternate majors; Identify and intervene early with students off course within their major; Refer students, as appropriate, for exploratory advising or academic coaching.
Changes because of COVID-19	Exploratory advising and academic coaching shifted to remote format in March 2020, along with other student support services, including tutoring, PLUS and academic advising offered through colleges and schools. The alternate delivery format, while time intensive to implement, proved successful for connecting with students exploring a change of major.
Strategy or activity	Modification of the grade forgiveness policy.
Summary of Activities	Revise the grade forgiveness policy to allow all undergraduate students, rather than only first- year students, to repeat for grade substitution up to two courses with posted letter grades of D or
	F. These courses will be excluded from calculation of students' cumulative grade point average. http://catalog.gatech.edu/policies/grading-gpa/grade-substitution/
Outcomes/Measures of progress	F. These courses will be excluded from calculation of students' cumulative grade point average.
	F. These courses will be excluded from calculation of students' cumulative grade point average. http://catalog.gatech.edu/policies/grading-gpa/grade-substitution/ Change approved by the Student Regulations Committee and the Academic Senate; New policy

Reviewing our progress to date during Momentum Summit III, we expanded our framework to include the following additional strategies designed to enhance our advising model through 2021.

• Clarify and better manage the change of major process, establishing consistent practices among our six colleges within a distributed advising model.

COVID-19

- Integrate exploratory advising into the first time and transfer student experience, ensuring that students are in a program of study that meets their needs.
- Revamp undergraduate career services and align career education, work-based experiential education, and academic advising.

Although the impact of Covid-19 on operations slowed our timeline for addressing these expanded goals, work is in progress during 2020-21. Aided by the new advising CRM and a shift to online document sharing, Georgia Tech will develop consistent major exploration and change of major practices across colleges, better integrating exploratory into the student advising experience. Furthermore, led by the Academic Advising Council, we will craft a mission, goals, and student learning outcomes for academic advising applicable across the Institute, while honoring our existing distributed advising model. The Student Regulations Committee will begin a comprehensive review of academic standing policies to ensure that standards allow for timely identification of students off course academically. A restructuring of undergraduate career services completed in early 2020 resulted in a new unit, the Career Center. The Career Center will work to align career education and work-based experiential education with academic advising, beginning with the first-year experience and continuing through students' graduation.

Georgia Tech's Momentum Approach plan continues to focus on academic advising while also targeting a range of long-term issues related to purposeful choice, mindset, and momentum pathways. Priority activities from the plan are highlighted below.

PURPOSEFUL CHOICE

Priority Work	Alleviate student resistance to major change.
Description of Activities	Acknowledge and address the stigma associated with changing majors; Develop resources that help students take ownership of their perceptions (e.g. rigor, worth of the degree, employment opportunities) surrounding different majors; Ensure that students understand career options associated with their major; Engage faculty mentors, employers and alumni to clarify major-related career options; and Intervene quickly with students off course within their major to limit loss of credit due to a major change or multiple major-specific course withdrawals.
Activity status and plans for 2020	With the exploratory advisor in place, the launch of the new advising CRM, and the shift to processing change of major applications electronically, the ability to intervene with students quickly is enhanced. Resources addressing student perceptions about changing majors are scheduled to be developed in 2021.
Lessons Learned	Electronic processing of change of major applications is streamlining a formerly cumbersome process and providing all concerned parties (student, advisors, receiving major, sending major, Registrar's Office) the ability to monitor the process more efficiently.
MINDSET	
Priority Work	Address status differences between student ways of thinking about majors (Engineering > other STEM > Business/Design > Liberal Arts).
Description of Activities	Develop training sessions for advisors in colleges and schools designed to help them recognize and counteract this student mindset; Encourage exploratory advising within GT 1000/GT 2000 courses, including materials designed to address mindset regarding majors.
Activity status and plans for 2020	While progress has been delayed due to Covid-19, activities are ongoing, aided by the new advising CRM.
Lessons Learned	The change of major process itself and student mindset regarding major choice are complex issues within the Georgia Tech culture and remain areas of focus for personnel working with both incoming and continuing undergraduates.

MOMENTUM PATHWAYS

Priority Work	Develop and launch a First-Year and Transfer-Year Council to include key stakeholders from areas involved with student transition.
Description of Activities	Create consistent, streamlined communications to new first-year and transfer students; Process map cross-unit initiatives that support first-year and transfer-year student success; and Foster collaboration and communication across units that support students during their transition year to Georgia Tech.
Activity status and plans for 2020	Originally scheduled for implementation by fall 2020, the timeline for establishing the Council was impacted by the transition to remote operations due to Covid-19. Bandwidth for key stakeholders was limited by their focus on providing excellence in continued service to students during spring and summer 2020. Establishing the Council will be revisited during 2020-21.
Lessons Learned	N/A
Priority Work	Review the many high impact experiential opportunities through the lens of student engagement across one or more of the activities, ensuring that participation is equitable.
Description of Activities	Apply analytics to determine characteristics and majors of students participating in experiential opportunities; and Explore participating student characteristics by type of experiential activity.
Activity status and plans for 2020	Analysis of participating student characteristics is ongoing, involving multiple units across campus including academic programs, Student Life, the Office of International Education, the Career Center, the Center for Academic Engagement, Enterprise Data Management and Institutional Research and Planning.
Lessons Learned	Based on multi-year data, we are confident that participation in experiential opportunities positively impacts student progression. Considering the strategic theme of expanding access as detailed in Georgia Tech's forthcoming strategic plan, we hope to ensure that participation in these opportunities is equitable across student demographics and chosen majors.

OBSERVATIONS AND NEXT STEPS

Georgia Tech emphasizes best practices that are proven to increase student engagement, retention, progression, and degree completion, adopting CCG strategies appropriate for supporting the success of our students. Since the inception of CCG in 2011, Georgia Tech has increased its retention rate to 97% and maintained that rate for six straight years. Our six-year graduation rate has increased from 79% for the 2006 first-year cohort to a record high 91% for the 2014 first-year cohort. While a success gap persists, the six-year graduation rate for underrepresented minority students has risen from 76% for the fall 2007 first-year cohort to 87% for the 2014 first-year cohort, an Institute record high. Given the disruptive events of the past eight months related to the Covid-19 pandemic, these success metrics are even more impressive, highlighting the resilience of Georgia Tech students, the dedication and responsiveness of our faculty and staff, and the robust nature of our student support structures and high-impact practices advanced as part of CCG.

While this report illustrates many of the broad initiatives and targeted strategies positively impacting student retention and graduation rates at Georgia Tech, identifying opportunities for increased focus and continuous improvement have been, and continue to be, key components of our CCG work. In 2019-20, the Office of Undergraduate Education, Enrollment Management and Student Life established a leadership team to promote success and design support structures for first-generation and financially under-resourced students, underserved populations as evidenced by our data. The team identified several key needs for these populations which were not addressed sufficiently through ongoing RPG initiatives. Throughout 2019-20, outreach to first-generation and financially under-resourced students improved through such activities as participation in the First-Generation Celebration Day in November 2019, the development of transfer pathways for first-generation and Pell-eligible students from Georgia, an enhanced role for FirstGen (our first-generation student organization), and virtual welcome events for first-generation students and their families. However, recruiting and supporting these students remains an area of emphasis for 2020-21. Funding, delayed by Covid-19 budget concerns and the USG critical

hiring process, was recently released to establish a first-generation, limited income student program and operations manager position. Designed to provide direct support to first-generation and limited income students and to implement strategies that enhance their Georgia Tech experience, the position is scheduled to be filled by the end of fall 2020. These initiatives align with Georgia Tech's forthcoming strategic plan, which includes a theme focused on expanding access by empowering people of all backgrounds and stages of life to learn and contribute to technological and human progress.

Georgia Tech continues to enhance its undergraduate advising model by implementing the Advising Task Force *Report and Recommendations* from April 2018. Much of our Momentum Year and Momentum Approach work relates to purposeful choice. As the advising CRM takes root across campus, advising stakeholders will enhance our decentralized, major-specific advising model by establishing common goals, outcomes, and practices to support students' choice of major, experiential learning opportunities, and degree progression.

Our four-year graduation rate for the 2016 first-year cohort reached a record rate of 55%, an improvement from 40% for the fall 2007 first-year cohort. Since many factors influence this rate, including student involvement in experiential education (e.g. co-op and internships, international education), the length of degree programs in science and engineering, and the rigor of Georgia Tech coursework, we continue to study methods to improve this metric over time. As the Student Regulations Committee considers changes to academic standing policies, Institutional Research and Planning studies course withdrawals, and the core curriculum revision process resumes within the USG, the impact of these initiatives will be considered within the context of time to degree completion.

Throughout 2020-21, we plan to build on our many successful CCG strategies, including living learning communities, experiential education, summer session initiatives, academic advising enhancements, and first-year experience programming, while focusing on the implementation of our Momentum Year and Momentum Approach objectives. Aligning Georgia Tech's retention-progression-graduation goals and strategies with those of CCG promotes continual self-study, the sharing of best practices, and a data-based approach to the measurement of outcomes. While we believe our current strategies demonstrate success, we continually seek opportunities to improve our practices as evidenced by our ongoing academic advising innovations, increased support for first-generation and financially under-resourced students, and examination of factors influencing time to graduation. Georgia Tech looks forward to continued collaboration with the CCG initiative, promoting student success within the Institute and throughout the USG.

STUDENT SUCCESS AND COMPLETION TEAM

Established in 2011, the CCG-GT Steering Committee continues to provide leadership for our RPG initiatives and promote awareness regarding retention and graduation issues across campus. Co-chaired by Ms. Sandi Bramblett, Assistant Vice President, Institutional Research and Enterprise Data Management and Dr. Steven P. Girardot, Associate Vice Provost for Undergraduate Education, the CCG-GT Steering Committee connects faculty, staff and leadership stakeholders throughout Georgia Tech to guide, refine and assess RPG efforts. Committee membership for 2020-21 is as follows:

- Ms. Sandi Bramblett, Assistant Vice President, Institutional Research and Enterprise Data Management
- Dr. Steven P. Girardot, Associate Vice Provost for Undergraduate Education
- Dr. Sybrina Atwaters, Director, OMED
- Mr. Elijah Cameron, Director, Office of Assessment and Quantitative Services, College of Computing
- Dr. Lynn Durham, Vice President, Institute Relations
- Dr. Al Ferri, Professor and Associate Chair for Undergraduate Studies, School of Mechanical Engineering
- Mr. Brent Griffin, Director, Retention and Graduation Initiatives/Assistant Registrar, Office of the Registrar/Office of Undergraduate Education
- Ms. Sandra Kinney, Senior Director, Institutional Research and Planning
- Dr. Paul Kohn, Vice Provost for Enrollment Management
- Dr. Linda Green, Director, Tutoring and Academic Support
- Dr. Michelle Rinehart, Associate Dean, College of Design
- Ms. Beatriz Rodriguez, Assistant Director-Academic Coaching and Success Programs, Undergraduate Advising and Transition
- Dr. Beth Spencer, Director, Undergraduate Advising and Transition
- Dr. Cam Tyson, Assistant Dean for Academic Programs, College of Sciences
- Dr. De Morris Walker, Director, Summer Session Initiatives
- Dr. Joyce Weinsheimer, Director, Center for Teaching and Learning
- Mr. Craig Womack, Associate Dean/Director of Undergraduate Programs, Scheller College of Business
- Dr. Brenda "B" Woods, Director of Research and Assessment, Student Life

See Appendix J for the membership list of the Institute's 2019-20 Complete College Georgia Steering Committee\\