Georgia Institute of Technology

Cooperative Institutional Research Program (CIRP)
2006 Freshman Survey Report

Office of Assessment
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Executive Summary

The Georgia Institute of Technology (GT) has participated in the Higher Education Research Institute's (HERI) Cooperative Institutional Research Program (CIRP) since 1966. In the study, Georgia Tech is classified as a public high-selectivity (SAT scores of 1140 or more) institution and is compared to both public high-selectivity and private very high-selectivity universities ("Public" and "Private" comparator institutions). Each year incoming freshmen at these participating institutions complete the Student Information Form, and the results are used by HERI as part of a longitudinal study.

Incoming 2006 Georgia Tech freshmen living on campus were asked to complete the CIRP student survey in their first week on campus. As a result, this report is based on the 1,050 responses of those students (40.3 percent of the first-time full-time class). Because of the lower response rate and some bias in demographic representation, the results may not be fully representative of the 2006 freshman class and should be interpreted with appropriate caution.

This report presents selected results from the 2006 survey, and can be found along with tables of the complete results at http://www.assessment.gatech.edu. Among the findings gleaned from the survey:

- Freshman respondents cite Georgia Tech's academic reputation and the opinion that GT's graduates get good jobs as main reasons influencing their decisions to attend Georgia Tech.
- Relative to their public university counterparts, GT respondents are more likely to rate themselves highly in their academic and mathematical abilities; GT respondents rate themselves less highly in social self-confidence.
- Compared with their public and private university counterparts, GT respondents had fewer courses in high school biological science; 37.7 percent of GT respondents stated they had taken at least two years of biology in high school, compared with 53.0 percent at public universities and 54.6 percent at private institutions.
- Over 60 percent of respondents believed there was a "very good chance" they would be satisfied with their college experience. This proportion declines significantly for respondents for whom GT was not their first choice college.
- Compared to their public and private university counterparts, GT respondents were far more likely to expect needing extra time to complete their degree requirements; 21.0 percent of GT respondents felt there was a "very good chance" of needing extra time, compared with only 5.8 percent at public universities and 2.5 percent at private institutions.
- Reported alcohol use in high school increased significantly since 2005; 35.4 percent of GT respondents indicated they drank beer "frequently" or "occasionally" in their senior year, compared with 27.0 percent in 2005. Wine and liquor consumption increased from 32.8 percent in 2005 to 42.8 percent in 2006.
- In 2005, the proportion of GT respondents who classified themselves as "conservative" or "far right" politically was at its highest point in 30 years. In 2006, this percentage declined significantly from 39.2 percent to 31.3 percent of respondents. The proportion of responding GT freshmen calling themselves "middle of the road" increased from 37.5 percent to 44.4 percent.

Overview

The Georgia Institute of Technology (GT) has participated in the Higher Education Research Institute's (HERI) Cooperative Institutional Research Program (CIRP) since 1966. Each year incoming freshmen at participating institutions complete the Student Information Form, and the results are used by HERI as part of a longitudinal study.

Incoming Georgia Tech freshmen were asked to complete the survey by Georgia Tech housing staff. Ultimately, the housing staff distributed 2,200 surveys to GT freshmen. Of the 2,607 first-time, full-time students in the incoming 2006 class, 1,050 students completed the survey. This report is based on the 1,050 responses of first-time, full-time students (40.3% of the incoming first-time, full-time class). Chi-square tests for sample representativeness ($p < 0.01$) revealed that there were no significant differences in proportion between the 2006 Freshman class and the obtained response in terms of self-reported ethnicity or college entered. There were significant differences by gender: Female students responded at a higher rate, and male students responded at a lower rate than expected. Thus, the results may not be fully representative of the 2006 freshman class and should be interpreted with caution, particularly where gender might be considered a covariate.

In addition to GT's results, HERI reports aggregate normative results of other institutions, categorized by admission selectivity. Georgia Tech is classified as a public high-selectivity (SAT scores of 1140 or more) institution. Thirteen universities are included in the public high-selectivity comparison norms ("Public" comparison group).[1] This report also provides comparison norms for 17 private very high-selectivity (SAT scores of 1310 or more) institutions ("Private" comparison group).[2]

In most cases, a response difference of +/- 5 percent between Georgia Tech and either comparison group (public or private comparator institutions) was used to highlight the results. Based on the obtained samples of students, these differences are significant at a $p<.01$ level. Results for GT males and females are presented for select items. As a rule of thumb, differences of 12 percent or more between sexes at GT are significant at the $p<.01$ level.

Demographics

- CIRP respondents at GT were 61.5 percent male and 38.5 percent female
- Ethnicity: GT respondents labeled themselves as
    - White/Caucasian (74.0 percent)
    - Asian American/Asian (19.4 percent)
    - African American/Black (5.7 percent)
    - Hispanic (5.2 percent)[3]

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[1] *Public high selectivity institutions*: Florida State University, Iowa State University, Miami University, Oklahoma State University, Rutgers University—New Brunswick, University of California—Los Angeles, University of California—San Diego, University of California—Santa Cruz, University of Florida, University of Massachusetts—Amherst, University of North Carolina—Chapel Hill, University of Pittsburgh, and University of Vermont.

[2] *Private very-high selectivity institutions*: Brandeis University, Brown University, California Institute of Technology, Carnegie-Mellon, Columbia University, Cornell University, Duke University, Emory University, Harvard University, Massachusetts Institute of Technology, Northwestern University, Rice University, University of Chicago, University of Notre Dame, University of Pennsylvania, University of Rochester, and Vanderbilt University. There is no "very-high selectivity" group for public universities.

[3] Respondents are allowed to check more than one ethnicity. Thus, numbers sum to more than 100 percent. The Hispanic category includes Mexican American/Chicano, Puerto Rican, and Other Latino.

- Citizenship/Language: 91.2 percent of GT respondents are US citizens and 87.8 percent report English as their native language
- Distance from home: Only 42.4 percent of GT respondents report their home as more than 100 miles away, compared with 58.5 percent of public university students and 82.9 percent of private university students.

In terms of income and education, parents of GT respondents are similar to those of parents at the public and private comparator institutions, with a couple of notable differences at the upper limits of the distributions: A significantly larger proportion of private school parents earned over $250,000 and possessed graduate degrees.

Table 1. Respondents' Parental Income

	GT	Public	Private
	%	%	%
Under $30,000	7.9	12.2	8.3
$30,000 to $49,999	9.3	11.5	7.5
$50,000 to $74,999	17.9	18.0	12.0
$75,000 to $99,999	14.6	14.9	11.9
$100,000 to $249,999	39.9	34.5	38.7
$250,000 or more	10.3	8.8	21.5

Table 2. Respondents' Parental Education

	Father			Mother		
	GT	Public	Private	GT	Public	Private
	%	%	%	%	%	%
Grammar school or less	1.3	3.0	1.1	0.9	2.8	1.0
Some high school	1.7	3.4	1.6	1.5	2.8	1.3
High school graduate	8.4	14.4	5.6	11.0	14.6	6.6
Postsecondary school other than college	2.8	3.0	1.4	2.7	3.7	2.3
Some college	9.8	12.7	6.4	14.1	14.7	7.9
College degree	36.2	31.0	25.0	43.5	36.4	36.2
Some graduate school	4.2	2.7	3.8	3.2	3.6	5.0
Graduate degree	35.6	29.7	55.0	23.1	21.3	39.8

High School Activities and College Preparation

In 1983, the National Commission on Excellence in Education published "A Nation at Risk: The Imperative for Educational Reform."[4] Among the recommendations made by the Commission was a set of curriculum expectations of high school graduates. Table 3 presents the percent of GT

[4] http://www.ed.gov/pubs/NatAtRisk/index.html. Last accessed on February 14, 2007.

respondents who indicated they have completed the recommended years of study in the recommended college preparatory curriculum.

Table 3. High School Coursework of Respondents

During high school (grades 9–12) how many years did you study each of the following subjects? (Percent indicating minimum levels of study)

	GT	Public	Private
English (4 years)	98.1	98.8	98.4
Mathematics (3 years)	99.4	99.3	99.5
Foreign Language (2 years)	96.1	96.2	98.0
Physical Science (2 years)	63.9	66.9	77.0
Biological Science (2 years)	37.7	53.0	54.6
History/American Government (1 year)	98.6	99.1	99.0
Computer Science (½ year)	50.1	54.4	47.9
Arts and/or Music (1 year)	73.3	80.3	84.6

An overwhelming majority of GT students have taken the requisite courses in English, Mathematics, Foreign Language and History. However, only 37.7 percent of responding GT freshman indicate they have taken two years of biology—compared with over half of students attending the public and private comparator institutions. In a follow-up question GT participants were asked exactly how many years of foreign language they had taken. In responding to this question, a significant gender difference emerged—74.0 percent of female respondents took three or more years of language, compared to 57.7 percent of males. In response to another follow-up item, 62.1 percent of females and 56.5 percent of males indicated they had participated in some sort of international travel experience, including study abroad or foreign exchange programs.

Students were asked about a variety of activities in which they engaged as seniors in high school. A selection of these items and the percent of respondents who indicated they frequently engaged in these activities is presented in Table 4.

Table 4. Percent of Respondents Indicating "Frequently" in the Following Activities

	GT	Public	Private
Was bored in class	48.1	43.5	39.5
Felt overwhelmed by all I had to do	20.8	27.5	27.5
Asked teacher for advice after class	24.4	25.6	32.8
Voted in a student election	18.8	22.7	26.6
Used the Internet to read news sites	47.5	46.6	57.8
Discussed politics	38.6	37.4	48.0
Tutored another student*	73.0	62.1	76.9
Came late to class*	53.0	62.0	62.8

*Includes "frequently" and "occasionally" responses

These results present a mixed picture. On some items, compared with the private school respondents, GT students indicate slightly lower levels of social, academic and political engagement in their senior years. Several of these responses indicate the possibility that some GT students did not perceive their senior years as particularly challenging. For example, a larger proportion of GT respondents indicated feeling bored in class, and fewer GT respondents reported feeling overwhelmed. On the other hand, GT respondents were less likely to report coming late to class and were more likely than their public university cohort to tutor other students.

Specific information about how much time they spent on various activities as seniors further differentiates GT respondents from their public and private counterparts. GT respondents report spending less time partying and socializing with friends compared with both the public and private university respondents. Both GT and public university respondents report spending less time studying than respondents from the private comparator group—21.0 percent of GT respondents report spending 11 or more hours per week on this activity, compared with 44.5 percent of the private university respondents. GT respondents report working for pay at higher rates than the private university respondents, but less than those attending other public universities. While all groups report similar amounts of time spent reading for pleasure and watching television, responding GT males spent considerably more time playing video games than males from either the public or private university comparator groups.[5]

Table 5. Time Spent Per Week on Various Activities in Senior Year (percent responding)

	GT	Public	Private
Studying/Homework (11 or more hours)	21.0	17.6	44.5
Socializing with friends (11 or more hours)	38.3	45.0	42.6
Talking with teachers outside of class (more than one hour)	48.1	45.7	60.1
Partying (3 or more hours)	28.7	40.2	35.1
Working for pay (6 or more hours)	36.1	49.3	24.5
Student clubs/groups (3 or more hours)	40.4	34.9	53.0
Watching TV (6 or more hours)	27.0	25.0	24.3
Reading for pleasure (3 or more hours)	29.0	26.1	32.9
Playing video/computer games (6 or more hours; males only)	30.4	20.8	16.6

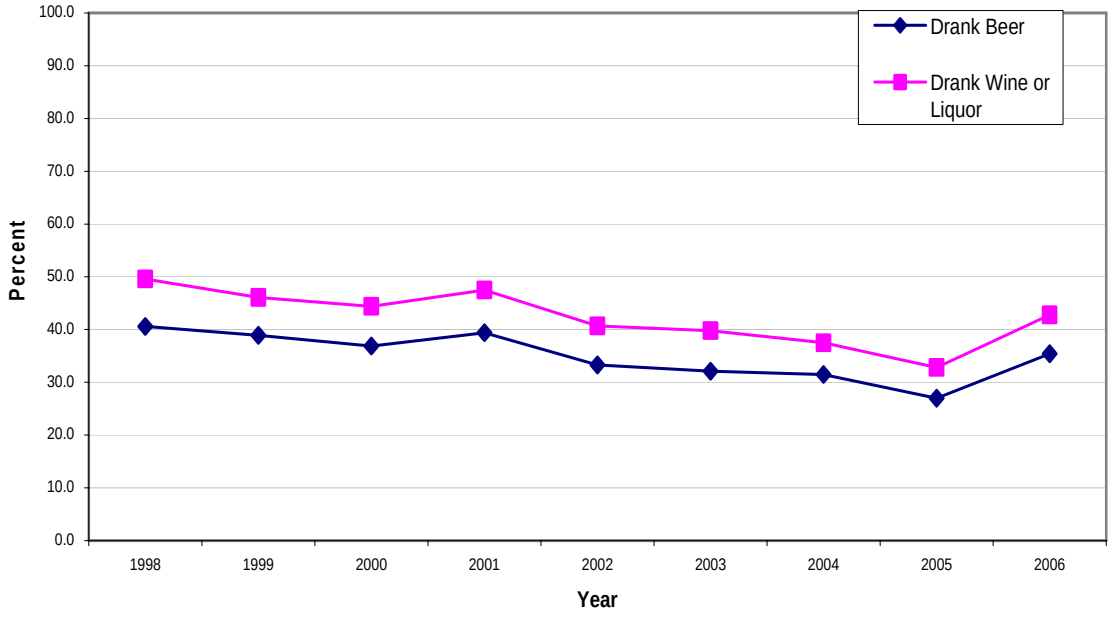
[5] GT females reported spending considerably less time playing video games than their male counterparts, as did females in the public and private comparator groups. There were no significant differences between females among the three groups.

Alcohol Use

GT respondents reversed an eight-year downward trend in the reporting of “occasional” or “frequent” use of alcohol in their senior year of high school with 35.4 percent of respondents citing beer consumption and 42.8 percent wine or liquor. This is a significant increase over the 2005 respondents (27.0 percent beer and 32.8 percent wine/liquor).

The trend since 1998 is presented in Chart 1.

Chart 1. GT Freshman Respondents Stating "Frequent" or "Occasional" Use of Alcohol in Their Senior Year of High School



Influences on College Choice

Students were asked to rate the importance of a variety of factors that influenced their decision to attend their particular institution. GT respondents rated Tech's academic reputation and ability of Tech graduates to obtain good jobs as major reasons to attend GT. Female GT respondents were more likely than their male counterparts to note that visiting the Tech campus played an important role in their attendance decision—one in five males indicated a campus visit was important, one in three females indicated this was an important factor. Compared with the public and private institutions, GT respondents were much less likely to mention social activities as an important influence.

Table 6. Reasons Noted as "Very Important" in Influencing Student's Decision to Attend this Particular College (Percent Responding)

	GT Men	GT Women	GT Total	Public Total	Private Total
This college has a very good academic reputation	86.1	84.3	85.4	65.3	88.5
This college's graduates get good jobs	74.2	78.0	75.7	51.3	65.8
This college's graduates gain admission to top graduate/professional schools	43.3	53.5	47.3	36.7	56.7
Rankings in national magazines	44.7	44.3	44.5	24.4	42.6
The cost of attending this college	29.5	38.3	33.0	32.4	16.0
A visit to campus	20.1	33.2	25.3	33.9	49.3
I was offered financial assistance	21.0	27.8	23.6	28.4	30.7
I wanted to go to a school about the size of this college	16.1	28.2	20.9	27.6	36.4
Information from a website	17.2	18.6	17.8	16.2	26.2
This college has a good reputation for its social activities	13.3	14.4	13.8	40.8	32.3
My relatives wanted me to come here	10.3	9.5	10.0	10.6	10.0

College Expectations

Students were asked to rate the likelihood of a variety of activities and events for their future college experience. Table 7 presents some selected items in which respondents felt the chances of occurrence were "very good."

Table 7. Predictions for the College Experience: Percent Estimating a "Very Good Chance"

	GT	Public	Private
Change major field	11.3	16.4	20.0
Change career choice	9.0	15.9	23.7
Make at least a "B" average	59.3	64.5	70.1
Need extra time to complete your degree requirements	21.0	5.8	2.5
Be satisfied with your college	61.1	58.5	75.5
Participate in volunteer or community service work	26.5	29.9	45.5
Communicate regularly with your professors	27.9	32.8	49.5
Participate in student clubs/groups	56.6	52.2	71.3
Participate in a study abroad program	34.5	36.0	45.6
Participate in the International Plan	20.9	n/a	n/a
Participate in undergraduate research	21.6	n/a	n/a
Participate in Co-op	42.6	n/a	n/a
Seek out a peer mentor	24.5	n/a	n/a
Seek out a faculty mentor	20.0	n/a	n/a

GT respondents were less likely than public and private respondents to anticipate changing their majors or their choice of career. They were also less likely to expect to maintain a B average, and considerably more likely to expect that they would need extra time to satisfy their degree requirements. Relative to their private university counterparts, GT respondents have a much lower expectation that they will communicate regularly with their professors (GT: 27.9 percent versus 49.5 percent at private universities). Regarding general satisfaction with college, 61.1 percent of GT respondents believe the chances are "very good" that they will be satisfied, compared with 58.5 percent at other public universities and 75.5 percent at private universities. It is interesting to note that anticipated satisfaction is strongly correlated with college choice. Nearly two-thirds (66.2 percent) of those for whom GT was their first choice college reported a very good chance of being satisfied, while only 32.4 percent of those for whom GT was a fourth or lower choice expressed a similar sentiment. These data are summarized in Table 8.

Table 8. Percent of Respondents Who Believe There is a "Very Good Chance" They Will Be Satisfied with Georgia Tech by College Choice

GT was my:	First Choice	Second Choice	Third Choice	Less than Third Choice
	66.2	52.7	46.3	32.4

Self-Ratings of Abilities and Life Objectives

Students were asked to rate themselves compared with the average person their age in a number of abilities. The percentages of students rating themselves "above average" or "in the highest 10%" of all eighteen abilities are shown in the Table 9. GT respondents rated themselves higher than respondents from public comparator institutions in academic ability and mathematical ability. GT respondents rated themselves higher on mathematical ability compared with their private university counterparts as well. However, private university students rated themselves higher than GT respondents on several other measures, including creativity, leadership ability, public speaking ability, social self-confidence, and writing ability. Among GT respondents, males rated themselves higher than females on *computer skills*, *mathematical ability* and *intellectual self-confidence*. GT female respondents rated themselves more highly than males on *drive to achieve* and *writing ability*.

Table 9. Ability Self-Ratings: Percent Rating Themselves "Above Average" or "Highest 10%" Compared with the Average Person Their Age

	GT Men	GT Women	GT	Public	Private
Academic ability	91.5	91.3	91.5	82.8	94.8
Artistic ability	33.0	36.9	34.5	30.3	37.2
Computer Skills	58.0	24.2	44.8	40.2	43.2
Cooperativeness	71.6	68.1	70.2	75.2	76.0
Creativity	56.6	56.2	56.4	57.0	64.2
Drive to achieve	73.7	83.7	77.6	77.6	88.7
Emotional health	63.2	54.3	59.7	59.2	62.6
Leadership ability	62.6	61.7	62.3	63.1	72.2
Mathematical ability	84.7	69.1	78.6	55.7	73.9
Physical Health	62.0	49.4	57.1	58.4	62.2
Public speaking ability	37.9	36.9	37.5	40.4	54.1
Religiousness	30.6	35.0	32.3	27.4	28.2
Self-confidence (intellectual)	73.3	60.4	68.3	65.1	75.7
Self-confidence (social)	45.0	44.1	44.7	53.9	52.8
Self-understanding	58.7	57.7	58.3	61.0	66.8
Spirituality	36.7	39.3	37.7	36.0	38.5
Understanding of others	60.5	60.3	60.4	68.7	71.5
Writing ability	48.0	57.4	51.7	52.5	67.1

Students were asked to rate a variety of 21 life objectives from "essential" to "not important." Table 10 presents the top five objectives for GT respondents, along with the ratings from their public and private university counterparts.

Table 10. Selected Life Objectives: Percent Rating Objective "Essential" or "Very Important"

	GT Men	GT Women	GT	Public	Private
Being very well off financially	77.5	68.4	73.9	74.2	65.6
Raising a family	73.7	66.4	70.9	74.4	73.8
Becoming an authority in my field	59.1	62.7	60.5	59.3	67.8
Helping others who are in difficulty	52.5	61.5	56.0	66.4	72.1
Obtaining recognition from my colleagues for contributions in my special field	52.6	57.3	54.4	55.4	59.7

The top five life objectives for GT respondents and their public and private university counterparts are identical. It is notable that *being very well off financially* is not rated as essential by private university freshmen as it is by GT and public university respondents. Also worthy of note, the goal of *improving my understanding of other countries and cultures* was considered essential or very important by 68.0 percent of private university respondents, but only by 49.8 percent of GT respondents and 54.4 percent of the public university group.

Political Orientation and Opinions

In 2005, the number of GT respondents who classified themselves as "conservative" or "far right" was at its highest point in over 30 years. This year, this number has declined significantly, from 39.2 percent to 31.3 percent. At the same time, the number of respondents calling themselves "middle of the road" increased from 37.5 percent in 2005 to 44.4 percent. Respondents at GT are still more conservative than their counterparts at the public and private comparator institutions. The trend for GT freshman respondents from 1971–2006 is presented in Charts 2 and 3, along with selected trend data for specific opinion items in Table 11.

Chart 2. Political Orientation of Freshman Respondents

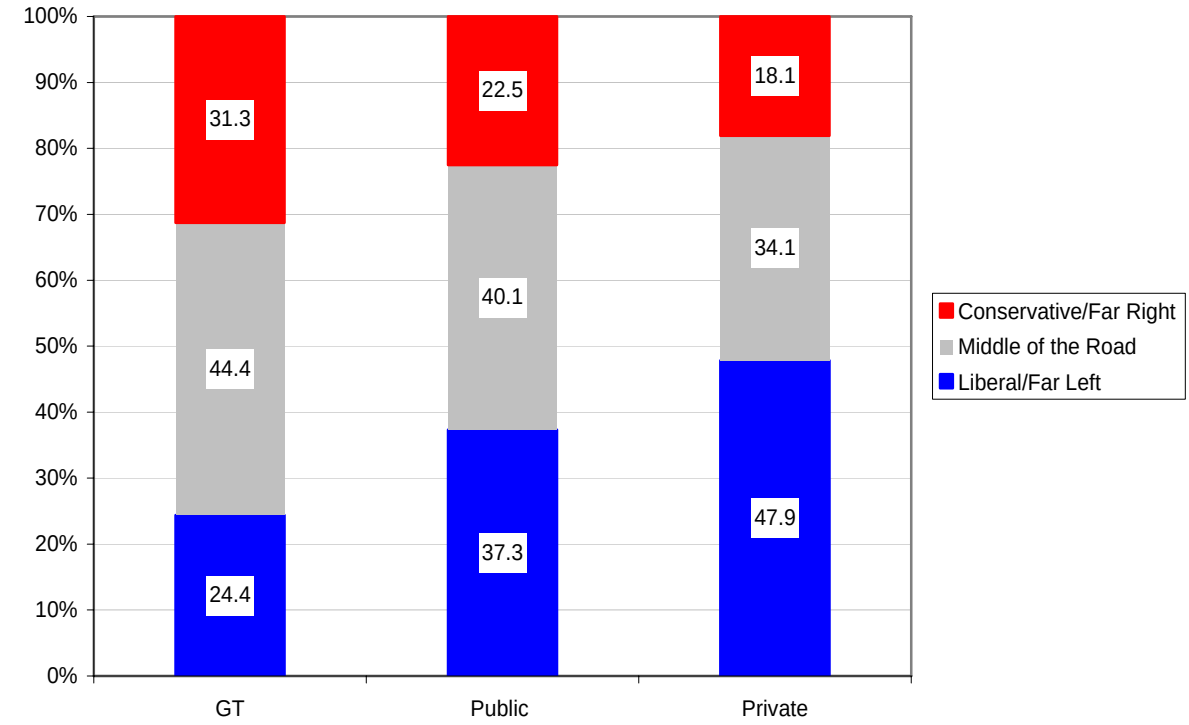


Chart 3. Political Identification of GT Freshman Respondents: 1971–2006

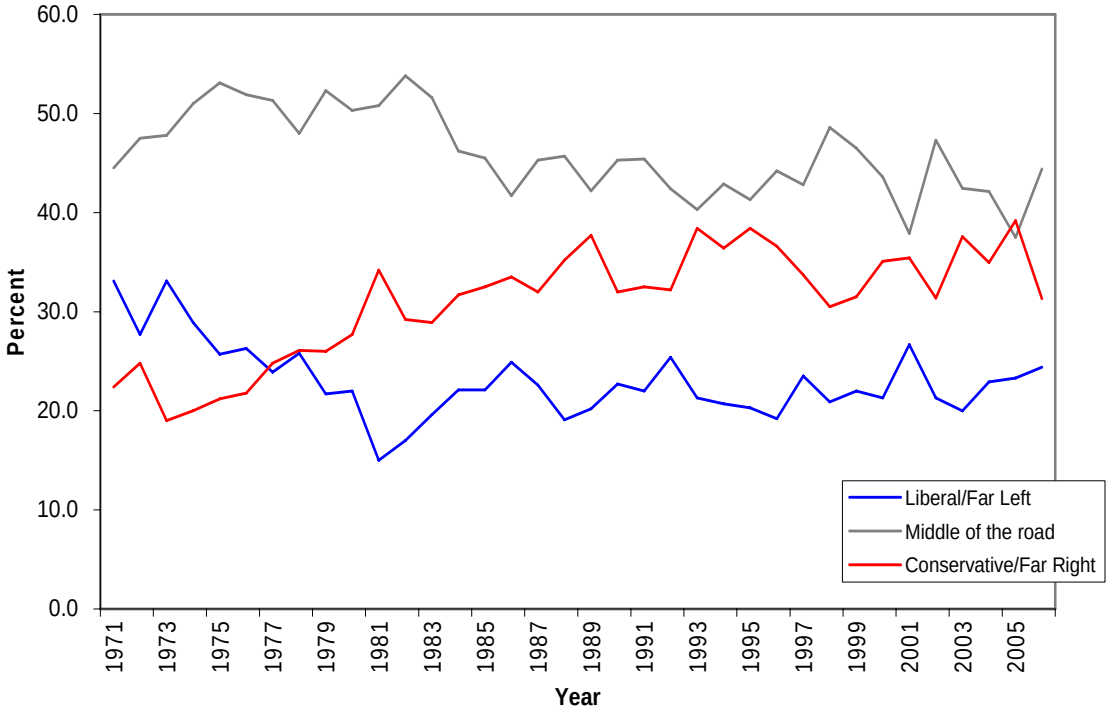


Table 11. Opinion Trends for GT Respondents with Public and Private Comparators

Percent saying "Strongly" or "Somewhat Agree"

	Georgia Tech			Public	Private
	1996	2001	2006	2006	2006
Racial discrimination is no longer a major problem in America	19.2	28.5	23.5	18.4	14.7
Affirmative action in college admissions should be abolished	n/a	69.5	62.2	52.6	55.6
There is too much concern in the courts for the rights of criminals	77.7	68.6	57.8	53.8	43.9
The death penalty should be abolished	17.8	28.4	28.6	36.6	51.5
Abortion should be legal	58.8	54.5	56.3	65.4	72.6
Wealthy people should pay a larger share of taxes than they do now	54.8	38.5	50.7	58.2	59.5
It is important to have laws prohibiting homosexual relationships	35.8	27.3	25.8	20.7	14.6
Same-sex couples should have the right to legal marital status	n/a	51.3	57.5	66.6	74.8