

Office of Assessment

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# 2005 – 2006 Top 10 Students

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Descriptive Information, Performance  
Data, and Predictive Analysis

## **Introduction**

This study looks at the experience of 188 students enrolled in the Towson University Top 10 program. The Top 10 program brings high school seniors who graduate in the top 10 percent of their graduating class to Towson as first-time, full-time freshmen. Top 10 students receive an academic scholarship to help finance their education. The 2005-2006 academic year was the first year of the Top 10 program. The following sections of this report provide summaries and analyses for demographic information, satisfaction survey and focus group results, and quantitative analyses of Top 10 performance data.

## **Part I: Descriptive Information**

Top 10 students are almost evenly divided between Baltimore City high schools and Baltimore County high schools. About half of Top 10 students identify their race/ethnicity as black and about 38% identify themselves as white. Due to the small number of Top 10 students who identified their race/ethnicity as other than black or white, only black and white student responses were analyzed for this study. The following tables present demographic information about the 05-06 Top 10 students.

### **High School Location**

<b>Item</b>	<b>Top 10 N=180</b>
Baltimore City Schools	47%
Baltimore County Schools	53%

### **Gender**

<b>Item</b>	<b>Top 10 N=180</b>	<b>FTFT N=2322</b>
Male	24%	37%
Female	76%	63%

### **Race/Ethnicity**

Black	50%	8%
Indian	1%	1%
Asian	4%	6%
Hispanic	1%	1%
White	38%	75%
Non-Resident Alien	---	2.6%
Unknown/Other	6%	8%

### **Baltimore City Schools**

Black	75%	8%
Indian	1%	1%
Asian	3%	6%
Hispanic	1%	1%
White	13%	75%
Non-Resident Alien	--	2.6%
Unknown/Other	7%	8%

### **Baltimore County Schools**

Black	29%	8%
Indian	0%	1%
Asian	5%	6%
Hispanic	0%	1%
White	60%	75%
Non-Resident Alien	--	2.6%
Unknown/Other/No Response	6%	8%

### **Part II: Performance Information**

The following tables highlight Top 10 student performance in high school, on the SAT, and during their first year at Towson University. Similar data from all first-time, full-time students at Towson are also provided as a point of comparison.

#### **All Students**

Item	Top 10
Mean High School GPA	3.57
Mean SAT Verbal	460
Mean SAT Math	465
TU GPA Fall 05	2.50
TU GPA Spring 06	2.24
TU CUM	2.40

### Baltimore City Schools

Mean High School GPA	3.48
Mean SAT Verbal	416
Mean SAT Math	417
TU GPA Fall 05	2.16
TU GPA Spring 06	1.89
TU CUM	2.05

### Baltimore County Schools

Mean High School GPA	3.68
Mean SAT Verbal	509
Mean SAT Math	525
TU GPA Fall 05	2.88
TU GPA Spring 06	2.63
TU CUM	2.79

### Baltimore City Schools

	Top 10 Black	Top 10 White	All Top 10
Mean High School GPA	3.41	3.83	3.48
Mean SAT	801	1005	928
Mean SAT Verbal	405	485	416
Mean SAT Math	396	520	417
TU GPA Fall 05	2.05	2.54	2.16
TU GPA Spring 06	1.86	1.98	1.89
TU CUM	2.02	2.01	2.05

### Baltimore County Schools

	Top 10 Black	Top 10 White	All Top 10
Mean High School GPA	3.42	3.78	3.68
Mean SAT	879	1087	1034
Mean SAT Verbal	445	534	508
Mean SAT Math	434	553	525
TU GPA Fall 05	2.54	2.99	2.89
TU GPA Spring 06	2.35	2.72	2.63
TU CUM	2.40	2.93	2.79

### Baltimore City Schools

	Top 10 Male	Top 10 Female	All Top 10
Mean High School GPA	3.46	3.48	3.48
Mean SAT	846	830	928
Mean SAT Verbal	429	412	416
Mean SAT Math	416	418	417
TU GPA Fall 05	2.19	2.14	2.16
TU GPA Spring 06	1.75	1.94	1.89
TU CUM	1.99	2.07	2.05

### Baltimore County Schools

	Top 10 Male	Top 10 Female	All Top 10
Mean High School GPA	3.69	3.68	3.68
Mean SAT	1044	1031	1034
Mean SAT Verbal	506	510	508
Mean SAT Math	538	521	525
TU GPA Fall 05	2.84	2.89	2.89
TU GPA Spring 06	2.54	2.66	2.63
TU CUM	2.68	2.83	2.79

### Part III: Comparisons, Correlations and Predictors

Comparison of means, correlation analyses, paired-sample t-tests and linear regression were used to analyze Top 10 student performance data. These analyses looked at differences in performance and success across commonly accepted modes of comparison.

Paired sample t-tests indicated a moderate statistically significant difference in first semester GPA and second semester GPA for all Top 10 students but when these data are broken down by city/county and race/ethnicity, there is no statistically significant difference in student success from first to second semester.

Statistically significant differences in mean student performance were found by county/city high schools, and by black/white race/ethnicity. Based on these analyses, students from county high schools were more likely to succeed at Towson University (as defined by first year CUM GPA) than students from city high schools, as were white students. White students were also more likely to have higher SAT scores and a higher high school GPA.

Strong positive correlations were found for all Top 10 students between high school GPA and TU CUM GPA, SAT and TU CUM GPA, and Fall 05 and Spring 06 TU GPA. However, when these correlations were broken down by city/county and race/ethnicity, there were much weaker and fewer statistically significant relationships among these variables for city students and for black students. The strongest correlations for all Top 10 students in any category were between

TU Fall 05 GPA and TU Spring 06 GPA; essentially, these results suggest that there is a strong positive relationship between Top 10 student performance in their first semester at Towson and in their second semester. Results from the paired sample t-tests support this conclusion.

SAT scores were found to be moderate predictors of success at Towson for the Top 10 group overall, but when these data were looked at by city/county schools and by race/ethnicity, SAT score was a strong predictor for white county students, a moderate predictor for Top 10 black students and Top 10 white city students. SAT scores, however, were weak predictors of success for black students from city schools. High school GPA was a moderate predictor of success at Towson for the Top 10 student group overall but when these data were looked at by both city/county and race/ethnicity, high school GPA was a very weak predictor of success for city students and for black students, from both city and county schools.

### Comparison of Means for Top 10 Students

	Male/Female	Black/White	City/County
High School GPA	There was no statistically significant difference between M/F HS GPA	White students were statistically more likely to have higher HS GPA	Baltimore City students were statistically more likely to have lower HS GPA
SAT Score	There was no statistically significant difference between M/F SAT scores	White students were statistically more likely to have higher SAT scores	Baltimore City students were statistically more likely to have lower SAT scores
TU Fall 05 GPA	There was no statistically significant difference between M/F TU Fall 05 GPA	White students were statistically more likely to have higher TU Fall 05 GPA	Baltimore City students were statistically more likely to have lower TU Fall 05 GPA
TU Spring 06 GPA	There was no statistically significant difference between M/F TU Spring 06 GPA	White students were statistically more likely to have higher TU Fall 05 GPA	Baltimore City students were statistically more likely to have lower TU Spring 06 GPA
TU CUM GPA	There was no statistically significant difference between M/F TU CUM GPA	White students were statistically more likely to have higher TU CUM GPA	Baltimore City students were statistically more likely to have lower TU CUM GPA

### Paired Sample T-Tests – Difference Between Fall 05 GPA and Spring 06 GPA

	TU Fall 05 GPA	TU Spring 06 GPA	Significant Difference
All Top 10 Students	2.50	2.35	Yes
Baltimore City Top 10	2.15	2.01	No
Baltimore County Top 10	2.88	2.72	No
Black Top 10 Students	2.16	2.04	No
White Top 10 Students	2.91	2.76	No
Baltimore City Top 10 Black	2.05	1.92	No
Baltimore City Top 10 White	2.54	2.48	No
Baltimore County Top 10 Black	2.54	2.47	No
Baltimore County Top 10 White	2.99	2.82	No

### Correlations

	HS GPA and TU CUM	SAT and TU CUM	TU GPA Fall 05 and TU GPA Spring 06
All Top 10 Students	.468*	.499*	.627*
Baltimore City Top 10	.307*	.210*	.644*
Baltimore County Top 10	.525*	.520*	.511*
Black Top 10 Students	.216*	.243*	.572*
White Top 10 Students	.550*	.537*	.551*
Baltimore City Top 10 Black	.254*	.222	.551*
Baltimore City Top 10 White	.715*	.383	.884*
Baltimore County Top 10 Black	.069	.242	.556*
Baltimore County Top 10 White	.611*	.597*	.472*

\*Statistically significant at the 0.05 level or 0.01 level.

**Regression/Predictors of TU Spring 06 GPA\* (R Square)**

	SAT	HS GPA	Ethnicity	District	TU Fall 05 GPA
All Top 10 Students	.232	.219	.065	.127	.673
Baltimore City Top 10	.044	.095	.000		.710
Baltimore County Top 10	.314	.271	.037		.525
Black Top 10 Students	.243	.047		.032	.672
White Top 10 Students	.537	.302		.113	.533
Baltimore City Top 10 Black	.049	.064			.632
Baltimore City Top 10 White	.146	.137			.878
Baltimore County Top 10 Black	.058	.005			.811
Baltimore County Top 10 White	.356	.374			.424

\*Statistically significant at the 0.05 level or 0.01 level.

**Regression Models\***

Top 10 Model	Dependent Variable	R Square
1. SAT	TU GPA Spring 06	.271
2. SAT, HS GPA	TU GPA Spring 06	.341
3. SAT, HS GPA, TU GPA Fall 05	TU GPA Spring 06	.696
4. SAT, HS GPA, TU GPA Fall 05, District	TU GPA Spring 06	.699
5. SAT, HS GPA, TU GPA Fall 05, District, Ethnicity	TU GPA Spring 06	.699

**Regression Models by District**

Baltimore City Model	Dependent Variable	R Square
1. SAT	TU GPA Spring 06	.044
2. SAT, HS GPA	TU GPA Spring 06	.103
3. SAT, HS GPA, TU GPA Fall 05	TU GPA Spring 06	.150
4. SAT, HS GPA, TU GPA Fall 05, Ethnicity	TU GPA Spring 06	.720

<b>Baltimore County Model</b>	<b>Dependent Variable</b>	<b>R Square</b>
1. SAT	TU GPA Spring 06	.314
2. SAT, HS GPA	TU GPA Spring 06	.400
3. SAT, HS GPA, TU GPA Fall 05	TU GPA Spring 06	.402
4. SAT, HS GPA, TU GPA Fall 05, Ethnicity	TU GPA Spring 06	.583

### **Regression Models by Ethnicity**

<b>Top 10 Black Students Model</b>	<b>Dependent Variable</b>	<b>R Square</b>
1. SAT	TU GPA Spring 06	.051
2. SAT, HS GPA	TU GPA Spring 06	.076
3. SAT, HS GPA, TU GPA Fall 05	TU GPA Spring 06	.110
4. SAT, HS GPA, TU GPA Fall 05, District	TU GPA Spring 06	.679

<b>Top 10 White Students Model</b>	<b>Dependent Variable</b>	<b>R Square</b>
1. SAT	TU GPA Spring 06	.364
2. SAT, HS GPA	TU GPA Spring 06	.499
3. SAT, HS GPA, TU GPA Fall 05	TU GPA Spring 06	.533
4. SAT, HS GPA, TU GPA Fall 05, District	TU GPA Spring 06	.648

### **Discriminant Analysis: Predictive models**

#### **All Top Ten Students**

<b>Model</b>	<b>Grouping Variable</b>	<b>Cases Correctly Predicted into Group</b>
1. SAT	TU CUM GPA Above 2.50 TU CUM GPA Below 2.50	66%
2. SAT, HS GPA	TU CUM GPA Above 2.50 TU CUM GPA Below 2.50	65%
3. SAT, HS GPA, TU GPA Fall 05	TU CUM GPA Below 2.50 TU CUM GPA Below 2.50	79%
4. SAT, HS GPA, TU GPA Fall 05, District	TU CUM GPA Above 2.50 TU CUM GPA Below 2.50	79%
5. SAT, HS GPA, TU GPA Fall 05, District, Ethnicity	TU CUM GPA Below 2.50 TU CUM GPA Below 2.50	79%

### Baltimore City Top Ten

Model	Grouping Variable	Cases Correctly Predicted into Group
1. SAT	TU CUM GPA Above 2.50 TU CUM GPA Below 2.50	58%
2. SAT, HS GPA	TU CUM GPA Above 2.50 TU CUM GPA Below 2.50	63%
3. SAT, HS GPA, TU GPA Fall 05	TU CUM GPA Below 2.50 TU CUM GPA Below 2.50	79%
4. SAT, HS GPA, TU GPA Fall 05, Ethnicity	TU CUM GPA Above 2.50 TU CUM GPA Below 2.50	78%

### Baltimore County Top Ten

Model	Grouping Variable	Cases Correctly Predicted into Group
1. SAT	TU CUM GPA Above 2.50 TU CUM GPA Below 2.50	75%
2. SAT, HS GPA	TU CUM GPA Above 2.50 TU CUM GPA Below 2.50	74%
3. SAT, HS GPA, TU GPA Fall 05	TU CUM GPA Below 2.50 TU CUM GPA Below 2.50	86%
4. SAT, HS GPA, TU GPA Fall 05, Ethnicity	TU CUM GPA Above 2.50 TU CUM GPA Below 2.50	87%

### Black Top Ten Students

Model	Grouping Variable	Cases Correctly Predicted into Group
1. SAT	TU CUM GPA Above 2.50 TU CUM GPA Below 2.50	58%
2. SAT, HS GPA	TU CUM GPA Above 2.50 TU CUM GPA Below 2.50	57%
3. SAT, HS GPA, TU GPA Fall 05	TU CUM GPA Below 2.50 TU CUM GPA Below 2.50	82%
4. SAT, HS GPA, TU GPA Fall 05, District	TU CUM GPA Above 2.50 TU CUM GPA Below 2.50	82%

## White Top Ten Students

Model	Grouping Variable	Cases Correctly Predicted into Group
1. SAT	TU CUM GPA Above 2.50 TU CUM GPA Above 2.50	78%
2. SAT, HS GPA	TU CUM GPA Above 2.50 TU CUM GPA Above 2.50	83%
3. SAT, HS GPA, TU GPA Fall 05	TU CUM GPA Below 2.50 TU CUM GPA Below 2.50	86%
4. SAT, HS GPA, TU GPA Fall 05, District	TU CUM GPA Above 2.50 TU CUM GPA Below 2.50	86%

### Part IV: Top 10 Program – Student Participation Questionnaire Results

Survey data were collected from 108 Top 10 students for completed the online instrument. Thirty-five students also participated in one of three focus groups offered in June 2006. Sixty-three percent of the students who responded to the survey commute to Towson. In fact, 45% of all Top 10 students spend 6 or more hours a week commuting to class. In contract, 53% of students who responded to the survey spend 5 hours per week or less studying. Eighty-two percent of respondents rate their academic courses at TU as good or excellent and 80% rate their overall TU experience as good or excellent. Through open ended response on the survey and through focus group comments, students revealed that their transition to Towson was tough and that their high schools did not prepare them well enough. Time management skills were identified by the students as a major problem. These students refer to culture shock, lack of friendliness on campus, no extra curricular activities for commuters, and the difficulty in getting used to students who were so “different.” These students do however, feel supported at Towson – academically, and through advising. Seventy-nine percent of these students said the quality of academic advising at Towson was good or excellent. Survey results also point to the Top 10 students as disconnected and disengaged from Towson, and trying to adjust. Their open-ended response to the question “what will help” come back to academic support, scheduling flexibility, and regular meetings with mentors.

Survey results are detailed on the following pages.

<b><i>Thinking back on your first semester at Towson...</i></b>	<b>Excellent</b>	<b>Good</b>	<b>Fair</b>	<b>Poor</b>
How would you evaluate your overall experience at Towson?	22	60	17	1
How would you evaluate your academic courses at Towson?	31	48	19	2
How would you evaluate the quality of academic advising you have received at Towson?	21	58	20	1

	<b>A Lot</b>	<b>Some</b>	<b>A Little</b>	<b>Not At All</b>
How prepared were you for Towson's academic programs?	33	46	17	4

<b><i>To what extent did Towson ...</i></b>	<b>A Lot</b>	<b>Some</b>	<b>A Little</b>	<b>Not At All</b>
Provide the support you need to succeed academically	40	46	13	1

<b><i>During your first semester at Towson, how difficult was it to...</i></b>	<b>Very Difficult</b>	<b>Difficult</b>	<b>Somewhat Difficult</b>	<b>Not Difficult At All</b>
Manage your time	17	32	39	12
Make new friends	20	15	33	32
Keep up with your coursework	12	19	53	16
Find time to study	14	20	49	16
Get support for academic work	6	17	37	40
Pay for college	15	14	26	45
Earn A's or B's in your classes	21	18	42	18

<b><i>During your first semester at Towson, how often did you...</i></b>	<b>More than 5 times</b>	<b>3 to 5 times</b>	<b>1 or 2 times</b>	<b>Never</b>
Meet with your Top 10 mentor	2	14	27	57
Meet with your FYE advisor	17	43	36	5
Attend a campus sporting event	16	14	33	38
Study with other students outside class	17	13	35	36
Participate in co-curricular activities	16	11	29	45
Discuss your work with a faculty member	18	25	47	10
Volunteer on campus or in the community	5	6	26	63
Meet with a tutor for help with an assignment	6	14	22	58

***Please continue on back***

**To what extent did each of the following impact the grades you received last semester?**

	A Lot	Some	A Little	Not At All
Your social life	9	33	21	37
Your work schedule	24	22	15	40
Your course load or requirements	20	40	23	18
Your academic skill level	21	44	24	12
Your motivation to succeed	44	30	12	14
Your mentor or advisor	10	35	25	30
Your feelings about Towson	11	28	23	38
Your high school preparation for college	48	21	17	15
Your willingness to meet with a tutor	15	27	10	49

**How often did you participate in...**

	A Lot	Some	A Little	Not At All
Towson intramurals	6	2	9	83
Cultural arts events	3	13	29	55
Student government	2	2	11	85
Volunteer service	1	12	18	70
Clubs or campus organizations	13	18	25	45

**Please tell us a little more about your experience...**

	Yes	No	Don't Know	
Do you live on campus?	63	37		
	0 to 5 hours	5 to 10 hours	15 to 20 hours	More than 20 hours
How many hours a week do you usually study?	55	31	5	7
If you <u>do not</u> live on campus, how many hours a week do you spend commuting to Towson?	55	30	12	3