

FISCAL YEAR: 2013

NATIONAL SUMMER TRANSPORTATION INSTITUTE PROGRAM

ANNUAL REPORT

TRANSMITTAL SHEET

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BALTIMORE, MARYLAND 21251

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2013 SUMMER TRANSPORTATION INSTITUTE FINAL REPORT



STI students and staff at VirginiaTech

Prepared for

STATE OF MARYLAND
DEPARTMENT of
TRANSPORTATION

In cooperation with

THE U.S. DEPARTMENT
OF TRANSPORTATION
FEDERAL HIGHWAY
ADMINISTRATION

and

CONNECTED VEHICLE/
INFRASTRUCTURE UTC
At VIRGINIA POLYTECHNIC
INSTITUTE AND STATE
UNIVERSITY

Prepared by
Z. Andrew Farkas, Ph.D.
Valencia Baker

DISCLAIMER

THIS MATERIAL IS BASED UPON WORK THAT IS SUPPORTED BY THE NATIONAL SUMMER TRANSPORTATION INSTITUTE AND FEDERAL HIGHWAY ADMINISTRATION. ANY OPINIONS, FINDINGS, CONCLUSIONS OR RECOMMENDATIONS EXPRESSED IN THIS PUBLICATION ARE THOSE OF THE AUTHOR(S) AND DO NOT NECESSARILY REFLECT THE VIEW OF THE NATIONAL SUMMER TRANSPORTATION INSTITUTE PROGRAM.

Morgan State University

2013 SUMMER TRANSPORTATION INSTITUTE

FINAL REPORT

Prepared for the

Maryland Department of Transportation

In cooperation with

U.S. Department of Transportation

Federal Highway Administration

and

Connected Vehicle/Infrastructure UTC at
Virginia Polytechnic Institute and State University

October 2013

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Section I PROGRAM ADMINISTRATION

Host Site: Morgan State University
Address: 1700 East Cold Spring Lane, Baltimore, Maryland 21251
Project Director: Z. Andrew Farkas, Ph.D.
Length of Program: 4 Weeks
Type of Program: Nonresidential
Grade Levels: 10 th , 11 th , 12 th grades
Number of Students Per Grade: 10 th (13), 11 th (6), 12 th (3)
Number of Applications Received : 35
Number of Student Applications Accepted :20
Number Students to Complete the Program: 20

ABSTRACT

The Summer Transportation Institute (STI), hosted by Morgan State University's National Transportation Center (NTC), serves to attract high school students to participate in a STEM summer program. STI aims to address the nation's need for a diverse pool of transportation professionals capable of developing long-term solutions to complicated intermodal transportation issues.

In order to meet this goal, STI increases pre-college students' awareness of transportation careers. The program also helps to enhance the students' academic skills so they can be successful in careers in the transportation industry. Twenty-two students from diverse backgrounds participated in the nonresidential program at Morgan State University from July 9-August 2, 2013.

The four-week program provided a multidisciplinary academic curriculum, which included guest speaker presentations, computer laboratories, research, and field trips. The students had an opportunity to drive a car simulator. The students learned about all modes of transportation and gained leadership skills while working on team-building projects. Field trips included the Smart Road in Blacksburg, Virginia, Maryland Transit Administration, and Maryland Boat Pilots Association. In addition, the participants learned about college preparation and career planning.

COMMITTEE, PARTNERS, AND STAFF

Intermodal Advisory Committee

A meet was on held May 24, 2013 with the Intermodal Advisory Committee (IAC). The IAC is made up of representatives from industry, academia, and government to assist with the development of a well-balanced curriculum, planning activities, and field trips. Members of the 2013 IAC are listed in the chart below.

NATIONAL SUMMER TRANSPORTATION INSTITUTE PROGRAM – ANNUAL REPORT

SECTION 1: INTER-MODAL ADVISORY COMMITTEE (IAC)

State: Maryland	
Fiscal Year: 2013	Host Site: MORGAN STATE UNIVERSITY
Name:	Dr. Moges Ayele
Title:	Senior Liaison for Higher Education
Organization:	Federal Highway Administration
Name:	Nelson Costellanos
Title:	Division Administrator
Organization:	Federal Highway Administration
Name:	Dr. Eugene DeLoatch
Title:	Dean, School of Engineering
Organization:	Morgan State University
Name:	Dr. Z. Andrew Farkas
Title:	Director, National Transportation Center
Organization:	Morgan State University
Name:	Gregory Murrill
Title:	Division Administrator-Maryland
Organization:	Federal Highway Administration
Name:	Roland Wilson
Title:	Regional Program Manager
Organization:	National Traffic and Highway Safety Administration
Name:	Valencia D. Baker
Title:	Coordinator Education Programs, National Transportation Center
Organization:	Morgan State University

Partners/Sponsors

The Maryland Transit Administration (MTA) provided daily transportation passes to STI participants. The passes allowed the participants to commute daily to and from the host site. Morgan State University's Department of Transportation and Urban Infrastructure Studies gave STI participants access to its driving simulator. Other partners provided speakers, videos, and chaperones for field trip activities. Program and sponsors are listed below. The committee was given a list of planned activities for the 2013 STI and the committee members provided feedback.

NATIONAL SUMMER TRANSPORTATION INSTITUTE PROGRAM – ANNUAL REPORT

SECTION 1: PARTNERS/SPONSORS	
State: Maryland	Host Site: MORGAN STATE UNIVERSITY
Fiscal Year: 2013	
Name:	Dr. Anthony Saka
Title:	Chairperson
Organization:	Dept. of Transportation and Urban Infrastructure Studies
Role/Contribution:	Speaker
Name:	Louise Flamer
Title:	Coordinator
Organization:	Morgan State University Center for Continuing and Professional Studies
Role/Contribution:	STI curriculum review
Name:	Tranell Griffin
Title:	Manager, Maryland Transportation Initiatives
Organization:	Maryland Transit Administration
Role/Contribution:	Provided commuter passes for STI students
Name:	Hope Williams
Title:	Special Assistant
Organization:	U.S. Rep. Elijah Cummings' district office
Role/Contribution:	Facilitated tours and speakers
Name:	Katrina Y. Jones
Title:	Outreach Coordinator
Organization:	Maryland Port Administration
Role/Contribution:	Speaker and facilitated tour of the Maryland port operations

NATIONAL SUMMER TRANSPORTATION INSTITUTE PROGRAM — ANNUAL REPORT

SECTION 1 (CONT) : PARTNERS/SPONSORS

Name:	Adrienne Barnes
Title:	Director of Communication
Organization:	Baltimore City Transportation Department
Role/Contribution:	Speaker and facilitated tours of Baltimore City Traffic Mgmt. Center
Name:	Roland Wilson
Title:	Regional Program Manager
Organization:	National Traffic and Highway Safety Administration
Role/Contribution:	Speaker and member of STI selection committee
Name:	Troy Parham
Title:	Director, Diversity and Special Initiatives
Organization:	Maryland State Highway Administration
Role/Contribution:	Provided guidance to the STI program coordinator
Name:	Robert Ferguson
Title:	Superintendent Traffic Division
Organization:	Baltimore City Transportation Department
Role/Contribution:	Speaker and facilitated a tour of the Baltimore City Traffic Management Center
Name:	Mary Buettner
Title:	Special Project Liaison
Organization:	Baltimore City Transportation Department
Role/Contribution:	Speaker and facilitated trips to conduct surveys of modern traffic roundabouts

Program Faculty and Staff

STI has a full-time staff, which includes the program coordinator, two teachers, and two counselors. The teachers were responsible for facilitating all classroom activities and projects, and they also ensured that the participants completed surveys and evaluations. Counselors were responsible for assembling project materials, chaperoning lunch and recreation activities, and preparing computer laboratories and audio and video equipment. Counselors also were responsible for taking pictures of STI activities and preparing travel vehicles. Program faculty and staff are listed in the chart below.

State: MARYLAND	
Fiscal Year: 2013	
Name:	Name: Dr. Z. Andrew Farkas
Position Title:	Director, National Transportation Center
Affiliation:	Morgan State University School of Engineering
Name:	Valencia D. Baker
Position Title:	Coordinator Education Programs, National Transportation Center
Affiliation:	Morgan State University
Name:	Name: Dawn Ray
Position Title:	Program Instructor
Affiliation:	Baltimore City Public School System
Name:	Name: Karl Brown
Position Title:	Program Instructor
Affiliation:	Baltimore County Public School System
Name:	Name: Raymond Carter
Position Title:	Counselor
Affiliation:	Baltimore City School System
Name:	Folashade Shelton
Position Title:	Counselor
Affiliation:	Student, Morgan State University

PROGRAM OBJECTIVES

The objectives of the Morgan State University STI program are as follows:

1. Introduce students to careers and opportunities available in the transportation industry.
2. Demonstrate to participants the real-life problems that are resolved by transportation professionals.
3. Increase students awareness of the preparation required for a career in the transportation industry.
4. Enhance student awareness of the current and future need for conscientious and innovative transportation professionals.
5. Introduce students to local, state, and federal agencies that oversee transportation systems.
6. Introduce students to ground-breaking developments in the transportation industry.
7. Provide students with college enrollment information.

Accomplishment of the objectives was measured based on three indicators:

1. students responses to the pre/post survey questionnaires
2. student responses on program evaluations
3. evaluation of the implementation of curriculum topics

The results of the surveys and program evaluations are included in the Appendices A and B.

STUDENT SELECTION PROCESS

Thirty-five applications for the STI program were reviewed on May 24, 2013. From 35 applications, the committee selected 20 students. The selected students were sent an award notification, health surveys, and additional forms. Nine students were placed on the waiting list. Six students who were not selected did not meet the criteria or submitted incomplete applications.

MARKETING PROCESS

The marketing campaign for STI began in January 2013. Brochures and applications were sent to high school counselors, principals, and mathematics and science department heads. In addition, announcements were sent to public libraries. Information about STI was placed on the Morgan State University (MSU) website. IAC members, partners and sponsors of the STI, churches, and STI alumni received application packets to distribute. Presentations were also conducted at area high schools. Application packets were also sent to Indian and Hispanic community centers.

DEMOGRAPHIC SUMMARY REPORT

FY 2013 National Summer Transportation Institute

STATE:	MARYLAND	Project Director:	Dr. Z. Andrew Farkas
Host Site	Morgan State University	Program Dates:	July 9, 2013-August 2, 2013
		Program Length	4 Weeks

Select Grade Level		Applicant Data			
High School	X	Number of Applications Received			35
Middle School		Number of Participants Selected			20
Select Program Classification		Number of Participants that Completed the Program			20
Residential		Geographic Representation			
Non-Residential	X	Number of Cities: 3	Number of Counties: 2	Bridgetown, Barbados 1	Congressional District Numbers: 1, 2,3, 4,7

	Race /Ethnicity							Gender		Disability	Grade level					
	African American	Caucasian	Hispanic American	Native American	Asian American	Pacific American	Other	Male	Female	Targeted Disabilities	7	8	9	10	11	12
Number of Participants	17		1	1		1		13	7	1				14	5	1
Provide Types(s) of Targeted Disabilities: N/A																

Schools Represented

Name/City/State	Name/City/State
Deer Park High School/Owings Mills, MD	Northwestern High School/Baltimore ,MD
Mergenthaler High School/Baltimore, MD	Grantley Adams High School, Bridgetown, Barbados
Edmondson/Westside High School/ Baltimore, MD	
Forest Park High School/Baltimore, MD	
New Town High School/Owings Mills, MD	
Patterson High School/Baltimore, MD	
Polytechnic Institute High School/Baltimore, MD	
Randallstown High School/Baltimore, MD	

SECTION II PROGRAM CURRICULUM

Academic Program

The topics covered in the 2013 STI curriculum included transportation safety, transportation and urban infrastructure, transportation history, aviation, connected vehicles, the Virginia Smart Road career research, and SAT preparation. The construction of a modern traffic roundabout was a hands-on activity that helped to develop team-building and leadership skills. The curriculum was further enhanced by presentations from industry and academia professionals, and field trips. Weekly activity schedules can be found in Appendix E.

Transportation and Urban Infrastructure

Dr. Anthony Saka, chair of Morgan's Department of Transportation and Urban Infrastructure Studies, introduced the students to the transportation systems undergraduate program. He discussed the basic concepts of transportation systems and key transportation issues, including planning, engineering, management, and logistics. Dr. Saka also discussed educational opportunities available at MSU. As a follow-up to Dr. Saka's presentation, the students researched transportation infrastructure in urban environments.

Aviation Awareness

STI students visited the Smithsonian Institution's Air and Space Museum, where they were introduced to the history of aviation and space flight. The trip prepared the students for a visit to Goddard Space Flight Center. The visit to Goddard was enhanced by the engineering staff. After their visits, the students worked in teams to construct a model rocket. The students used information and terminology that they learned from the trips while presenting their rocket designs to the class.

Transportation Career Research

The students worked in four-member teams to research transportation careers. Each group selected a career, wrote a report, and prepared a PowerPoint presentation. The presentation included information gleaned from guest speakers and field trips. Each team member was given an opportunity to speak during their group's presentations. Careers selected by the teams included air traffic controller, structural engineer, boat pilots, and transportation planner.

Urban Planning: The Modern Traffic Roundabout

The students visited the site of a proposed and an existing modern traffic roundabout. They conducted traffic feasibility studies at both sites. The students used hand tally devices and a survey form to capture information about vehicles at both sites. The feasibility studies helped the students to become aware of the impact that the modern traffic roundabout has on safety, the environment, and fuel efficiency. During classroom presentations, students learned about the history of the modern traffic roundabout in the United States and Maryland.

The students worked in teams and used computer aided design software to sketch modern traffic roundabouts. Once their designs were completed, each team constructed a modern traffic roundabout.

Field Trips

Field trips complemented the classroom and laboratory activities. The students had an opportunity to visit transportation-related sites and to speak with transportation professionals about their careers. All of the field trips that the students took are listed in the charts in Appendix D.

Mass Transit Administration

The Maryland Transit Administration (MTA) staff introduced the students to mass transit career opportunities. The students toured the administrative offices, including the control room where MTA staff routes and schedules transit vehicles. They saw a demonstration of the routing system and the GPS technology used to navigate transit vehicles. Security professionals and light rail and subway engineers spoke about the preparation and training required for their careers. The students also rode the light rail and the subway systems.

The Association of Maryland Boat Pilots

The Maryland pilots took the students on a tour of the Port of Baltimore. They talked to the students about their history, training, and role in protecting the Chesapeake Bay. During the discussion, they explained the parts of the boat and how they use GPS to navigate the boat. There was discussion about safety factors that influence the work that pilots do on the Bay. Students were given an opportunity to wear water safety vests and to steer the boat under the captain's supervision.

Baltimore City Traffic Management Center

Members of the Baltimore Metropolitan Council's Regional Transportation Board met with the students at the Baltimore City traffic management center. The board members discussed their mission and provided students with information about regional transportation planning and policy making for the Baltimore region.

Board members discussed current transportation studies, and long-range transportation for the Baltimore metropolitan area. The students had an opportunity to hear about plans for bike trails and bicycle safety. Presenters spoke to the students about policies and legislation that affect transportation funding and project development.

Virginia Tech University Smart Road

Students had an opportunity to travel to Virginia Tech University in Blacksburg, Virginia. During their visits the students were able to see the Smart Road. The Smart Road is a test bed where innovations in safety and technology are analyzed under a broad range of traffic

conditions. The students received a presentation about the purpose of the Smart Road and how it improves safety for drivers and pedestrians.

Virginia Tech University Connected Vehicles

Connected vehicles were also introduced to the students. This is a new technology in vehicles that warns drivers of impending collisions with other vehicles. The students observed connected vehicles in operation and discussed the type of technology used in connected vehicles. They toured a fleet of connected vehicles and saw a presentation about the development of connected vehicle technology. Students learned about the positive implications of the use of connected vehicles for the environment, safety and human factors research.

Enhancement Program

The enhancement program was developed to prepare students for college and to introduce them to the resources that can prepare them for a transportation career. Preparation began with regular SAT practice tests. The instructors taught the students skills for successfully completing the SAT. The lessons were supplemented with an SAT preparation manual. Each student took a practice test using a computer disc that accompanied the SAT manual.

A trip to the central branch of the Enoch Pratt Free Library enhanced the students' ability to conduct research, and to utilize the resources that are available to them for completing school assignments. Four of the students received library cards during the visit. The remaining students already had library cards.

Sports and Recreation Program

Students enhanced their ability to work in teams and develop good sportsmanship. The counselors engaged the students in a variety of activities in the gymnasium and the university's game room. The students actively participated in volleyball, basketball, tennis, swimming, and table games. In addition, the students went to the game room and played ping pong, electronic games, pool, and air hockey.

EVALUATIONS

Evaluations were used to gauge whether the students found the program activities and instructors to be engaging, and to elicit suggestions and comments to improve the STI program. Graphs that illustrate the results of the program evaluations can be found in Appendix A. The students' comments can be found in Appendix B.

PRE/POST STI SURVEYS

In addition to completing the program evaluation forms, STI participants also completed pre-program and post-program surveys. The pre-survey was conducted to determine what the participants expected from STI. The post-survey was provided to ascertain whether the participants' expectations were met. The results of both surveys can be found in Appendix C.

ORIENTATION

An orientation session was held on June 27, 2013, for the students and their parents. Staff provided the attendees with an overview of the STI program, including rules, regulations, requirements, and expectations.

CLOSING AWARDS PROGRAM

On August 2, 2013, STI's closing awards banquet was held. The 116 attendees included participants and their families, university and transportation officials, and STI staff. The keynote speaker was Warren S. Whitlock, Associate Administrator for Civil Rights Federal Highway Administration He challenged the participants to continue their education, enroll in a post-secondary program, and pursue a career in transportation.

Three students gave oral presentations about their four weeks in the program. All STI participants received a certificate acknowledging successful completion of the 2012 STI program. Five students who exhibited outstanding leadership were recognized and given one of the following awards:

- STI Advisory Committee Award
- Federal Highway Administration Award
- State Highway Administration Award
- STI Director's Award for Excellence
- STI Instructors' Award

SECTION III: PRELIMINARY FINANCIAL REPORT

STI received a total budget of \$43,375. Of that amount, \$40,493 has been expended. This year the cost for commuter passes were included in the budget. The total cost for the passes was \$2,881.91. Morgan State University’s National Transportation Center provided an in-kind contribution of \$12,089.

State:	Maryland	Budget			
		Categories	Approved	Expended	Unexpended
Host Site:	Morgan State University	Personnel	\$14,040.00	\$14,040.00	-
Fiscal Year:	2013	Fringe Benefits	\$1,264.00	\$1,264.00	-
		Recruitment	\$1,000.00	\$839.42	\$160.58
		Contractual Services	\$900.00	\$291.00	\$609.00
		Food	\$2,000.00	\$1,652.59	\$347.41
		Travel	\$8,500.00	\$6,974.86	\$1,525.14
		Supplies	\$5,000.00	4260.22	\$739.78
		Room & Board	-	-	-
		Stipends	\$5,000.00	\$5,000.00	-
		Direct Cost	\$37,704.00	\$34,322.09	-
		Indirect Cost	\$5,671.00	\$5,671.00	-
					-
		Totals	\$43,375.00	\$40,493.00	\$2,881.91

SECTION IV: RECOMMENDATIONS

The 2013 STI program at Morgan State University provided 20 students— 19 from area high schools and one student from Bridgetown, Barbados with an opportunity to learn about current transportation technology, careers, college preparation, and career planning. The students’ responses on program evaluations and surveys indicate that students had a positive learning experience and that they enjoyed the curriculum and related activities. Several of the students indicated that they are interested in pursuing a career in the transportation industry. Each year students from outside of the Baltimore metropolitan area apply and are accepted into the program.

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APPENDIX A

SUMMARY OF PROGRAM EVALUATIONS

Chart 1: Classroom Activities Evaluations

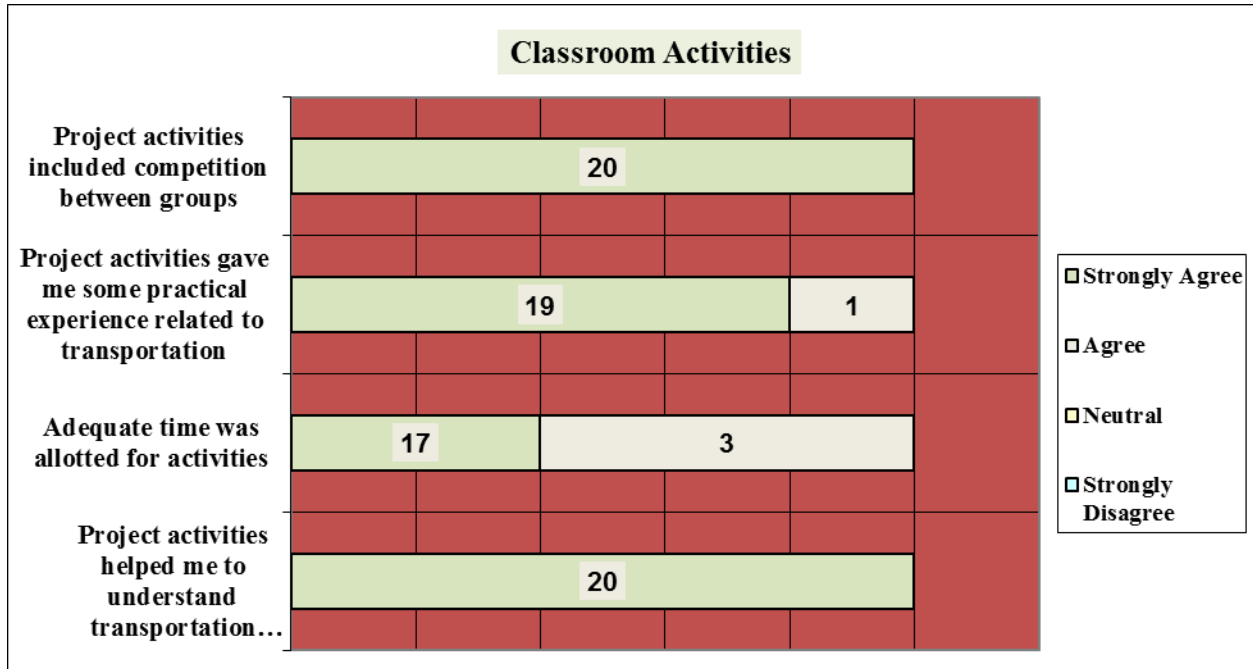


Chart 2: Staff Evaluations

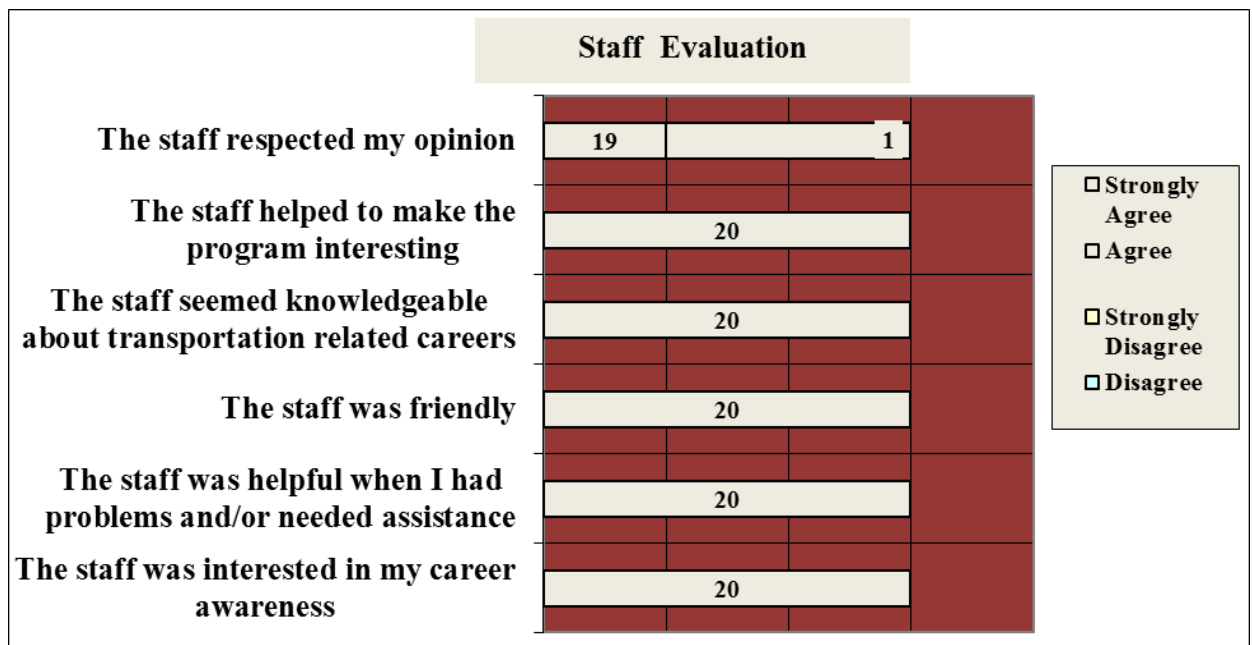


Chart 3: Speakers Evaluations

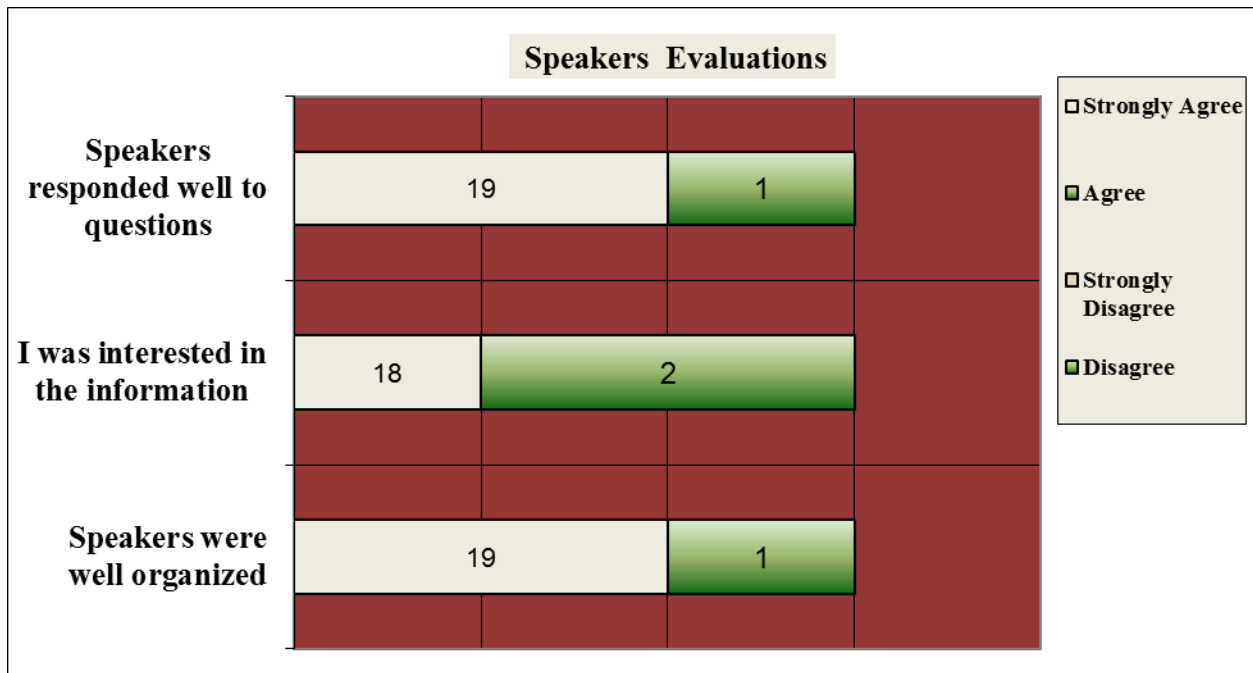


Chart 4: Field Trips Evaluations

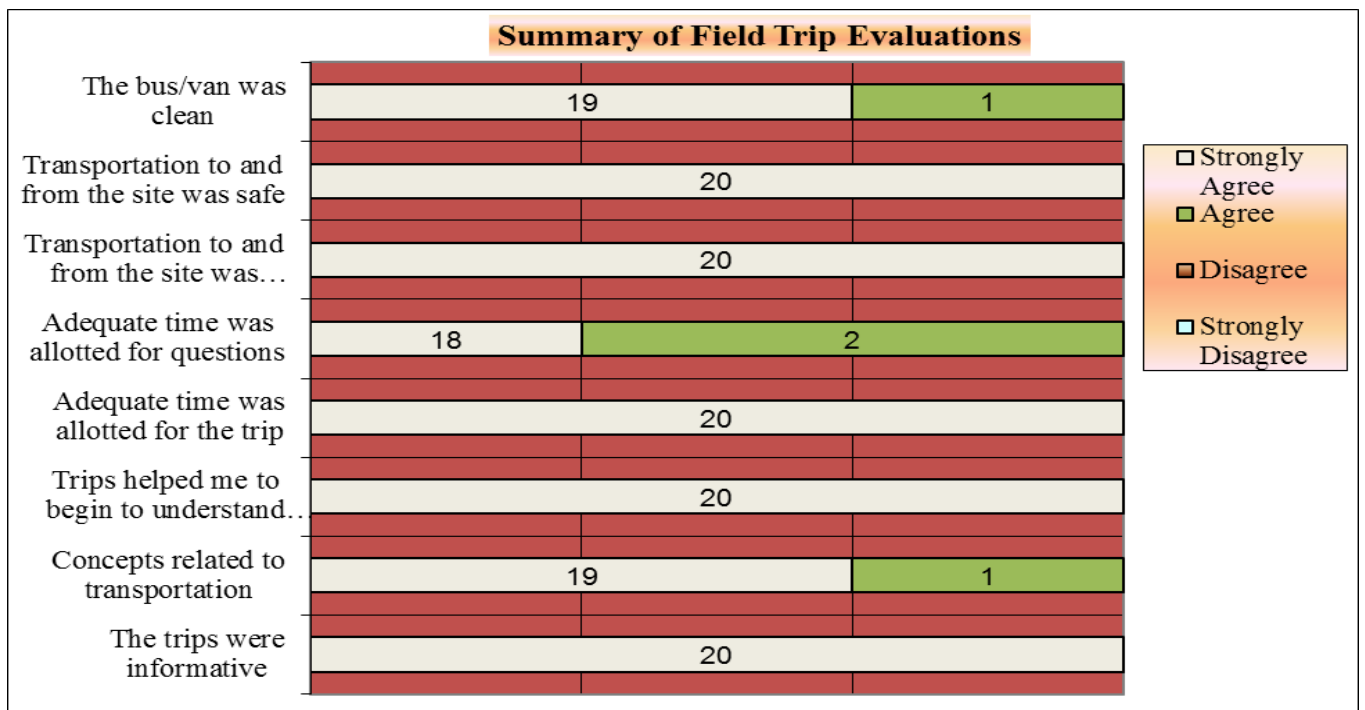


Chart 5: Sports and Recreation Evaluations

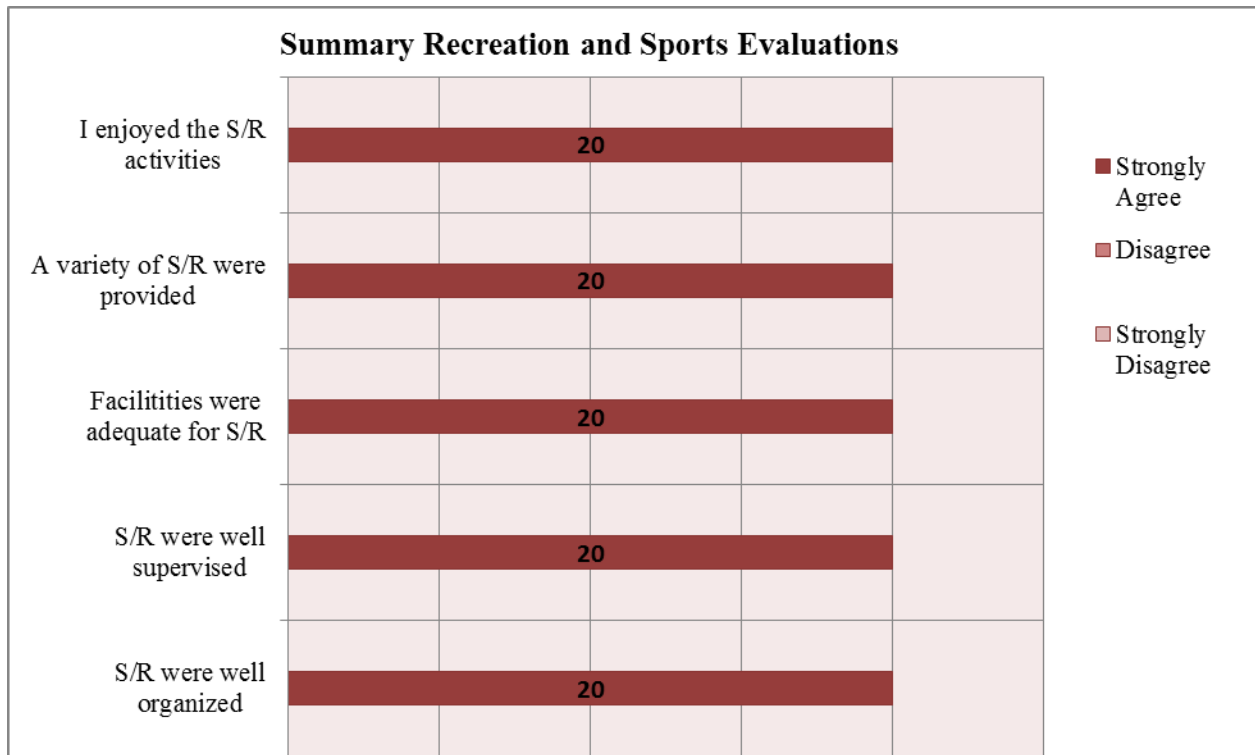
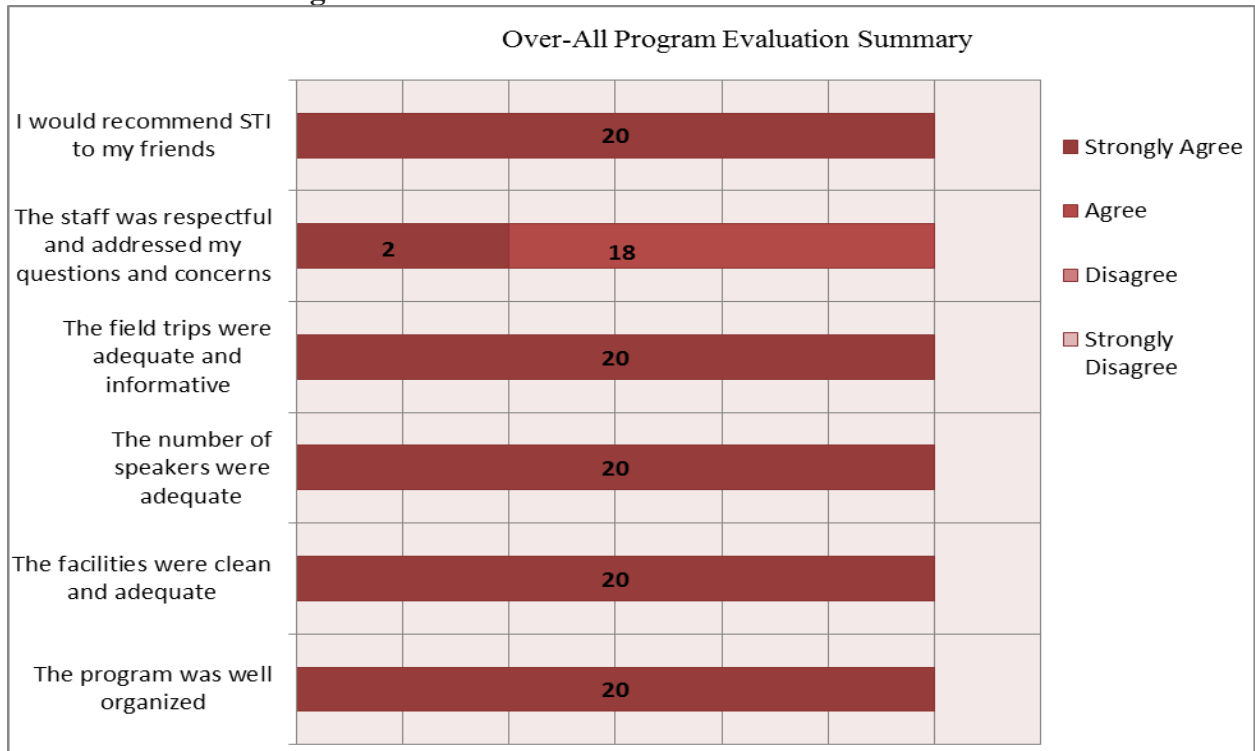


Chart 6: Over-All Program Evaluations



APPENDIX B

STI Participants' Comments

STI participants' comments about the program were encouraging. The unedited comments emphasize the impact that the program had on them. Some of the comments are listed below.

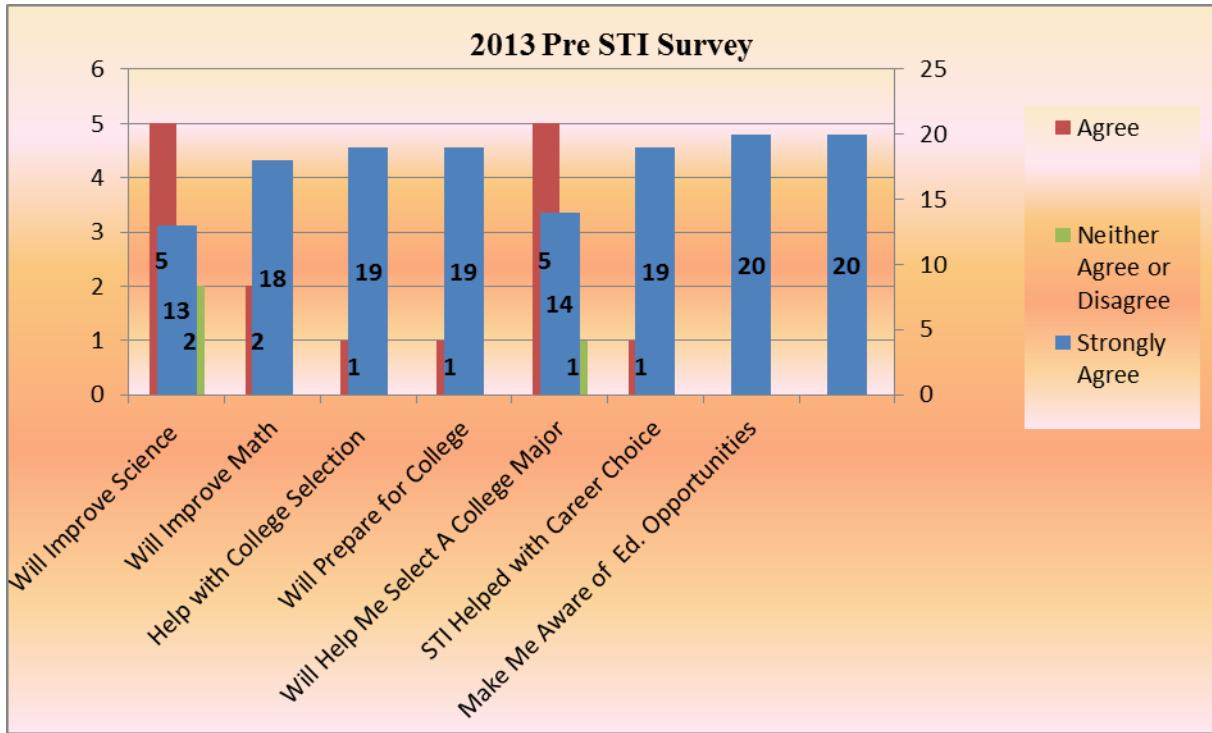
What I liked about the STI Program

- *This was nothing like I expected, I learned so much, made new friends and feel like did something worthwhile with my time this summer. I can't wait for school to start to talk about the STI and how much I enjoyed my summer.*
- *I'm from Barbados and didn't know anything about the STI program. Thought my mom just wanted me to spend my summer in school. Wow, we don't have these kinds of programs in Bridgetown, where I'm from. After attending the STI program, I know that I want to be a civil engineer and design safe bridges and roundabouts. I loved the instructors, the trips and the projects that we worked on. I hate to see the program end.*
- *More, More, More! I know that I will miss my instructors, new friends and getting up every day to see what we will do exciting. I wish my school was run like the STI program. We talked about transportation every day, but it was interesting, plus we took field trips and people came in to talk to us about transportation. The trip to see the connected vehicles and smart road was the icing on the cake. We stayed in a hotel overnight and talked to students who were studying transportation for a career. I could go on and on, but Ms. Dawn wants us to finish out roundabout projects. I don't want this to end.*
- *I learned and experience a lot. They said that we would become a family and we are. Our guest speakers were inspiring; I was introduced to so many things like the modern roundabouts. We even took a trip to the main library to learn how to do research. The MTA tour was amazing to me. I will never misbehave on a MTA bus again. It is not safe!*
- *Thank you Ma! I will be thanking my mother for a long time for turning me on to the STI program. It was GREAT! If I had stayed home this summer I would have slept and played video games and later meet my homies. This program taught me that there is more to life than that, like planning for my future is important and the time to start planning is now. I will forever remember the instructors, counselors and Ms. Val. My whole outlook on my future is different. When I go back to school I will have a new attitude about my assignments and future plans to become a transportation engineer.*
- *I am so glad that I was selected to attend this program. It was awesome; I talk to my girlfriends about it so much that they want to come next year. The, trips, speaker's activities, especially swimming were awesome. I learned so much about transportation careers. I know more about transportation than I know about anything in my life. I want to be the first female in my family to attend college and study transportation. There are so many different fields to go into. I am thankful for my instructors and counselors for turning me and my new friends on to transportation careers.*

APPENDIX C

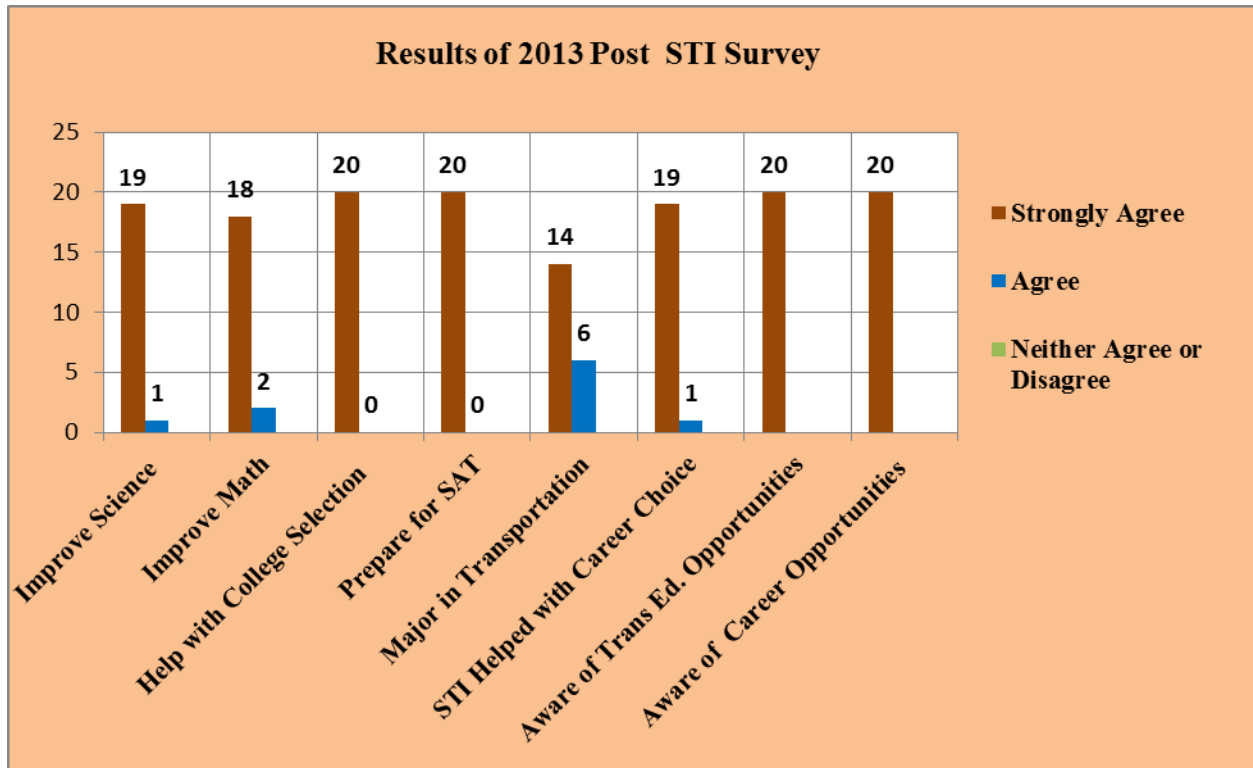
PRE/POST SURVEY CHARTS

Chart 1: Before the program began, the STI participants were asked what they expected the STI experience to help them with. Their responses are provided below.



Expectations	Strongly Agree	Agree	Neither Agree or Disagree
STI will help improve science	13	5	2
STI will help improve math	18	2	
STI will help with college selection	19	1	
STI will prepare me for college	19	1	
STI will help me to select a college major	14	5	1
STI will help me with a career choice	19	1	
STI will introduce educational opportunities in transportation	20		

Chart 2: At the end of the program, the participants were asked if the program met their expectations. The participants' responses are provided below.



Expectations	Strongly Agree	Agree	Neither Agree or Disagree
STI will help improve science	19	1	
STI will help improve math	18	2	
STI has helped with college selection	20		
STI has prepared me for SAT	20		
STI will help me to select a college major	19	1	
STI has helped me with a career choice	19	1	
STI introduced educational opportunities in transportation	20		

APPENDIX D

STI Weekly Activity Schedules

Week 1 and Week 2

Week 1	8:30	9:30	10:30	11:30	12:30	1:30	2:30	3:30	4:30
July 8	8:30-10:00 Check-in, Staff/Student Introductions , Rules and Guidelines, 10:30-12:00 History of NSTI, Bear Cards, 12:00- 1:00 Lunch 1:15-2:30 Campus Tour, Pictures					Team Assignments, Team Transportation Career Research <i>*(1.5 hrs.)</i>, Reflections, Journal Entry			
July 9	Check-in , 9:30-10:30 SAT Practice 10:45-12:00 Team Transportation Career Research (1.4 hr.), 12:15-1:15 Lunch				1:30-2:30 GYM 2:45 – 4:00 Intro to Modern Traffic Roundabouts & Connected Vehicles , (YouTube) 4:00-4:30 Reflections, Journal Entry, Polo Shirts				
July 10	Check-in	9:30-1:30 MD. Boat Pilots Association (Lunch)				Trip Q&A, 3:00-4:00 Transportation Career Research (1.5hr.), 4:00-4:30 Journal Entry, Reflections.			
July 11	Check -in 9:30-12:30 Maryland Transit Administration(MTA) 12:30 -1:30 Lunch				1:30-2:230 Game Room		2:45-3:10 Trip Q&A , 3:15-4:00 Team Career Reports (45 mins),		
July 12	Check-in 8:30-10 SAT Practice 10:10-11:00 Speaker: Mary Colleen Buettner BCTMC 11:10-12:00 Speaker: Tranell Griffin MTA		12:15-1:15 Lunch 1:30-2:30 Swimming 2:45-4:10 Project Introduction: What Are Roundabouts? 4:10-4:30 Reflections, Journal Entry						
Week 2	8:30	9:30	10:30	11:30	12:30	1:30	2:30	3:30	4:30
July 15	8:30-10:00 SAT Practice, 10:15 -12:00 Modern Traffic Roundabout Research 12:15-1:30 Lunch 1:30-2:30 GYM						2:45-4:00 Modern Traffic Roundabouts 4:00-4:30 Reflections, Journal Entry		
July 16	9:00-3:30 National Air and Space Museum, Washington, DC							4:00 Trip Q&A Reflections, Journal Entry	
July 17	Virginia Tech Smart Road-Blacksburg, VA								
July 18	Virginia Tech Smart Road-Blacksburg, VA							Trip Q&A, Reflections, Journal Entry	
July 19	Check-in , 9:00-10:00 SAT Practice 10:15-11:00 Speaker: Quadre Washington, Engineer 11:00-12:00 Trip Debriefing-Let's Talk About Connected Vehicles and the SMART Road (Team Summaries) 12:15 -1:15 Lunch				I:30-2:30 Gym 2:45 - 4:00 Roundabout Traffic Feasibility Study. What does it take? Team Air: Design, Team Land: Safety, Team Water: Landscape, Team Rail: Community Tools on site (7/22): Safety Vest, Clip boards, Hand tallies, Talley sheets -4:00-4:30 Reflections, Journal Entry				

*<http://fastforward.unl.edu/newsletter.html>

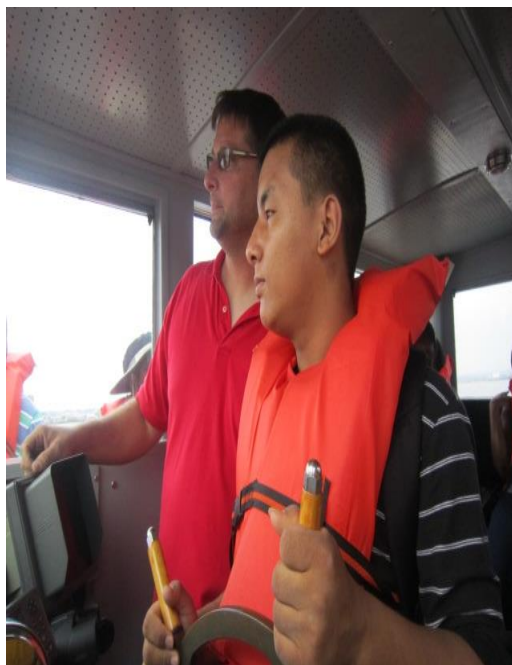
Week 3 and Week 4

Week 3	8:30	9:30	10:30	11:30	12:30	1:30	2:30	3:30	4:30
July 22	Modern Traffic Roundabout Field Study- 9:00-10:30 Pratt & Light Street, 11: 00-12:00 Joppa and Dulaney Road, 12:15 -1:15 Lunch					1:30 -2:30 Swimming 2:45-3:30 Data and Team Reports Preparation 4:00-4:30 Reflections, Journal Entry			
July 23	FMF Horse Power vs. Engine Power								
July 24	Check-in , 9:00-10:00 SAT Practice 10:00-11:00 Speaker: Tenille Blue, Engineer BCTMC,		11:00-12:30 Innovative Ideas 12:45-1:30 Lunch		Game Room			2:45-4:00-Roundabout Study Team Reports Prep 4:00-4:30 Reflections, Journal Entry	
July 25	Check-in , 9:00-10:00 SAT Practice , 10:15-11:00 Modern Traffic Roundabout Report Prep		11 AM-12PM Melvin Stukes, MTA Transportation Analyst		12:15 -1:00 Lunch		1-2 PM Car Simulator	2:15-3:15 Team Roundabout Reports 3:30-4:00 Roundabout Construction Materials 4:00-4:30 Reflections, Journal Entry	
July 26	Check-in , 9:00-10:00 SAT Practice , 10:15-11:00 Innovative Ideas		12:00-3:15 Harbor Exploration Cruise (assign students to crew members to interview)					Trip Q&A, 4:00-4:30 Reflections, Journal Entry.	
Week 4	8:30	9:30	10:30	11:30	12:30	1:30	2:30	3:30	4:30
July 29	Check-in , 9:00-10:00 SAT Practice		10:00-11:00 Speaker: Kevin Mullen, VP Flanagan and Sons 11:00 -12:00 Innovative Ideas 12:15 -1:00 Lunch			1:00-2:00 GYM		2:30-4:00 Roundabout Construction 4:00-4:30 Reflections, Journal Entry.	
July 30	Check-in	10:00-12:00 Baltimore City Traffic Mgmt Center , 12:15 -1:00 Lunch				1:30 -2:30 Swimming 2:45 -4:00 Roundabout Construction 4:00-4:30 Reflections, Journal Entry.			
July 31	Check-in		10:00-3:30 Enoch Pratt Central Library (Tour/Research) Prepare for Final Presentation on 8/2)					4:00-4:30 Reflections, Journal Entry.	
August 1	Check-in , 9:00-10:00 SAT Practice 10:30-12:00 Roundabout Construction					Game Room		2:45-4:00 Roundabout Presentations, 4:00-4:30 Reflections, Journal Entry	
August 2	Check-in , 9:00-10:00 SAT Practice	10:15 -11:30 Final Presentations, Program Evaluation, 12:45-1:30 Lunch 2:00 - Post Survey , 2:30-Dismissal						6 PM Banquet	

APPENDIX E

2013 STI Photographs

STI participants conducted a traffic feasibility study at a proposed roundabout site.



STI participants and their instructors visited the Maryland Transit Administration (MTA) headquarters, where they met with engineers and spoke to the staff about their careers in transportation.





During a trip to Virginia students toured the SMART road. The SMART road is collaboration between the Virginia Department of Transportation, Virginia Tech Transportation Institute and Federal Highway Administration. It is a test bed for transportation professionals to analyze driving conditions under a broad range of traffic conditions. The trip was made possible for our students through a grant from Virginia Tech University.



STI Students preparing to leave Virginia Tech University



The students were introduced to connected vehicle technology during their trips to the Virginia Tech Transportation Institute.



Gabrielle Lansky explains to the STI students the technology in connected vehicles that help to improve safety on the road.



STI students give a presentation about their research on careers in transportation



Each year STI participants visit the Enoch Pratt Library's central branch to learn about research resources. Some students apply and receive library cards.



Above, Dr. Farkas, Director of the National Transportation Center introduces John Porcari, U.S. Deputy Transportation Secretary, to STI participants.



STI participants prepare to work in teams to complete their modern traffic roundabout feasibility study.



STI participants prepare their roundabouts for their final project presentation.

The 2013 STI banquet's keynote speaker was Warren Whitlock, Associate Administrator for Civil Rights, Federal Highway Administration. He spoke to the attendees about how they should prepare for careers in the transportation industry by increasing their skills in STEM areas.



During the closing awards banquet, five students were selected by their instructors to received special awards of excellence.



Morgan State University 2013 STI Participants

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