

**RSPA**  
**SEMI-ANNUAL REPORT**  
January 1 – June 30, 2003  
(TEA-21)

For the  
**UNIVERSITY TRANSPORTATION CENTER FOR ALABAMA**

A University Transportation Center  
Reporting to

The Research and Special Programs Administration  
US Department of Transportation

July 31, 2003

Daniel S. Turner, Executive Director  
Jay U. Sterling, Associate Executive Director, UA  
Fouad Fouad, Associate Executive Director, UAB  
V.J. Gopu, Associate Director, UAH

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2003 RSPA Semi-Annual Report  
January 1 – June 30, 2003  
(TEA-21)

**A. SUCCESS STORIES**

**Introduction By Executive Director**

The University Transportation Center for Alabama continues to develop and to add new programs. The Center is a joint effort of the three campuses of The University of Alabama System: The University of Alabama (UA) located in Tuscaloosa, The University of Alabama at Birmingham (UAB), and The University of Alabama in Huntsville (UAH).

UTCA is meeting its goals, and it is forming bonds between interdisciplinary, inter-campus faculty members. The Center's success has lead the Engineering Deans on the three campuses to formally explore and advocate joint engineering classes using real-time television. It is the only research center that operates interactively between the three campuses, and its is used as a role model in many discussions.

The Executive Committee will soon loss two of its stalwarts. Dr. Jay Sterling of UA is retiring, and Dr. V.J. Gopu of UAH has accepted another position at an out of state university. They will certainly be missed. At the same time, we view this as an opportunity for additional faculty members to step forward and join the leadership team, continuing to spread the good news about what UTCA is doing to address tomorrow's transportation challenges.

We gladly share the success stories on the next few pages. They are just a sample of the many positive experiences that the students and faculty members of UTCA are experiencing.

## 1. Graduate Student Conference Success Story

UTCA will conduct its first graduate student conference in August, at the UAB campus in Birmingham. Dr. Michael Anderson of UAH is planning and conducting the meeting as UTCA project 03308. Conference attendees will include faculty members from all three campuses, transportation graduate students, and undergraduates research assistants.

Students from the three UTCA campuses are engaged in a wide variety of transportation education and research activities, and they see each other in real-time, interactive-feedback, campus-to-campus video classes. This conference will let them interact face to face, and will build professional relationships among students and faculty members from all three campuses. Over time the conference should become a favored event among both students and faculty.

The highlight of the conference will be a forum for graduate students to present papers on their research. Prior to the conference, students will have presented abstracts to a panel of faculty members on their home campuses. The best of the abstracts will be presented at the conference. Each presenter will be rewarded with full travel funding to attend the 2004 Transportation Research Board Annual Meeting. After attending TRB, the “winning” students will prepare written summaries and make presentations at student chapter meetings on their home campuses.

In summary, the strongest benefits of this effort will be the opportunity for students to gain experience in presenting the results of their research, to highlight the work currently being performed by students from the three campuses, and to allow some of the best students from the three campuses to attend the TRB Meeting to enhance their careers.

Signs like the following have created strong interest in the paper contest, the transportation student paper competition, and the TRB Annual Meeting.

<p><b>FREE TRIP - TRB Annual Meeting</b> Washington, D.C., January 2004</p>
<p>UTCA is sponsoring a student <u>research paper competition</u>, with winners earning a trip to the Annual TRB meeting.</p>
<p><i>Interested UA students should submit a 500-word abstract of current or proposed research to Dr. Jay Lindly, by July 31, 2003. Based upon the abstracts, 3 “winning” UA students will be selected to present papers at the first UA-UAB-UAH graduate student conference this fall, and will receive TRB funding.</i></p>

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## 2. Success Story – New ITE Student Chapter

A new Student Chapter of the Institute of Transportation Engineers (ITE) was established in December at the University of Alabama at Birmingham. The faculty advisor is Dr. Virginia Sisiopiku, an Associate Professor of Transportation Engineering at UAB. Mr. Jim Meads (a transportation engineer at Sain Associates, Inc.) is the liaison between the Chapter and the Alabama Section of ITE. The Chapter has grown rapidly and now has 19 student members.

In addition to regular business meetings, recent chapter activities included a field trip to the Tuscaloosa DOT Transportation Management Center, attendance at the Alabama Transportation Engineering and Construction Conference in Montgomery, and attendance at the Fourth Livable Cities Conference on Transit Alternatives in Birmingham. Chapter meeting speakers have included Mrs. Jenny Grote (Past President of International ITE) and Mr. Bill Foisy (Director of the Regional Planning Commission for Greater Birmingham). The Chapter Web site may be visited at <http://www.eng.uab.edu/cee/ITE/homepage.htm>.



Mrs. Jenny Grote, Past ITE International President visits UAB Student Chapter



Mrs. Becky White of Sain Associates presenting Dr. Sisiopiku and Student Chapter Officers a certificate of Chapter recognition on behalf of Alabama Section ITE.

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### 3. Success of “Gearing Up for Transportation Engineering” Summer Program

Dr. Kate Leonard and her colleagues at the University of Alabama in Huntsville have just completed UTCA project 03305 by conducting another two summer institutes for minority students. Participants learned the basics of materials, structures, safety and other transportation engineering topics, featuring hands-on learning and mentoring by role models.

Now completing its fourth year, over 150 middle school students have participated in this event. The second session of this summer’s program featured an “all girls” week. Girl Scouts of North Alabama attended from as far away as Geraldine, a 1.5 hour drive from Huntsville. Many of the participants and parents expressed delight with the program both verbally and through notes sent to Dr. Leonard. The following letter was received from one of the parents and represents an example of the enthusiasm that the program is generating:

*Hello, my name is Candy Richey. I am one of the mothers who transported girls from DeKalb County (Geraldine) to engineering camp every day. I helped to bring four girls to the camp. I just wanted to say thank you for all the hard work that was put into the camp. My Girl Scouts thoroughly enjoyed every minute of each day. They each had many stories to tell and made many new and exciting things. They also had the opportunity to make new friends. This was such a good experience for all of them. I just wanted to say thank you for all the hard work and*

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#### 4. Success in Technology Transfer

UTCA is conducting a major project to evaluate and extend its technology transfer activities (UTCA project 03217). Dr. Steven Jones and Mr. David Eckhoff of UAB are conducting the project, which will expand the current technology transfer program to showcase the successes of the UTCA projects. Samples of the planned outreach activities follow.

- A technology transfer steering committee has been formed and has conducted its initial meeting. The committee represents a broad cross section of practitioner, industry, and academia.
- The first issue of “THE SIGNAL” will be mailed in late August 2003. It will be a technology transfer newsletter to disseminate the results of UTCA-sponsored projects and to provide information on technology transfer outreach activities.
- An online SURVEY will collect information on technology transfer expectations of transportation professionals in Alabama. It is essential that UTCA’s expanded technology transfer programs meet the needs of the transportation community. Although the steering committee provides valuable insight and guidance, the survey will identify additional interest in UTCA project results and identify “hot topics” of educational and training needs in the State. All responders to the will be placed on our distribution list for “THE SIGNAL.”
- A “Traffic Signal Design, The ALDOT Way” will be presented on October 15, 2003, in Birmingham. It will provide a fundamental introduction to traffic signal timing, and it will cover specific requirements for designing signals for ALDOT.” The fundamentals portion will be conducted in a morning session and the ALDOT-specific information will delivered in the afternoon. The morning session will focus on signal timing concepts and fundamentals, while the afternoon session will be hands-on. It will include examples of signal design plans, the necessary calculations, and interpretation of applicable standards and specifications.
- Look for the First Annual UTCA Symposium will be held this fall. This one-day program will highlight scholarly work, published findings and technology transfer components of completed UTCA projects. The symposium will feature 10-15 presentations delivered in two or three tracks, which will allow participants to learn the latest research results of most benefit to their individual careers. The program will be held in late Fall each year and will award 6.0 CEU credits for attending six or more presentations.

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## 5. Success in Supporting Metropolitan Planning Organizations

UTCA has continued its strong support of Alabama metropolitan planning organizations (MPOs). The following success stories illustrate the range of support.

Technology Transfer Dr. Michael Anderson of UAH has been particularly effective in MPO tech transfer. He joined with the Regional Planning Commission of Greater Birmingham to present a workshop titled, "Introduction to Modeling and Preparing Tranplan Batch Files" in Montgomery on January 28, 2003. It focused on data entry to run the CUBE-Tranplan modeling process. Dr. Anderson combined these two popular pieces of software, and the result has been adopted for the planning process in Alabama. The training audience consisted of representatives of the Alabama Transportation Planners Association and of the Alabama Department of Transportation. This effort was a direct result of UTCA project 03415 "Transportation Modeling Support for the Metropolitan Planning Organizations within Alabama."

Comprehensive Project to Target "Best" Economic Development UTCA researchers at UAB, UA and UAH are cooperating to conduct a novel project for the Regional Planning Commission of Greater Birmingham and the Northwest Alabama Council of Local Governments. The project involves Corridor X, a freeway that will soon connect Birmingham, Alabama with Memphis, Tennessee. The objective of the project is to assist jurisdictions along the route in conducting industrial development programs.

The project will model traffic growth and changes in traffic operations, and predict the amount and types of development that are most likely to occur. That will allow cities, counties, and local industrial development authorities to target their industrial recruiting efforts towards the types of industries that are most suited for their individual locations. The project team is multi-campus, multi-disciplinary, and multi-talented:

- UAB-Modeling Dr. Steven Jones of UAB is the project principal investigator. He has expertise in modeling, transportation planning and traffic operations, and will use that expertise on this project.
- UAH-GIS/Data Files Dr. Mike Anderson of UAH has expertise in transportation planning, modeling and GIS. On this project, he will provide a GIS database for the route.
- UA-Economic Development Dr. Sam Addy of the UA's Center for Business and Economic & Research will model land use changes and will predict optimum industrial development patterns.

This project serves as a role model for cooperation between academia and MPOs, and for cooperation between various disciplines and multiple campuses.

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## **6. Success in Technology Transfer: Example Presentations and Publications**

UTCA emphasizes dissemination of research results, especially peer reviewed presentations and publications. The example of Dr. Norbert Delatte of UAB provides an excellent success story of results dissemination. He presented two papers at the January 2003 Annual Meeting of the Transportation Research Board (TRB). Both papers were developed from completed UTCA projects, and both will be published in TRB *Transportation Research Record*.

The first paper, “Mechanical Properties and Durability of BCO and UTW Concrete,” was presented in TRB Session 212, Physical and Mechanical Properties of Concrete Pavements, Overlays, and Structures, on January 13, 2003. It was based on the results of UTCA project 01220 “Design and Quality Control of Concrete Overlays and Repairs.”

The second paper, “Using Gyratory Compaction to Investigate Density and Mechanical Properties of RCC,” was presented in Session 282, Improving Portland Cement Concrete Pavement: Bottom to Top, on January 13, 2003. It was based on results from UTCA project 01231, “Improved Management of RCC Pavement Technology.”

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## 7. Success Story – GASB 34 and Technology Implementation for a State Agency

A strong relationship has developed between the Alabama Department of Transportation (ALDOT) and UTCA faculty members from the UA College of Commerce & Business Administration. It started with a project to assist ALDOT in meeting a federal requirement to comply with Governmental Accounting Standards Board Statement No. 34 (GASB 34), which required asset management. This initial effort provided the roadmap for a management system that would do much more than merely meet GASB 34 requirements. It would allow more efficient use of ALDOT’s existing databases through application of new technology.

Projects followed that enhanced data sets and added visualization tools for data and models developed from the data. This step improved the ability to interpret and apply existing data for management decision making. The process has now been applied to several data systems, and contracts have just been awarded by ALDOT to complete the implementation process. The culminating project will link many of the improved databases and predictive models through a GIS system, so that data can be freely manipulated and displayed as a decision tool. In effect, the data can be used to examine evaluate various types of road needs across the state. At that point, ALDOT managers will have the ultimate decision tool.

The types of projects and the sequence of work over three years may be determined from the following table. The eight projects in this series amount to approximately \$1.3 million. ALDOT provided 83% for this total, with UTCA providing the remainder.

Project	Project Title	PI	PI's Home Department
01459	ALDOT and GASB 34 – Phase I	Dr. Jay Sterling	Management and Marketing
02411	GASB-34 Compliance – Phase II	Dr. David Hale	Info Systems, Statistics and Mgmt
02114	GIS-Resource Allocation Visualization	Dr. David Hale	Info Systems, Statistics and Mgmt
03112	Bridge Decay/Maintenance Forecasting	Dr. Shane Sharpe	Info Systems, Statistics and Mgmt
03416*	Pavement Condition Management System	Dr. Jay Lindly	Civil & Environmental Engineering
03417*	Roadway GASB	Dr. David Hale	Info Systems, Statistics and Mgmt
03418*	Bridge Management System	Dr. David Hale	Info Systems, Statistics and Mgmt
03419*	Statewide Needs Analysis	Dr. David Hale	Info Systems, Statistics and Mgmt

*\*New project, awarded and now in ALDOT contracting process*

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## 8. Success Story – Shelby Hall Nears Completion

It is now a matter of months until UTCA moves across the street and into its new home in Shelby Hall, which will house four transportation research centers in a laboratory wing:

UTCA – University Transportation Center for Alabama  
CAVT – Center for Advanced Vehicle Technology  
CRDL – Care Research and Development Laboratory  
CBER – Center for Business & Economic Research, transportation programs

The four centers now work on many of the same research topics and have overlapping characteristics, especially in the field of computational research. They are eagerly looking forward to the synergy generated when they become “next door neighbors.” They are planning to seek joint research projects utilizing a shared pool of faculty members and students.

The new floor space will house seven research labs, a collaboration lab (where teams of students tackle research tasks), an executive teleconference center, two fuel cell labs, an administrative suite, a faculty office suite, and graduate student offices. For UTCA, the most exciting feature will be new Traffic Management Center (TMC) and ITS Development laboratories. The Tuscaloosa Department of Transportation is providing real-time traffic data for the TMC lab via fiber optic cable. This provides wonderful opportunities for faculty and students to apply new technologies in interpreting the data and applying traffic management tools.



**Shelby Hall, as of July 31, 2003**

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## **B. RESEARCH PROJECT STATUS**

Table 1: New Projects (Since 2002 Annual Report)

Table 2: Projects Underway

Table 3: Projects Completed

Table 4: Non UTC Projects

**Table 1: New projects (since 2002 Annual Report)**

<b>Project No.</b>	<b>Project Title</b>	<b>PI and Campus</b>	<b>Start Date</b>	<b>End Date</b>
03102	GIS and Crash Data	Andy Graettinger, UA	Jan 1, 2003	Dec 31, 2003
03103	St. Clair County Transportation Needs Assessment	Jay Lindly, UA	Jan 1, 2003	Dec 31, 2003
03105	PM2.5 Emissions from Birmingham Roads	Derek Williamson, UA	Jan 1, 2003	Dec 31, 2003
03108	Runway Topography Considerations in Airport Licensing	Charles Haynes, UA	Jan 1, 2003	Dec 31, 2003
03112	Bridge Decay-Maintenance Forecasting	Shane Sharpe, UA	Jan 1, 2003	Dec 31, 2003
03113	Advanced Transportation Institute II	Dan Turner, UA	Jan 1, 2003	Dec 31, 2003
03114	ITS Applications for Transportation Infrastructure	Dan Turner, UA	Jan 1, 2003	Dec 31, 2003
03217	UTCA Technology Transfer Program	Steven Jones, UAB	Jan 1, 2003	Dec 31, 2003
03226	Regional Traffic Simulation for Emergencies	Virginia Sisiopiku, UAB	Jan 1, 2003	Dec 31, 2003
03228	Stability of Curved Bridges During Construction	Jim Davidson, UAB	Jan 1, 2003	Dec 31, 2003
03229	Vulnerability Reduction for Bridges	Nasim Uddin, UAB	Jan 1, 2003	Dec 31, 2003
03301	Multimedia Technology for Timber Bridge Repair	Houssam Toutanji, UAH	Jan 1, 2003	Dec 31, 2003
03303	Sensor Networks for Auto Tracking	Shen Yoo, UAH	Jan 1, 2003	Dec 31, 2003
03304	GIS to Accompany CARE	Samual Gholston, UAH	Jan 1, 2003	Dec 31, 2003
03305	Gearing Up for Transportation Engineering Summer Institute IV	Kate Leonard	Jan 1, 2003	Dec 31, 2003
03306	Hand-held Explosives Sensor System	Charles Bosco	Jan 1, 2003	Dec 31, 2003
03308	Student Funding for TRB	Mike Anderson, UAH	Jan 1, 2003	Dec 31, 2003
03309	Expert System – Drilled Shaft Construction Inspection	V.J. Gopu, UAH	Jan 1, 2003	Dec 31, 2003
03401	Study of 511 Traveler Information System	Jay Lindly, UA	Aug 19, 2002	Sep 30, 2003
03402	Proof Load Testing of Concrete Bridges	Jim Richardson, UA	Aug 16, 2002	Dec 31, 2003
03404	Computerizing ALDOT R&D Library	Jay Lindly, UA	9 Dec 2002	Jun 30, 2003
03405	I-565 Bridge Girder Repair Demonstration	Nasim Uddin, UAB	Jun 4, 2002	Jun 4, 2003
03412	CO Air Quality Model for Transportation Analyses	Steven Jones, UAB	Feb 14, 2002	Feb 14, 2004

**Table 2: Projects Underway**

<b>Project No.</b>	<b>Project Title</b>	<b>PI and Campus</b>	<b>Start Date</b>	<b>End Date</b>
00467	Computer-based Sign, Luminaries & Traffic Signal Support Design Tools	Jim Davidson, UAB	Oct 1, 2000	Sep 30, 2002
01101	Success Factors for Integrated Traffic and Emergency Response	Mickey Bunn and Grant Savage, UA	Jan 1, 2001	Sept 30, 2001
01105	Enhance Emergency Evacuation Procedures for Extreme Events	Mike Triche and J Richardson, UA	Jan 1, 2001	Dec 31, 2001
01216	Deployment of Advanced Public Transportation in the Birmingham-Jefferson County Area	Stan Jones, UAB, and Mike Anderson, UAH	Jan 1, 2001	Mar 31, 2003
01465	Evaluation of Profiled Pavement Markings	Jay Lindly, UA	Jan 1, 2002	Aug 31, 2003
02114	GIS Maintenance and Resource Allocation Visualization	David Hale and Joanne Hale, UA	Jan 1, 2002	Dec 31, 2002
02115	Traffic Safety Analyses: A Data Mining Approach	Mike Hardin and Mike Conorly, UA	Jan 1, 2002	Jun 30, 2003
02201	Diesel Exhaust Treatment Using Catalysts/Zeolites	Robert Peters, UAB	Jan 1, 2002	Dec 31, 2002
02205	Alabama Transportation Improvements Through Telework	Gary Grimes, UAB	Jan 1, 2002	Jan 31, 2003
02215	Hazmat Accident Education: An Integrated Approach	Shirley Clark, UAB	Jan 1, 2002	Dec 31, 2002
02304	Development of Distributed Strain Sensor for Bridge Health Monitoring	Mark Lin, UAB	Jan 1, 2002	Dec 31, 2002
02403	Bridge Database and Data Retrieval	Andy Greattinger, UA	Feb 14, 2002	Nov 14, 2002
02409	Adjustment of Pavement Life Cycle Cost Factors	Jay Lindly, UA	Jun 4, 2002	Jun 4, 2003
02410	Revise System of Airport Licensing	Charles Hayes, UA	Jun 4, 2002	Jun 4, 2003
02411	Phase 2: GASB-34 Compliance	David Hale, UA	Jun 4, 2002	Dec 4, 2002

**Table 3: Projects completed**

<b>Project No.</b>	<b>Project Title</b>	<b>PI and Campus</b>	<b>Start Date</b>	<b>End Date</b>
99101	Development of a Bridge Replacement Guide for County Engineers	Mike Triche and J Richardson, UA	Jul 1, 1999	Aug 15, 2000
99104	Analysis of Rural Public Transportation Systems in Alabama	Jay Lindly and Dick Sanford, UA	Jul, 1999	Aug 15, 2000
99113	Data Mining and Visualization of the Alabama Accident Database	Mike Conerly, UA	Aug 15, 1999	Aug 31, 2000
99115	Improving Crash Location, Display and Analysis by Combining CARE and GPS Technologies	Andy Graettinger, UA, and Mike Anderson, UAH	Jul 1, 1999	Aug 31, 2000
99118	A Multidisciplinary Transportation and Logistics Education Program	Jay Sterling and J Mittenthal, UA	Oct 1, 1999	Sep 30, 2000
# 99211	An Exhibit at the McWane Center to Serve as a Pilot UTCA Outreach Program or K-12 Schoolchildren	Mindy Lalor, UAB, and Pauline Brown, UA	Jan 1, 2000	Cancelled By Excom
99236	Delivery of Transportation-Related Programs Through Interactive Telecommunications	M Lalor, UAB P Brown, UA K Leonard, UAH	Jul 1, 1999	Dec 31, 2000
99238	A Crash Reduction Strategy: Training Transportation Safety Professionals in Dealing with Drivers with Diminished Capabilities	C Owsley, B Staley, and J Wells, UAB	Jul 1, 1999	Feb 28, 2001
99244	Development of a GIS-Based Hazardous Materials Transportation Management System	M Vermace, UAB M Anderson, UAH	Aug 1, 1999	Dec 31, 2000
## 99247	Transfer of Transportation Materials Technologies for Concrete Pavements	N Delatte, UAB	Aug 15, 1999	Dec 30, 2000
99249	Development of a Multi-campus, Multidisciplinary Transportation Curriculum for the UTCA	N Delatte, UAB J McFadden, UA M Anderson, UAH K Leonard, UAH	Oct 1, 1999	Aug 31, 2000
99250	Predictions of Car Accidents in Minorities and High Risk Groups	Theresa Wynn, Mona Fouad, and Norb Delatte, UAB	Jul 1, 1999	Dec 31, 2000
99252	Interaction Between UTCA and Other Safety Focused Centers and Organizations	Jim Davidson, UAB	Sep 1, 1999	Nov 30, 2000
99324	Evaluation of the Safety, Utility and Reliability of Three-Dimensional Alarm Systems for Automotive Use	Jim Bliss, UAH	Jul 1, 1999	Aug 31, 2000
### 99328	TRANplan & GIS Support	M Anderson, UAH	May 18, 2000	Jun 30, 2001
00102	Potential Applications of Video Technology for Traffic Management and Safety in Alabama	J McFadden, A Graettinger, and D Sanford, UA	Jan 1, 2000	Mar 31, 2001
00103	Providing Technical and Management Expert Services in ITS Systems in Ala	John McFadden, UA	Jan 1, 2000	Mar 31, 2001

# Partially funded by UTC monies and partially funded by other sources. Cancelled in early 2001.

## Partially funded by UTC monies; partially funded by other sources.

### Projects 99328 and 99458 were initially reported as separate projects. They have been merged and are now reported as the single project 99328.

**Table 3. Projects completed (continued)**

00107	Development of a Short Course to Enhance Safety of Work Zones	Jay Lindly, and J McFadden, UA	Jan 1, 2000	Mar 31, 2001
00108	Air Quality Aspects of Traffic Management,	Derek Williamson, UA	Jan 1, 2000	Dec 31, 2000
00110	Feasibility of an Integrated Traffic Management and Emergency Communication System	Mickey Bunn, and Grant Savage, UA	Jan 1, 2000	Dec 31, 2000
00202	Transfer of Transportation Management and Safety Technology	N Delatte, UAB H Toutanji, UAH J McFadden, UA	Jan 1, 2000	Dec 31, 2000
00214	Environmental Health, Public Safety, and Social Impacts Associated with Transportation Accidents Involving Hazardous Substances	Steve Becker and Bob Pitt, UAB	Jan 1, 2000	Dec 31, 2000
00304	Program for Encouraging Diversity in Transportation-Related Educational Programs in Alabama: "Gearing Up for Transportation Engineering Summer Institute"	K Leonard, H Toutanji, Mike Anderson, Norb Delatte, UAB J Hodges, UA	Jan 1, 2000	Dec 31, 2000
00305	Supplementary Cementitious Materials to Enhance Bridge Deck Durability	H Toutanji, UAH N Delatte, UAB	Jan 1, 2000	Jul 31, 2001
00456	Managing the Construction Bidding Process: A Guide to Simpler Construction Plan Sets	Dan Turner, UA	Nov 1, 1999	Feb 28, 2001
00461	Short Course: Introduction to the 2000 Capacity Manual	John McFadden, UA	Aug 16, 2000	July 31 2002
00462	Short Course: MUTCD	John McFadden, UA	Aug 16, 2000	May 31 2002
00463	Potential Applications of Video for Traffic Management and Safety	Andy Graettinger, UA	Aug 16 2000	Jun 30, 2002
00465	Enhancements for Work Zone Safety	Jay Lindly, UA	Jan 2, 2001	Jan 2, 2002
00466	Improved Data Collection and Evaluation for MOBILE6-Based Conformity Analysis of Trans Projects	Derek Williamson, UA	Dec 4, 2000	Jan 15, 2002
#### 01110	Alabama Transit: Intercity Bus Service Study	Jay Lindly, UA	Jan 1, 2001	May 1, 2002
01111	Aviation Transportation Internship	Charles Haynes	Jan 1, 2001	Dec 31, 2001
01112	Maintenance System for Stormwater Infrastructure	Rocky Durrans, UA	May 16 2001	Oct 15 2002
01218	Innovative Use of Flowable Fill for Local Roads Bridge Replacement	Jim Davidson, UAB	Jan 1, 2001	Mar 31, 2002
01220	Design and Quality Control of Concrete Overlays and Repairs	Norb Delatte, Jim Davidson, and S Chen, UAB	Jan 1, 2001	Dec 31, 2001
01326	Gearing Up for Transportation Engineering Summer Institute – 2	Kate Leonard, UAH, and others	Jan 1, 2001	Dec 31, 2001
01327	Development of a New Experimental Approval for Bridge Deck Evaluation	H Toutanji, UAH S Chen UAB	Jan 1, 2001	Jul 31, 2002
##### 01328	Evaluation of Alabama's Trip Generation Rate and Travel Indices	Mike Anderson, UAH	Jan 1, 2001	Apr 30, 2002



**Table 3. Projects completed (continued)**

01453	Utility Pole Safety Program	Jay Lindly, UA	Feb 6, 2001	Feb 28, 2002
01461	Software Support - ALDOT, Phase 3	David Brown, UA	Jun 11 2001	Dec 31 2002
02101	Web-based Airport Licensing for the State of Alabama	Charles Haynes, UA	Jan 1 2002	Dec 31 2002
02113	Advanced Transportation Institute	Dan Turner, UA	Jan 1, 2002	Dec 31 2002
02209	High School Transportation Education Program	Stan Jones, UAB	Jan 1, 2002	Dec 31, 2002
02301	Gearing Up for Transportation Engineering: Phase 3	Kate Leonard and others, UAB-UAH	Jan 1, 2002	Dec 31, 2002
02402	Evaluation of Retroreflectometers	Jay Lindly, UA	Nov 1, 2001	June 1, 2002

#### Projects 01110 and 01452 were initially reported as separate projects. They have been merged and are now reported as the single project 01110.

#####Projects 01328 and 01451 were initially reported as separate projects. They have been merged and are now reported as the single project 01328.

**Table 4: Non-UTC projects**

<b>Year</b>	<b>Number of Non-UTC Projects</b>	<b>Funding</b>
1999	7	\$2.94 million
2000	12	\$3.58 million
2001	20	\$3.06 million
2002	21	\$1.77 million
2003*	10	\$1.47 million
Total	70	\$12.82 million

\*partial year

In addition to conducting projects with funding provided by US DOT as part of the University Transportation Centers program, UTCA actively seeks other partners for its activities. These efforts have been quite successful, as shown in the Appendix.

## **C. FINANCIAL STATUS REPORTS**

Semi-Annual Financial Report Grant Year 1999  
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**EXHIBIT A**Annual Financial Status Report  
University Transportation Centers Program**University Transportation Center for Alabama**Grant year 1999 Fund Status, as of June 2003

	<b>Approved Budget*</b>	<b>Committed to Date**</b>
<b>Salaries</b>		
Director	59,318	\$59,318
Associate Directors	26,523	\$31,272
1/4 FTE Faculty, each campus	41,198	\$41,198
Faculty Project Salaries	430,154	\$401,362
Administrative Staff Salaries	16,846	\$17,216
Student Salaries	172,486	\$116,854
Benefits	128,852	\$109,713
<i>Total salaries and benefits</i>	<i>875,377</i>	<i>\$776,933</i>
<b>Expenses</b>		
Scholarships/Grad Tuition	13,766	\$25,368
Permanent Equipment	0	\$4,453
Expendable	64,917	\$77,441
Prop/Supplies/Services		
Other – Expendable Equipment	40,465	\$11,345
Domestic Travel	31,689	\$19,311
Foreign Travel	0	\$0
Other – Peer Review Honoraria	1,850	\$1,850
Other – Student of the Year	1,000	\$1,000
<i>Total expenses</i>	<i>153,687</i>	<i>\$140,768</i>
Total Direct Costs	1,029,064	\$917,702
F&A – Indirect Costs	358,851	\$336,930
<b>99 Grant Year Totals</b>	<b>1,387,915</b>	<b>\$1,254,632</b>
Federal Share	686,000	\$621,579
Matching Share	701,915	\$627,345
*Revised Budget Approved by RSPA on September 8, 2000		
**Expended or Encumbered		

Mydocs\03-Semi-rpt-99 funds as of Jun 03

## EXHIBIT A

Annual Financial Status Report  
University Transportation Centers Program

### University Transportation Center for Alabama

Grant year 2000 Fund Status, as of June 30, 2003

	Approved Budget*	Committed to Date**
<b>Salaries</b>		
Center Director Salary	\$60,925	\$61,861
Associate Director Salaries	\$32,084	\$39,369
Administrative Staff Salaries	\$27,666	\$29,825
Faculty Salaries - Projects	\$303,405	\$414,527
Student Salaries	\$210,132	\$328,473
Benefits	\$104,238	\$111,040
<i>Total salaries and benefits</i>	<i>\$738,450</i>	<i>\$985,096</i>
<b>Expenses</b>		
Scholarships/grad Tuition	\$67,306	\$67,650
Permanent Equipment	\$0	\$5,179
Expendable Prop/Supplies/Services	\$102,540	\$75,277
Other – Expendable Equipment	\$13,250	\$35,950
Domestic Travel	\$52,654	\$66,599
Foreign Travel	\$0	\$0
Other – Peer Review	\$4,400	\$15,600
Honoraria		
Other – Student of the Year	\$2,000	\$1,338
<i>Total expenses</i>	<i>\$242,150</i>	<i>\$267,593</i>
<b>Total Direct Costs</b>	<b>\$980,600</b>	<b>\$1,252,688</b>
F&A – Indirect Costs	\$342,858	\$434,703
<b>2000 Grant Year Totals</b>	<b>\$1,323,458</b>	<b>\$1,687,391</b>
Federal Share	\$655,500	\$626,413
Matching Share	\$667,958	\$1,075,978
*Revised Budget Approved by RSPA on September 8, 2000		
**Expended or Encumbered		

Mydocs\03-Semi-rpt\00 funds as of June03

## EXHIBIT A

Annual Financial Status Report  
University Transportation Centers Program

### University Transportation Center for Alabama

Grant year 2001 Fund Status, as of June 30, 2003

	Approved Budget*	Committed to Date**
<b>Salaries</b>		
Center Director Salary	\$61,000	\$60,942
Associate Director Salaries	\$43,000	\$9,916
Administrative Staff Salaries	\$33,000	\$26,197
Faculty Salaries - Projects	\$288,000	\$457,361
Student Salaries	\$200,000	\$265,925
Benefits	\$106,250	\$129,555
<i>Total salaries and benefits</i>	<i>\$731,250</i>	<i>\$949,895</i>
<b>Expenses</b>		
Scholarships/grad Tuition	\$65,000	\$56,239
Permanent Equipment	\$0	\$13,226
Expendable Prop/Supplies/Services	\$100,000	\$101,785
Other – Expendable Equipment	\$10,000	\$1,739
Domestic Travel	\$50,000	\$45,170
Foreign Travel	\$0	\$0
Other – Peer Review	\$4,000	\$7,050
Honoraria		
Other – Student of the Year	\$2,000	\$2,000
<i>Total expenses</i>	<i>\$231,000</i>	<i>\$227,210</i>
<b>Total Direct Costs</b>	<b>\$962,250</b>	<b>\$1,177,105</b>
F&A – Indirect Costs	\$336,788	\$378,209
<b>01 Grant Year Totals</b>	<b>\$1,299,038</b>	<b>\$1,555,314</b>
Federal Share	\$646,000	\$626,589
Matching Share	\$653,038	\$928,725
*Submitted Nov 24, and approved by RSPA on Nov 27, 2000		
**Expended or Encumbered		

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## EXHIBIT A

Annual Financial Status Report  
University Transportation Centers Program

### University Transportation Center for Alabama

Grant year 2002 Fund Status, as of June 30, 2003

	Approved Budget*	Committed to Date**
<b>Salaries</b>		
Center Director Salary	\$61,000	\$67,619
Associate Director Salaries	\$0	\$0
Administrative Staff Salaries	\$33,000	\$77,529
Faculty Salaries - Projects	\$305,000	\$462,504
Student Salaries	\$225,000	\$231,030
Benefits	\$99,750	\$143,554
<i>Total salaries and benefits</i>	<i>\$723,750</i>	<i>\$982,236</i>
<b>Expenses</b>		
Scholarships/grad Tuition	\$72,000	\$45,826
Permanent Equipment	\$0	\$12,350
Expendable Prop/Supplies/Services	\$100,000	\$109,589
Other – Expendable Equipment	\$10,000	\$3,000
Domestic Travel	\$55,000	\$42,576
Foreign Travel	\$0	\$0
Other – Peer Review	\$5,000	\$2,950
Honoraria		
Other – Student of the Year	\$2,000	\$2,000
<i>Total expenses</i>	<i>\$244,000</i>	<i>\$218,291</i>
<b>Total Direct Costs</b>	<b>\$967,750</b>	<b>\$1,200,527</b>
F&A – Indirect Costs	\$338,713	\$377,707
<b>02 Grant Year Totals</b>	<b>\$1,306,463</b>	<b>\$1,578,235</b>
Federal Share	\$652,700	\$556,901
Matching Share	\$653,763	\$1,021,334
*Submitted Oct 29, 2001 and approved by RSPA on Nov 8, 2001		
**Expended or Encumbered		

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## EXHIBIT A

Annual Financial Status Report  
University Transportation Centers Program

### University Transportation Center for Alabama

Grant year 2003 Fund Status, as of June 30, 2003

	Approved Budget*	Committed to Date**
<b>Salaries</b>		
Center Director Salary	\$61,000	\$60,925
Associate Director Salaries	\$5,000	\$9,926
Administrative Staff Salaries	\$21,000	\$27,000
Faculty Salaries - Projects	\$422,000	\$599,828
Student Salaries	\$325,000	\$381,071
Benefits	\$140,000	\$165,831
<i>Total salaries and benefits</i>	<i>\$974,000</i>	<i>\$1,244,581</i>
<b>Expenses</b>		
Scholarships/grad Tuition	\$110,000	\$57,030
Permanent Equipment	\$0	\$12,850
Expendable Prop/Supplies/Services	\$145,000	\$186,869
Other – Expendable Equipment	\$30,000	\$3,250
Domestic Travel	\$90,000	\$63,937
Foreign Travel	\$0	\$0
Other – Peer Review	\$7,500	\$4,400
Honoraria		
Other – Student of the Year	\$2,000	\$2,000
<i>Total expenses</i>	<i>\$384,500</i>	<i>\$330,336</i>
<b>Total Direct Costs</b>	<b>\$1,358,500</b>	<b>\$1,574,917</b>
F&A – Indirect Costs	\$475,475	\$551,162
<b>03 Grant Year Totals</b>	<b>\$1,833,975</b>	<b>\$2,126,079</b>
Federal Share	\$916,300	\$907,750
Matching Share	\$917,675	\$1,218,329
*Submitted Oct 24, 2002 and approved by RSPA on Oct 28, 2002.		
**Expended or Encumbered		

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