



U.S. Department of  
Transportation  
Office of the Secretary  
of Transportation

**FY 1985  
DOT Awards to  
Academic Institutions**

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University Research  
Program

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Prepared by:  
University Research and  
Technology Innovation Office  
Transportation Systems Center

DOT/OST/P-34/86/037  
May 1986

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OFFICE OF THE  
SHERIFF  
COUNTY OF  
SANTA FE  
NEW MEXICO

INVESTIGATION OF THE  
MURDER OF  
JAMES W. HAYES  
AT  
SANTA FE, N. M.,  
MAY 10, 1900.

REPORT OF  
SHERIFF  
J. W. HAYES

NEW MEXICO  
SANTA FE

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16. Abstract			
<p>This report is a comprehensive listing of contracts and grants awarded by the U.S. Department of Transportation to colleges and universities during the fiscal year 1985.</p> <p style="text-align: center;"><u>TABLE OF CONTENTS</u></p> <p>Summary of Contract/Grant Awards to Universities</p> <p>SECTION I - Awards by agency within DOT and by university</p> <p>SECTION II - Awards by university and title of the contract/grant</p> <p>SECTION III - Awards by state and university</p>			
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U.S. Department  
of Transportation

**Research and  
Special Programs  
Administration**

Transportation  
Systems Center

Kendall Square  
Cambridge, Massachusetts 02142

The Department of Transportation recognizes the innovative capabilities and professional expertise of the Nation's academic community as a critical resource in addressing transportation-related problems and policies at the local, state, regional and national levels. In addition to funding transportation research and training, the Department convenes representatives of academia, industry, and government in university-based seminars to enhance understanding of technical and socio-economic issues and opportunities in all modes of transportation. These seminars serve as a valuable forum for the exchange of information on current transportation research results.

This publication, prepared annually by the Transportation Systems Center, University Research and Technology Innovation Office, summarizes the Department's contracts and grants awarded to colleges and universities during the fiscal year 1985. Total obligations amounted to almost \$30 million, including \$4.4 million of indirect highway-related R&D funding to universities via state governments and other agencies. Details of these awards are contained herein as noted in the table of contents. Inquiries concerning additional information may be directed to the University Research and Technology Innovation Office.

We believe that the academic community, through the Department's research and training programs, is making significant contributions to improving the safety, economics and efficiency of the Nation's transportation system.

A handwritten signature in cursive script that reads "L. W. Roberts".

Louis W. Roberts  
Director

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**DEPARTMENT OF TRANSPORTATION**  
**SUMMARY OF CONTRACT/GRANT AWARDS TO UNIVERSITIES**

*Fiscal Year Obligations in Thousands*

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
OST	\$ 3,045	\$ 4,311	\$ 7,367	\$ 4,813	\$ 3,581	\$ 4,152	*	*	*	*	\$ 109	\$ -0-	\$ -0-
USCG	651	1,022	758	621	633	614	\$ 558	\$ 373	\$ 600	\$ 75	495	510	652
FAA	736	3,432	3,806	3,199	2,863	2,864	3,036	2,601	2,762	13,677	16,659	13,138	24,714
FHWA	2,283	3,979	2,706	7,127	10,993	10,102	9,128	9,282	9,562	6,645	7,275	9,432	7,261
FRA	719	328	795	2,018	887	309	477	258	147	20	0	170	50
NHTSA	4,408	4,497	5,029	4,940	6,961	6,334	3,651	3,145	3,613	2,057	2,473	2,862	3,092
UMTA	3,610	3,750	2,426	3,197	2,851	3,497	2,681	2,271	1,872	2,046	1,507	798	810
MARAD	-	-	-	-	-	-	-	-	-	288	530	1,088	1,215
RSPA	-	-	-	-	-	-	5,218	4,862	4,368	2,675	4,578	2,386	1,930
<b>Totals</b>	<b>\$15,452</b>	<b>\$21,299</b>	<b>\$22,887</b>	<b>\$25,887</b>	<b>\$28,769</b>	<b>\$27,872</b>	<b>\$24,749</b>	<b>\$22,792</b>	<b>\$22,924</b>	<b>\$27,483</b>	<b>\$33,517</b>	<b>\$30,384</b>	<b>\$39,724</b>

NOTE: Fiscal Year 1985 data for the Federal Highway Administration include direct obligations of \$2,852,222 and indirect obligations of \$4,408,425 for highway-related R&D funding to universities via state governments and other agencies.

(\*) Denotes included with RSPA

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice to ensure transparency and accountability.

2. The second section outlines the various methods used for data collection and analysis. It details the use of surveys, interviews, and focus groups to gather qualitative data, as well as the application of statistical models to quantify trends and patterns.

3. The third part of the report addresses the challenges faced during the research process. It highlights the difficulties of accessing certain data sources and the need for creative solutions to overcome these obstacles.

4. Finally, the document concludes with a series of recommendations for future research. It suggests that further exploration into the underlying causes of the observed phenomena would be beneficial, and that ongoing monitoring is necessary to track any changes over time.

5. The following table provides a summary of the key findings from the study. It shows a clear correlation between the variables investigated, with a statistically significant difference observed in the control group.

Variable	Control Group	Experimental Group
Mean Value	12.5	15.8
Standard Deviation	3.2	4.1
Significance Level	p < 0.05	p < 0.01

6. In addition to the quantitative data, several qualitative insights were gained from the interviews. Participants in the experimental group reported a higher level of satisfaction and engagement compared to those in the control group, which may be attributed to the intervention being tested.

7. The results of this study have several implications for practice. They suggest that the intervention being evaluated is effective in achieving the desired outcomes, and that it can be implemented in a variety of settings to benefit a wider population.

8. It is important to note that while the findings are promising, there are still some limitations to the study. The sample size was relatively small, and the study was conducted over a short period of time. Future research should aim to address these limitations by conducting larger-scale studies with longer follow-up periods.

9. In conclusion, this research has provided valuable insights into the effectiveness of the intervention being tested. The findings support the use of this approach as a means of improving the outcomes of interest, and they provide a solid foundation for further exploration in this field.



# SECTION

# I

AWARDS BY AGENCY  
WITHIN DOT  
AND BY UNIVERSITY

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**UNITED STATES COAST GUARD**

<i>University</i>	<i>City</i>	<i>State</i>	<i>Contract Number</i>	<i>Contract Amount</i>	<i>Short Contract Title</i>
California, University of	Los Angeles	CA	DTCG3985-C-80205	\$ 87,631	Dev. chromatic/luminance contrast scale
Connecticut, University of	Storrs	CT	DTCG3985-C-00183	10,740	Technical services
Dartmouth College	Hanover	NH	DTCG3983-C-00831	328,417	ADP timesharing service
Michigan, University of	Ann Arbor	MI	Project 3300/9000.1	15,000	Engineering consortium
Rhode Island, University of	Kingston	RI	DTCG3985-C-00190	8,000	Technical services
South Alabama, University of	Mobile	AL	DTCG3985-C-00198	24,413	Housing for cadets
Worcester Polytechnic Institute	Worcester	MA	DTCG3985-A-80196	17,082	Marine fire research
Yosemite College	Modesto	CA	DTCG3284-C-00007	<u>160,245</u>	Training—criminal justice

**UNITED STATES COAST GUARD—TOTAL**

**\$ 651,528**

FEDERAL AVIATION ADMINISTRATION

University	City	State	Contract Number	Contract Amount	Short Contract Title
Auburn University	Auburn	AL	DTFA0185-C-00057	\$ 99,932	Std. delay reporting system data
			DTFA0284-D-84143	84,391	Airway science program
				<u>184,323</u>	
California, University of	Los Angeles	CA	DTFA0285-P-31784	25,000	Training
			DTFA0385-C-00037	144,611	New detection concepts
				<u>169,611</u>	
Cameron University	Lawton	OK	DOT-FA70AC-2179	1,262,766	Mgt. training facilities w/ services
Catholic University	Washington	DC	DTFA0185-C-00046	80,387	Dev. experimental ATC forms of tests
Central State University	Wilberforce	OH	DTFA0184-C-00023	80,581	Airport pavement stabilization systems
Dayton, University of	Dayton	OH	DTFA0385-C-00009	121,272	Worldwide aircraft icing data study
Drexel University	Philadelphia	PA	DTFA0385-P-00505	24,600	Tuition/books
Embry-Riddle Aeronautical University	Daytona Beach	FL	DTFA0385-P-00818	15,200	Tuition/books
			DTFA0384-C-00003	24,700	Master in aviation program
				<u>39,900</u>	
Florida State University	Tallahassee	FL	DTFA0285-D-85012	713,794	CBI support
Michigan, University of	Ann Arbor	MI	DTFA0285-P-32618	12,656	Training
Ohio University	Athens	OH	DTFA0183-C-10007	5,530	Industrial, scientific, medical study
			DTFA0183-C-20025	117,951	Engineering/technical services
				<u>123,481</u>	
Oklahoma, University of	Norman	OK	DTFA0280-C-80001	2,210,717	Mgt. training Development/ Instruction
			DTFA0282-D-82005	6,067,832	Air traffic recovery assistance
				13,516,838	Air traffic training
				49,500	Mgt. training
				<u>21,844,887</u>	

**FEDERAL AVIATION ADMINISTRATION — continued**

<i>University</i>	<i>City</i>	<i>State</i>	<i>Contract Number</i>	<i>Contract Amount</i>	<i>Short Contract Title</i>
Oklahoma City Community College	Oklahoma City	OK	DTFA0284-D-84037	17,439	Computer literacy training
Oklahoma State University	Stillwater	OK	DTFA0285-D-85116	15,000	Chemical analysis
Pennsylvania State University	University Park	PA	DTFA0184-C-00053	15,000	Use of acoustical emissions
Princeton University	Princeton	NJ	DTFA0382-C-00046	5,863	Task order contract
Utah, University of	Salt Lake City	UT	DTFA0282-D-82065	<u>2,743</u>	Laboratory analysis

**FEDERAL AVIATION ADMINISTRATION — TOTAL**

**\$24,714,303**

**FEDERAL HIGHWAY ADMINISTRATION — DIRECT OBLIGATIONS**

University	City	State	Contract Number	Contract Amount	Short Contract Title
Colorado, University of	Denver	CO	DTFH6185-C-00150	\$ 49,945	Pavement drainage stable channel design
Florida, University of	Gainesville	FL	DTFH6183-C-00133	23,168	Arterial analysis package
Georgia Institute of Technology	Atlanta	GA	DTFH6181-C-00034	2,477	High performance coating systems
Illinois, University of	Urbana	IL	DTFH6185-C-00103	205,467	Field evaluation—rigid pavement design
Illinois, University of	Champaign	IL	DTFH6185-C-00004	378,338	Determination of rehabilitation
Kansas State University	Manhattan	KS	DTFH6185-C-00139	149,512	Guidelines for protective systems—hazmat spills
Lehigh University	Bethlehem	PA	DTFH6183-C-00091	99,888	Structural evaluation of in-service bridges
Maryland, University of	College Park	MD	DTFH6185-C-00092	94,000	Guidelines for design of multi-span bridges
Michigan, University of	Ann Arbor	MI	DTFH6185-C-00091	150,000	Safety implications of truck configurations
			DTFH6185-C-00112	125,000	Design loads for future bridges
			DTFH6185-C-00122	206,868	Reengineering of Part 393
			DTFH6183-C-00046	37,272	Truck tractive power criteria
				<u>519,140</u>	
New Mexico State University	Las Cruces	NM	DTFH6182-C-00097	57,208	Highway bridge inspection
North Carolina, University of	Chapel Hill	NC	DTFH6184-C-00067	13,753	Safe geometric design for mini-cars
			DTFH6184-C-00084	54,654	Correlation-driver's driving record
				<u>68,407</u>	
Pennsylvania State University	University Park	PA	DTFH6185-C-00111	172,861	Asphalt behavior at low service temperatures
			DTFH6181-C-00090	3,004	Prediction methods for changes in pavement friction
				<u>175,865</u>	

FEDERAL HIGHWAY ADMINISTRATION — DIRECT OBLIGATIONS — *continued*

<i>University</i>	<i>City</i>	<i>State</i>	<i>Contract Number</i>	<i>Contract Amount</i>	<i>Short Contract Title</i>
Texas, University of	Austin	TX	DTFH6185-C-00174	\$ 137,494	High strength bolts for bridges
			DTFH6182-C-00007	96,403	Study in pavement mgt. metal culverts
				<u>233,897</u>	
Texas A&M University	College Station	TX	DTFH6185-C-00083	121,322	Prediction of equivalent axle loads
			DTFH6185-C-00101	243,606	Heavy vehicle impact forces
			DTFH6185-C-00129	167,346	Rollover caused by concrete barriers
			DTFH6180-C-00040	99,000	Skid test/calibration services
			DTFH6181-C-00080	54,191	Second generation of sulphex binders
DTFH6182-C-00074	19,329	Properties of asphalt-rubber paving mats			
				<u>704,794</u>	
West Virginia University	Morgantown	WV	DTFH6185-C-00113	<u>90,116</u>	Low volume bridges

**FEDERAL HIGHWAY ADMINISTRATION — DIRECT OBLIGATIONS — TOTAL**      **\$ 2,852,222**



FEDERAL HIGHWAY ADMINISTRATION — INDIRECT OBLIGATIONS — HP&R/NCHRP FUNDS

University	City	State	Contract Amount	Short Contract Title
Alaska, University of	Fairbanks	AK	\$ 8,768 10,184 <u>18,952</u>	Design of depressed invert culverts Hydrologic criteria for fish passage
Arizona, University of	Tucson	AZ	74,966	Scour in supercritical flow
Arizona State University	Tempe	AZ	27,127 35,000 <u>62,127</u>	Visual processing and driving safety Transport of hazardous materials
Arkansas, University of	Fayetteville	AR	32,182	Resilient properties of Arkansas soils
California, University of	Berkeley	CA	19,840	Effect of septic tank additives on scum in tanks
			37,964	Investigation of potential safety hazards
			<u>57,804</u>	
California, University of	Irvine	CA	15,900	Analysis of truck related freeway incidents
California, University of	Los Angeles	CA	20,000	Evaluation of closed circuit TV for freeway surveillance
California, University of	San Diego	CA	110,000	Concrete overlays in bridge deck rehabilitation
California State University	San Diego	CA	26,264	Perf. meas.-ramp metering system
Case Western Reserve University	Cleveland	OH	97,000	Design of steel bonded connection
Central Florida, University of	Orlando	FL	50,000	Management practices of storm water runoff
Colorado, University of	Denver	CO	6,505	Peak runoff prediction for State of Colorado

FEDERAL HIGHWAY ADMINISTRATION — INDIRECT OBLIGATIONS — HP&R/NCHRP FUNDS — continued

University	City	State	Contract Amount	Short Contract Title
Georgia, University of	Athens	GA	\$ 1,000	Eval. of scotch broom cultivars for roadsides
Georgia State University	Atlanta	GA	9,762	Shoreline enhancement for wetland
Illinois, University of	Urbana	IL	21,000	Highway drainage manual
Kentucky, University of	Lexington	KY	58,000	Eval. of sandstone bases
			42,000	Strategies for pavement management
			28,000	Effectiveness of noise barriers
			5,000	Guidelines for left turn phasing
			<u>133,000</u>	
Lafayette College	Easton	PA	40,000	Cost effectiveness of bridge repair details
Lehigh University	Bethlehem	PA	149,930	Redundancy of welded steel I-girder bridges
Mississippi State University	Mississippi State	MS	28,124	Microbial deterioration of asphalt overlays
			22,565	Spray drift eval. for roadside sprayers
			<u>50,689</u>	
New Mexico State University	Las Cruces	NM	100,000	Surveys of concrete bridge components
Oklahoma, University of	Norman	OK	31,120	Investigation of elastomeric expansion bridge bearings
Pennsylvania State University	University Park	PA	44,628	Dev. of storm atlas
Pittsburgh, University of	Pittsburgh	PA	174,985	Value iteration program for actuated signals

FEDERAL HIGHWAY ADMINISTRATION — INDIRECT OBLIGATIONS — HP&R/NCHRP FUNDS — continued

University	City	State	Contract Amount	Short Contract Title
Purdue University	Lafayette	IN	\$ 36,000	Hi-strength concrete I-beam sections
			25,000	Overlay design for rigid pavement
			7,540	Layer coefficients in terms of mixture characteristics
			22,110	Image analysis of highway materials
			<u>90,650</u>	
Rutgers University	New Brunswick	NJ	54,087	Repair of bridge deck structures
Texas, University of	Austin	TX	60,000	Candidate toll roads
			60,000	Rigid pavement data base
			65,950	Load transfer across joints/cracks in pavements
			80,000	Thin bonded overlay implementation
			50,000	Eval. strength precast girder
			100,000	Eval. density in asphalt mixtures
			43,500	Shaft retaining walls
			55,000	Eval./training related to drum mix plants
			100,000	Fatigue strength of post tensioned concrete
			25,000	Alkali-aggregate reaction in concrete
			73,500	Resistance of anchor bolts to fatigue
			50,000	Strategies for bridge replacement
75,000	Longer/wider trucks on Texas hwy system			
			60,000	Candidate toll roads
			59,000	Analysis of curved steel girder units
			<u>956,950</u>	

FEDERAL HIGHWAY ADMINISTRATION -- INDIRECT OBLIGATIONS -- HP&R/NCHRP FUNDS -- continued

University	City	State	Contract Amount	Short Contract Title
Texas A&M University	College Station	TX	\$ 63,000	Asphalt concrete mixtures
			80,500	Pavement evaluation system improvements
			63,000	Design of ACP overlays on concrete pavements
			50,000	Stable foundation for highway RR grade crossings
			65,000	Predicting load equivalencies
			50,000	Multiple seal coat design and construction
			5,500	Automating truck tire pressure data collection
			150,000	Vehicle downsizing and roadside safety hardware
			82,000	Project completion time and cost overruns
			69,000	Air quality modeling
			71,000	Vehicle emission from roadways
			10,019	Fabrics under base courses
			47,000	Consolidation of continuously reinforced concrete
			95,000	Overhead vehicle sensor system
			45,000	Use of fly overs and grade-separated ramps
			95,000	Demonstration of exclusive truck facilities
			50,000	Guardrails--low fill bridge length culverts
			59,382	Sm. sign support anal.
			50,000	T5 bridge rail
			60,000	Energy absorbing traffic rail
			105,000	Traffic control for construction operations
			20,500	MUTCD work zone traffic control
			97,000	Longer/wider trucks on Texas hwy. sys.
			84,000	Travel time and accident costs for hwy. projects
			73,359	Analysis of accident rates
			84,000	Allocation of construction funds
			158,000	Automated system for technical info
			<u>1 889 960</u>	

**FEDERAL HIGHWAY ADMINISTRATION — INDIRECT OBLIGATIONS — HP&R/NCHRP FUNDS — continued**

<i>University</i>	<i>City</i>	<i>State</i>	<i>Contract Amount</i>	<i>Short Contract Title</i>
Tulane University	New Orleans	LA	\$ 74,057	Prestressed concrete/steel beams for bridge widening
Vanderbilt University	Nashville	TN	70,000	Metal tube crash cushion
Washington, University of	Seattle	WA	6,664	Utilization of sewage sludge
			100,000	Monitoring of calcium magnesium acetate
			<u>106,664</u>	

**FEDERAL HIGHWAY ADMINISTRATION — INDIRECT OBLIGATIONS — TOTAL**      **\$ 4,408,425**

**FEDERAL RAILROAD ADMINISTRATION**

<i>University</i>	<i>City</i>	<i>State</i>	<i>Contract Number</i>	<i>Contract Amount</i>	<i>Short Contract Title</i>
Illinois, University of	Champaign	IL	DTFR5384-C-00036	\$ 50,000	Grain marketing/transportation flow study
<b>FEDERAL RAILROAD ADMINISTRATION – TOTALS</b>				<u>\$ 50,000</u>	

# NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

University	City	State	Contract Number	Contract Amount	Short Contract Title
American University	Washington	DC	DTNH2285-Z-05781	\$ 80,420	Motor vehicle Truma-A preventive approach
Georgia, University of	Athens	GA	DTNH2285-6-07243	21,494	Teaching adolescents about alcohol
Indiana University	Indianapolis	IN	DTNH2285-C-05741	124,190	Occupant protection program workshops
			DTNH2282-C-07275	381,398	Operations of Central Zone Center A
			DTNH2281-C-57205	160,345	Estab. & operate primary sampling unit
				<u>665,933</u>	
Kansas, University of	Lawrence	KS	DTNH2285-C-15404	464,362	Highway safety project
Michigan, University of	Ann Arbor	MI	DTNH2284-D-07080	92,298	Crash avoidance research
			DTNH2284-C-07338	11,000	Usage of UMTRI accident data system
			DTNH2284-C-07198	29,930	FM VSS 108 harmonization upgrade
			DTNH2283-D-17019	82,000	Dev. of biomechanical data—human surrogate
			DTNH2283-C-07005	75,640	Eval. anthropomorphic test device
			DTNH2283-C-07187	25,000	Heavy truck dynamic performance
			HS-9-02209	46,497	Public info material catalog
				<u>362,365</u>	
Montevallo, University of	Montevallo	AL	DTNH2283-C-07154	286,035	Estab. PSU-Shelby/Tuscaloosa County
Nebraska, University of	Omaha	NE	DTNH2285-Z-05162	9,950	Data collection/evaluation-alcohol program
North Carolina, University of	Chapel Hill	NC	DTNH2285-C-07225	24,990	Evaluation child safety restraints
			DTNH2282-C-07393	20,000	Exploratory analysis-accident data
				<u>44,990</u>	
Northwestern University	Evanston	IL	DTNH2285-C-05120	24,555	Training for accident reconstructionists
			DTNH2285-C-15401	510,337	Child safety seat usage project
			DTNH2285-Z-05109	41,676	Seminar for traffic law enforcement
			DTNH2285-Z-05018	9,809	Baker award for achievements
			DTNH2283-C-07276	14,591	Deterrence value of alt. sanctions for DWI
				<u>600,968</u>	

**NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION — continued**

<i>University</i>	<i>City</i>	<i>State</i>	<i>Contract Number</i>	<i>Contract Amount</i>	<i>Short Contract Title</i>
Pennsylvania, University of	Philadelphia	PA	DTNH2282-C-07187	\$ 60,316	Biomechanics of head injury
Texas, University of	Dallas	TX	DTNH2285-C-07253	99,257	Increase use of safety belts
Texas A&M University	College Station	TX	DTNH2283-C-07158	135,345	Establish/operate of PSU-5 Texas
			DTNH2283-C-07153	95,345	Establish/operate of PSU-Arkansas
				<u>230,690</u>	
Virginia Polytechnic Institute and State University	Blacksburg	VA	DTNH2285-C-07301	50,000	Promoting safety belt use
Wayne State University	Detroit	MI	DTNH2283-D-27019	115,000	Dev./analysis of biomedical data
				<u>\$ 3,091,780</u>	

**NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION — TOTAL**



# URBAN MASS TRANSPORTATION ADMINISTRATION

University	City	State	Grant Number	Grant Amount	Grant Title
Alabama A&M University	Normal	AL	AL-11-0003	\$ 66,893	Developing local support and funding for transportation services in rural areas
California State University	Long Beach	CA	CA-11-0030	74,434	Increasing private sector involvement in urban mass transportation planning and service
Carnegie-Mellon University	Pittsburgh	PA	PA-11-0033	81,664	Innovate financial strategies during facility construction
Columbia University	New York	NY	NY-11-0039	79,000	Potentials and problems of private sector transportation service
East Tennessee State University	Johnson City	TN	TN-11-0017	25,131	Joint funding agreements between universities and transit operating properties
Georgia Institute of Technology	Atlanta	GA	GA-11-0017	76,545	Overcoming barriers to greater private sector involvement in transportation
Illinois, University of	Chicago	IL	IL-11-0032	36,631	Moving people: a 1985 revision
North Dakota State University	Fargo	ND	ND-11-0001	51,420	Training courses for small urban and rural transportation management
Ohio State University	Columbus	OH	OH-11-0007	49,876	Evaluating the desirability of transit deregulation
Pennsylvania, University of	Philadelphia	PA	PA-11-0032	80,106	Monopoly, deregulation and Coordination of public mobility services
Puerto Rico, University of	Rio Piedras	PR	PR-11-0005	65,809	Use of microcomputers in study of population trends and impact on transportation needs in rapidly growing metropolitan areas
Rensselaer Polytechnic Institute	Troy	NY	NY-11-0038	42,997	Transit safety: case study of New York State's Public Transportation Safety Board
Virginia Polytechnic Institute Blacksburg and State University	Blacksburg	VA	VA-11-0015	79,012	Effect of employee attitudes and productivity
<b>URBAN MASS TRANSPORTATION ADMINISTRATION - TOTAL</b>				<b>\$ 809,518</b>	

## MARITIME ADMINISTRATION

University	City	State	Contract Number	Contract Amount	Short Contract Title
California, University of	Berkeley	CA	DTMA9185-C-50103	\$ 50,248	Investigation of ship hull ultimate strength
Dartmouth College	Hanover	NH	DTMA9185-C-50007	110,096	Lease of computer terminals
George Washington University	Washington	DC	DTMA9185-C-50114	49,700	Rotary-jet marine propulsion study
Iowa, University of	Iowa City	IA	DTMA9185-C-50115	49,522	Study of heave and pitch motions
Louisiana State University	Baton Rouge	LA	DTMA9185-C-50116	48,782	Study-container transport by inland waterways
Massachusetts Institute of Technology	Cambridge	MA	DTMA9184-C-41014	51,325	Sea trials on selected ships
Michigan, University of	Ann Arbor	MI	DTMA9184-C-41045	425,000	Shipbuilding education/training program
			DTMA9185-C-50118	38,465	Study-bow impact loads
			DTMA9185-C-50127	50,924	Application of artificial intelligence in marine industry
				<u>514,389</u>	
Morgan State University	Baltimore	MD	DTMA9183-C-30033	45,000	Study-accession/retention of minority CG officers
Rensselaer Polytechnic Institute	Troy	NY	DTMA9185-C-50119	135,429	Decision support to Master, Pilots, Mates on Watch
Texas A&M University	College Station	TX	DTMA9185-C-50120	49,768	Study—liquid sloshing loads
Virginia Polytechnic Institute and State University	Blacksburg	VA	DTMA9185-C-50121	32,108	Analysis of theory recavitating propeller induced hull pressures
Washington, University of	Seattle	WA	DTMA9185-C-50122	50,000	Accuracy control variation merging equations
Webb Institute of Naval Architecture	Glen Cove	NY	DTMA9185-C-50123	28,786	Arctic operation requirements for ship mach. systems
				<u>28,786</u>	
				<u>\$ 1,215,153</u>	

**MARITIME ADMINISTRATION — TOTAL**

# RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

University	City	State	Contract Number	Contract Amount	Short Contract Title
Bradley University	Peoria	IL	DTRS5783-C-00118	\$ 8,158	Development of demo. microprocessor software for GPS
Carnegie-Mellon University	Pittsburgh	PA	DTRS5785-C-00098	25,000	Adv. digital communications
Dillard University	New Orleans	LA	DTRS5683-C-00030	55,000	Implementation of workshops
Howard University	Washington	DC	DTRS5683-C-00035	200,000	Rapid transit station sites
Lehigh University	Bethlehem	PA	DTRS5785-C-00093	20,300	Structural integrity
Lowell, University of	Lowell	MA	DTRS5785-C-00088	35,000	Navigation/sur system analysis
Maryland, University of	College Park	M	DTRS5785-C-00105	49,704	Wake vortex study
Massachusetts Institute of Technology	Cambridge	MA	DTRS5684-C-00001	357,594	Load impact—heavy trucks
			DTRS5785-C-00029	53,264	Metallurgical analysis
			DTRS5783-C-00085	62,906	Small aircraft pilot error study
			TSC-1320	25,743	References services
				<u>499,507</u>	
North Carolina A&T State University	Greensboro	NC	DTRS5683-C-00042	800	Total factor productivity trans. analysis
North Carolina State University	Raleigh	NC	DTRS5681-C-00002	100,000	Tire/pavement interaction
			DTRS5683-C-00043	55,000	Design/construction of bridges
				<u>155,000</u>	
Ohio University	Athens	OH	DTRS5783-C-00097	129,984	Research support
			DTRS5785-C-00063	611,323	Modernize FAA ATC system
				<u>741,307</u>	
Syracuse University	Syracuse	NY	DTRS5681-C-00028	5,000	Shipper mode choice in rural areas
Virginia, University of	Charlottesville	VA	DTRS5785-C-00007	124,971	Safety system optimization model
			DTRS5785-C-00103	16,300	Vehicle crashworthiness
				<u>134,971</u>	
				<u>\$ 1,929,747</u>	

**RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION — TOTAL**

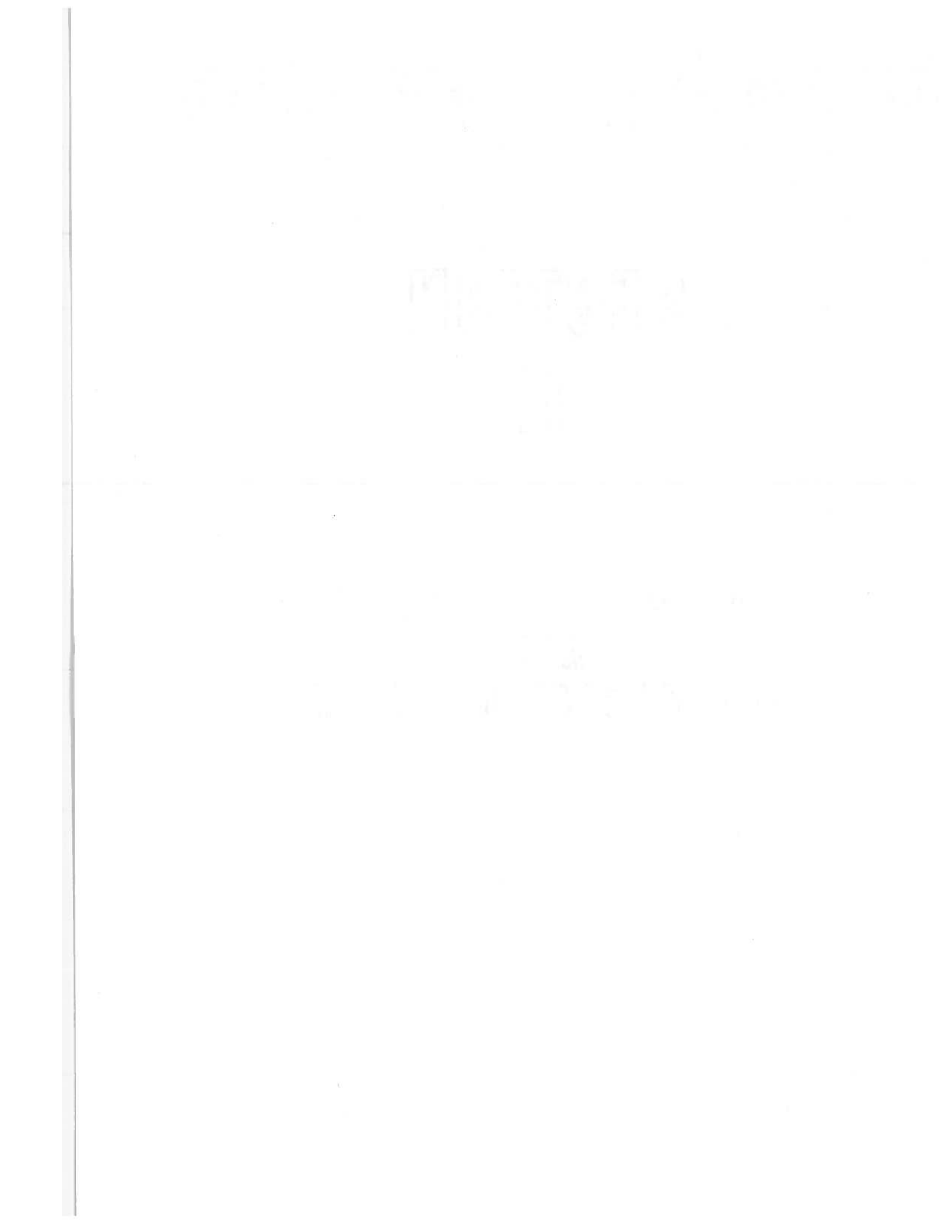
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# SECTION

## II

AWARDS BY UNIVERSITY  
AND  
TITLE OF CONTRACT/GRANT



**AWARDS BY UNIVERSITY AND TITLE OF CONTRACT/GRANT**

University	DOT Admin.	Contract Number	Contract Amount	Short Contract Title
Alabama A&M University	UMTA	AL-11-0003*	\$ 66,893	Support for rural transportation services
Alaska, University of	FHWA	HP&R/NCHRP Funds	8,768	Design for depressed invert culverts
			10,184	Hydrologic criteria for fish passage
			<u>18,952</u>	
American University	NHTSA	DTNH2285-Z-05781	80,420	Motor vehicle trauma-A preventive approach
Arizona, University of	FHWA	HP&R/NCHRP Funds	74,966	Scour in supercritical flow
			27,127	Visual process and driver safety
Arizona State University	FHWA		35,000	Transport of hazardous materials
Arkansas, University of	FHWA	HP&R/NCHRP Funds	<u>62,127</u>	
			32,182	Resilient properties of Arkansas soils
Auburn University	FAA	DTFA0185-C-00057	99,932	Std. delay reporting system data
			84,391	Airway science program
Bradley University	FAA		<u>184,323</u>	
Bradley University	RSPA	DTRS5783-C-00118	8,158	Dev. of demo. microprocessor software for GPS
California, University of/Berkeley	FHWA	HP&R/NCHRP Funds	19,840	Septic tank additives on scum in tanks
			37,964	Investigation of potential safety hazards
			50,248	Ship hull ultimate strength study
	MARAD		<u>106,052</u>	
California, University of/Irvine	FHWA	HP&R/NCHRP Funds	15,900	Truck related freeway incidents
California, University of/Los Angeles	FHWA	HP&R/NCHRP Funds	20,000	Closed circuit TV for freeway surveillance
			25,000	Training
			144,611	New detection concepts
			87,631	Chromatic/luminance contrast scale
	USCG	DTG3985-C-80205	<u>277,242</u>	

\*Denotes Grant

AWARDS BY UNIVERSITY AND TITLE OF CONTRACT/GRANT — continued

University	DOT Admin.	Contract Number	Contract Amount	Short Contract Title
California, University of/San Diego	FHWA	HP&R/NCHRP Funds	\$ 110,000	Concrete overlays in bridge deck rehab.
California State University/Long Beach	UMTA	CA-11-0030*	74,434	Private sector involvement in urban mass T service
California State University/San Diego	FHWA	HP&R/NCHRP Funds	26,264	Perf. meas.—ramp metering system
Cameron University	FAA	DOT-FA70AC-2179	1,262,766	Mgt. training facilities w/ services
Carnegie-Mellon University	RSPA UMTA	DTRS5785-C-0098 PA-11-0033*	25,000 81,664 <u>106,664</u>	Adv. digital communications Financial strategies—facility construction
Case Western Reserve University	FHWA	HP&R/NCHRP Funds	97,000	Steel to steel bonded connections
Catholic University	FAA	DTFA0185-C-00046	80,387	Experimental ATC forms of tests
Central Florida, University of	FHWA	HP&R/NCHRP Funds	50,000	Mgt. practices of storm water runoff
Central State University	FAA	DTFA0184-C-00023	80,581	Airport pavement stabilization systems
Colorado, University of/Denver	FHWA FHWA	HP&R/NCHRP Funds DTFH6185-C-00150	6,505 49,945 <u>56,450</u>	Peak runoff prediction Pavement drainage design
Columbia University	UMTA	NY-11-0039*	79,000	Problems of private sector transport. services
Connecticut, University of	USCG	DTCG3985-C-00183	10,740	Technical services
Dartmouth College	MARAD USCG	DTMA9185-C-50007 DTCG3983-C-00831	110,096 328,417 <u>438,513</u>	Lease of computer terminals ADP timesharing services

\*Denotes Grant



AWARDS BY UNIVERSITY AND TITLE OF CONTRACT/GRANT — continued

University	DOT Admin.	Contract Number	Contract Amount	Short Contract Title
Dayton, University of	FAA	DTFA0385-C-00009	\$ 121,272	Aircraft icing data study
Dillard University	RSPA	DTRS5683-C-00030	55,000	Implementation of workshops
Drexel University	FAA	DTFA0385-P-00505	24,600	Tuition/books
East Tennessee State University	UMTA	TN-11-0007*	25,131	Funding agreements/universities and transit properties
Embry Riddle Aeronautical University	FAA FAA	DTFA0385-P-00818 DTFA0384-C-00003	15,200 24,700 <u>39,900</u>	Tuition/books Master in aviation program
Florida, University of	FHWA	DTFH6183-C-00133	23,168	Arterial analysis package
Florida State University	FAA	DTFA0285-D-85012	713,794	CBI support
George Washington University	MARAD	DTMA9185-C-50114	49,700	Rotary-jet marine propulsion study
Georgia, University of	NHTSA FHWA	DTNH2285-C-07243 HP&R/NCHRP Funds	21,494 1,000 <u>22,494</u>	Teaching adolescents about alcohol Cultivars for roadsides
Georgia Institute of Technology	FHWA UMTA	DTFH6181-C-00034 GA-11-0017*	2,477 76,545 <u>79,022</u>	Coating systems Private sector involvement in transportation
Georgia State University	FHWA	HP&R/NCHRP	9,762	Shoreline enhancement for wetlands
Howard University	RSPA	DTRS5683-C-00035	200,000	Rapid transit station sites
Illinois, University of/Champaign	FRA FHWA	DTFR5384-C-00036 DTFH6185-C-00004	50,000 378,338 <u>428,338</u>	Grain transportation study Determination of rehabilitations

\*Denotes Grant

**AWARDS BY UNIVERSITY AND TITLE OF CONTRACT/GRANT — continued**

<i>University</i>	<i>DOT Admin.</i>	<i>Contract Number</i>	<i>Contract Amount</i>	<i>Short Contract Title</i>		
Illinois, University of/Chicago	UMTA	IL-11-0032*	\$ 36,631	Moving people: a 1985 revision		
Illinois, University of/Urbana	FHWA	DTFH6185-C-00103	205,467	Field eval.-rigid pavement design		
	FHWA	HP&R/NCHRP Funds	21,000	Highway drainage manual		
			<u>226,467</u>			
Indiana University	NHTSA	DTNH2285-C-05741	124,190	Occupant protection program workshops		
	NHTSA	DTNH2282-C-07275	381,398	Operations of Central Zone Center A		
	NHTSA	DTNH2281-C-57205	160,345	Estab./operate primary s.		
			<u>665,933</u>			
Iowa, University of	MARAD	DTMA9185-C-50115	49,522	Study of heave and pitch motions		
Kansas, University of	NHTSA	DTNH2285-C-15404	464,362	Highway safety project		
Kansas State University	FHWA	DTFH6185-C-00139	149,512	Guidelines for protective systems-haznat spills		
Kentucky, University of	FHWA	HP&R/NCHRP Funds	58,000	Eval. of sandstone bases		
	FHWA				42,000	Strategies of pavement management
	FHWA				28,000	Effectiveness of noise barriers
	FHWA				5,000	Guidelines for left turn phasing
			<u>133,000</u>			
Lafayette College	FHWA	HP&R/NCHRP Funds	40,000	Cost effectiveness of bridge repair details		
Lehigh University	FHWA	HP&R/NCHRP Funds	149,930	Redundancy of welded steel I-girder bridges		
	FHWA	DTFH6183-C-00091	99,888	Structural eval. of in-service bridges		
	RSPA	DTRS5785-C-00093	20,300	Structural integrity		
			<u>270,088</u>			
Louisiana State University	MARAD	DTMA9185-C-50116	48,782	Study-container transport by inland waterways		
Lowell University	RSPA	DTRS5785-C-00088	35,000	Navigation/surveillance sys. analysis		
Maryland, University of	RSPA	DTRS5785-C-00105	49,704	Wake vortex study		
	FHWA	DTFH6185-C-00092	94,000	Guidelines for design of multi-span bridges		
			<u>143,704</u>			

\* Donated Grant

University	DOT Admin.	Contract Number	Contract Amount	Short Contract Title
Massachusetts Institute of Technology	MARAD	DTMA9184-C-41014	\$ 51,325	Sea trials on selected ships
	RSPA	DTRS5684-C-00001	357,594	Load impact-heavy trucks
	RSPA	DTRS5785-C-00029	53,264	Metallurgical analysis
	RSPA	DTRS5783-C-00085	62,906	Small aircraft pilot error study
	RSPA	TSC-1320	25,743	Reference services
			<u>550,832</u>	
Michigan, University of	MARAD	DTMA9184-C-41045	425,000	Shipbuilding education/training program
	MARAD	DTMA9185-C-50118	38,465	Study - bow impact loads
	MARAD	DTMA9185-C-50127	50,924	Application of artificial intelligence in marine industry
	FHWA	DTFH6185-C-00091	150,000	Safety implications of truck configurations
	FHWA	DTFH6185-C-00112	125,000	Design loads for future bridges
	FHWA	DTFH6185-C-00122	206,868	Reengineering of Port 393
	FHWA	DTFH6183-C-00046	37,272	Truck tractive power criteria
	FAA	DTFA0285-P-32618	12,656	Training
	USCG	Project 3300/9000.1	15,000	Engineering consortium
				<u>1,423,550</u>
Mississippi State University	NHTSA	DTNH2284-D-07080	92,298	Crash avoidance research
	NHTSA	DTNH2284-C-07338	11,000	Usage of UMTRI accident data system
	NHTSA	DTNH2284-C-07198	29,930	FMVSS 108 harmonization upgrade
	NHTSA	DTNH2283-D-17019	82,000	Dev. of biomechanical data-human surrogate
	NHTSA	DTNH2283-C-07005	75,640	Eval. anthropomorphic test device
	NHTSA	DTNH2283-C-07187	25,000	Heavy truck dynamic performance
	NHTSA	HS-9-02209	46,497	Public info material catalog
			<u>28,124</u>	
			<u>22,565</u>	
			<u>50,689</u>	
				Microbial deterioration of asphalt overlays
				Spray drift eval. for roadside sprayers
Montevallo, University of	NHTSA	DTNH2283-C-07154	286,035	Establish PSU-Shelby/Tuscaloosa County
Morgan State University	MARAD	DTMA9183-C-30033	45,000	Study-accession/retention of minority CG officers
Nebraska, University of	NHTSA	DTNH2285-Z-05162	9,950	Data collection/evaluation—alcohol program

AWARDS BY UNIVERSITY AND TITLE OF CONTRACT/GRANT — continued

University	DOT Admin.	Contract Number	Contract Amount	Short Contract Title
New Mexico State University	FHWA	DTFH6182-C-00097	\$ 57,208	Highway bridge inspection
	FHWA	HP&R/NCRRP Funds	100,000	Surveys of concrete bridge components
			<u>157,208</u>	
North Carolina, University of	FHWA	DTFH6184-C-00067	13,753	Safe geometric design for mini-cars
	FHWA	DTFH6184-C-00084	54,654	Correlation—driver's driving record
	NHTSA	DTNH2285-C-07225	24,990	Evaluation—child safety restraints
	NHTSA	DTNH2282-C-07393	20,000	Exploratory analysis—accident data
			<u>113,397</u>	
North Carolina A&T State University	RSPA	DTRS5683-C-00042	800	Total factor productivity trans. analysis
North Carolina State University	RSPA	DTRS5681-C-00002	100,000	Tire/pavement interaction
	RSPA	DTRS5683-C-00043	55,000	Design/construction of bridges
			<u>155,000</u>	
North Dakota State University	UMTA	ND-11-0001*	51,420	Management training courses
Northwestern University	NHTSA	DTNH2285-C-05120	24,555	Training for accident reconstructionists
	NHTSA	DTNH2285-C-15401	510,337	Child safety seat usage project
	NHTSA	DTNH2285-Z-05109	41,676	Seminar for traffic law enforcement
	NHTSA	DTNH2285-Z-05018	9,809	Baker award for achievements
	NHTSA	DTNH2283-C-07276	14,591	Deterrence value of alt. sanctions for DWI
			<u>600,968</u>	
Ohio University	FAA	DTFA0183-C-10007	5,530	Industrial, scientific, medical study
	FAA	DTFA0183-C-20025	117,951	Engineering, technical services
	RSPA	DTRS5783-C-00097	129,984	Research support
	RSPA	DTRS5785-C-00063	611,323	Modernize FAA ATC system
			<u>864,788</u>	
Ohio State University	UMTA	OH-11-0007*	49,876	Eval. desirability of transit deregulation
Oklahoma, University of	FHWA	HP&R/NCRRP Funds	31,120	Elastomeric expansion of bridge bearings
	FAA	DTFA0280-C-80001	2,210,717	Management training/instruction
	FAA	DTFA0282-D-82005	6,067,832	Air traffic recovery assistance
	FAA	DTFA0285-D-85047	13,516,838	Air traffic training
	FAA	DTFA0985-F-30760	49,500	Mgt. training
			<u>21,876,007</u>	

\*Denotes Grant

**AWARDS BY UNIVERSITY AND TITLE OF CONTRACT/GRANT — continued**

University	DOT Admin.	Contract Number	Contract Amount	Short Contract Title	
Oklahoma City Community College	FAA	DTFA0284-D-84037	\$ 17,439	Computer literacy training	
Oklahoma State University	FAA	DTFA0285-D-85116	15,000	Chemical analysis	
Pennsylvania, University of	UMTA	PA-11-0032*	80,106	Deregulation of public mobility services Biomechanics of head injury	
	NHTSA	DTNH2282-C-07187	60,316		
			<u>140,422</u>		
Pennsylvania State University	FHWA	DTFH6185-C-00111	172,861	Asphalt behavior at low service temps. Prediction methods for changes in pavement friction	
	FHWA	DTFH6181-C-00090	3,004		
	FAA	DTFA0184-C-00053	15,000	Use of acoustical emissions Dev. of storm altas	
	FHWA	HP&R/NCHRP Funds	44,628		
			<u>235,493</u>		
Pittsburgh, University of	FHWA	HP&R/NCHRP Funds	174,985	Value iteration program—actuated signals	
Princeton University	FAA	DTFA0382-C-00046	5,863	Task order contract	
Puerto Rico, University of	UMTA	PR-11-0005*	65,809	Microcomputers in study of pop. trends	
Purdue University	FHWA FHWA FHWA FHWA	HP&R/NCHRP Funds	36,000 25,000 7,540 22,110	Concrete I-beam sections Overlay design for rigid pavements Layer coefficients Image analysis—highway materials	
					<u>90,650</u>
Rensselaer Polytechnic Institute	UMTA MARAD	NY-11-0038* DTMA9185-C-50119	42,997 135,429	Transit safety study Decision support to pilots, et al on watch	
			<u>178,426</u>		
Rhode Island, University of	USCG	DTCG3985-C-00190	8,000	Technical services	
Rutgers University	FHWA	HP&R/NCHRP Funds	54,087	Repair of bridge deck structures	

\*Denotes Grant

**AWARDS BY UNIVERSITY AND TITLE OF CONTRACT/GRANT — continued**

<i>University</i>	<i>DOT Admin.</i>	<i>Contract Number</i>	<i>Contract Amount</i>	<i>Short Contract Title</i>	
South Alabama, University of	USCG	DTCG3985-C-00198	\$ 24,413	Housing for cadets	
Syracuse University	RSPA	DTRS5681-C-00028	5,000	Shipper mode choice in rural areas	
Texas, University of (Austin)	FHWA	DTFH6185-C-00174	137,494	Hi strength bolts for bridges	
		DTFH6182-C-00007	96,403	Study in pavement mgt. metal culverts	
	FHWA	HP&R/NCHRP Funds		60,000	Candidate toll roads
				60,000	Rigid pavement data base
				65,950	Load transfer across joints
				80,000	Thin bonded overlay implementation
				50,000	Eval. strength precast girder
				100,000	Eval. density in asphalt mixtures
				43,500	Shaft retaining walls
				55,000	Eval./training—drum mix plants
				100,000	Fatigue strength study
				25,000	Alkali-aggregate reaction in concrete
				73,500	Resistance of anchor bolts to fatigue
				50,000	Strategies for bridge replacement
	75,000	Longer/wider trucks study			
	60,000	Candidate toll roads			
		59,000	Analysis—curved steel girder units		
			<u>1,190,847</u>		
Texas, University of (Dallas)	NHTSA	DTNH2285-C-07253	99,257	Increase use of safety belts	

AWARDS BY UNIVERSITY AND TITLE OF CONTRACT/GRANT — continued

University	DOT Admin.	Contract Number	Contract Amount	Short Contract Title
Texas A&M University	MARAD	DTMA9185-C-50120	\$ 49,768	Study—liquid sloshing loads
	NHTSA	DTNH2283-C-07158	135,345	Establish-operate PSU—S. Texas
	NHTSA	DTNH2283-C-07153	95,345	Establish-operate PSU—Arkansas
	FHWA	DTFH6185-C-00083	121,322	Prediction of equivalent axle loads
	FHWA	DTFH6185-C-00101	243,606	Heavy vehicle impact forces
	FHWA	DTFH6185-C-00129	167,346	Rollover caused by concrete barriers
	FHWA	DTFH6180-C-00040	99,000	Skid test/calibration services
	FHWA	DTFH6181-C-00080	54,191	Second generation of sulphex binders
	FHWA	DTFH6182-C-00074	19,329	Properties of asphalt-rubber paving mats
			63,000	Asphalt concrete mixtures
			80,500	Pavement evaluation system improvements
			63,000	Design of ACP overlays on concrete pavements
			50,000	Stable foundations for hwy. RR grade crossings
			65,000	Predicting load equivalencies
			50,000	Multiple seal cost design and construction
			5,500	Automating truck tire pressure data collection
			150,000	Vehicle downsizing and roadside safety hardware
			82,000	Project completion time and cost overruns
			69,000	Air quality modeling
			71,000	Vehicle emission from roadways
		10,019	Fabrics under base courses	
		47,000	Consolidation of continuously reinforced concrete	
		95,000	Overhead vehicle sensor system	
		45,000	Use of fly overs and grade-separated ramps	
		95,000	Demc of exclusive truck facilities	
		50,000	Guardrails—low fill bridge length culverts	
		59,382	Small sign support analysis	
		50,000	T5 bridge rail to redirect buses/trucks	
		60,000	Energy absorbing traffic rail	
		105,000	Traffic control for construction operations	
		20,500	MUTCD work zone traffic control	
		97,000	Longer/wider trucks on Texas hwy. system	
		84,000	Travel time and accident costs for hwy. projects	
		73,359	Analysis accident rates	
		84,000	Allocation of construction funds	
		158,000	Automated system for technical info	
			<b>2,867,512</b>	

HP&R/NCHRP Funds

FHWA

**AWARDS BY UNIVERSITY AND TITLE OF CONTRACT/GRANT — continued**

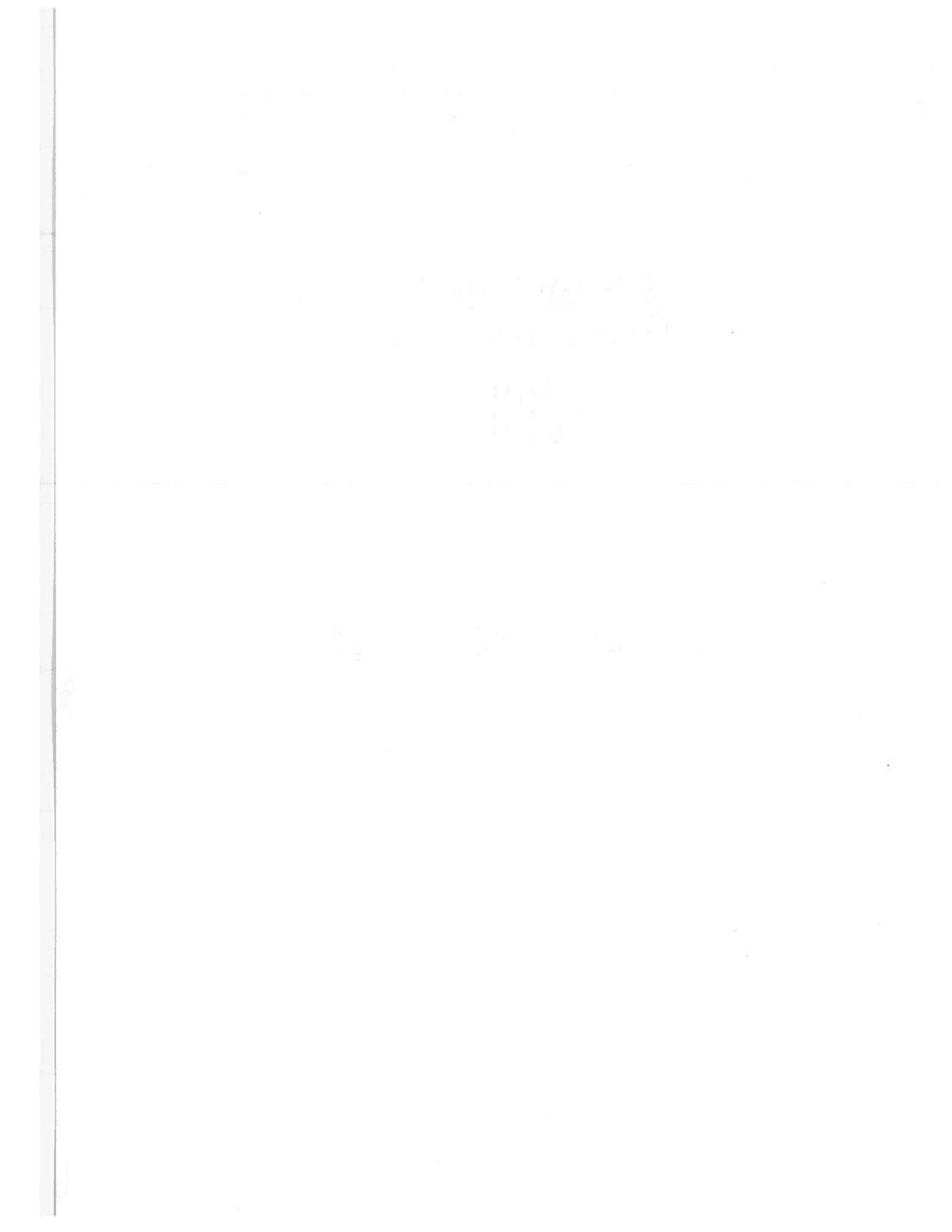
<i>University</i>	<i>DOT Admin.</i>	<i>Contract Number</i>	<i>Contract Amount</i>	<i>Short Contract Title</i>
Tulane University	FHWA	HP&R/NCHRP Funds	\$ 74,057	Prestressed concrete/steel beams for bridge widening
Utah, University of	FAA	DTFA0282-D-82065	2,743	Laboratory analysis
Vanderbilt University	FHWA	HP&R/NCHRP Funds	70,000	Metal tube crash cushion
Virginia, University of	RSPA RSPA	DTRS5785-C-00007 DTRS5785-C-00103	124,971 10,000	Safety system optimization model Vehicle crashworthiness
Virginia Polytechnic Institute and State University	UMTA MARAD NHTSA	VA-11-0015* DTMA9185-C-50121 DTNH2285-C-07301	79,012 32,108 50,000 <u>161,120</u>	Effect of employee attitude and productivity Analysts of theory re induced hull pressures Promoting safety belt use
Washington, University of	FHWA FHWA MARAD	HP&R/NCHRP Funds DTMA9185-C-50122	6,664 100,000 50,000 <u>156,664</u>	Utilization of sewage sludge Monitoring of calcium magnesium acetate Accuracy control variation merging equations
Wayne State University	NHTSA	DTNH2283-D-27019	115,000	Dev./analysis biomedical data
Webb Institute of Naval Architecture	MARAD	DTMA9185-C-50123	28,786	Arctic operation requirements for ship mach. sys.
West Virginia University	FHWA	DTFH6185-C-00113	90,116	Low volume bridges
Worcester Polytechnic Institute	USCG	DTCC3985-A-80196	17,082	Marine fire research
Yosemite College	USCG	DTCC3284-C-00007	160,245	Training—criminal justice

\*Denotes Grant



**SECTION  
III**

**SUMMARY BY STATES**



## SUMMARY BY STATES

<i>State/University</i>	<i>Total FY 1985 Obligations</i>
<b>1. ALABAMA</b>	
Alabama A&M University	\$ 66,893
Auburn University	184,323
Montevallo, University of	286,035
South Alabama, University of	24,413
	\$ 561,664
<b>2. ALASKA</b>	
Alaska, University of	\$ 18,952
<b>3. ARIZONA</b>	
Arizona, University of	\$ 74,966
Arizona State University	62,127
	\$ 137,093
<b>4. ARKANSAS</b>	
Arkansas, University of	\$ 32,182
<b>5. CALIFORNIA</b>	
California, University of/Berkeley	\$ 108,052
California, University of/Irvine	15,900
California, University of/Los Angeles	277,242
California, University of/San Diego	110,000
California State University/Long Beach	74,434
California State University/San Diego	26,264
Yosemite College	160,245
	\$ 772,137
<b>6. COLORADO</b>	
Colorado, University of/Denver	\$ 56,450
<b>7. CONNECTICUT</b>	
Connecticut, University of	\$ 10,740
<b>8. DISTRICT OF COLUMBIA</b>	
American University	\$ 80,420
Catholic University	80,387
George Washington University	49,700
Howard University	200,000
	\$ 410,507
<b>9. FLORIDA</b>	
Central Florida, University of	\$ 50,000
Embry Riddle Aeronautical University	39,900
Florida, University of	23,168
Florida State University	713,794
	\$ 826,862

**SUMMARY BY STATES—continued**

<i>State/University</i>	<i>Total FY 1985 Obligations</i>
<b>10. GEORGIA</b>	
Georgia, University of	\$ 22,494
Georgia Institute of Technology	79,022
Georgia State University	9,762
	<u>\$ 111,278</u>
<b>11. ILLINOIS</b>	
Bradley University	\$ 8,158
Illinois, University of/Champaign	428,338
Illinois, University of/Chicago	36,631
Illinois, University of/Urbana	226,467
Northwestern University	600,968
	<u>\$ 1,300,562</u>
<b>12. INDIANA</b>	
Indiana University/Indianapolis	\$ 665,933
Purdue University	90,650
	<u>\$ 756,583</u>
<b>13. IOWA</b>	
Iowa, University of	\$ 49,522
<b>14. KANSAS</b>	
Kansas, University of	\$ 464,362
Kansas State University	149,512
	<u>\$ 613,874</u>
<b>15. KENTUCKY</b>	
Kentucky, University of	\$133,000
<b>16. LOUISIANA</b>	
Dillard University	\$ 55,000
Louisiana State University	48,782
Tulane University	74,057
	<u>\$ 177,839</u>
<b>17. MARYLAND</b>	
Maryland, University of	\$ 143,704
Morgan State University	45,000
	<u>\$ 188,704</u>
<b>18. MASSACHUSETTS</b>	
Lowell, University of	\$ 35,000
Massachusetts Institution of Technology	550,832
Worcester Polytechnic Institute	17,082
	<u>\$ 602,914</u>

**SUMMARY BY STATES—continued**

<i>State/University</i>	<i>Total FY 1985 Obligations</i>
<b>19. MICHIGAN</b>	
Michigan, University of	\$ 1,423,550
Wayne State University	115,000
	<u>\$ 1,538,550</u>
<b>20. MISSISSIPPI</b>	
Mississippi State University	\$ 50,689
<b>21. NEBRASKA</b>	
Nebraska, University of	\$ 9,950
<b>22. NEW HAMPSHIRE</b>	
Dartmouth College	\$ 438,513
<b>23. NEW JERSEY</b>	
Princeton University	\$ 5,863
Rutgers University	54,087
	<u>\$ 59,950</u>
<b>24. NEW MEXICO</b>	
New Mexico State University	\$ 157,208
<b>25. NEW YORK</b>	
Columbia University	\$ 79,000
Rensselaer Polytechnic Institute	178,426
Syracuse University	5,000
Webb Institute of Naval Architecture	28,786
	<u>\$ 291,212</u>
<b>26. NORTH CAROLINA</b>	
North Carolina, University of	\$ 113,397
North Carolina A&T State University	800
North Carolina State University	155,000
	<u>\$ 269,197</u>
<b>27. NORTH DAKOTA</b>	
North Dakota State University	\$ 51,420
<b>28. OHIO</b>	
Case Western Reserve University	\$ 97,000
Central State University	80,581
Dayton, University of	121,272
Ohio University	864,788
Ohio State University	49,876
	<u>\$ 1,213,517</u>

**SUMMARY BY STATES—continued**

<i>State/University</i>	<i>Total FY 1985 Obligations</i>
<b>29. OKLAHOMA</b>	
Cameron University	\$ 1,262,766
Oklahoma, University of	21,875,997
Oklahoma City Community College	17,439
Oklahoma State University	15,000
	<u>\$23,171,202</u>
<b>30. PENNSYLVANIA</b>	
Carnegie Mellon University	\$ 25,000
Drexel University	24,600
Lafayette College	40,000
Lehigh University	270,118
Pennsylvania, University of	140,422
Pennsylvania State University	235,493
Pittsburgh, University of	174,985
	<u>\$ 810,730</u>
<b>30. PENNSYLVANIA</b>	
Carnegie Mellon University	\$25,000
Drexel University	24,600
Lafayette College	40,000
Lehigh University	270,118
Pennsylvania, University of	140,422
Pennsylvania State University	235,493
Pittsburgh, University of	174,985
	<u>\$ 810,730</u>
<b>31. PUERTO RICO</b>	
Puerto Rico, University of	\$ 65,809
<b>32. RHODE ISLAND</b>	
Rhode Island, University of	\$ 8,000
<b>33. TENNESSEE</b>	
East Tennessee State University	\$ 25,131
Vanderbilt University	70,000
	<u>\$ 95,131</u>
<b>34. TEXAS</b>	
Texas, University of/Austin	\$ 1,190,847
Texas, University of/Dallas	99,257
Texas A&M University	2,867,512
	<u>\$ 4,157,616</u>
<b>35. UTAH</b>	
Utah, University of	\$ 2,743

SUMMARY BY STATES—*continued*

<i>State/University</i>	<i>Total FY 1985 Obligations</i>
<b>36. VIRGINIA</b>	
Virginia, University of	\$134,971
Virginia Polytechnic Institute and State University	<u>161,120</u>
	<b>\$ 296,091</b>
<b>37. WASHINGTON</b>	
Washington, University of	<b>\$156,664</b>
<b>38. WEST VIRGINIA</b>	
West Virginia University	<b>\$90,116</b>

1950

NAME	ADDRESS	CITY	STATE	ZIP
Mr. J. H. Smith	123 Main St.	Chicago	Ill.	60601
Mr. A. B. Jones	456 Oak St.	Chicago	Ill.	60602
Mr. C. D. Brown	789 Elm St.	Chicago	Ill.	60603
Mr. E. F. Green	1011 Maple St.	Chicago	Ill.	60604
Mr. G. H. White	1313 Cedar St.	Chicago	Ill.	60605
Mr. I. J. Black	1615 Birch St.	Chicago	Ill.	60606
Mr. K. L. Gray	1917 Pine St.	Chicago	Ill.	60607
Mr. M. N. Blue	2219 Spruce St.	Chicago	Ill.	60608
Mr. O. P. Red	2521 Willow St.	Chicago	Ill.	60609
Mr. Q. R. Purple	2823 Hickory St.	Chicago	Ill.	60610
Mr. S. T. Yellow	3125 Ash St.	Chicago	Ill.	60611
Mr. U. V. Green	3427 Sycamore St.	Chicago	Ill.	60612
Mr. W. X. Blue	3729 Chestnut St.	Chicago	Ill.	60613
Mr. Y. Z. Red	4031 Walnut St.	Chicago	Ill.	60614
Mr. A. B. Purple	4333 Elm St.	Chicago	Ill.	60615
Mr. C. D. Yellow	4635 Maple St.	Chicago	Ill.	60616
Mr. E. F. Green	4937 Oak St.	Chicago	Ill.	60617
Mr. G. H. Blue	5239 Birch St.	Chicago	Ill.	60618
Mr. I. J. Red	5541 Pine St.	Chicago	Ill.	60619
Mr. K. L. Purple	5843 Spruce St.	Chicago	Ill.	60620
Mr. M. N. Yellow	6145 Willow St.	Chicago	Ill.	60621
Mr. O. P. Green	6447 Hickory St.	Chicago	Ill.	60622
Mr. Q. R. Blue	6749 Ash St.	Chicago	Ill.	60623
Mr. S. T. Red	7051 Sycamore St.	Chicago	Ill.	60624
Mr. U. V. Purple	7353 Chestnut St.	Chicago	Ill.	60625
Mr. W. X. Yellow	7655 Walnut St.	Chicago	Ill.	60626
Mr. Y. Z. Green	7957 Elm St.	Chicago	Ill.	60627
Mr. A. B. Blue	8259 Maple St.	Chicago	Ill.	60628
Mr. C. D. Red	8561 Oak St.	Chicago	Ill.	60629
Mr. E. F. Purple	8863 Birch St.	Chicago	Ill.	60630
Mr. G. H. Yellow	9165 Pine St.	Chicago	Ill.	60631
Mr. I. J. Green	9467 Spruce St.	Chicago	Ill.	60632
Mr. K. L. Blue	9769 Willow St.	Chicago	Ill.	60633
Mr. M. N. Red	10071 Hickory St.	Chicago	Ill.	60634
Mr. O. P. Purple	10373 Ash St.	Chicago	Ill.	60635
Mr. Q. R. Yellow	10675 Sycamore St.	Chicago	Ill.	60636
Mr. S. T. Green	10977 Chestnut St.	Chicago	Ill.	60637
Mr. U. V. Blue	11279 Walnut St.	Chicago	Ill.	60638
Mr. W. X. Red	11581 Elm St.	Chicago	Ill.	60639
Mr. Y. Z. Purple	11883 Maple St.	Chicago	Ill.	60640
Mr. A. B. Yellow	12185 Oak St.	Chicago	Ill.	60641
Mr. C. D. Green	12487 Birch St.	Chicago	Ill.	60642
Mr. E. F. Blue	12789 Pine St.	Chicago	Ill.	60643
Mr. G. H. Red	13091 Spruce St.	Chicago	Ill.	60644
Mr. I. J. Purple	13393 Willow St.	Chicago	Ill.	60645
Mr. K. L. Yellow	13695 Hickory St.	Chicago	Ill.	60646
Mr. M. N. Green	13997 Ash St.	Chicago	Ill.	60647
Mr. O. P. Blue	14299 Sycamore St.	Chicago	Ill.	60648
Mr. Q. R. Red	14601 Chestnut St.	Chicago	Ill.	60649
Mr. S. T. Purple	14903 Walnut St.	Chicago	Ill.	60650
Mr. U. V. Yellow	15205 Elm St.	Chicago	Ill.	60651
Mr. W. X. Green	15507 Maple St.	Chicago	Ill.	60652
Mr. Y. Z. Blue	15809 Oak St.	Chicago	Ill.	60653
Mr. A. B. Red	16111 Birch St.	Chicago	Ill.	60654
Mr. C. D. Purple	16413 Pine St.	Chicago	Ill.	60655
Mr. E. F. Yellow	16715 Spruce St.	Chicago	Ill.	60656
Mr. G. H. Green	17017 Willow St.	Chicago	Ill.	60657
Mr. I. J. Blue	17319 Hickory St.	Chicago	Ill.	60658
Mr. K. L. Red	17621 Ash St.	Chicago	Ill.	60659
Mr. M. N. Purple	17923 Sycamore St.	Chicago	Ill.	60660
Mr. O. P. Yellow	18225 Chestnut St.	Chicago	Ill.	60661
Mr. Q. R. Green	18527 Walnut St.	Chicago	Ill.	60662
Mr. S. T. Blue	18829 Elm St.	Chicago	Ill.	60663
Mr. U. V. Red	19131 Maple St.	Chicago	Ill.	60664
Mr. W. X. Purple	19433 Oak St.	Chicago	Ill.	60665
Mr. Y. Z. Yellow	19735 Birch St.	Chicago	Ill.	60666
Mr. A. B. Green	20037 Pine St.	Chicago	Ill.	60667
Mr. C. D. Blue	20339 Spruce St.	Chicago	Ill.	60668
Mr. E. F. Red	20641 Willow St.	Chicago	Ill.	60669
Mr. G. H. Purple	20943 Hickory St.	Chicago	Ill.	60670
Mr. I. J. Yellow	21245 Ash St.	Chicago	Ill.	60671
Mr. K. L. Green	21547 Sycamore St.	Chicago	Ill.	60672
Mr. M. N. Blue	21849 Chestnut St.	Chicago	Ill.	60673
Mr. O. P. Red	22151 Walnut St.	Chicago	Ill.	60674
Mr. Q. R. Purple	22453 Elm St.	Chicago	Ill.	60675
Mr. S. T. Yellow	22755 Maple St.	Chicago	Ill.	60676
Mr. U. V. Green	23057 Oak St.	Chicago	Ill.	60677
Mr. W. X. Blue	23359 Birch St.	Chicago	Ill.	60678
Mr. Y. Z. Red	23661 Pine St.	Chicago	Ill.	60679
Mr. A. B. Purple	23963 Spruce St.	Chicago	Ill.	60680
Mr. C. D. Yellow	24265 Willow St.	Chicago	Ill.	60681
Mr. E. F. Green	24567 Hickory St.	Chicago	Ill.	60682
Mr. G. H. Blue	24869 Ash St.	Chicago	Ill.	60683
Mr. I. J. Red	25171 Sycamore St.	Chicago	Ill.	60684
Mr. K. L. Purple	25473 Chestnut St.	Chicago	Ill.	60685
Mr. M. N. Yellow	25775 Walnut St.	Chicago	Ill.	60686
Mr. O. P. Green	26077 Elm St.	Chicago	Ill.	60687
Mr. Q. R. Blue	26379 Maple St.	Chicago	Ill.	60688
Mr. S. T. Red	26681 Oak St.	Chicago	Ill.	60689
Mr. U. V. Purple	26983 Birch St.	Chicago	Ill.	60690
Mr. W. X. Yellow	27285 Pine St.	Chicago	Ill.	60691
Mr. Y. Z. Green	27587 Spruce St.	Chicago	Ill.	60692
Mr. A. B. Blue	27889 Willow St.	Chicago	Ill.	60693
Mr. C. D. Red	28191 Hickory St.	Chicago	Ill.	60694
Mr. E. F. Purple	28493 Ash St.	Chicago	Ill.	60695
Mr. G. H. Yellow	28795 Sycamore St.	Chicago	Ill.	60696
Mr. I. J. Green	29097 Chestnut St.	Chicago	Ill.	60697
Mr. K. L. Blue	29399 Walnut St.	Chicago	Ill.	60698
Mr. M. N. Red	29701 Elm St.	Chicago	Ill.	60699
Mr. O. P. Purple	30003 Maple St.	Chicago	Ill.	60700