

Comparison of Multi-Year Totals and Annual Averages for Research: TEA-21 and SAFETEA-LU

(6-year totals for TEA-21; 5-year totals for SAFETEA-LU)

A. Brach, 8/15/2005

Programs from the Research Title	Multi-Year Totals			Annual Averages		
	TEA-21 [1]	SAFETEA-LU	% Delta	TEA-21	SAFETEA-LU	% Delta
STR + TD for TEA-21 [3]	842,000,000	982,000,000	17%	140,333,333	196,400,000	40%
Surface Transportation Research	592,000,000					
LTPP [2]	60,000,000	50,600,000	-16%	10,000,000	10,120,000	1%
Seismic Research	12,000,000	12,500,000	4%	2,000,000	2,500,000	25%
International Transpo Outreach	3,000,000	1,500,000	-50%	500,000	300,000	-40%
Concrete Pavement	30,000,000					
STEPCRP	no funds specified	67,500,000				
Advanced Research	no funds specified	70,000,000				
Fundamental Properties of Asphalt	16,000,000	21,000,000	31%	2,666,667	4,200,000	58%
Transportation Econ. & Land Use	6,000,000	5,000,000	-17%	1,000,000	1,000,000	0%
Commercial Remote Sensing [3]	60,000,000	31,000,000	-48%	10,000,000	7,750,000	-23%
Centers for Sur. Transpo. Excellence		15,000,000				
Long-Term Bridge Performance		31,000,000				
Adv travel Forecast/transp simul		10,500,000				
Natl Coop Freight Research		15,000,000				
F-SHRP		205,000,000				
Transportation Safety Info Mgt System		2,000,000				
S.T. Congestion Relief Solutions		36,000,000				
Commercial Remote Sensing		31,000,000				
Motor Carrier Efficiency (FMSCA)		5,000,000				
Ctr Transpo Advance, Regional Devel		2,500,000				
Hazardous Materials Research Projects		5,000,000				
Biobased Transportation Research		50,000,000				
Motorcycle Crash Causation		2,816,000				
Research Grants		76,500,000				
Technology Deployment [4]	250,000,000					
Innovative Bridge (Research) [5]	6,000,000	65,500,000				
Innovative Bridge (Construction)	102,000,000					
High-performance concrete bridge		16,500,000				
Technology Application Initiatives and Partnerships						
Innovative Pavement Research and Deployment Program		90,500,000				
Demo Ultra HP Concr w/ ductility		2,500,000				
High-performance steel bridge		16,400,000				
Steel Bridge Testing		5,000,000				
Safety Innovative Deployment		51,000,000				
Demo Projects and Studies		13,300,000				
Training and Education	102,000,000	133,500,000	31%	17,000,000	26,700,000	57%
National Highway Institute	39,000,000	48,000,000	23%	6,500,000	9,600,000	48%
Local Technical Assistance Program	51,000,000	55,500,000	9%	8,500,000	11,100,000	31%
Eisenhower Fellowships	12,000,000	11,000,000	-8%	2,000,000	2,200,000	10%
Garrett Morgan Program		5,000,000				
Freight Planning Capacity Building		3,500,000				
S.T. Congestion Relief Assist, Train		3,000,000				
Transpo Education Development		7,500,000				
Bureau of Transportation Statistics	186,000,000	135,000,000	-27%	31,000,000	27,000,000	-13%
Ferry Database		2,000,000				
ITS Standards, Research, Test, Devel	603,200,000	550,000,000	-9%	100,533,333	110,000,000	9%
Comm. Veh. ITS Infrastructure [6]	184,100,000	[100,000,000]				
Multistate Corridor Ops & Mgt		35,000,000				
Rural Interstate Corridor Commun Study		3,000,000				
Road Weather R&D		20,000,000				
ITS Deployment [7]	679,000,000	122,000,000				
ITS integration	482,000,000					

University Transportation Research	158,800,000	348,500,000	119%	26,466,667	69,700,000	163%
Totals, Research Title Only [7]	1,892,000,000	2,149,000,000	14%	315,333,333	429,800,000	36%
Obligation Limitation	2,571,000,000	2,054,444,440	-20%	428,500,000	410,888,888	-4%

Programs From Other Titles	TEA-21	SAFETEA-LU	% Delta	TEA-21	SAFETEA-LU	% Delta
Transit (FTA)						
Transit Cooperative Research	45,250,000	46,084,000	2%	7,541,667	9,216,800	22%
National Transit Institute	23,000,000	18,192,000	-21%	3,833,333	3,638,400	-5%
UTC, transit portion	36,000,000	33,952,000	-6%	6,000,000	6,790,400	13%
Highway Safety (NHTSA) (Section 403)	432,000,000	502,424,000	16%	72,000,000	100,484,800	40%

Total UTC Funding (highway + transit)	194,800,000	382,452,000	96%	32,466,667	76,490,400	136%
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[1] TEA-21 funding amounts do not reflect impact of obligation limits.

[2] Indentation indicates suballocation of funds. Colored background indicates programs in the same funding category.

[3] The Commercial Remote Sensing program was not granted contract authority in TEA-21 (it was subject to appropriations). In SAFETEA-LU it is funded through contract authority for four year; the annual average is taken over four years rather than five.

[4] In TEA-21, Surface Transportation Research and Technology Deployment are separate programs. In SAFETEA-LU, they are combined and a subprogram is devoted to technology deployment. For comparison, funding for the two program are combined in the top row of the table.

[5] The Innovative Bridge Research and Construction elements from TEA-21 are combined in SAFETEA-LU and become a program called the Innovative Bridge Research and Deployment Program.

[6] CVISN is funded in the Motor Carrier title (Title IV) in SAFETEA-LU, rather than the research title. Title IV funding is shown here for comparison to TEA-21 funding.

[7] ITS Deployment was moved out of the research title in SAFETEA-LU, except in FY 2005. ITS Deployment is not included in the totals for TEA-21 or SAFETEA-LU at the bottom of the page.

Table 1: Research and Technology Funding in Non-research Titles of H.R. 3 conference report for Surface Transportation Reauthorization Bill

A. Brach, 8/15/2005

Indentation means the program is a suballocation of the non-indented, or less indented, program above it.

Program	Funding Section	Program Section	Fiscal Year					Total
			2005	2006	2007	2008	2009	
Title I: Federal-aid Highways								
Highways for LIFE	1101(a)(20)	1502		15,000,000	20,000,000	20,000,000	20,000,000	75,000,000
Title II: Safety								
Section 403 activities	2001(a)2)		71,424,000	110,000,000	107,750,000	107,750,000	105,500,000	502,424,000
Title III: Transit								
Various research, development, training, and data programs (total)	3034 (5338 in existing law)	5311(b), 5312, 5313, 5314, 5315, 5322, 5335	54,560,000	58,000,000	61,000,000	65,500,000	69,750,000	308,810,000
<i>From HTF Transit Account</i>			47,740,000					
<i>From General Fund</i>			6,820,000	58,000,000	61,000,000	65,500,000	69,750,000	
Transit Cooperative Research Program	3034	5313(a)	8,184,000	9,000,000	9,300,000	9,600,000	10,000,000	46,084,000
National Transit Institute	3034	5315	992,000	4,300,000	4,300,000	4,300,000	4,300,000	18,192,000
University Transpo Research [1]	3034	5505, 5506	5,952,000	7,000,000	7,000,000	7,000,000	7,000,000	33,952,000
earmarks			3,968,000	7,000,000	7,000,000	7,000,000	7,000,000	31,968,000
Allocations for Natl R&T								
Public Transpo Natl Security	3046(a)(1)C)	3046(a)(1)		250,000	250,000			500,000
Center Transit-Oriented Devel	3046(a)(2)	3046(a)(2)		1,000,000	1,000,000	1,000,000	1,000,000	4,000,000
Transpo Equity Res Prog	3046(a)(3)	3046(a)(3)		1,000,000	1,000,000	1,000,000	1,000,000	4,000,000
Cognitive Impairment Study	3046(a)(4)	3046(a)(4)		1,000,000				1,000,000
Career Ladder Training	3046(a)(5)	3046(a)(5)		1,000,000	1,000,000	1,000,000	1,000,000	4,000,000
Remote Infrared Audible Sign	3046(a)(6)(A)	3046(a)(6)		500,000	500,000	500,000	500,000	2,000,000
Hydrogen Fuel Cell Shuttle	3046(a)(7)	3046(a)(7)		800,000	800,000			1,600,000
Wisconsin STRAP	3046(a)(8)(A)	3046(a)(8)		2,000,000	2,000,000	2,000,000	2,000,000	8,000,000
Human Services Trans Coordin	3046(a)(9)(A)	3046(a)(9)		1,600,000	1,600,000	1,600,000	1,600,000	6,400,000
Portland Streetcar Prototype	3046(a)(11)	3046(a)(11)		1,000,000	1,000,000	1,000,000	1,000,000	4,000,000
Public Transpo Participation	3046(a)(11A)	3046(a)(11)		1,000,000	1,000,000	1,000,000	1,000,000	4,000,000
Transpo Hybrid Electric Vehicle & Fuel Cell Resaerch	3046(a)(12)	3046(a)(12)		500,000	500,000	500,000	500,000	2,000,000
Trauma Care System R&D	3046(a)(13)	3046(a)(13)		500,000	500,000	500,000	500,000	2,000,000
Transportation Infrastructure and Logistics	3046(a)(14)	3046(a)(14)		500,000	500,000	500,000	500,000	2,000,000
Natl Bus Rapid Transit Institute	3046(a)(15)	3046(a)(15)		1,750,000	1,750,000	1,750,000	1,750,000	7,000,000
Application of IT to Transpo Logistics and Security	3046(a)(16)	3046(a)(16)		400,000	400,000	400,000	400,000	1,600,000
ITS Pilot Project	3046(a)(17)	3046(a)(17)		465,000	465,000	465,000	465,000	1,860,000

Regional Public Safety Training	3046(a)(18)	3046(a)(18)		500,000	500,000	500,000	500,000	2,000,000
Transit Security Training	3046(a)(19)	3046(a)(19)		750,000	750,000	750,000	750,000	3,000,000
Small Urban & Rural Transit Ctr	3046(a)(20)	3046(a)(20)		800,000	800,000	1,200,000	1,200,000	4,000,000
Advanced Tech BRT	3046(a)(21)	3046(a)(21)		500,000	540,000	550,000	625,000	2,215,000
Greater New Haven Fuel Cell Bus	3046(a)(22)	3046(a)(22)		500,000	540,000	550,000	625,000	2,215,000
Ctr for Advanced Transpo Init.	3046(a)(23)	3046(a)(23)		500,000	540,000	540,000	625,000	2,205,000
Instit of Tech Transpo, Econ, and Land Use System	3046(a)(24)	3046(a)(24)		500,000	540,000	540,000	625,000	2,205,000
Regional Transit Training Consor	3046(a)(25)	3046(a)(25)		270,000	380,000	380,000	450,000	1,480,000
Title IV: Motor Carrier								
CVISN Deployment	4101(c)(4)	4126		25,000,000	25,000,000	25,000,000	25,000,000	100,000,000
MC Research and Technology		4112	may use administrative funds					
Title VII: Hazardous Materials								
Hazardous Materials Research [2]	7131(c)	7131		1,250,000	1,250,000	1,250,000	1,250,000	5,000,000

Notes:

[1] In 2005 UTCs receive \$5,208,000 from the Trust Fund and \$744,000 from the General Fund; in the remaining years, all the funds are from the General Fund.

[2] The Hazardous Materials Research Projects are funded from the research title.

Table 2: Research and Technology Funding in Title V of H.R. 3 Conference Report for Surface Transportation Reauthorization Bill

A. Brach, 8/15/2005

Indentation means the program is a suballocation of the non-indented, or less indented, program above it.

Section numbers without quotation marks refer to H.R. 3 and section numbers in quotation marks refer to 23 USC, unless otherwise indicated.

Program	Funding Section	Program Section	Fiscal Year					Total
			2005	2006	2007	2008	2009	
Surface Transportation Research, Development, and Deployment Program	5101(a)(1)	502 503 506 507 509 510 of 23 USC; 5201 5203 5204 5309 5501 5502 5503 5504 5506 5511 5512 5513 of this title	196,400,000	196,400,000	196,400,000	196,400,000	196,400,000	982,000,000
Exploratory Advanced Research [1]	5201(h)(2)	5201(g) "502(e)"	14,000,000	14,000,000	14,000,000	14,000,000	14,000,000	70,000,000
Long-term Pavement Performance	5201(i)(2)	"502(f)"	10,120,000	10,120,000	10,120,000	10,120,000	10,120,000	50,600,000
Seismic Research	5201(j)(2)	"502(g)"	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	12,500,000
Biobased Transportation Research	5201(m)	5201(m)		12,500,000	12,500,000	12,500,000	12,500,000	50,000,000
Long-term Bridge Performance	5202(a)(2)	"502(j)"		7,750,000	7,750,000	7,750,000	7,750,000	31,000,000
Innovative Bridge Research and Deployment Program	5202(b)(3)(B)	"503(b)(1)"	13,100,000	13,100,000	13,100,000	13,100,000	13,100,000	65,500,000
High Performance Concrete Bridge	5202(b)(3)(B)	5202(b)(3)(B)		4,125,000	4,125,000	4,125,000	4,125,000	16,500,000
High Performing Steel Bridge R&T2	5202(c)	5202(c)(2)		4,100,000	4,100,000	4,100,000	4,100,000	16,400,000
Steel Bridge Testing	5202(d)	5202(d)(2)		1,250,000	1,250,000	1,250,000	1,250,000	5,000,000
Technology and Deployment	5203	"503(a)"						
Innovative Pavement Res & Deploy	5203(b)(2)	"503(c)"		22,625,000	22,625,000	22,625,000	22,625,000	90,500,000
Research to Improve NHS Pavt	5203(b)	"503(c)(3)"						
*asphalt pavement				4,100,000	4,100,000	4,100,000	4,100,000	16,400,000
*concrete pavement				4,100,000	4,100,000	4,100,000	4,100,000	16,400,000
*alternative materials				4,100,000	4,100,000	4,100,000	4,100,000	16,400,000
*aggregates				2,450,000	2,450,000	2,450,000	2,450,000	9,800,000
Safety Innovative Deployment	5203(c)(2)	"503(d)"		12,750,000	12,750,000	12,750,000	12,750,000	51,000,000
Demonstration Projects and Studies	5203(e)	5203(e)						
Wood Composite Materials	5203(e)(1)	5203(e)(1)		1,000,000	1,000,000			2,000,000
Asphalt Reclamation Study	5203(e)(2)	5203(e)(2)		1,500,000				1,500,000
Alkali Silica Reactivity	5203(e)(3)	5203(e)(3)		2,450,000	2,450,000	2,450,000	2,450,000	9,800,000
TFHRC ultra-high perf concrete duct	5203(f)	5203(f)		625,000	625,000	625,000	625,000	2,500,000
Transportation Technology Innovation		5204(g)						
Fundamental Properties of Asphalt	5204(g)(1)	5117(b)(5) T-21	4,200,000	4,200,000	4,200,000	4,200,000	4,200,000	21,000,000
Transpo, Econ, & Land Use System	5204(g)(2)	5117(b)(7) T-21	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
International Highway Trans Outreach	5206(b)	"506"	300,000	300,000	300,000	300,000	300,000	1,500,000
Surface Transportation Environment & Planning Coop Research Program	5207(b)	"507"		16,875,000	16,875,000	16,875,000	16,875,000	67,500,000
Natl Coop Freight Research Program	5209(b)	"509"		3,750,000	3,750,000	3,750,000	3,750,000	15,000,000

Future SHRP	5210[c]	"510"		51,250,000	51,250,000	51,250,000	51,250,000	205,000,000
Centers for Transpo Excellence	5309(d)	5309		3,750,000	3,750,000	3,750,000	3,750,000	15,000,000
Environment				1,250,000	1,250,000	1,250,000	1,250,000	5,000,000
Surface Transportation Safety				750,000	750,000	750,000	750,000	3,000,000
Rural Safety				875,000	875,000	875,000	875,000	3,500,000
Project Finance				875,000	875,000	875,000	875,000	3,500,000
Transportation Safety Info Mgt System	5501[c]	5501		1,000,000	1,000,000			2,000,000
Surface Transportation Congestion Relief Solutions Research Initiative	5502(d)	5502(a)-(b)		9,000,000	9,000,000	9,000,000	9,000,000	36,000,000
Motor Carrier Efficiency Study	5503(e)	5503		1,250,000	1,250,000	1,250,000	1,250,000	5,000,000
Center for Transpo Advancement & Regional Development	5504(d)	5504		625,000	625,000	625,000	625,000	2,500,000
Commercial Remote Sensing Products and Spatial Information Technologies	5506(d)	5506		7,750,000	7,750,000	7,750,000	7,750,000	31,000,000
Motorcycle Crash Causation Study	5511(b)	5511		1,408,000	1,408,000			2,816,000
Advanced Travel Forecasting	5512	5512		2,625,000	2,625,000	2,625,000	2,625,000	10,500,000
Research Grants	5513	5513		22,500,000	18,000,000	18,000,000	18,000,000	76,500,000
Thermal Imaging	5513(a)(3)	5513(a)		2,000,000				2,000,000
Transportation Injury Research	5513(b)(3)	5513(b)		1,250,000	1,250,000	1,250,000	1,250,000	5,000,000
Technology Transfer Grant	5513(c)(2)	5513[c]		4,000,000	4,000,000	4,000,000	4,000,000	16,000,000
Appalachian Regional Commission	5513(d)(2)	5513(d)		500,000				500,000
Automobile Accident Injury Research	5513(e)(2)	5513(e)		500,000	500,000	500,000	500,000	2,000,000
Rural Transportation Research	5513(f)(2)	5513(f)		1,000,000				1,000,000
Rural Transpo. Research Initiative	5513(g)(2)	5513(g)		500,000	500,000	500,000	500,000	2,000,000
Hydrogen-Powered Transpo Res Init	5513(h)(2)	5513(h)		750,000	750,000	750,000	750,000	3,000,000
Cold Region & Rural Trans Res, M,O	5513(i)(2)	5513(i)		1,000,000	1,000,000	1,000,000	1,000,000	4,000,000
Advanced Vehicle Technology	5513(j)(2)	5513(j)		2,500,000	2,500,000	2,500,000	2,500,000	10,000,000
Asphalt Research Consortium	5513(k)(2)	5513(jk)		7,500,000	7,500,000	7,500,000	7,500,000	30,000,000
Renewable Transportation Systems	5513(l)(2)	5513(l)		1,000,000				1,000,000
Hazardous Materials Research Projects	7131[c]	7131		1,250,000	1,250,000	1,250,000	1,250,000	5,000,000
Training and Education	5101(a)(2)	5204 "504"	26,700,000	26,700,000	26,700,000	26,700,000	26,700,000	133,500,000
National Highway Institute	5204(a)(2)	"504(a)"	9,600,000	9,600,000	9,600,000	9,600,000	9,600,000	48,000,000
Local Technical Assistance Program	5204(b)	"504(b)"	11,100,000	11,100,000	11,100,000	11,100,000	11,100,000	55,500,000
Garrett Morgan Program	5204(d)	"504(d)"		1,250,000	1,250,000	1,250,000	1,250,000	5,000,000
Transpo Education Development	5204(f)	"504(f)"		1,875,000	1,875,000	1,875,000	1,875,000	7,500,000
Freight Planning Capacity Building	5204(h)(2)	"504(g)"		875,000	875,000	875,000	875,000	3,500,000
Eisenhower Transportation Fellowship	5204(i)	"504[c](2)"	2,200,000	2,200,000	2,200,000	2,200,000	2,200,000	11,000,000
ST Congestion Relief Assist & Training	5502(d)	5502(d)		750,000	750,000	750,000	750,000	3,000,000

Intelligent Transportation Systems Res	5101(a)(5)	C of this title; 511 23 USC	110,000,000	110,000,000	110,000,000	110,000,000	110,000,000	550,000,000
Multi-State corridor O&M (I-95 Cor Coal)	5211(b)	"511(b)"	7,000,000	7,000,000	7,000,000	7,000,000	7,000,000	35,000,000
Road Weather R&D	5308(e)	5308		5,000,000	5,000,000	5,000,000	5,000,000	20,000,000
Rural Interstate Corridor Commun Study	5507(f)	5507		1,000,000	2,000,000			3,000,000
ITS Deployment	5101(1)(6)	5208 5209 TEA-21	122,000,000					122,000,000
University Transportation Research [1]	5101(a)(4)	5505 & 5506 49 USC	69,700,000	69,700,000	69,700,000	69,700,000	69,700,000	348,500,000
National centers	5401(b)	5505 49 USC	20,000,000	35,000,000	35,000,000	35,000,000	35,000,000	160,000,000
Regional Centers	5402 5506(e)(5)	5506 49 USC	10,000,000	20,000,000	20,000,000	20,000,000	22,250,000	92,250,000
Tier I Centers	5403 5506(f)(5)	5507 49 USC	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	50,000,000
Tier II Centers	5404 5506(k)(3)	5508 49 USC		11,000,000	11,000,000	11,000,000	11,000,000	44,000,000
Administration of the Program	5405 5506(k)(3)	5509 49 USC	400,000	400,000	400,000	400,000	400,000	2,000,000
<i>Sum of 4 center types (check)</i>			<i>40,400,000</i>	<i>76,400,000</i>	<i>76,400,000</i>	<i>76,400,000</i>	<i>78,650,000</i>	<i>348,250,000</i>
Bureau of Transportation Statistics	5101(a)(3)	111 49 USC	27,000,000	27,000,000	27,000,000	27,000,000	27,000,000	135,000,000
National Ferry Database	5101(a)(3)	1801(e)		500,000	500,000	500,000	500,000	2,000,000
Totals [from shaded rows]			551,800,000	429,800,000	429,800,000	429,800,000	429,800,000	2,271,000,000

Obligation Ceiling	5102		410,888,888	410,888,888	410,888,888	410,888,888	410,888,888	2,054,444,440
Percent Obligation Limit			74%	96%	96%	96%	96%	90%

Note:

[1] Exploratory Advanced Research may be funded from any subparagraph of section 5101(a); it is listed under 5101(a)(1) for convenience.