

Partnering with Universities
National Research Advisory Committee Meeting
8/7/2007

STATE OR UTC	1. What challenges have you encountered in partnering with UTC's (for RAC) or DOT's (for UTC's)?	2. What solutions have you developed to the challenges raised in question 1?	3. Please share your success stories in partnering with UTC's/DOT's. Would you be willing to share your success stories at the National RAC meeting (Seattle, August 7)?	4. What are the primary products and services that you receive from UTC's (for RAC) or DOT's (for UTC's)?
STATE 1	The biggest challenge now is funding.	We are going to delay projects due to the lack of funding and no good alternatives.	After we go through our cycle of selecting research projects, the UTC looks at our next tier of projects and works with us on funding. We contribute partial funding for 5 or 6 projects a year. Also, through the UTC, we have developed a Center for Training Transportation Professionals. This has provided for improved training and certification for Department employees and contractors. We have a wonderful relationship with our UTC.	Additional research projects and training for our employees and contractor employees
STATE 2	We did not work with UTC over last two years. UTC is focused on transit issues only, so they worked with our Regional Transportation District (RTD) only. I am planning on attending a workshop with them to explore opportunities for future cooperation. The other UTC doesn't have school of engineering.			
STATE 3	We do not partner with a UTC.			
STATE 4	None.		We "match" as a normal course of our business. We have no issues since all of our research is done by universities. I doubt that what we do would be of benefit since UTC relationships is such a non-issue with us.	Research reports and other products (e.g., patents, devices, copywrited software).
STATE 5	<p>We do not have direct partnerships with any of the UTC's (there are none in our state), but there may be some missed opportunities. How should non-UTC states DOT's engage UTC's in order to develop partnerships? One idea, that I haven't explored, is to take my research needs and try to match up with a UTC that has common theme, etc. Maybe I'm just a phone call or email away. I suspect this applies in the other direction as well. I don't think there is much of an outreach effort, regarding funding research projects of common interest, from UTC's to state DOT's outside of their state.</p> <p>There also may be opportunities missed where state DOT's may have a common research interest with a UTC in another state if their state UTC doesn't have that interest/theme. We do partner with the a university in our state (not a UTC) on common interest research. This cooperative effort has been very successful. However, we are limited to the interests and expertise of the university. For example, they are very strong in the area of geotechnical engineering, but have no pavement research program.</p>			

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STATE 6	<p>1) Several UTCs don't have a strategic plan or even a good tentative plan for what they want to accomplish and how they plan to accomplish it. This makes it virtually impossible to seriously discuss partnerships with them. 2) Some UTC's seem to be more focused on getting DOT's to come up with creative ways to match their funds rather than identifying opportunities for legitimate win-win collaborations. 3) Leadership at some UTC's changes frequently, consists of inadequate part-time efforts, and in some cases seems to be missing altogether. Without consistent, committed leadership the work of building partnerships cannot be done effectively and efficiently. 4) There are a lot of UTC dollars to be matched. I am very interested in every opportunity I can get to leverage funds and other resources, but because I'm not aware of a long-term strategic program defined at any UTC that addresses compatible needs for my DOT, I am only willing to match on a project-by-project basis. Other DOT's have adopted similar philosophies, which could limit the odds of UTC's obtaining matching DOT funds if they don't develop enough projects that are of interest to the states. Therefore, it seems clear that the UTC's must develop partnerships with others in addition to the DOT's in their state in order to fully utilize their funding. It also seems clear that maximum benefit would occur if these partnerships were coordinated. This will be challenging for the UTC's who already have approved strategic plans. It may be impossible for those who still haven't submitted them for RITA's review.</p>	<p>1) While the DOT obviously cannot create the strategic plan for the UTC, one way we have attempted to provide assistance is to clearly define our research needs and areas of interest to enable the UTC to focus on ideas with the greatest potential of getting matching funds. I also had a series of meetings with universities in my state, beginning approximately 2 years before reauthorization, to share the DOT's needs and help them collaborate with us and each other. 2) We have an open door policy that encourages the UTCs to discuss potential ideas with us throughout the year. We also look for creative ways to match funds, such as allowing UTC dollars to be applied as matching funds for a program we have similar to NCHRP's IDEA program.</p> <p>3) Not much we can do to address the leadership challenge except to touch base periodically with the contacts we do have and continue to encourage them to make progress on their strategic plans. 4) Since each UTC theoretically has a theme to guide and focus its work, it seems plausible that each UTC could focus on a national or regional agenda for research, education and outreach related to that theme. In order for these centers to become incubators of technology in these thematic areas, most will need diverse support. Sole sustenance from their home state may only be possible for a select few. However, if UTCs partner with their home states to set up pooled funds that allow other states to easily contribute to the UTC, then the matching dollars could come from around the country. They would also come from the states most interested in those topics, which may not necessarily be the state in which the UTC is located. This would allow the UTCs to stay focused on their themes and build programs and expertise around those themes. If UTCs continue to try to get the vast majority of their match from their home states, I believe they will be forced to make a lot of compromises that will require them to do projects outside of their areas of interest and expertise. This will dilute the effectiveness of these leveraged funds, create an expanding hodge podge of uncoordinated research activities, ignore an opportunity to have a definitive impact on major focus area, and make it even more difficult to justify the value obtained from transportation research expenditures across the country.</p>	<p>I have worked with the universities in my state for several years to help them receive UTC funding. Even though I was able to encourage several of them to collaborate on a joint proposal for one center, I can't honestly consider this as a "success" story because the lead university has yet to submit a strategic plan or to present a detailed framework for how it plans to operate. The other members of the consortium don't appear to have any more information than I do, which is discouraging because in a true consortium, I would expect to see active participation in developing this plan from all members. I hope to see more progress in the near future and I remain committed to exploring opportunities to work with this center, as well as the others in our state, on mutually beneficial activities. In the past we have worked successfully with several UTCs outside our state on a variety of projects.</p>	<p>Since our entire program is contracted, I essentially receive the same products and services I would have received if I had advertised an RFP for those items. The biggest difference is that I have access to additional funds to get the work accomplished. I'm hoping that as more strategic plans are approved I will see other opportunities to work with the UTC's of which I am currently unaware.</p>
STATE 7	None. We are both a DOT and a UTC. The only problem I have is internal with the university as normally I provide funding to them from the DOT. The university does not normally provide funding to me.	We have handled this by charging UTC time /effort against the task orders of my university employees.	Sure.	Development and delivery of technology transfer workshops, NHI courses and other work force development projects.
STATE 8	A major challenge of working with our UTC has been aligning our priorities with those of the UTC. The UTC's have theme areas and they have to report on that basis which makes it difficult to stray too far from what they proposed.	We work cooperatively in both discussing proposed research ideas and in fleshing out selected partnership ideas into project statements.	We have just renewed our program in the last few years. I still feel that we are in a learning curve and as such do not feel that we have enough information to share at this point.	Research products that can be implemented and tools to assist in distribution and implementation. Also, we do get faculty expertise and student involvement which helps get to our Workforce Development needs.
STATE 9	Our first ever UTC is anticipated to get under way in fall of 2007.			

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STATE 10	None to date.		We are in our first year of partnering with our UTC since this is the first year they have requested a match from us. I feel that we have an excellent working relationship with each of the universities in our UTC. I believe the key is communication and working together. I am now on the Executive Committee of the UTC so we will be much more involved.	Reports. In addition, they provide an important service in providing educational opportunities for high school and college level students. This helps them get involved in transportation issues.
STATE 11	We have a new UTC; we recently identified its area of focus.		Our process for identifying the focus areas went well, involving stakeholders at a half day session.	None yet.
STATE 12	We have a new UTC this year so our experience is limited. However, we are concerned about how to incorporate the UTC into our current DOT research program activities.	The UTC will participate in our Focus Group process which identifies research needs to be funded in our Strategic Research Plan (3-year plan). We will provide matching funding to the UTC on a project basis rather than at the program level.		The new UTC focus is broad, but we expect partnering on various projects.
STATE 13	A new UTC and Transportation Research Institute have just organized in the past year so we are still on the learning curve. The new Directors have been very proactive to meet with DOT management and staff to learn about our DOT needs. They have requested that we share our research needs with them. Some of our research needs have been included into their initial year programs. We are still working on ways to better integrate and coordinate the project selection process for our internal research program and the UTC programs. Our goal is to see that more projects funded that meet a specific agency need.	None yet other than keep discussing the issues. The Deans of Engineering at both schools agreed to have the Directors investigate and recommend changes to improve their review and selection process for presentation to DOT management.	Open communications with both center directors has help get us off to a good start. We assisted the startup of both centers by contracting earmarked HPD funds when available. This got them needed funds to start research projects before receiving any funding from RITA. The additional funds have been used to expand or add to research underway that is of direct interest to the DOT. There are greater success stories. My preference would be to hear presentations by RAC IV members that highlight your success stories.	Additional research specifically needed by the DOT; training; more opportunities for collaboration and leveraging of funding; Director's knowledge of new opportunities.
STATE 14	We have not partnered with UTCs. We don't have any UTC's in our state and don't have any relationships with UTC's in other states. However, the three in-state universities will typically have an inside track on university research. We do have some out of state universities under contract, but not through a UTC.			
STATE 15	Working with the UTC, and taking advantage of their funding, has enabled us to fund and execute additional projects which we were not able to fund with our own resources. We had some early challenges figuring out the formula for match (i.e., can our overhead and labor costs count in our DOT contribution to their match). We have also had some timing issues; they need to commit their program before we are ready to finalize our list of projects. Neither of these problems caused major problems. We were able to work through them.	We asked some questions and came up with a mutually agreeable approach to the funding match formula. We will probably simplify it for next year. We will try to commit our project list earlier this year to help the UTC meet their schedules.	We have two UTC's to deal with. We have worked with them on many projects using UTC funding. They have been a good partner for us. They are proactively trying to identify our DOT needs and provide useful service to us.	They perform research projects, using some of their funding to extend our resources.
STATE 16	Our UTC does not seem to want to invest any time to find out what we do, what we need, what our current problems are and how they can assist us. I continue to hear that the Universities take the position that they know what we need and do not listen to DOT staff. Partnering seems to be a one way street were we work with the UTC and they do not feel obligated to work with us. They need to invest some time partnering with us. Our research program consists of a broad customer base within the DOT and the UTC is very specialized and yet they want us to focus on their expertise not our needs. Not all universities in the state are members of the UTC and not all UTC members want to use the UTC process. Most of the PI's have no practical experience on what it takes to implement or make use of the research they want to do.	We are making an effort to match PI's with Department staff who are interested in the subject area the PI has proposed work in. We are also taking DOT staff ideas to the PI's to see who is interested in this area or type of research. We have a blanket invitation for any PI to come in and we will arrange for them to meet DOT staff that has common interests, only a couple of PI's have taken us up on that over the last few years. We are working to educate DOT staff on the wants and needs of the Universities and PI's so they can take that into consideration just as they would any contractor. We are trying to be honest with the Universities with expressing our wants and needs and are getting them to think of implementation when the proposal is being drafted.	While we have some successful contracts we have nothing that would show case "partnering" with a UTC.	The only products we receive are the results of research projects. We hope to add some workshops and a speaker series in the near future; the workshops will be paid for and the speakers will have travel costs covered.

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STATE 17	Not a lot of sharing-Ex. DOT was not included in strategic planning efforts of UTC, Tremendous turnover doesn't appear to be spending \$\$!	Scheduled quarterly meetings-University looking to hire UTC director soon.	None.	Research we need conducted in our state. Potential opportunity exists to leverage dollars to maximize research efforts in the state, however, this hasn't occurred yet.
STATE 18	I've encountered many challenges when partnering with our UTC. Trust is the most important commodity that we both must have, and maintaining that trust is an ongoing priority and challenge. Constant, frank communication of each other's needs, concerns and issues is very important to building and maintaining trust. Also, our UTC does understand that we want practical, implementable research - if they didn't that would be a major challenge. We do a lot of research with this same university, well beyond just the UTC projects.	We meet at least every month to go over whatever issues each of us has (actually it usually is more often). Individual research projects have ongoing coordination and review from the DOT project technical committees and research managers. We have worked together for a long time and we have a good partnership going. We are doing great things together and are addressing our needs and the public's needs very effectively.	Yes, I would be willing to share our success story and I know that our UTC director would also be willing to talk about this important topic.	Implementable research findings, tech transfer, research tech briefs and reports.
STATE 19	The major challenge is making sure that the projects that are conducted have relevance to the DOT's business (i.e., are aligned with research's focus areas vs. only aligned with what is of interest to students/ faculty). The interests of faculty and students may not always be as practical/applied as DOTs would like.	We have face-to-face meetings with faculty who oversee UTC's. We also have a variety of contract research projects underway with faculty at the two UTC's we support--so the UTC's have additional interaction with us and additional opportunities to be aware of our research priorities. There is much more to the relationship with the UTC's, in other words, than just the UTC piece.	I have only had UTC oversight for one year--don't know that I can identify success stories yet.	Under the UTC program, the DOT wishes not only to support education of future transportation professionals, but also to sponsor research that provides a definitive and defensible benefit to transportation in our state and complements the DOT's own research program. In addition to final project reports from the program, the DOT will require the university to provide a summary report at the end of the contract period. The summary report shall summarize the projects, stipulating which projects were completed and the status of projects that are not yet complete. The report should also give information about the benefits of the program, including, but not limited to, information about students supported by the program, professional conferences attended, and other presentations or publications emanating from the research. The report should also summarize the expenditures under the program for the projects identified. Finally, the report should highlight research findings or developments that are of direct benefit to the DOT and the state, and recommendations as to how those findings might be best implemented. Although I have only had oversight of the UTC contracts for one year, I believe the new contract language we now use was developed so there would be more formal reporting about the value derived from the UTC investment.
STATE 20	A) Need to develop a constructive method to process and distribute research reports. B) Need better method to be apprised of status of UTC research. C) UTC research could be more uniformly relevant towards DOT needs. D) UTC earmarks under SAFETEA-LU put some stress on DOT research budget -especially when combined with other reductions in federal funding. E) DOT/UTC research cycles are not synchronized	A1,2) DOT staff liaison monitors process: keeps project list to inform DOT customers and analyzes research products for trends pertinent to Research Division. A3) Conducts Annual Research Conference. B1) New research contracts require quarterly reports per SAFETEA-LU guidelines. DOT holds discussions with UTCs to increase DOT staff involvement into UTC research. C1) Developing strategic research plan and roadmaps allowing DOT to communicate research needs more effectively. D1) During FY 06/07, used several approaches: a) used 100% federal SPR Part 1 funds as UTC match, b) approved smaller number of DOT research projects for funding, c) UTCs offered to fund some DOT research projects with their UTC allocations, d) other DOT divisions funded some projects with their own funds. E1) See C1. UTC to understand DOT research needs in timely manner so UTCs can include	YES, we are willing to share our success stories. Some examples are: A) Bus Rapid Transit (BRT) Guidelines Report - A team was assembled to develop a comprehensive document used to facilitate development of a deputy directive making BRT one of our highest priorities; B) HOV Lane Workshop - A two-day workshop was held to assist us in developing a new HOV/HOT lane business plan; C) The Garrett Morgan Sustainable Transportation for the 21st Century Program - Designed to increase middle school students' awareness of transportation issues, interest them in careers in transportation, and motivate them to take the math and science classes in high school needed to prepare for management and engineering majors in college; D) Education: METTRANS Global Logistics Specialist (GLS), Certified Logistics Employee and Workplace Compliance Training certificate	A) Research Reports; B) Newsletters and Annual Reports; C) Workshops and Symposia including, but not limited to the HOV Lanes Workshop, HotSpots workshops, Transportation Security workshops and various symposia; D) Student-led conferences and poster sessions; E) Education of new transportation professionals (all disciplines); F) Conferences, including but not limited to the International Urban Freight Conference (METTRANS), town hall meetings and the UTC Annual Conference; and G) Training, including the State Emergency Management System and the National Incident Management System.

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		in their RFPs. E2) Discuss possible changes to UTC/DOT schedules to align more readily.	programs. Since it's inauguration in January 1997, over 800 people have attended GLS classes and since 2005, 500 have earned the GLS professional designation.	
STATE 21	A) The biggest challenge has been integrating both (UTC and DOT) project selection processes (i.e., who will go first?). The UTC expects a list of projects that the DOT will fund so that faculty can develop proposals to the UTC. On the other hand, the DOT is hesitant to commit funding to research projects without first reviewing a proposal and resume. B) Many UTC faculty are very new and have not yet established a working relationship and trust with DOT staff. C) DOT and Academic culture sometimes hinders collaborative relationships outside the respective organizations.	A) First the DOT publishes a list of prioritized research needs, then faculty work with DOT practitioners to develop their proposals to the UTC. B) The UTC Director and DOT research staff facilitate interaction based on their experience/knowledge. C) same as B.	The partnership is off to a good start because the UTC director is a former DOT Research Manager and is partially able to coach UTC researchers on the needs of the DOT. We have had some success in using the UTC to deliver training and graduate-level classes to DOT staff. I am willing to share DOT's experiences.	The DOT receives research and training services from the UTC.
STATE 22	We don't have any UTC's in our state. Regarding UTC's in other states, we don't have relationships with any of them. I would not oppose discussions with them. However, the three in-state universities will typically have an inside track on university research. We do have some out of state universities under contract, but not through a UTC.			
STATE 23	We have just started working with a Federal UTC along with other states - at this point not enough experience one way or another. We have partnered with another UTC by providing access and in-kind services. Responses below are for our state funded experience. As far as a state funded UTC, we entered into a multi-year contract with a major in-state university two years ago. This university had historically conducted the majority of research for our DOT under a small program. The new contract expanded research from being predominantly pavement/structures related to multi-disciplinary. Some challenges have included: a) keeping researchers focused on the practical/applied research that is relevant to our DOT, b) communicating our needs to researchers, c) keeping projects on schedule and within budget, d) having sufficient DOT staff to participate on research panels, and e) cultivating interest in research among upper management in the various divisions within the DOT.	Emphasis area Technical Advisory Groups (Tag's) meet semi-annually to review and prioritize problem statements received from university researchers before they are presented to upper management for funding approval. These meetings have also generated the creation of problem statements from DOT staff. We encourage quarterly research panel meetings; require a monthly administrative status report of project action (proposal submitted, reviewed, approved, work underway and so on) from the research center; conduct semi-annual evaluations of researchers, research panel chairs, and research center administration; and require that the researchers complete quarterly project progress reports. In addition, a dashboard on progress can be found on the Center's web site. Staffing oversight research panels remains a challenge due to inability of DOT to increase head count.	We are getting more relevant research because of the TAG review and input. Through the state research center contract, it has been easier to conduct speedy research to address an immediate concern. In addition, we require a match from universities and other core partners who conduct research. As a result, we have been able to leverage the research dollars more efficiently. Other governmental agencies have also provided matching funds for some projects. The TAG meetings include representatives from the DOT, FHWA, the university and industry. Getting these groups in one location to discuss research has heightened awareness of research and problem solving opportunities.	Recently output from a research project set the parameters in a procurement request for proposal. Research findings have lead to modifications in road design and construction standards and specifications. One of our research projects provides lab services on a continual basis for traffic operations initiatives. An environmental peer exchange provided an opportunity for DOT's in a region to communicate how to respond to some new FHWA guidance regarding air quality.
STATE 24	We have not encountered challenges in the partnership with our local UTC in our state. The biggest challenge we have had was when an outside UTC tried to force us to participate and lead a research study, for which we did not see the value, nor would support. We had to inform our Director about the issue. Our response is that we will determine what is best for the citizens of our State and will partner with those who work closely with us to achieve the vision of our State.	We have our Chief Engineer on the Board of Directors of the UTC Consortium that we are part of. The Board has the Chief Engineers of the other States that participate, as well as academia members. This allows us to make sure we have consistent and common vision for research needs. The consortium has 4 to 5 key focus areas for the UTC, which also corresponds to the key focus areas of the DOT's. Our State also takes the position that we will reserve the right to determine what is best for our State, in order to avoid utilizing resources that may not be of benefit. We want to benefit academic knowledge growth, but not at the expense of the needs of the State.	As is number 2. One of the key directives we use is that research must pay off (Applied practical research). I.e., we look at it as a business with a return on investment. Our limited resources must have high return. If UTC's, Universities, or other research partners, have ideas that we feel may produce a great payoff to the public we will look into partnering. If not, it is a no go.	Rural focused transportation needs. This can be in the form of rural safety, wildlife connectivity, and Interstate Inter-modalism.

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STATE 25	We don't currently have a relationship with a UTC. There are none in our state and we haven't reached out to those in other states. I would consider approaching a UTC on a project-by-project basis if I thought a specific research need matched well with a UTC theme. In that instance, the match could either be provided by our DOT individually or multiple states through a TPF project if the project had broad appeal. I see value in that approach for specific projects, but don't anticipate that we will be partnering with UTC's on a more generic or widespread basis anytime soon.			
UTC 1	New governor – has replaced all the top level of DOT individuals.	Currently, we are trying to contact the newly appointed Director of the DOT to meet and discuss partnering, etc.	To date, due to reasons stated above in question 1, there are no real 'success stories' yet.	
UTC 2	Overcoming our institution's reputation and the lack of a previous working relationship with the DOT.	The strategy thus far has focused on building personal relationships between the UTC director and the DOT staff. Our State Research Engineer serves on our Research Advisory Committee.	None yet. We have not been existence long enough (less than a year).	Aside for serving on our RAC, I would say nothing else yet.
UTC 3	A) Aligning research agendas, coordinating time schedules for decisions on research projects. B) Learning what other states in the region are doing and aligning with these priorities or needs.	A) Helping to design a new research process for the state DOT. B) Helping to develop a new regional consortium of four UTCs and DOTs that will align research priorities and establish a pooled fund for research projects.	The answer to question 2 is a success story.	The chance to work on practical problems that are important to our DOT.
UTC 4	"Selling" the need for support in the way of matching funds and in finding areas of interest to partner.	Having meetings and correspondence with the DOT to discuss these issues.	Nothing to report yet.	Ideas for research projects and matching funds.
UTC 5	1) The need for providing duplicate research documentation, the first in the form of scholarly papers and other research-oriented documentation including final reports suitable for review by the research community, and the second in the form of practical hands-on descriptions of results that would be useful to the DOT's. 2) Coordinating the schedules of the DOTs needs for results with the academic calendar. 3) Identifying DOT research needs that are appropriate for theses and dissertations (i.e., research as opposed to development).	The most effective solution we've used is to support DOT research needs through a combination of permanent staff coupled with RA support. The permanent staff is used when schedules are incompatible and for projects that are more development than research.	We can offer numerous success stories. Three examples include: 1) Research and development of mobility performance measures, in which a set of 12 measures were developed that will serve as the basis for establishing a national set of measures to be used for benchmarking and reporting by State DOT's; 2) Development of an Operations Academy to be used for training DOT personnel in the field of transportation operations. The Academy is a total immersion two week program with one week of pre-study that covers the entire spectrum of policy, management, and technical subjects related to operations; 3) Research and development of 3D visualizations of traffic flow that provides more effective real-time monitoring of traffic conditions.	We receive funding support from our state DOT for many ongoing research projects. In addition, the DOT provides real-time access to their traffic management system data, as well as ongoing involvement with their operations. The latter ensures the applicability of our research to real-world problems
UTC 6	We face two types of challenges when working with state DOT: Contractual and Procedural. Initial challenges included contractual issues such as what categories of expenses could be reimbursed by the state DOT. Procedural issues such as tying project start dates into the academic calendar, receiving project needs statements on a regular schedule in order to plan in advance, and length of time it takes from project selection to project initiation are a challenge.	Regular communication – The full management team or the partial team have regular meetings to review progress on projects under development and to bring any concerns about ongoing projects to light. Procedural/administrative issues are discussed and resolved through these meetings. Researchers and DOT project managers have monthly conference calls to provide project updates and to discuss any potential issues before they become problems.	We now have two contracts with our state DOT to conduct outreach, tech transfer and research activities. One of the contracts directly supports our UTC program.	State DOT provides traffic control personnel through district offices, maps, access to state traffic, safety and other data, vehicles and drivers for load testing, and fabrication services.

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UTC 7	<p>We have a very strong connection with our state DOT, and our project selection process will be synchronized (as much as possible) with the DOT research project selection process (for the first two years of UTC funding the schedules will not be perfectly in sync but by year 3 will be close). 41% of our first year funded projects had DOT match components. Faculty at our UTC have had a long history of working closely with the DOT. Faculty members serve on DOT Research Advisory Expert Task Groups and the UTC director serves ex officio on the Research Advisory Committee. The DOT research manager serves on the UTC Executive Committee and a senior DOT executive serves on the UTC external Board of Advisors. These linkages are cemented into the UTC strategic plan. One area of collaboration with the state DOT that we would like to make stronger is continuing education/training.</p> <p>We are planning a statewide needs assessment in the near future so that existing technology transfer activities can be leveraged with UTC funding and faculty expertise/interests. So far the UTC creation has led to new linkages with faculty who were not connected to the DOT, so in that sense even after only a short time we have made progress. Our UTC has a 100% match requirement, and currently the DOT is not providing any dedicated funding stream to the UTC. Therefore, faculty members are motivated to find partners who will bring matching funds to the table. This also helps ensure that there are project stakeholders who will assist in the development of a successful project. Through a regional collaboration, we have also been working with DOT's in three neighboring states. So far this has not led to any specific project partnerships, but the fact that the DOT research directors/managers know the UTC directors is a positive step forward. We have an email list for regular communications and we meet twice a year. We also invite federal agency representatives to these meetings. At the federal level, since we are a new UTC, we have made successful connections with our FHWA division office as well as with Turner Fairbank. Using our liaison at TFHRC, we were able to assign more than 50 federal peer reviewers for our first round of research and education project solicitations. We are lucky to have a great contact at TFHRC and many contacts in our relatively small FHWA division office. A goal is to strengthen ties to other federal transportation agencies.</p>		Yes.	See question 1.

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UTC 8	<p>The lack of continuity in research personnel and mission by the DOT. Turnover in the Director of Research position has created no sustainability in a research plan. There appears to be no internal solicitation plan in place to allow the DOT personnel to develop a short term or long term list of prioritized projects. Their needs to be both programmatic and project dollars available from the DOT's to achieve the intended outcomes. Developing a more simplistic initial process and agreements for each of these areas (programmatic and project) will result in a much less onerous and successful research program. The RAC Association needs to mentor newly appointed state research directors members to educate them on what a successful state and federal program should resemble.</p>	<p>We have met with both the FHWA State Office and the DOT offices and other federal agencies to develop a more easily understood and a more seamless process. We have established advisory committees to address the most critical needs (multiple areas) of the state and also identified a plan for the future to look at short term goals and long term goals to be completed.</p>	<p>The most successful project started out simply as a commodity flow study for a particular region. It soon evolved into a multi-state and regional initiative recognized as a "Project of National Significance" and a true public-private partnership success story that will address a major freight capacity problem in the Appalachian and Midwest Region of the United States. This includes 3-4 states, a Class I Railroad Company, FHWA, several economic development authorities and a major port still continuing to work together to complete the tunnel enhancement construction and major intermodal projects in each state.</p>	<p>We are still in the development stages and the primary products are not consistent enough to answer this question completely.</p>
UTC 9	<p>We have a very strong relationship with our state DOT, and our project selection process depends in part on the DOT's research project selection process. Faculty at our UTC have worked on DOT projects for several years now. I, the UTC director, serve on the DOT Research Advisory Committee. The DOT research and policy director serves on the UTC Advisory Committee. These linkages are incorporated into our UTC strategic plan. We are trying to expand our internships and other education/training with the state DOT and are making a particular effort on this. We currently have successful graduate annual internships and undergraduate summer internships with our state DOT.</p>			
UTC 10	<p>Our biggest challenge has been the contracting process. As a private university in a state where nearly all transport research contracting has been with the state university system, and where constraints on contracting with private sector has increased, every contract has been a long and difficult process.</p>	<p>In 2005 we were at risk of losing an entire year of match funding due to delays associated with getting approval for a "non-competitive" contract. Finally the matter was settled by the legal office within the Office of the Secretary of Business, Housing and Transportation, which found that match funding for a competitively won research center was exempt from the non-compete requirements. This has resolved the match funding problem, but has not resolved the larger problem of contracting for funded research outside of the UTC contract.</p>	<p>The DOT staff who manage the UTC program are dedicated professionals and very supportive of the UTC program. Their support is one of the reasons that our state's UTC's have been particularly successful. We have many success stories and are happy to share them with others. Here are a few examples: 1) The DOT manages the research program with sufficient latitude to allow for the development of strong, specialized research programs in a variety of fields. We make sure that the research is relevant to our state, as well local areas and the US, so that the program results in research products that are both of scholarly quality and of practical relevance. 2) We have worked closed with the DOT to develop outreach and training programs targeted to DOT staff, primarily in the area of goods movement and international trade. Our ties with DOT reach from the local district offices to the Director's office. This has helped us to attract</p> <p>leaders from throughout the US to our major conferences and events.</p>	<p>Of course the major contribution from our DOT is the full match funding, which has allowed us to create and grow a focused, integrated, high quality UTC program. Our local DOT district is among our strongest supporters. We have access to data, to specialists in every DOT department, and any other resource that might help to inform our research.</p>
UTC 11	<p>The biggest challenge – really the only significant challenge – has been the contract process, and that was in part the fault of our university administration. Our DOT has been incredibly supportive in terms of providing match for our UTC and in supporting our strategic plan. One ongoing issue is the degree to which our research program responds to DOT needs. Our program is researcher, rather than DOT, initiated, but we circulate DOT problem statements to our researchers, and we submit our research proposals to the DOT for their review, which is a significant input into funding decisions.</p>	<p>We have found a simpler way to set up the contract. After this process is complete, we should have no more trouble for the duration of the current authorization. In general, we communicate openly and regularly with the DOT. This, we believe, helps to minimize problems.</p>	<p>We are a new UTC, so we do not yet have many specific success stories to share. Our overall relationship with our DOT is itself a success story.</p>	<p>The primary product/service is of course the funding match. Beyond this financial supportive (and the administrative resources it took to put this in place), we receive feedback on our strategic plan, reviews of our research proposals, input to our outreach program, and the convening of a quarterly meeting with other UTC's in the state. On specific research projects, we get significant input from DOT staff.</p>

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UTC 12	Getting our first contract executed was the major issue. It took far longer than originally anticipated though much of that had to do with changing personnel. The biggest challenge we had was developing our Strategic Plan. Our state DOT (both at the state and district level) was very helpful in making suggestions and providing information.	The contract is finalized.	Our state DOT provided helpful support in these two key areas: 1) The provision of a comprehensive research priority listing gave us a clear idea of our state DOT's priorities and made it possible to frame our scope of potential research to be, I think, quite consistent with State needs and priorities; and 2) Our state DOT provided very helpful review and feedback on our first round of research proposals. Their comments in some cases made the difference between a funded and non-funded project.	In addition to overall advice and the assistance in providing research topic guidance and research proposal review our state DOT willingness to be the convener of regular meetings of the Center directors in the State has been very helpful; especially to a new Center.
UTC 13	We are a newly established UTC and looking forward to working with our DOT. We have had a joint brainstorming session about areas of possible collaboration and have started moving on several of those, such as a jointly supported graduate student, conferences on transportation funding and context sensitive design and a possible large project to collaborate on stormwater research. Because we are in a small state, the DOT has limited resources and already meeting many demands with their research dollars. However, they have provided peer reviewers for UTC projects and are supporting our proposals in a multi-state regional grant program. We continue to be in frequent contact with the DOT and are making an effort to develop research proposals relevant to their research needs. The DOT understands well how not all of their research projects are appropriate for university-based research and they have been seeking overlap with the university mission and UTC themes. One obvious challenge is the lack of a funding structure. Since the entity is new at the university the actual mechanism for how funds would be transferred is still being explored. Since our proposals must be matched 1:1, finding mutual projects will extend DOT research dollars and help us meet cost-share requirements.	In our case, continued contact with staff at the DOT both at the top levels and at the program level will be critical in developing collaborative research projects. Since our funding can help stretch DOT dollars and vice versa there is a shared interest in making this work. The key issue is finding areas that match our theme, faculty, and graduate student research interests and DOT research interests.	Again, as a new UTC established in the fall of 2007, our work with the DOT has been limited to date. However, based on the results of a joint brain-storming session earlier this year, we have identified a number of areas of possible collaboration and started moving on several of those, such as a jointly supported graduate student, conferences on transportation funding and context sensitive design and a possible large project to collaborate on stormwater research. The DOT has provided peer reviewers for UTC projects and are supporting our proposals in a multi-state regional grant program.	The primary product will be helping us develop a research program of use in this environment and context that meets our UTC theme. Both the DOT and the UTC can extend our research agenda through the cost-sharing of projects as well as enhance the quality and substance of our work through collaboration.
UTC 14	Though we have fine rapport with both our state DOT and RAC, we do have a challenge in processing new contracts expeditiously. It has also been difficult to synchronize our grant cycles to include the latest state DOT research priorities in our annual RFP which must be out by early February to allow the university contract selection process to give the new contractors/professors notice of acceptance in time for them to use the summer to accomplish the work.	Via our state's UTC council which meets quarterly, we are working more closely with the state DOT research leaders to head off problems before they become critical. Though that's not always possible, at least we know when a problem is occurring and remedial action can be attempted.	We have had numerous success stories in working with our very cooperative state DOT research leadership and I'd be please to share those during the Seattle RAC conference. Most notably, we have been entrusted to do several special projects for the state and are also included in the state DOT's education program priorities.	Our UTC receives a full 100% match to our SAFETEA-LU grant annually and receives important support for our education programs. In addition, the state DOT research leadership is very responsive and always cordial in expediting contract processing, identifying research topics and providing our research teams with information regarding which the DOT has special expert knowledge...and much more.

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UTC 15	<p>In offering the following remarks, it is important to recognize we have partnered on projects with over 30 state DOT's, although we do a majority of our work with the state DOT's that founded our institute (including our home state) and those of neighboring states. We believe we have a good relationship with all the DOT's we have worked with, but certainly not the same relationship. Challenges vary by sponsor, and the comments below are drawn from across this collection of experience. Challenges encountered include: 1) Communicating the value of research; 2) Communicating the value of having some strategic direction in addressing research needs and developing research capacity; 3) Communicating the need and value of basic/advanced research that admittedly may have a longer return on investment than applied research;</p> <p>4) Communicating the value of our involvement in formulating research plans (i.e., scope, budget, schedule) to improve/extend the value of the results obtained, particularly when UTC funds are committed on a project; 5) Scoping research projects that fully address all elements of the problem at hand, rather than simply its immediate, obvious, and direct consequences; 6) Overcoming the perception that research is a known commodity with a known cost; research inherently involves uncertainty and outcomes will not always be as expected; and 7) Forming partnerships with other states when we are housed in one state.</p>	<p>The primary solution to the challenges in question 1 is to have an atmosphere of open communication with the state DOT's and as well as a strong appreciation for their purpose and operating constraints. Specific things we have done in addressing the challenges above include: 1) Meeting with DOT personnel from various focus areas to identify situations where research capabilities and needs coincide; 2) Collaborating with the DOT in preparation of research road maps; 3) Working with a variety of DOT's and bringing this experience and perspective into our work with all DOT's, both to improve how we work with them, as well as the value of the work, itself.</p>	<p>Our success stories are numerous, and certainly we are willing to share them at the National RAC meeting. In general, examples of situations we see as success stories include when: 1) Both the DOT and ourselves recognize the value of the work that was done, independent of whether or not the results were implementable. It is research, sometimes the outcome will not be implementable; 2) The research results had significance for agencies beyond the sponsoring DOT; 3) We are able to bring to bear experience gained from other sponsored projects to offer the DOT from our state a better or more comprehensive product then would have otherwise been obtained; 4) We gain experience that builds our capabilities and will allow us to better respond to the needs of state DOT's and other sponsors. In reviewing our project history, a surprising number of projects have most of these traits.</p>	<p>The primary services (although this does not seem like the appropriate term) we receive from DOT's are: 1) an abundance of research ideas that obviously are believed to be pertinent and important to providing and operating our transportation system, 2) financial and technical support to pursue these ideas, 3) opportunities and support to run field tests as part of researching these ideas, 4) and professional advice on how to improve our operations both technically and administratively. We are grateful for this support. While not specifically asked to comment, we would like to offer our perspective on some of the things we provide the DOT's in return. Keeping in mind that deliverables vary between projects, and that our UTC mission involves more than just doing research projects, things that come to mind include (some of which are obvious): 1) answers to the questions being researched; 2) perspectives gained from working with other sponsors; 3) short courses; workshops; conferences; 4) and operating hardware and infrastructure improvements, with assistance in their deployment and evaluation. While there is always room for improvement, in our case, we think the UTC program generally works well with state DOT's, and that the balance of outcomes when considered as a partnership is fair to both entities.</p>