

Working With Universities

Mark Hallenbeck

Director

Washington State Transportation Center



Outline

- Why work with Universities?
- The downsides to working with universities
- Getting the most out of university research
- A little about TRAC



Why Universities?

- Access to expertise
- Wide range of disciplines to choose from
- Low cost
- Often viewed as “an objective 3rd party”
- Provides access to new, potential staff (students)
- Connects your agency to university funding sources



University Expertise

- Often some of the best people in the country (world) in specific subject areas
- Have an interest in
 - Pushing the state of the art forward, and
 - Showing their students examples from the real world
 - Making their state a better place to live



Wide Range of Disciplines

- Few agencies / firms have all of the expertise they need
 - How do you keep staff up to date?
- Universities have faculty / staff in many subject areas
 - They stay up to date as part of their job
 - The expertise does not leave when your job is over



Low Cost

- Full university overhead is ~30 percent of a consulting firm's overhead
- University's don't charge profit
- Student labor can greatly reduce the cost of a project



Objective 3rd Party

- Universities are often viewed politically as a place where truth is more important than institutional desires



Access to Potential Staff

- Students working on a project are likely to be the same people you wish to hire
- With a good institutional relationship, you can offer:
 - Internships
 - Work/study
 - Summer employment
 - Funded research



Accessing University Funds

- Universities have access to funds that may not be available to your agency
 - National Science Foundation
 - National Institutes of Health
 - Federal earmarks
- A good working relationship increases potential for obtaining funds



The Downsides of Universities

- Our culture is different than your culture
- Timing constraints
- Does your need fit with faculty/staff interest/skills?
- Faculty often don't understand “contracts”
- Finding a PI Requires Effort
- University costs are step based
- Often hard to get multiple disciplines to work together



Timing Constraints

- Teaching requirements limit when work gets done
 - Little work is delivered near Finals week
 - Much is written/collected/analyzed in the summer
 - Project staffing requires time
 - The best graduate students must be recruited (Feb. offer for Fall start)
 - Short notice work is very hard on a university



Does Faculty Interest Fit Your Need?

- Faculty have 9-month positions
 - They only perform research if they want the extra pay
 - Tenured professors are less pressured to find lots of research
 - The best faculty have other funding sources
 - They pick projects that interest them and their students



Faculty Don't Understand “Contracts”

- Most faculty are used to grant funding
 - Schedule is less important
 - Outcomes are less specific
 - New knowledge is more important than solving a defined problem
 - “Give me the money and I’ll do good things with it”



Finding a PI Requires Effort

- Identifying a new Principal Investigator requires work:
 - Where in the university is the needed expertise?
 - How do you get their attention?
 - Advertise (general announcement)
 - Annual research process
 - Word of mouth
 - Competitive bid versus negotiation



University Costs Are Step Based

- Universities look to fund graduate students
 - PhD project
 - Annual
 - Summer
 - Semester / quarter length
- Hourly is possible, but not as preferable



Cross-Disciplinary Work Is Hard To Set Up

- Universities traditionally struggle to work across departments / colleges
 - Credit
 - Money
 - Space
- Lack of knowledge about your subject in non-traditional departments



Getting The Most From University Research

- Look for long term relationships
- Encourage win/win situations
- Communicate frequently
- Reserve some money to smooth the process
- One contract – many task orders
- Be (willing to be) creative



Long Term Relationships

- Best results occur when organizations
 - Get to know each other
 - View each other as partners / collaborators
 - Share knowledge
 - Work for win / win outcomes
 - Look for joint opportunities (e.g.,)
 - My funds
 - Your facilities or data



Encourage Win/Win Situations

- For long term success:
 - There has to be something beneficial for both agencies
 - Its NOT just about the money



Communicate Frequently

- Requires effort on both sides
- Cultural clashes **WILL** occur
 - Good communications limits size/scope of conflict



Communicate Frequently

- During projects:
 - What's going well
 - What isn't
 - Where changes in scope / plan would benefit all
- In general:
 - Find out about new opportunities
 - Learn what your partner's needs are



Reserve Money to Smooth the Process

- Communications
 - Reporting
 - Seminars
- Administrative headaches
- Project development



One Contract – Many Task Orders

- Limits the time required to start a project
- Resolves major issues once:
 - Ownership / use of data
 - Ownership / use of ideas / products
- Maintain review of scope and budget



Be Creative

- In how you work together
- In how you resolve conflicts

Keeping in mind the needs, interests, goals of each agency.



Washington State Transportation Center



<http://depts.washington.edu/trac/>



TRAC's Mission

Improve the connection between

- the Washington State Department of Transportation (WSDOT), and
- University of Washington (UW)
- Washington State University (WSU)



What is TRAC?

- An interagency agreement and contract language (resulting in some staff)
 - WSDOT provides modest seed money to
 - Perform extra administration
 - Improve document production (editing, formatting)
 - Help connect WSDOT / UW / WSU personnel
 - Help find additional funding and projects



TRAC's Role - 1

- Assist UW, WSDOT, WSU
 - obtaining,
 - performing, and
 - communicating

transportation research and results



TRAC's Role - 2

Smoothing the administrative process between
WSDOT and the two Universities



What does TRAC-UW do?

- Serve as a UW-WSDOT communication link
 - Identify UW personnel that can help WSDOT solve problems
 - Identify potential WSDOT sponsors for UW research
 - Smooth the interaction between UW and WSDOT



What does TRAC-UW do?

Perform or assist in the performance of research

- TRAC Research engineers
 - Technical writer
 - Graphic support
 - Budget accountability
 - Administrative assistance
- But a large percentage of TRAC work is done by faculty and graduate students



Why TRAC?

- TRAC looks out for the interests of the combined set of agencies
- Small money in communications leads to large payoffs
 - Project funding
 - Ideas
 - Capabilities



TRAC Projects

- Last biennium:
 - 50 different faculty and researchers involved
 - 13 UW or WSU Departments (representing)
 - 9 different UW/WSU Colleges
 - 12 separate funding sources
- Its not just Basic Science



Environmental Projects

- Culvert designs for fish passage
- Assessment of roadside vegetation management
 - Also environmental impacts of deicing chemicals
- Effects of over water structures on juvenile salmon

