Research Environment Survey – 2007-2008

Your managers want to learn what you like about your current work environment and how they might improve that for you. *What do you need* to do excellent research or technology development that contributes to organizational goals and the national interest?

Your response will also contribute to building a "science of science and innovation policy," because your department or center was specifically chosen for a DOE/NSF funded study on that challenge.

You are being asked to complete this survey. Your participation is voluntary. The survey will take about 30 minutes to complete. You will receive a copy of survey results.

The opinions you express on this survey are strictly confidential. No attempt will be made to identify individual respondents in any publications or communications resulting from this research. Analysis will be done by a Sandia contractor/University of Maryland research team. Results will be publicly reported to you and your managers, but only with summary data for groups of 10 or more.

This research has been approved as meeting the ethical standards of the Human Studies Board of XXXXXXX Laboratories. If you have any questions for the review board, you may contact: Name
Title, Organization
Telephone, E Mail

        For more information about this survey or the DOE Research Environment Project contact Dr. Gretchen Jordan, Sandia Point of Contact and Principal Researcher, Dept. 01012, 505-844-9075, gbjorda@sandia.gov. Thank you in advance for your consideration and participation.

Instructions:

Please complete this survey in reference to a particular project. Preferably this is the project on which you spend most of your time. We understand you might work on more than one project. If there are major differences in how you would respond to a question for one or more of your other projects, you can tell us about that in the comment section at the end.

Project Name _____
   (optional for web-based survey, but would be helpful for analysis).

Definitions

"Researcher" refers to scientists, engineers, technicians, and post doctoral students associated with the project, as well as the project leader.

"Senior Management" refers to the Laboratory President/Director, Vice Presidents, and Division heads.

 "Middle Management" refers to all levels of management above supervisor and below Senior Management that are relevant to this project and your work generally.

Please answer every question. Answer NA, "not applicable," if a question does not apply to your situation or you don't know the answer.

Part l. Your Opinion on Aspects of Your Research/Work Environment

Exploration and Autonomy in the Research/Work

For each pair please indicate the percent time it was true during the past year for this project and then the percent time you think it **should have been** *true during the past year for this project.*

	Percent time true per year					
Related to this project, what percent of the time…	**0% to 20%**	**21% to 40%**	**41% to 60%**	**61% to 80%**	**81% to 100%**	**N A**
1a. Do researchers make most of the decisions about the direction of their	❐	❐	❐	❐	❐	❐

Related to this project, what percent of the time…	Percent time true per year					
	0% to 20%	21% to 40%	41% to 60%	61% to 80%	81% to 100%	NA
research?						
1b. Should researchers make most of the decisions?	☐	☐	☐	☐	☐	☐
2a. Are researchers excited about their work?	☐	☐	☐	☐	☐	☐
2b. Should researchers be excited about their work?	☐	☐	☐	☐	☐	☐
3a. Do researchers have to think creatively?	☐	☐	☐	☐	☐	☐
3b. Should researchers think creatively?	☐	☐	☐	☐	☐	☐
4a. Do researchers have freedom to explore new ideas?	☐	☐	☐	☐	☐	☐
4b. Should researchers have freedom to explore new ideas?	☐	☐	☐	☐	☐	☐
5a. Do researchers take risks with ideas or techniques?	☐	☐	☐	☐	☐	☐
5b. Should researchers take risks with ideas or techniques?	☐	☐	☐	☐	☐	☐

Extent of Collaboration on Research

A **Collaboration** is an interactive, joint action toward common goals. People in a team represent a collaboration. Multiple teams working on a project is a collaboration. There may be multiple collaborations or teams within larger projects. People may collaborate on unfunded activities.

For questions 6 through 8, please estimate the hours per month it was true during the past year-- and then the hours per month it should have been *true during the year.*

6a. How many hours per month are spent on internal communication about project goals and management among people inside the Laboratory?

Hours/month _____

6b. How many hours per month *should be* spent on internal communication?

Hours/month _____

6c. If there are communication problems, at what levels do these exist (e.g., within the project, across projects, Department, Center, Division, Senior Management, sponsor).

7a. What percent of the time do researchers on this project spend on collaborations (beyond the project but related to it) with others *inside* the Laboratory?

Hours/month _____
(on average)

7b. What percent of the time *should* researchers on this project spend on collaborations *inside* the Laboratory?

Hours/month _____
(on average)

8a. What percent of the time do researchers on this project spend on collaborations (beyond this project but related to it) with others *outside* the Laboratory?

Hours/month _____
(on average)

8b. What percent of the time *should* researchers on this project spend on collaborations *outside* the Laboratory?

Hours/month _____
(on average)

9a. How many professional conferences related to the project did you attend?   _____

9b. At how many of these did you present or speak?   _____
9c. At how many of these did you have a poster?   _____

Diversity of Collaborations

Please provide the number of collaborations of which you were a member during the past year, considering **all of your work**, not just the one project.

Research collaborations	With 3 or fewer disciplines, functions, or specialties	With more than 3 disciplines, functions, or specialties
10. Internal to the Laboratory		
11. External to the Laboratory		

Exchange of Technical Information

For each pair please indicate the frequency with which the kind of collaboration occurred during the past year and how often it should occur.

	less than once a year	several times a year	monthly	weekly	daily	NA
	❐	❐	❐	❐	❐	❐
12a. How often do researchers (including project leader) on this project provide critical thinking for each other?						

12b. How often *should* researchers provide critical thinking for each other?	☐	☐	☐	☐	☐ ☐
13a. In general for all your projects, how often do researchers *within the same* discipline, function, or specialty exchange technical ideas?	☐	☐	☐	☐	☐ ☐
13b. In general for all your projects, how often *should* researchers within the same discipline, function, or specialty exchange technical ideas?	☐	☐	☐	☐	☐ ☐
14a. In general for all your projects, how often do researchers *from different* disciplines, functions, or specialties exchange technical ideas?	☐	☐	☐	☐	☐ ☐
14b. In general for all your projects how often *should* researchers *from different* disciplines, functions, or specialties exchange technical ideas?	☐	☐	☐	☐	☐ ☐

Quantity and Quality of Resources for Research

Please evaluate the resources related to your project during the past year for the following:

	poor	below average	average	above average	excellent	NA
15. Resources for exploring new ideas	☐	☐	☐	☐	☐	☐
16. Equipment for research	☐	☐	☐	☐	☐	☐
17. Research lab/work physical environment	☐	☐	☐	☐	☐	☐
18. Stability of project funding	☐	☐	☐	☐	☐	☐
19. Quality of the technical staff	☐	☐	☐	☐	☐	☐
20. Staffing mix to make the best use of researchers' skills	☐	☐	☐	☐	☐	☐

Rewards for Research/Work

Please evaluate the rewards for researchers as these relate to your project during the past year.

	poor	below average	average	above average	excellent	NA
21. Salaries for researchers	☐	☐	☐	☐	☐	☐
22. Fringe benefits for researchers	☐	☐	☐	☐	☐	☐
23. Opportunities for career advancement for researchers	☐	☐	☐	☐	☐	☐

	poor	below average	average	above average	excellent	NA
24. Opportunities for professional development for researchers	☐	☐	☐	☐	☐	☐
25. Recognition for merit that researchers receive	☐	☐	☐	☐	☐	☐
26. Respect that researchers receive	☐	☐	☐	☐	☐	☐

Value from the Management of Research/Work

*Please evaluate the **middle management** related to your project during the past year.*

	poor	below average	average	above average	excellent	NA
27. The integrity of the managers	☐	☐	☐	☐	☐	☐
28. The technical value added to the research by the managers	☐	☐	☐	☐	☐	☐
29. The overall value added to the research by the managers	☐	☐	☐	☐	☐	☐
30. The planning and execution of projects	☐	☐	☐	☐	☐	☐
31. The choice of measures of success for research projects like this one	☐	☐	☐	☐	☐	☐

Laboratory Strategy and Investment for Research

*Please evaluate **senior management** as these relate to your project during the past year.*

	poor	below average	average	above average	excellent	NA
32. The allocation of internal research funds across projects	☐	☐	☐	☐	☐	☐
33. The process for identifying new research opportunities for the Laboratory	☐	☐	☐	☐	☐	☐
34. The vision for the Laboratory	☐	☐	☐	☐	☐	☐
35. The strategies to carry out the research vision	☐	☐	☐	☐	☐	☐
36. Investment in new programmatic areas	☐	☐	☐	☐	☐	☐
37. Investment in basic research	☐	☐	☐	☐	☐	☐
38. An research portfolio that includes basic, applied, and	☐	☐	☐	☐	☐	☐

development research

Please evaluate capabilities of the Laboratory as these relate to your project during the past year.

	poor	below average	average	above average	excellent	NA
39. The availability of services:						
Library	❑	❑	❑	❑	❑	❑
Computing	❑	❑	❑	❑	❑	❑
Crafts/machining	❑	❑	❑	❑	❑	❑
Overall	❑	❑	❑	❑	❑	❑
40. The efficiency of accounting and procurement.	❑	❑	❑	❑	❑	❑
41. The efficiency of necessary procedures and processes in these areas:						
Environment	❑	❑	❑	❑	❑	❑
Safety	❑	❑	❑	❑	❑	❑
Health	❑	❑	❑	❑	❑	❑
Security	❑	❑	❑	❑	❑	❑
42. The measures used to judge accomplishment of mission goals	❑	❑	❑	❑	❑	❑
43. The depth of technical competencies	❑	❑	❑	❑	❑	❑
44. The competitiveness of the overhead rates	❑	❑	❑	❑	❑	❑

PART II: Overall Impressions

1. Overall, I would rate my research/work environment as...

For this project:

❑ **Very Poor** ❑ **Poor** ❑ **Marginal** ❑ **Average** ❑ **Good** ❑ **Very Good** ❑ **Excellent-Outstanding**

Over all, for all my projects:

❑ **Very Poor** ❑ **Poor** ❑ **Marginal** ❑ **Average** ❑ **Good** ❑ **Very Good** ❑ **Excellent-Outstanding**

2. Overall, I believe that my research/work environment is...

For this project:

❑ **Getting Worse** ❑ **Staying About the Same** ❑ **Improving**

Overall, for all my projects :

❑ **Getting Worse**   ❑ **Staying About the Same**   ❑ **Improving**

3 Overall, I believe the Laboratory reputation for its research is…

❑ **Very Poor**   ❑ **Poor**   ❑ **Marginal**   ❑ **Average**   ❑ **Good**   ❑ **Very Good**   ❑ **Excellent-Outstanding**

4.Overall, the Laboratory is a great place to work.

❑ **Strongly Disagree**   ❑ **Disagree**   ❑ **Neutral**   ❑ **Agree**   ❑ **Strongly Agree**   ❑ **NA**

Part III. Demographics

1. Please enter your 5 digit department in the blank (e.g. 14332 or 01142).

2b. What is the total number of projects you worked on during the past calendar year?

3. Please identify approximately what percentage of your funding comes from each of the following six sources.

This project	Total of my projects	
_____%	_____%	from LDRD
_____%	_____%	from DOE Defense Programs
_____%	_____%	from DOE non defense programs (e.g. SC, FE, EE)
_____%	_____%	from other Federal agencies (e.g., DOD, EPA, Homeland Security)
_____%	_____%	from Private Sector sources
_____%	_____%	Don't Know

100%   **100%**   ❒ **N/A**

4. What is your job classification?

- ❒ MTS/SMTS/PMTS/DMTS/Senior Scientist–Engineer
- ❒ Technologist
- ❒ Post Doctoral Student
- ❒ Contractor/Limited Term Employee (specify Tech Staff or Technologist)_____
- ❒ Manager/Director/Vice President/Executive Vice President/President
- ❒ Other (Please specify)_____

5. Number of years at the Laboratory

- ❒ 0 < 3

- ❒ 3 – 5

- ❒ 6 – 8

- ❒ 9 - 14
- ❒ 15 - 20
- ❒ 21+

6. How You Spend Your Time

For all your projects, please estimate the percentage of time you spent on the following activities *during the past year*:

a. Research (literature review, research planning and review, theorizing, experimenting, writing papers) _____%

b. Routine technical tasks (setting up samples, checking equipment, keeping logs) _____%

c. Professional activities (reviewing papers, attending conferences, presenting research) _____%

d. Seeking funds and interacting with sponsors (writing proposals, reports, meetings) _____%

e. Administration (paperwork, personnel issues, communication not related to research) _____%

f. Organizational activities (regulatory compliance, training, mentoring, outreach, public relations) _____%

                                                  Total   __100%__

Now, please describe the nature of the work on your project.

7. For this project, what was the nature of the accomplishments during the past year? (may be a portion in each)

> a.   Increased understanding of a phenomena or basic principles or
>   challenges related to scientific or technical areas or problems   ___
> b.   Building or improving the functionality of physical instruments, software,
>   products or processes   ___

Total to 100
Points   _100_

8. Please describe two aspects of the goals of the project on which you are basing your survey response, on a scale from one to ten.

8a. Radicalness. Is your project's goal incremental (straightforward, designed to fill in the evidence base on a theory or refine instrumentation or ideas) or is the project's goal radical (likely to change fundamental understanding in the field or create entire new ways of measuring or understanding something that will displace existing approaches)?

> Incremental   Radical
>   5   4   3   2   1   2   3   4   5

8b. Scope: Is your project's scope narrow (with just a few parameters, systems, or data collection schemes involved and homogeneous, not extreme, conditions), or is the project's scope broad (requires examining multiple parameters, systems or schemes in very diverse and/or extreme conditions)?

> Narrow   Broad
>   5   4   3   2   1   2   3   4   5

PART IV: Nature of Research Networks

These two questions ask about your collaborators inside and outside the Laboratory. Your answers are confidential. Only summary data, with no names whatsoever, will be reported.

For the project on which your survey responses are focused, list the last names (or if you prefer use initials or other identifiers] of people with whom you collaborate at least several times a year in the process of your research work. Also, using the key provided, please circle to indicate their location or organization, the primary nature of your collaboration, and the frequency of the collaboration during the past year.

Key:
Location: *P = this project, D = department, C=Center/Division,   O=Outside Center/Division*
Organization: U= University,   I= Industry,   L= other Laboratory, G= government
Nature: R= project work C=Co-author,   A= Advise
Frequency: D=daily,   W=weekly,   M=monthly,   S=several times a year

INSIDE			
Collaborator (last name or initials)	Location	Nature of Collaboration (all that apply)	Frequency of Collaboration
1.	P D C O	R C A Other	D W M S
2.	P D C O	R C A Other	D W M S
3.	P D C O	R C A Other	D W M S
4.	P D C O	R C A Other	D W M S
5.	P D C O	R C A Other	D W M S
6.	P D C O	R C A Other	D W M S
7.	P D C O	R C A Other	D W M S
8.	P D C O	R C A Other	D W M S
Please specify "Other"			

OUTSIDE			
Collaborator	Organization	Nature of Collaboration (all that apply)	Frequency of Collaboration
1.	U I L G	R C A Other	D W M S
2.	U I L G	R C A Other	D W M S
3.	U I L G	R C A Other	D W M S
4.	U I L G	R C A Other	D W M S
5.	U I L G	R C A Other	D W M S
6.	U I L G	R C A Other	D W M S
7.	U I L G	R C A Other	D W M S
8.	U I L G	R C A Other	D W M S
Please specify "Other"			

Part V. Comments and Suggestions
(continue on the back if necessary)

Add any comments for one or more topics, including suggestions for enabling your research success.

A. Exploration and Autonomy in Research/ Work

B. Extent of Collaboration on Research/ Work

C. Exchange of Technical Information

D. Quantity and Quality of Resources for Research/Work

E. Rewards for Research/Work

F. Value from Management of Research/Work

G. Laboratory Strategy and investment for Research

H. Laboratory Support for Research/Work

I. Other

Thank you for taking the time to complete this survey. A report on the study will be provided to all respondents within 16 weeks of the end of the survey period. For more information or comment contact Gretchen Jordan (Dept 01012) by email or at 505-844-9075.