A Cross-Cultural Mentoring Program

by
Sally Huang-Nissen
Rita Y. Myers

Sponsored by the
Affirmative Action and Diversity Program

Lawrence Livermore National Laboratory
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Acknowledgments

Any new career development program at Lawrence Livermore National Laboratory (LLNL) cannot be implemented without the input, assistance, and endorsement of numerous individuals. And because the nature and objectives of the Cross-Cultural Mentoring Program incorporated a diversity component, evolution of this program was even more challenging and complex.

Accolades are extended to those whose vision, courage, and support helped make this program a reality. Those individuals included former Laboratory Associate Director and Equal Employment Officer, Phil Coyle; former Deputy Associate Director for Affirmative Action and Diversity Program (AADP), Jim Evans; former Assistant Deputy Associate Director for AADP, Karol Ruppenthal; and the co-Chairs of the LLNL Task Force for Work Force Diversity, Karena McKinley and Chris Gatrousis.

The generous sharing of experience and information from ten outside organizations (listed in Appendix A) was an invaluable resource from which a good deal of the basic design of the program was drawn.

Many individuals, whose knowledge in the mentoring field and Laboratory experience was a real source of wisdom and strength, cooperated generously and shared information with the program coordinators. These individuals include: Linda Donald, Marianne Clark, Nort Croft, Celeste Matarazzo, Margaret Barbee, Mara Niels, Diana Sackett, and Mike Pratt.

Additionally, Lisla Damoulas, Ellen Hill, and Christine Fleck managed numerous administrative support details that enhanced the program immeasurably. They deserve our thanks.

Last, but by no means least, our sincere thanks go to the 50-some volunteer participants in the pilot program through whose efforts and commitment a great deal of learning was gained by all of us.

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### Executive Summary

#### Origin of the Laboratory's Mentoring Program

Lawrence Livermore National Laboratory (LLNL), in its efforts to find innovative employee development programs, began exploring the feasibility of instituting mentoring programs in 1992. In 1994, the Affirmative Action and Diversity Program implemented a pilot Cross-Cultural Mentoring Program, designed after gathering extensive data, research, and literature surveys.

#### Mentoring Program Participants

The 46 voluntary participants of the pilot Cross-Cultural Mentoring Program were representatives from 12 organizations across the Laboratory, ranging from senior managers to senior staff members and from both technical and administrative areas. The participant demographic distribution included African American, Asian, Caucasian, Hispanic, Native American, male, and female.

#### Monitoring Results and Conclusions

All participants and the two program coordinators learned a great deal from the pilot experience. Throughout the pilot program, mentors and mentees gave positive feedback about their experiences. In several cases, comments about the mutual learning and benefits gained from the mentoring relationships were made in glowing terms.

At the end of the pilot program, all the participants agreed that it was a success, and they recommended expansion of the Cross-Cultural Mentoring Program to include greater number of participants from across LLNL. Of the original 23 pairs, 17 pairs wanted to continue their mentoring relationships, three pairs requested a different matches, and three pairs dissolved their relationships due to sickness, relocation, and retirement.

#### The Future of the Program

Thirty-five new mentoring pairs have formed since the pilot program ended, and a number of individuals are on a list, waiting to be paired with suitable mentors or mentees. The insights gained and the valuable recommendations made by the participants on ways to improve the program are being incorporated as part of a continuous quality improvement process.

#### In This Report

This report summarizes the results of the pilot Cross-Cultural Mentoring Program, from the inception of the program idea though its implementation and assessment. It discusses the benefits of mentoring, the origins of the program, program design and implementation, program assessment, and conclusions and recommendations.
Benefits of Mentoring

Mentoring is widely recognized as one of the most valuable forms of career development for employees. Information shared in a mentoring relationship can range from the technical “voice of experience” to more intangible matters of how to really get things done in the organization and the qualities that—while unwritten—are viewed as necessary for an employee to succeed. Many of an organization’s unwritten rules are not self-evident to employees, and may be even less obvious to people of different cultural backgrounds. According to a survey conducted by an international management consulting firm, Heidrick and Struggles, two-thirds of 1,250 prominent men and women executives in American firms reported that having a mentor or sponsor was a factor contributing to their success (Murray, 1991).

Spontaneous mentoring relationships between senior and junior members of organizations have been in existence since the beginning of organizational life. Oftentimes, the senior members identify people more like themselves when they form such relationships. Many senior managers have spent most of their careers working in a largely homogeneous workforce and have never, or seldom, worked closely with a woman or a person of a different ethnic group. In fact, a U.S. Department of Labor Glass Ceiling Study found that a lack of mentors was a major career advancement barrier for women and minorities, who are often excluded from the organizational pipelines leading to managerial and executive positions (U.S. Department of Labor, 1992).

Michael Zey, a leading organizational development expert, identified five major challenges confronting the corporate world in the 1990s (Zey, 1993):

- The quest for innovation and excellence
- Reduced resources
- The changing composition of the work force
- The anticipated shortage of skilled workers
- The emergence of a cross-cultural work environment

Zey’s research shows that hundreds of companies in North America have adopted formal mentoring programs to help them:

- Transmit corporate culture
- Orient new employees

Continued on next page
### Benefits of Mentoring, Continued

<table>
<thead>
<tr>
<th>Uses of Formal Mentoring Programs, Continued</th>
<th>Benefits of Facilitated Mentoring Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Transmit needed skills</td>
<td>An investigation of the mentoring programs in other organizations (Appendix A) reveals that significant benefits can be derived from facilitated mentoring programs. A number of these organizations found that:</td>
</tr>
<tr>
<td>- Develop a cadre of new managers, technicians, and all-around leaders</td>
<td>- Mentors and managers gained broader insight into issues faced by employees, increased their own self-esteem and revitalization, deepened their awareness of diversity, and enhanced their personal growth.</td>
</tr>
</tbody>
</table>

Other experts have found that managers and supervisors benefit from cross-cultural mentoring relationships by learning about the values, expectations, and working styles of a new generation as well as gaining cultural and gender perspectives that are too often not part of traditional working relationships (Buntaine, 1992).

Research also shows that benefits to the organizations include higher retention rates, shorter employee training and development time, and higher employee productivity and contributions. A literature survey supports these findings (Gray, 1986; Kram, 1990; Murray, 1991; Zey, 1993).
Origins of the Mentoring Program at Lawrence Livermore National Laboratory

Original Organizations Interested in Starting a Mentoring Program

A number of concerned managers and employees began exploring the feasibility of instituting mentoring programs at LLNL as early as 1992. The following organizations were at various stages of developing some form of mentoring program:

- Electronic Engineering
- Applications Development Department in Computation
- LLNL’s Women’s Association
- Editorial Division in the Technical Information Department
- Affirmative Action and Diversity Program (AADP)

In fact, Electronic Engineering had initiated an informal mentoring program, and Computation and the Women’s Association had conducted surveys to get feedback from Laboratory employees.

Informational Meetings on Mentoring Set-up

At this time, AADP appointed a Mentoring Program Coordinator who initiated a series of informational meetings attended by representatives of these organizations. In order to gain a broad perspective across the Laboratory, AADP also invited representatives from Laboratory employee associations, the Human Resources Department, Science Education, the Director’s Office, and the Task Force for Work Force Diversity to participate in these discussions. The attendees were encouraged to bring mentoring literature and articles to share with one another.

The Mentoring Program Coordinator also arranged several meetings with outside speakers who presented their experiences and expertise with mentoring programs. Those invited included a noted mentoring consultant and author, a diversity manager from AT&T, mentoring program managers from both Pacific Bell and Pacific Gas and Electric Company, and the president of the Association for Women in Science.

Questions Raised at Meetings

Discussion at these meetings addressed questions like the following:

- Should the mentoring program be institution-wide in addition to being sponsored by individual directorates?
- How formal should an institutional program be?
- What are the program objectives?

Continued on next page
Origins of the Mentoring Program at LLNL, Continued

Questions Raised at Meeting, Continued

- Who should be the target population? New hires? Women and minorities? Self-selected individuals?
- Can any individual be a mentor or only Laboratory managers?
- What is the ideal pilot program size? 5 to 10 pairs? 10 to 20? more?
- What should be the duration of the pilot program? 6 months? 1 year?
- Should we form an advisory or working group to design and implement the program?
- Should we engage outside consultants or develop in-house expertise?

Mentoring Advisory Council

AADP established a Mentoring Advisory Council to provide guidance and support to ensure appropriate design and successful implementation of a program at LLNL. The council members were two AADP senior managers, the co-Chair of the Task Force for Workforce Diversity, and the Mentoring Program Coordinator.

Key Issues Resolved by the Mentoring Advisory Council

The Mentoring Advisory Council reached consensus on several key issues regarding the program objectives and structure. These included the following elements:

- A Cross-Cultural Mentoring Program would be sponsored by AADP and offered to participants across the Laboratory.
- The potential mentors should be senior level managers and staff members.
- The potential mentees should be women and people of color nominated by employee associations and Mentoring Advisory Council.
- The duration of the pilot program would be one year, except that participants would be allowed to terminate their mentoring relationship at any time during the course of the pilot.

Continued on next page
Origins of the Mentoring Program at LLNL, Continued

**Mentoring Program Coordinator Responsibilities**

The Mentoring Program Coordinator's responsibilities included the initial research and design of the Cross-Cultural Mentoring Program, subsequent communication and implementation, and coordination of all activities associated with the program. The coordinator was also tasked to respond to inquiries, provide assistance to participants, monitor progress, and record data. At the conclusion of the pilot program, the coordinator was responsible for collecting feedback, evaluating the program, and making recommendations for future directions.

**Design of the Mentoring Program**

The Mentoring Program Coordinator designed a Laboratory Cross-Cultural Mentoring program based on information gained from informational meetings, research findings, and the coordinator's training. A draft program proposal was submitted to the Mentoring Advisory Council and to the Laboratory Deputy Associate Director for review and approval. This design was revised several times to incorporate feedback before beginning the pilot program.
## Design of the Mentoring Program

### Reasons for Establishing a Mentoring Program

In the post-cold war era, LLNL faces the same kind of challenges as the corporate world of the 1990s: reduced resources, changing composition of the workforce, emergence of a cross-cultural work environment, an anticipated shortage of skilled workers, and the search for innovation and excellence. A Laboratory-wide, Cross-Cultural Mentoring Program addresses these challenges in two ways:

- Fosters employee career development to help maximize productivity
- Enhances the interpersonal skills of managers, supervisors, and employees of different backgrounds to help create effective working relationships

### Objectives of the Mentoring Program

The objectives of a facilitated Cross-Cultural Mentoring Program are to promote awareness of diversity and develop employee careers. Specifically, when the mentoring program is completed, we believe participants will have:

- Learned to work with people of diverse backgrounds through one-on-one, direct-contact, mentoring relationships
- Increased their awareness of the strengths of diversity, and identified ways to use these strengths for positive contributions to the Laboratory
- Increased their knowledge of Laboratory culture and programmatic directions, thereby raising the level of their potential contributions to the Laboratory
- Broadened their institutional views through cross-training and collaboration
- Tapped into unused talent, wisdom, and skills, and found opportunities for personal growth and revitalization.

### Categorization of Objectives

These objectives were further refined into eight major categories:

- Career development
- Personal growth
- Laboratory culture
- Network/contacts
- Technical/programmatic guidance

*Continued on next page*
Design of the Mentoring Program, Continued

Categorization of Objectives, Continued

- Leadership/management skills
- Diversity awareness
- Laboratory collaboration

In addition to this list, individual participants were asked to add their own particular objectives and to discuss them with their mentor (or mentee) at their first meeting.

Essential Program Elements

To ensure a clear understanding of the expectations of participants in the mentoring program, the following basic elements were built into the structure of the program:

- One-on-one relationship between mentor and mentee
- Mentor and mentee pairing based on mutual objectives and similar interests
- Meet four hours per month for a year
- Meeting time and place to be determined by the pairs involved
- Mentoring relationship support from respective supervisors and Mentoring Program Coordinator
- Periodic large group meetings facilitated by program coordinator(s) to discuss progress and provide feedback for improving the process.

In addition, it is essential that the program include identification, training, monitoring, and evaluation. Figure 1 summarizes these steps:

\[ \text{Figure 1. Essential components of a mentoring program.} \]
## Design of the Mentoring Program, Continued

### Schedule

To ensure an orderly sequence of events in the pilot mentoring program, it was important to develop an appropriate developmental time table. Figure 2 shows the stages in the schedule.

<table>
<thead>
<tr>
<th>1st week</th>
<th>2nd week</th>
<th>3rd month</th>
<th>6th month</th>
<th>9th month</th>
<th>1 year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation</td>
<td>Orientation for participants</td>
<td>Feedback meeting</td>
<td>Midpoint evaluation</td>
<td>Feedback meeting</td>
<td>Final evaluation meeting</td>
</tr>
<tr>
<td>Mentoring Advisory Council conducts matching</td>
<td>Option to continue or terminate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 2.** The Mentoring Program Coordinator maintains continuous communication throughout the mentoring program schedule.

The recommended duration for the Cross-Cultural Mentoring Program was one year. However, termination of the mentoring relationship could occur at the request of either mentor or mentee without blame placed on either party. Building a flexible termination date allowed the participants the freedom to choose, thereby alleviating any anxiety they might have regarding their mentoring relationship.

It was recommended that mentors and mentees meet for a minimum of two hours per month (preferably four or more hours). The time and place of the meetings was determined by the concerned participants.

### Participant Selection Criteria

Research showed that the potential for a successful mentoring program is enhanced if the participants possess the following attitude and qualities:

- Self-motivated
- Open to different approaches and perspectives
- Willing to take risks
- Committed to the time and effort necessary for maintaining the relationship
- Unafraid to ask for assistance
- Able to keep mentoring discussions confidential

*Continued on next page*
Design of the Mentoring Program, Continued

Multiple Roles of the Mentor  
To contribute significantly to the development of the mentees, mentors could conceivably play multiple roles. Figure 3 identifies some of these roles.

Roles and Responsibilities  
Unclear or conflicting expectations from the mentoring relationship create barriers to successful mentoring. Table 1 clarifies the roles and responsibilities of the participants and their supervisors or managers.

Table 1. Mentoring relationship roles and responsibilities.

<table>
<thead>
<tr>
<th>Mentor</th>
<th>Supervisor</th>
<th>Mentee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advises and counsels</td>
<td>Makes job assignments</td>
<td>Shares information and coaches on cultural differences</td>
</tr>
<tr>
<td>Coaches on organizational culture</td>
<td>Supervises performance</td>
<td>Works on personal and career development</td>
</tr>
<tr>
<td>Nurtures development</td>
<td>Manages evaluation</td>
<td>Seeks feedback</td>
</tr>
<tr>
<td>Shares mutual interests</td>
<td>Determines ranking and salary</td>
<td>Shares mutual interests</td>
</tr>
<tr>
<td>Acts as a confidante</td>
<td>Handles transfer or promotion</td>
<td>Learns from the mentor</td>
</tr>
<tr>
<td>Helps with career issues</td>
<td>Counsels/coaches on career development</td>
<td>Asks for guidance</td>
</tr>
</tbody>
</table>

Figure 3. The many roles of the mentor.

Continued on next page
Design of the Mentoring Program, Continued

Interrelationships and Levels of Communication

Figure 4 shows the interrelationship and levels of communication among the parties involved in the mentoring relationships.

* Difference either by gender, ethnicity, physical ability, discipline or any other factor to reflect a different perspective.

Strong and frequent communication
Occasional communication
Infrequent communication

Figure 4. Interrelationships and levels of communication in cross-cultural mentoring.
Implementation of the Mentoring Pilot Program

Selection of Participants

The Mentoring Program Coordinator made initial contacts with potential participants informally. Members of the Advisory Council and the Mentoring Program Coordinator recruited participants through personal contacts. The Mentoring Program Coordinator also contacted the chairs of Laboratory employee associations seeking nominations from their respective groups to participate in this pilot program. The Mentoring Advisory Council recommended potential mentors among managers and senior level staff members based on their reputations as concerned and sensitive individuals with excellent interpersonal and communication skills. These combined efforts produced a list of potential participants across the Laboratory who were invited to participate in the pilot program. Special effort was made to ensure finding cross-cultural participants.

Organizational and Demographic Distributions of the Mentoring Participants

Forty-six individuals actually participated in the pilot program. (This number was reduced from the original 50 because of the Voluntary Early Retirement Incentive Program offered at that time.) The organizational and demographic distributions of the mentoring participants are reflected in Tables 2 and 3.

Table 2. Organizational distribution of participants.

<table>
<thead>
<tr>
<th>Directorate</th>
<th>Mentors</th>
<th>Mentees</th>
</tr>
</thead>
<tbody>
<tr>
<td>BioMed</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Chemistry and Material Science</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Computations</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Defense Sciences</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Director’s Office</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Engineering</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Human Resources</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Lasers</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Nonproliferation Arms Control International Security</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Nuclear Test–Experimental Science</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Plant Operations</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>23</td>
</tr>
</tbody>
</table>

Continued on next page
Implementation of the Mentoring Pilot Program, Continued

Table 3. Demographic distribution of participants.

<table>
<thead>
<tr>
<th>Participants</th>
<th>African-American</th>
<th>Asian American</th>
<th>Euro-American</th>
<th>Hispanic American</th>
<th>Native American</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mentors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male (18)</td>
<td>0</td>
<td>0</td>
<td>17</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Female (5)</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Mentees</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male (12)</td>
<td>4</td>
<td>5</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Female (11)</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Participant Pairing and Training

To ensure clear understanding between partners before mentoring relationships were established, participants were informed of the objectives and structure of the program. Mentors and mentees were invited to small group meetings to meet with the Mentoring Program Coordinator to answer questions and provide assistance. Topics for discussion included the following:

- Purpose of the mentoring relationship
- Expectations and objectives of the mentors and mentees
- Interactions helpful in maintaining such a relationship
- The role of the mentor, supervisor, and mentee
- The role of the program manager

To ensure appropriate matching of mentors and mentees, the participants completed the Mentoring Facilitation Form in Appendix B. This form includes general information, specific preferences, and objectives for the mentoring relationship.

Considerations Used to Match Pairs

Using the information provided by the participants in the Mentoring Facilitation Form, the two program coordinators worked together to match mentoring pairs using the following considerations:

- Relevant experience, knowledge, and skills requested by mentees
- Mutually desired mentoring outcome

Continued on next page
Implementation of the Mentoring Pilot Program, Continued

Considerations Used to Match Pairs, Continued

- Cross-cultural, cross-gender, or other differences
- Personal choice (individual requests)
- Similar nonwork interests and hobbies
- Discussions with and concurrence by the concerned individuals

Mentoring Agreement Form

Research shows that unsuccessful mentoring relationships are caused by inappropriate pairing of mentor and mentee, lack of commitment to devote time and energy, unclear and unmet expectations, lack of structure and support, and lack of concurrence by the immediate supervisor. To avoid these pitfalls, a Mentoring Agreement Form (Appendix C) was designed. This checklist was used to guide participants’ discussion and reach a consensus on key issues concerning their mentoring relationship at the first meeting. Key issues included:

- Treatment of confidentiality
- Duration of the relationship
- Frequency of meetings
- Specific role of the:
  - Mentor (his/her preferred way to model, guide, observe, and give feedback)
  - Mentee (his/her preferred style to seek guidance, share information, observe, and give feedback)
- Termination of mentoring relationship without blame
- Specific mentoring objectives
- Other individual participant concerns

After selecting appropriate mentor/mentee pairs, a letter with the Mentoring Agreement Form was sent to all participants, encouraging them to schedule their first meeting with their mentor or mentee. Participants were also asked to send a copy of their Mentoring Agreement Form to the Mentoring Program Coordinator to use for tracking progress. To get initial feedback, the mentors were invited to meet with the coordinators one month after the mentee orientation sessions were held. These sessions were attended by some of the mentors.

Continued on next page
The Monitoring Process

Introduction

Throughout the mentoring program, the Mentoring Program Coordinator was responsible for providing assistance and information and for maintaining open communication to the participants at all times. To monitor progress, meetings were held at three-month intervals, concluding with a final review at the end of the year-long pilot program.

Three-Month Review

Three months after launching the pilot Cross-Cultural Mentoring Program, the program coordinators contacted some of the mentoring participants to obtain their input on the mentoring experience. Below is a brief summary of the information gathered through this random and informal process.

What Mentees Need from Mentors

The mentees wanted to learn the following from their mentors:

- Subtleties of Laboratory culture; the unwritten rules, power structure, and protocol.
- Ways to seek out significant managers and sponsors to give meaningful assignments.
- How to be a manager.
- How to develop a vision beyond task management.
- How to contribute (in one’s own style) to benefit the Laboratory.
- How to break “old boys network.”
- What to do to promote “valuing diversity” at the Laboratory.

Feedback from Three-Month Review

Overall, the feedback from the three-month review was very positive:

- Two mentors offered to take on additional mentees.
- One mentee, encouraged by his mentor, decided to apply for a promotion. (This mentee was later promoted to Group Leader.)
- Several mentees were “simply amazed” that they learned so much from their mentors about the Laboratory in such a short time.

Continued on next page
# The Monitoring Process, Continued

<table>
<thead>
<tr>
<th>Suggestions from Mentors</th>
<th>Mentors had the following suggestions:</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>• Schedule standing meeting once a month at noon hour for those participants (mentors and mentees alike) to meet and share experiences</td>
</tr>
<tr>
<td></td>
<td>• Call it “Mentoring Relationships” rather than “Cross-Cultural Mentoring Program”</td>
</tr>
<tr>
<td></td>
<td>• Schedule two separate quarterly meetings, one for mentors and one for mentees to meet with the Mentoring Program Coordinator(s) to bounce off ideas</td>
</tr>
<tr>
<td></td>
<td>• Some mentors prefer small-group (two- or three-person) meetings to share learning and experiences with the coordinator and one another.</td>
</tr>
</tbody>
</table>

## Six-Month Review

The formal midyear review meeting was held offsite. The mentors met for two hours in the morning and the mentees met in the afternoon. At these information-sharing sessions, the two coordinators served as facilitators and recorders of the feedback from the participants. Lunch was served at a joint session at noon. This provided an opportunity for social interactions between mentors and mentees. The program coordinators led a discussion of the following topics:

- Have you achieved the objectives of the program?
- What have you found to be most challenging?
- What have you found to be most enjoyable?
- What is the most significant learning from the experience?
- What were the surprises?
- What would you like to do differently?
- What are your recommendations for others?

The participant replies to these questions are summarized on Table 4 below. Their recommendations and suggestions are presented on Table 5.

---

*Continued on next page*
The Monitoring Process, Continued

Table 4. Summary of mentor and mentee feedback at six-month review.

<table>
<thead>
<tr>
<th>Mentors</th>
<th>Mentees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Had a positive experience.</td>
<td>Had a positive experience.</td>
</tr>
<tr>
<td>Gained insight regarding employee issues.</td>
<td>Gained career guidance and insight about Laboratory culture.</td>
</tr>
<tr>
<td>Increased diversity awareness—Some mentors learned more about diversity through the mentoring relationships than through formal diversity training.</td>
<td>Learned new communication skills. Most admirable qualities about the mentors are: openness, easy to talk to, really listens, committed to mentoring.</td>
</tr>
<tr>
<td>Were challenged by difficulty in scheduling meetings.</td>
<td>Had difficulty in scheduling meetings.</td>
</tr>
<tr>
<td>Changed their attitudes in dealing with all people.</td>
<td>Learned political savvy.</td>
</tr>
<tr>
<td>Volunteered to take on more mentees.</td>
<td>Volunteered to mentor others.</td>
</tr>
</tbody>
</table>

Table 5. Suggestions for the future at six-month review.

<table>
<thead>
<tr>
<th>Mentors</th>
<th>Mentees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need some training or orientation regarding objectives and skills.</td>
<td>Need more direction, more feedback, and advice on how to network.</td>
</tr>
<tr>
<td>Recommend quarterly group sessions to exchange ideas, share experiences, and learn from one another.</td>
<td>Would like to cultivate network of mentors (i.e., different mentors for different objectives)</td>
</tr>
<tr>
<td>Recommend continuing the program</td>
<td>Recommend that this become a part of diversity training</td>
</tr>
<tr>
<td>Recommend expanding the program Laboratory-wide (The benefit of across-directorate versus within directorate type of structure was debated.)</td>
<td>Recommend broadening program and making it known to the Laboratory.</td>
</tr>
<tr>
<td>Ask Associate Directors to provide names of employees and assign mentors for them</td>
<td></td>
</tr>
</tbody>
</table>

Continued on next page
The Monitoring Process, Continued

Nine-Month Review

A third group meeting was held three months after the midyear review. Participants received a meeting announcement and a list of topics to discuss. The questions posed were:

- How is the mentoring relationship progressing?
- Are your objectives being met?
- What have you learned so far?
- What would you like to see happen in the program?
- How can we, the coordinators, support you in this process?
- Who would you recommend as mentors and as mentees for the next phase of the program?

The participant replies to these questions are summarized on Table 6 below. Their recommendations and suggestions are presented on Table 7.

Table 6. Summary of mentor and mentee feedback at nine-month review.

<table>
<thead>
<tr>
<th>Mentors</th>
<th>Mentees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have had diversity dialogue and learning, but learned about barriers</td>
<td>Learned more about cross-cultural and cross-gender relationships.</td>
</tr>
<tr>
<td>faced by a minority woman.</td>
<td></td>
</tr>
<tr>
<td>Offered mentee another perspective as a new supervisor.</td>
<td>Learned higher level management thinking.</td>
</tr>
<tr>
<td>Felt freer to unload work-related problems with my mentee than with</td>
<td>Learned specific skill development: public speaking, interpersonal</td>
</tr>
<tr>
<td>other people.</td>
<td>skills, and dealing with supervisors and coworkers.</td>
</tr>
<tr>
<td>Talked about future of the Laboratory.</td>
<td>Learned about other organizations.</td>
</tr>
<tr>
<td>Claimed it is fun to mentor someone.</td>
<td>Heard negative remarks from some coworkers (one mentee).</td>
</tr>
<tr>
<td>Helped mentees with technical management, mature decision making, and</td>
<td>Received guidance on dealing with work-related issues.</td>
</tr>
<tr>
<td>handling sensitive issues.</td>
<td></td>
</tr>
<tr>
<td>Learned about inner workings of mentee’s organization.</td>
<td>Began to mentor others (one mentee).</td>
</tr>
</tbody>
</table>

Continued on next page
Table 7. Suggestions for the future at nine-month review.

<table>
<thead>
<tr>
<th>Mentors</th>
<th>Mentees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need more tools to help women and minorities to not perceive race and gender to be only career barriers.</td>
<td>Recommend that matching should be across directorate lines to maximize mentoring value.</td>
</tr>
<tr>
<td>Need to spend more time together before opening up to sensitive topics.</td>
<td>Need to involve more levels of management.</td>
</tr>
<tr>
<td>Need permission to share things.</td>
<td>Need to initiate meetings.</td>
</tr>
<tr>
<td>Recommend that it should be easy to switch mentors.</td>
<td>Need to change LLNL’s culture at role model level.</td>
</tr>
<tr>
<td>Inform participants that the mentoring process is relationship building, not technical problem solving.</td>
<td>Give mentor exposure on diversity issues.</td>
</tr>
<tr>
<td>Recommend that mentors be solicited from high levels of management.</td>
<td>—</td>
</tr>
<tr>
<td>Want more involvement in pairing.</td>
<td>—</td>
</tr>
<tr>
<td>Recommend that next cycle the Laboratory should go public and use names to publicize the program.</td>
<td>—</td>
</tr>
</tbody>
</table>

Continued on next page
Final Program Assessment

Factors Used to Assess Mentoring Program

The primary purpose for evaluating the effectiveness of the mentoring program is to determine if the participants (mentors and mentees) have had a positive experience. Because mentoring relationships are interactive, the mentor and mentee influence one another as well as the organizational environment. Therefore, an assessment of multiple factors over a period of time can determine whether the mentoring program has been successful. The factors for measuring the effectiveness of the mentoring program include:

- Increased employee skill and knowledge
- Readiness for and actual number of promotions
- Employee adaptability for career transition
- Costs associated with traditional training and development compared to costs involved in the mentoring program
- An increased diversity awareness
- Effective cross-cultural communication
- General employee perception about the Laboratory’s working environment

Mentoring Program Assessments

Final mentoring program assessments were performed using a short survey questionnaire and one-on-one interviews.

Short Survey Questionnaire

A survey questionnaire was designed and sent to all the participants to complete (see Appendix D). The purpose of the short written questionnaire was to:

- Identify factors for successes
- Identify problems and concerns
- Serve as a tool to solicit advice and suggestions on ways to improve the program

One-on-One Interviews

In addition to collecting quantitative information on the survey questionnaire, qualitative data regarding perceptions of personal growth and development (cultural awareness) were obtained through personal one-on-one interviews. The Mentoring Program Coordinator conducted many of such interviews with the mentors and mentees involved in this program.
Final Program Assessment, Continued

Table 8 is a summary of data collected from the final interviews held at the conclusion of the one-year pilot program.

**Table 8. Final assessment based on interviews and written survey input.**

<table>
<thead>
<tr>
<th>Objectives Achieved</th>
<th>Mentors</th>
<th>Mentees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Development</td>
<td>18%</td>
<td>55%</td>
</tr>
<tr>
<td>Personal Growth</td>
<td>59%</td>
<td>80%</td>
</tr>
<tr>
<td>Laboratory Culture</td>
<td>35%</td>
<td>85%</td>
</tr>
<tr>
<td>Network/Laboratory Contacts</td>
<td>59%</td>
<td>40%</td>
</tr>
<tr>
<td>Technical/Programmatic Guidance</td>
<td>0%</td>
<td>5%</td>
</tr>
<tr>
<td>Leadership/Management Development</td>
<td>0%</td>
<td>40%</td>
</tr>
<tr>
<td>Diversity Awareness</td>
<td>82%</td>
<td>45%</td>
</tr>
<tr>
<td>Laboratory Collaboration</td>
<td>0%</td>
<td>5%</td>
</tr>
</tbody>
</table>

**Overall Experience**

<table>
<thead>
<tr>
<th></th>
<th>Mentors</th>
<th>Mentees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valuable Experience</td>
<td>59%</td>
<td>75%</td>
</tr>
<tr>
<td>Not Valuable Experience</td>
<td>0%</td>
<td>5%</td>
</tr>
<tr>
<td>Learning Experience</td>
<td>76%</td>
<td>85%</td>
</tr>
</tbody>
</table>

**Future Plans and Recommendations**

<table>
<thead>
<tr>
<th>Plan</th>
<th>Mentors</th>
<th>Mentees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continue with current mentor (mentee)</td>
<td>86%</td>
<td>85%</td>
</tr>
<tr>
<td>It depends...</td>
<td>0%</td>
<td>15%</td>
</tr>
<tr>
<td>Expand program throughout Laboratory</td>
<td>100%</td>
<td>85%</td>
</tr>
</tbody>
</table>

*The percentages in this table are based on responses from 37 of the 44 participants.

**Participant Comments**

Personal interviews and comments noted in the final survey reflected a very positive experience for most participants in their mentoring experience. The following comments were those most frequently articulated.

Continued on next page
## Final Program Assessment, Continued

<table>
<thead>
<tr>
<th>Mentors Gained...</th>
<th>Mentees Gained...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insights into issues (barriers) faced by women and minorities in the work place.</td>
<td>Insight into Laboratory senior management thinking, behavior, and communication.</td>
</tr>
<tr>
<td>Insights into how the Laboratory works from the perspective of a working engineer, minority employee, someone with a different job classification, and someone from another department/directorate.</td>
<td>The ability to confide in someone who really listens.</td>
</tr>
<tr>
<td>A valuable friend.</td>
<td>A valuable friend.</td>
</tr>
<tr>
<td>Learning a great deal about another culture, its values, and communication styles.</td>
<td>Guidance and support and long-term career development steps.</td>
</tr>
<tr>
<td>A positive relationship with an employee of different cultural background.</td>
<td>Access to a mentor to ask awkward questions, discuss sensitive issues.</td>
</tr>
<tr>
<td>Knowledge about another department or another part of the Laboratory.</td>
<td>Guidance on dealing with discrimination.</td>
</tr>
<tr>
<td>Needs and motivations of an employee from a different ethnic background.</td>
<td>An interpreter to explain statements made by senior managers (especially the unspoken).</td>
</tr>
<tr>
<td>Career development needs of mentees.</td>
<td>Management perspectives otherwise not accessible to employees.</td>
</tr>
<tr>
<td>The ability to help a mentee see beyond the immediate future.</td>
<td>Increased self-confidence, the ability to handle tough situations. Belief in myself resulted from having my mentor believe in me.</td>
</tr>
<tr>
<td>The ability to assist a bright employee.</td>
<td>Advice on balancing career with personal life; advice on personal issues.</td>
</tr>
<tr>
<td>Learning how to effect positive change in a mentee.</td>
<td>The long-term projections of Laboratory direction.</td>
</tr>
<tr>
<td>The satisfaction of seeing a mentee gain confidence and poise</td>
<td>Mentor’s referrals to Laboratory contacts, the right people to talk to.</td>
</tr>
<tr>
<td>Laboratory life of a young Principal Investigator—his and others’ problems, and where they need help.</td>
<td>Increased visibility.</td>
</tr>
</tbody>
</table>

*Continued on next page*
Final Program Assessment, Continued

Pair Ratings

Out of 23 pairs of mentor/mentee relationships in the pilot Cross-Cultural Mentoring Program, three pairs dissolved their relationships due to retirement, sickness, and relocation. Three other pairs dissolved at various times in the course of the program, and the reason given was “not the best match.” The remaining 17 pairs rated their experience variously from “most satisfying, exceeding expectations” to “a learning experience.” Table 9 summarizes these outcomes.

Table 9. Mentoring ratings by participants.

<table>
<thead>
<tr>
<th>Rating</th>
<th>Number of Pairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most satisfying, exceeding expectations</td>
<td>6</td>
</tr>
<tr>
<td>Very valuable experience</td>
<td>9</td>
</tr>
<tr>
<td>A learning experience</td>
<td>2</td>
</tr>
<tr>
<td>Not valuable (not the best match)</td>
<td>3</td>
</tr>
<tr>
<td>Circumstances beyond control</td>
<td>3</td>
</tr>
</tbody>
</table>

Analysis of Long-Range Effects

To determine long-term direct or indirect impact from the mentoring relationship, individual career mobility and advancement and ranking and salary can be analyzed. Organizationally, the rate of retention/attrition of existing employees, and career successes by female, ethnic minority, or disabled employees can also be analyzed. However, a sufficient period of time has not elapsed at this time to hold any kind of a long-range evaluation of the overall impact of the mentoring program on the participants.

We recommended that this type of evaluation be conducted at some future date.
Conclusions and Recommendations

Throughout the entire period of the pilot mentoring program, all participants, including the program coordinators, learned a great deal. The coordinators continuously incorporated the feedback from participants to get immediate program improvements. At the midyear review, all of the participants agreed that the pilot Cross-Cultural Mentoring Program was a success, and they recommended extending participation to include volunteers (self-selected participants) in the next mentoring program. The same opinions were expressed at the conclusion of the pilot. In fact, a number of employees had already requested that their names be put on the waiting list to participate in a later program.

A summary of participant recommendations at conclusion of the program is presented on Table 10. Asterisks indicate similar recommendations between mentors and mentees.

Table 10. Summary of key recommendations.

<table>
<thead>
<tr>
<th>From Mentors</th>
<th>From Mentees</th>
</tr>
</thead>
<tbody>
<tr>
<td>* More guidance and training at the beginning</td>
<td>* Provide better training and guidance</td>
</tr>
<tr>
<td>* Match similar career disciplines, more commonalities</td>
<td>* Mentor/mentee be in same or related field</td>
</tr>
<tr>
<td>* Participants have access to feedback</td>
<td>* More information to employees</td>
</tr>
<tr>
<td>* Get top management buy-in</td>
<td>* More commitment from Laboratory managers</td>
</tr>
<tr>
<td>* Expand program (keep it small, flexible)</td>
<td>* Do not define the type of mentoring</td>
</tr>
<tr>
<td>Cross gender, cross discipline, cross department</td>
<td>Widen availability of program</td>
</tr>
<tr>
<td>Address mentor/supervisor relationship</td>
<td>Need more social gatherings</td>
</tr>
</tbody>
</table>

Continued on next page
The Mentoring Program Today

<table>
<thead>
<tr>
<th>Many Existing Partners Have Stayed Together</th>
</tr>
</thead>
<tbody>
<tr>
<td>By the sixth month in the Cross-Cultural Mentoring Pilot Program, the mentors and mentees indicated that the program was a positive experience. At that time, most of the mentors and mentees wanted to expand the pilot program to include more participants. This sentiment continued for the duration of the entire pilot program even though some adjustments had to be made due to sickness, relocation and retirement.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>New Partnerships Have Formed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Throughout the year, the program coordinators received numerous calls from individuals who had heard about the program and who wanted to participate. As a result, we established a database for interested managers and employees. Today there are 35 new pairs of mentors and mentees and a list of individuals still waiting to be paired with suitable matches.</td>
</tr>
</tbody>
</table>
References


Appendix A
List of Organizations Investigated

1. AT&T
2. Clorox
3. DuPont
4. Hughes Aircraft
5. Jet Propulsion Laboratory
6. Kaiser Permanente
7. Mare Island Naval Shipyard
8. Pacific Bell
9. Pacific Gas and Electric Company
10. San Jose State University
## Appendix B
### Mentoring Facilitation Form

The following information is requested to facilitate appropriate pairing of mentors with mentees.

#### General

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone</th>
<th>Dept.</th>
<th>L-Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years of Services at LLNL</th>
<th>Specific Expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Brief description of current assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

#### Specific

**Preferences:** (check or circle any and all appropriate items)

- [ ] I prefer to be a Mentor.
- [ ] I prefer to be a Mentee.
- [ ] I prefer to be paired with someone in the same/different Directorate.
- [ ] I prefer to be paired with someone of my own/different ethnic background.
- [ ] I prefer to be paired with someone of same/different gender.

**Objectives:** (Check any and all applicable topics)

- [ ] Career development
- [ ] Technical/programmatic guidance
- [ ] Personal growth
- [ ] Leadership/management skills
- [ ] Laboratory culture
- [ ] Laboratory collaboration
- [ ] Diversity awareness
- [ ] Network/contacts
- [ ] Other objective(s):

Nonjob related interests and activities:

- 
- 
- 

Areas of strengths:

- 
- 
- 

Names of recommended mentor(s) or mentee(s): 

- 
- 
- 

Approval by: (if applicable)

Supervisor
Appendix C
Mentoring Agreement Form

(Designed to set the stage for a successful mentoring relationship)

We have voluntarily entered into a mentoring relationship intended for cross-cultural learning and career enhancement. To make our time together meaningful and productive, we have discussed and reached consensus on the following topics:

- Treatment of confidentiality
- Duration of the relationship
- Frequency of meetings
- Time and place of meetings
- Specific role and communication styles of the participants:

  **Mentor** (preferred way to model, guide, observe and give feedback, recommend developmental activities, facilitate learning, suggest/provide resources, etc.)

  **Mentee** (preferred style to receive guidance, share information, seek and give feedback, suggest/provide resources, etc.)

- **Inappropriate Topics:** (Not to be included in the mentoring relationship)

- **Termination** of the mentoring relationship without explanation by either party.

- The mentoring objectives for us are as follows:

  **Mentor**

  **Mentee**
Appendix D
Mentoring Questionnaire

I was a □ Mentor, a □ Protégé

The most convenient time for us to meet is indicated below:

□ One hour a week during normal hours  □ One hour a week at noon hour  
□ Twice a month  □ After hours  □ Flexible schedule, meet whenever we can

The following objectives have been or are being met:
(Please check any and all, as appropriate)

□ Career development  □ Technical/programmatic guidance
□ Personal growth  □ Leadership/management skills
□ Laboratory culture  □ Diversity awareness
□ Network/contacts  □ Laboratory collaboration
□ ____________________________________________  □ ____________________

What was the most valuable part of your mentoring experience?

________________________________________________________________________

________________________________________________________________________

What was the least valuable part of your mentoring experience?

________________________________________________________________________

________________________________________________________________________

Would you like to continue your current mentoring relationship?

□ Yes  □ No  □ Depends

Overall, how would you rate your mentoring experience?

□ Valuable  □ A learning experience  □ Not valuable

Would you recommend expanding the pilot mentoring program throughout the Laboratory?

□ Yes  □ No  □ Depends (comments below)

Comments and suggestions for improvement:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________