TECHNICAL REPORT

Sun Mentoring: 1996-2009

Katy Dickinson, Tanya Jankot, and Helen Gracon

> *Sun Microsystems Laboratories*

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SMLI TR-2009-185 August 2009

Abstract:

This paper provides a summary of mentoring information, best practices, metrics, and recommendations developed during 1996-2009 by Sun Microsystems, Inc. Sun provides network computing infrastructure solutions that include computer systems, software, storage and services. The company has a strong corporate culture that values and promotes mentoring. Sun has offered several internally-developed formal mentoring programs, including:

- SEED (Sun Engineering Enrichment & Development), Katy Dickinson has been SEED's Director since 2001
- Mentoring@Sun, managed by Helen Gracon since 1996
- New Sun Vice Presidents, managed by Helen Gracon since 2004

Mentoring increases effectiveness and efficiency to achieve business results by doing real work, real time. Developing a corporate culture of mentoring is a good way to establish a network of communication across organizational silos, promote a wide variety of talents, and broaden the diversity of ideas and innovation available to the company. The ROI on Sun mentoring has been calculated to be 1,000% or greater.

Mentoring is near the top of most lists of tools that are effective at promoting professional development and advancement in industry. As a business method, mentoring works well generally and also is particularly valuable to women and minorities. These benefits are of special interest to engineering companies and are in addition to more objective productivity measures of mentoring success such as increased performance ratings, higher retention, and more promotions. SEED has been sponsored since 2001 by Dr. Greg Papadopoulos, Sun's Chief Technology Officer and Executive Vice President of Research and Development.

Sun Labs
16 Network Circle
Menlo Park, CA 94025

email address:
katy.dickinson@sun.com
tanya.jankot@sun.com
helen.gracon@sun.com

For information regarding the SML Technical Report Series, contact Mary Holzer or Nancy Snyder, Editors-in-Chief <Sun-Labs-techrep-request@sun.com>. All technical reports are available online on our website, http://research.sun.com/techrep/.

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1 Introduction

Sun Microsystems has benefited from a long-term successful culture of mentoring, especially in its worldwide engineering divisions. About 7,300 mentoring pairs have participated in one of Sun's formal mentoring programs since 1996. Mentoring has paid off for Sun in increased productivity, efficiency, and greater satisfaction among participants. This report presents what Sun did and how Sun did it to allow others to take advantage of the company's extensive and successful experience with this remarkably effective and versatile business method. So far as is known, this report is unique: no other company has published a long-term detailed analysis about its corporate mentoring program.

At Sun, people usually join a mentoring program because they are curious and want to learn, or are ambitious and motivated to improve their career, or are stuck personally or professionally and want to find a new way to proceed. The mentees start out in search of these various goals, often with great energy but only a general idea of what they are looking for. The heroes are the mentors who generously offer their time and wisdom to these seekers, guiding them down the paths that they themselves have walked.

Sun has developed several internal formal worldwide mentoring programs, three of which are still offered:[1]

1. **SEED** (Sun Engineering Enrichment and Development) is a prestigious engineering leadership grooming program of which mentoring is the major component. SEED has four subgroups: Recent Hires, including New College Hires (started in 2001), Established Staff (started in 2002), PreSEED (started in 2008), and special pilot terms for specific geographies, professional areas, or new corporate acquisitions (started in 2005). Katy Dickinson is SEED's Director. Tanya Jankot is the Applications Engineer for SEED. Helen Gracon is SEED's mentoring Trainer. SEED reports to Sun's CTO.
2. **Mentoring@Sun** (started in 1996) is a training program that includes both open enrollment and intact work groups. Helen Gracon is the Program Manager.
3. **New Sun Vice Presidents' Mentoring** (started in 2004) is a program to help newly promoted VPs during their job transition. Helen Gracon is the Program Manager.

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1 See the SEED and Mentoring@Sun Examples in the **Mentor Selection Systems** section for details on how these mentoring programs work. Also review the **Summary of Sun's Mentoring Programs.**

Why write this report now?

- Recently, all of Sun's mentoring program staff were consolidated in the Chief Technologist's Office, affording an opportunity to report about and compare all the programs uniformly.
- Sun mentoring staff are frequently contacted by executives from other companies who want to start or expand their corporate, academic, or non-profit mentoring program and ask to research Sun's programs. Some of those executives are looking for alternatives after they have already had a poor experience with an external mentoring company.
- With the 2009 Sun-Oracle transition will come many changes. The authors combined knowledge to write this report to document Sun's history of successful mentoring programs and practices.

To create this report, the authors analyzed Sun's 1996-2009 mentoring program data, plus Sun-wide data, plus information from a 2002 Gartner report on Sun mentoring. This effort was ably supported by the SEED's Human Resources team: Sy Dimitroff and Matt Artz. Because much of the data used in this report are private and confidential, there is a limit to what can be published. Also, some data no longer exists because these programs have outlasted many Sun management structures and data repositories. So, for some measures there are more specifics than others.

SEED was designed in 2000 by a team that included both Engineering and Human Resources (HR) staff. It was based on successful “Best of the Best” programs in Sun Sales and Services. Because it has always reported to the CTO, SEED has benefited from stable, long-term, visible top-level executive sponsorship. Since it was started in 1996 as part of the Sun University, the Mentoring@Sun program has been under many organizations and executives and has experienced the disadvantages of shifting management and inconsistent funding. Most of the metrics in this report come from SEED because only that program has continuous records.

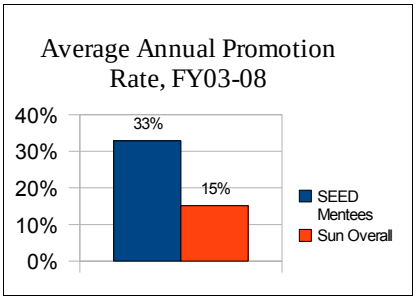
The top business imperatives that led to the planning for SEED in 2000 and have continued to drive the program since then are to:

1. “Identify and enrich the experience of those who can reasonably be expected to rise to the top of Sun Engineering's individual contributor or management ranks.
2. Engender the value of mentoring systemically across Sun Engineering.

3. Build the engineering community by making and strengthening connections between its members and with the rest of Sun. (Getting people outside of their professional and organizational silos...).
4. Improve the retention of key engineering staff.
5. Promote and increase the diversity of engineering leadership in the areas of demographics, professional area, and geographic location."

Here is a brief summary of how SEED has performed in supporting these five business imperatives:

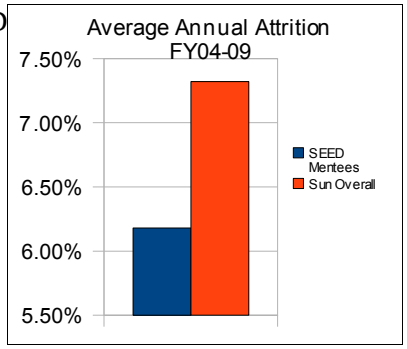
1. SEED has maintained mentee promotion and performance rates of twice that of the general Sun employee population.[2]



2. SEED has been a successful and popular program with 33 terms offered to worldwide engineering. Participants join from Sun's technical areas, in Microelectronics, Operations, Sales, Service, Software, Systems, Storage and Sun Labs. Special terms have been created on request for many divisions, a major acquisition and a variety of geographic regions.[3] 48% of the SEED mentors who have served have been mentors more than once. 70% of SEED mentors are executives.
3. SEED Mentors have come from Finance, Human Resources, SunIT, Legal, Marketing, Sales, Service, and Worldwide Operations, as well as from all technical groups. Most of the non-engineering staff were recruited as SEED mentors at the specific request of a mentee who asked to learn from them. Community strength is demonstrated by the 500+ members of SEED's group on LinkedIn[4].
4. SEED attrition measures slightly better than Sun overall. The fact that SEED mentees are high-potential engineering staff who are seeking something new, means they may look for and have more opportunities to leave the company. So, even a little lower attrition in this group is a positive measure.

2 See the **SEED Metrics Appendix** for more details and charts.
3 See the **SEED Terms Appendix** for a list.
4 LinkedIn is available at *http://www.linkedin.com/*

5. Women and non-US staff have taken advantage of SEED at a consistently higher rate than their representation in engineering overall. 88% or more of SEED mentoring pairs have worked at a distance, that is, the mentor and mentee are based in different cities, states, or countries.



An earlier version of the material in this paper was published as a series of blogs in *http://blogs.sun.com/katysblog/* The section called **Mentoring in Engineering and Computer Science** was published as an article in the *Anita Borg Institute Newsletter* of 13 July 2009.

Throughout this report are boxed quotes providing a mentor's or mentee's view of Sun mentoring:

"The opportunity to be a mentor to a newly promoted Vice President at Sun was a gratifying and fun experience! It gave me the chance to pass along so many unwritten things that I had learned 'the hard way', that I believe truly was a benefit to my Sun VP mentees. I also knew that by passing along secrets of the craft of being an Executive at Sun would also bring back to me the benefits of a new VP colleague who was well informed, engaged, and connected to how things actually get done at Sun!"
Leslie Lambert, Vice President & Chief Information Security Officer,
New VP Mentoring program Mentor, and 3 time SEED Mentor

"I think mentoring programs are very valuable, both for the mentors and the mentees. I have participated in various mentor programs at Sun many times. I found the VP mentoring program very helpful in getting me acclimated to the role of a VP at Sun. I chose as my mentor someone outside my normal field of experience but it turned out that we had a lot in common, as his work regularly brought him in contact with some of my staff. That connection meant that I was able to help him understand export control policies while he helped me understand the engineering community at Sun and how to influence top level Sun executives. Thus, I believe it was a valuable relationship for both of us."
Cheryl Fackler Hug, Vice President, Legal, & Chief Ethics and Compliance Officer,
New VP Mentoring program Mentee, and SEED Mentor

2 Summary of Sun's Mentoring Programs[5]

	SEED	Mentoring@Sun	New VPs
Target Group	All Engineering	All Sun	New VPs
Year Started	2001	1996	2004
# Mentees ever	1,162	~ 6,000	138
# Mentees/year	350	350	35
# Mentees/term	60	60	35
Formal Term	6 Months	6 Months	6 Months
Recommended Meetings	1 to 2 hours every two weeks	1 hour every two weeks	
Mentor Selection System	Demonstrated Accomplishment	Competency Lists & Management Selection	Demonstrated Accomplishment
Paid Staff	2 part-time + trainers	1 full-time + part-time administrative support + trainers	
Initial Training	2 hours per individual pair	3-hour group webinar presented over two days	2 hours per individual pair
Objectives	Community Building & Leadership Grooming	Staff Development	Faster Transition to New Role
Funding	CTO-funded	Pay to Play	

5 Information in this table is provided in greater detail throughout this report. In particular, read the Examples in the **Mentor Selection Systems** section.

3 Mentoring in Engineering and Computer Science

3.1 The Particular Value of Mentoring to Engineering & Computer Science

Mentoring is near the top of most industry and academic lists of tools that are effective at promoting professional development and advancement. Sun Microsystems' three worldwide mentoring programs use this successful business method for different purposes:

- SEED: mentoring helps engineering leaders succeed and builds the technical community.
- New VPs: mentoring supports a faster transition to the new job role.
- Mentoring@Sun: mentoring promotes staff development.[6]

As a practice, mentoring works well generally and is also particularly valuable to women and minorities. Women and non-US staff have taken advantage of SEED's engineering-wide program at a consistently higher rate than their representation in the field of engineering at Sun. Mentoring increases effectiveness and efficiency to achieve business results. Developing a corporate culture of mentoring is a good way to establish a network of communication across organizational silos, promote a wide variety of talents, and broaden the diversity of ideas and innovation available to the company.

These benefits are of special interest to engineering companies and are in addition to more objective productivity measures of mentoring success such as higher performance ratings, better retention of highly-rated staff, more promotions, and higher compensation. About mentoring and how it works, from *Bit by Bit*:[7]

> "Although more women see lack of access to mentors and networks as a barrier to women's advancement, both men and women round table participants identified mentoring and networking as key strategies for developing and advancing all talented employees

6 See the SEED and Mentoring@Sun Examples in the **Mentor Selection Systems** section for details on how these mentoring programs work. Also review the **Summary of Sun's Mentoring Programs** section.

7 *Bit by Bit: Catalyst's Guide to Advancing Women in High Tech Companies* (pp.6-7, in section called "Use Mentoring and Networks to Win", 2003). The detailed 2003 SEED Case Study that is part of Catalyst's *Bit by Bit* is in the **Appendix** of this report.

> ...However, in general, people tend to feel more comfortable mentoring and networking with those like themselves. Outsiders to the organizational culture by gender, race, or other demographic characteristics, are then less likely to be included in those activities. ...The design and implementation of a formal mentoring program or the creation of a women's networking group are extremely useful and help to create a climate where people feel valued and comfortable with others different from themselves. Such programs are especially important in the high tech industry, where companies tend to be relatively young, decentralized, and career paths are not clearly defined. ...Women and men round table participants agreed on the importance of mentoring in which more senior and experienced employees provide ongoing advice about career decisions, insight about the political environment, and introductions into professional networks to less experienced colleagues."

3.2 Why *Engineering* Mentoring?

Why is SEED an *engineering* mentoring program? How is mentoring different in engineering and computer science than in other professional areas? The answer reflects experience from a variety of worldwide mentoring programs throughout Sun, from areas as diverse as: Finance, Human Resources, Information Technology Operations, Legal, Marketing, Sales, Service, and Worldwide Operations, as well as throughout engineering (Microelectronics, Software, Sun Laboratories, Systems, and Storage).

The mechanism of a mentoring program is about the same regardless of the professional area that is using it.[8] Key mentoring program elements (Process, Training and Educational Materials, Management and Web Tools, and Staff) should be able to support a wide variety of participants from many cultures.

The seniority and number of the participants are more important differentiators in picking a mentor selection system than is the profession of the group that is to use it. Specifically, a Demonstrated Accomplishment type of mentor selection system will be more appropriate and effective for executive staff than a Self-identified Competency system. However, a Self-identified Competency system can scale to support a much larger group than a Demonstrated Accomplishment system.[9]

8 See the SEED and Mentoring@Sun Examples in the **Mentor Selection Systems** section for details on how these mentoring programs work.

9 For more on this, read the section of this report on **Mentor Selection Systems**.

To be effective, program sponsorship, priorities and goals, scope, training focus, and management style should be appropriate to the professional area the mentoring program is supporting. So, if the mentoring program mechanism is about the same, what is different about mentoring in an engineering group, compared to a Marketing group in the same company? Using the SEED program as an example of a long-term successful engineering mentoring program:

- **Program Sponsorship:**
  - SEED mentees all work for Sun Microsystems in engineering and computer science and the program has been sponsored by Greg Papadopoulos, Sun's CTO and Executive Vice President of Research and Development since it was rolled out in 2001. If SEED had an executive sponsor in Human Resources or Marketing, it would lack credibility with many Engineers. Greg is a successful, respected thought leader and role model. His visible, active, and specific endorsement encourages participation and gives even the most conservative Engineer permission to stretch themselves into considering mentoring. Greg clearly has skin in the game.

    For example, on 15 October 2008, Jonathan Schwartz (Sun's CEO and President) and Greg Papadopoulos distributed a brief video on Sun's internal home page. During their discussion, Jonathan asked Greg what advice he would offer a newly hired Engineer or technologist at Sun. Greg's first recommendation was that such a new technologist seek out the senior Engineers (Distinguished Engineers and Principal Engineers) as masters of their craft, then work with them as mentors through a mentoring program such as CTO's SEED.
- **Priorities and Goals:**
  - SEED's program priorities are:

    1. Increase the value, satisfaction, and retention of program mentees and mentors.
    2. Build Sun's **engineering community** by making and strengthening connections between its members and with the rest of Sun.
    3. Work to balance the diversity of mentees in terms of demographics, professional area, and geographic location. [10]

    The context of the engineering community is key here. It bounds the SEED program and defines its organizational character. Sun's Chief Technologist's Office pays for the SEED

10 See the **SEED Metrics Appendix** for performance details and charts.

program, including mentoring partnership training costs, as a benefit to engineering worldwide. Compare this to the Mentoring@Sun program, started in 1996 as a general Sun-wide mentoring program. Mentoring@Sun is available to all Sun business and technical areas if an executive is willing to sponsor and pay for the program.

The SEED program was started by Sun in 2001 to address engineering organization needs that were not met by Mentoring@Sun. That is, SEED is an internal mentoring and leadership growth program designed to meet the needs of a key professional area, running in parallel with a more general internal program. Both SEED and Mentoring@Sun are effective at making connections between organizational silos, what Helen Gracon calls cross-pollinating. [11]

- **Scope:**
  - SEED mentors can be from any part of Sun so long as they are at principal-level or above in seniority. (Principal-level is an industry term indicating a high seniority rank below executive.) SEED mentees, however, must all be working in Sun **Engineering**, that is defined as:

    "**Engineering** - Hardware and software engineering positions where the primary job purpose is to perform engineering research, design, and development activities resulting in innovative Sun products for external customers. Also included are staff positions providing strategic support to engineering research, design, and development activities."

  The **engineering** professional context provides specific program boundaries: only these positions are included, others are not. (This would sound like inappropriate exclusivity if engineering did not make up about half of Sun's employees.)

- **Training Focus:**
  - A formal mentoring program should offer training that helps the mentors and mentees feel comfortable from the start and work well together for the entire term. Training is particularly important in special cases, such as when mentor and mentee work in different professional areas (Microelectronics and Finance, for example), have a wide gap in their relative experience or seniority (such as a Senior Director mentoring a recent college hire Member of the Technical Staff), are working at a distance (for 88% of

11 For more on this, read the section **Internal or External Mentoring Program?**

SEED mentoring pairs, the mentor and mentee work in different cities, states, or countries), or come from diverse cultures.

SEED offers two hours of individual training (almost always by phone) for each mentoring pair. Each pair training is tailored to their strengths and challenge areas. The geek personality is common enough that Sun's mentoring training materials have a special section for engineering. Engineers are professional problem solvers who are usually smart, analytical, logical thinkers. Sometimes it can be a stretch for them to see the other person's point of view. Many of them do not suffer fools. Mentoring training for geeks may focus on teaching how to disagree agreeably and learning when problem solving may not be what is needed or wanted by their mentoring partner. Many Engineers prefer a training style and content that is more data-driven than based in emotional intelligence.[12]

Mentoring@Sun has for many years used webinars (web-based group seminars) for training. Sun's New VP mentoring program uses personalized pair training similar to what is offered by SEED. Mentoring@Sun and SEED share mentoring facilitation training materials (updated annually).

- **Management Style:**
  - Managing an engineering mentoring program requires communicating well and maintaining trust with Engineers. SEED is a prestigious leadership grooming program, so the decision of which applicants get accepted can be controversial. The selection system must be transparent: fair and seen to be fair. SEED has a 44% selection rate.[13] Selection criteria for SEED are based on the values of the engineering community.

12 See Wikipedia on “Emotional intelligence” *http://en.wikipedia.org/wiki/Emotional_intelligence*

13 See the **SEED Metrics Appendix** for more details and charts.

- Preferred accomplishment areas are:

Earning more than one "1-Superior" annual performance rating in the last three years	Papers, patents, presentations, publications	Experience in open source, industry standards development, architectural review, mentoring
Demonstrated leadership	Demonstrated technical excellence	Demonstrated creative ability
Enthusiasm shown in SEED application (by both applicant and their manager), persistence in applying to SEED	Completing a PreSEED term and having the recommendation of that PreSEED mentor.	Earning the excellent opinion of senior staff or executives (who submit recommendation letters in support)
Ability to communicate	Work history	

Applicants are expected to excel in many but not all of these areas. Many of SEED's program selection criteria are also reflected in job promotion criteria for engineering staff. Sun Engineering has an egalitarian open door culture that values data-driven decisions and a transparent management style. While respecting confidentiality, SEED routinely makes a great deal of program information available to Sun Engineering. SEED program participants regularly contribute suggestions on how to improve the program and its web tools.

3.3 What is the Geek Personality?

This is a brief digression into the personal and social context of Engineers because these have such a strong influence on mentoring in engineering. While Sun Engineering staff includes a broad range of personalities, there are some unusual concentrations. SEED mentoring training includes information on Myers-Briggs-style personality types. A discussion about personality types provides a good context and vocabulary for mentoring pairs to discuss differences and commonalities, promote mutual understanding, and give them warning about how they may drive each other crazy. (This part of training is skipped for staff who think the use of personality types is Psychology black magic.)

In the past, Sun offered personality assessments as part of its regular career coaching benefit. In 2002, Sun used a survey to collect information from 143 Sun Engineering staff about their formally assessed personality type. While not a statistically valid sample, it is nonetheless interesting:

- **59%** of the Sun Engineering staff reported that they had been assessed as **I** (*introvert*)
  About **50%** of the US population are **I** (*introvert*)

- **66%** of the Sun Engineering staff reported that they were **NT** (*intuitive thinkers*)
  Only about **10%** of the US population are **NT** (*intuitive thinkers*)

(Yes, this does mean that Engineers are abnormal, statistically at least.) Of sixteen available personality types, the two reported as a best fit by the largest number were:

- **24%** of the Sun group were **INTP -** *Introversion, Intuition, Thinking, Perception*
  (versus about **4%** of the US population)
  "INTP types are quiet, thoughtful, analytical individuals who enjoy spending long periods of time on their own, working through problems and forming solutions. They are curious about systems and how things work."[14]

- **19%** of the Sun group were INTJ - *Introversion, Intuition, Thinking, Judgment*
  (versus about **3%** of the US population)
  "INTJs are analytical individuals. Like INTPs they are more comfortable working alone than with other people, and they tend to be less sociable than other types. ... They tend to be pragmatic and logical individuals, often with an individualistic and creative bent. They have a low tolerance for spin or rampant emotionalism."[15]

Introverts have been defined as "people who find other people tiring" (from the article "Caring for Your Introvert" by Jonathan Rauch, *The Atlantic*, March 2003). A t-shirt popular with Engineers says "You read my t-shirt. That's enough social interaction for one day."[16] SEED works hard to make its communications comfortable for an introverted group. For example, SEED describes expected interactions in detailed instructions, process documents, and flow charts.

One analysis of downside to being an introvert is that:

> "In our extrovertist society, being outgoing is considered normal and therefore desirable, a mark of happiness, confidence, leadership. Extroverts are seen as bighearted, vibrant, warm, empathic. 'People person' is a compliment. Introverts are described with words like

14 From "INTP" article in Wikipedia *http://en.wikipedia.org/wiki/INTP*
15 From "INTJ" article in Wikipedia *http://en.wikipedia.org/wiki/INTJ*
16 See this and other examples of popular engineering sayings at Think Geek, *http://www.thinkgeek.com/* .

> 'guarded,' 'loner,' 'reserved,' 'taciturn,' 'self-contained, private' - narrow, ungenerous words, words that suggest emotional parsimony and smallness of personality. Female introverts, I suspect, must suffer especially. In certain circles, particularly in the Midwest, a man can still sometimes get away with being what they used to call a strong and silent type; introverted women, lacking that alternative, are even more likely than men to be perceived as timid, withdrawn, haughty." (Ibid, 2003 article by Jonathan Rauch)

For more on Social Context, Gender, and Mentoring, see the section of this report on **Picking Your Mentor, Picking Your Mentee.**

3.4 Finding Mentors for Engineering

Since 2001, SEED has matched almost 1,200 mentoring pairs; 70% of the mentors were executives (Directors, Vice Presidents, Distinguished Engineers, Principal Engineers, Fellows, etc.). Taking out the PreSEED participants (who are not eligible for executive mentors by program design), the average number of SEED executive mentors rises to 79%. SEED gets an average of 90% mentee satisfaction rating on its quarterly reports, year after year.[17] What do these executive mentors look for in mentees? Why do so many find SEED to be such a satisfying program?

Most of the questions mentors ask when discussing a potential mentee are structural, about:

- Availability
- Time commitment required to participate
- Potential areas of difficulty (like being in the same management chain, or speaking different primary languages)
- Physical or time zone proximity.

Many potential mentors also ask more substantive questions, about intellectual common ground, interests, and personal compatibility. Somewhere in this mix is usually "Why me? What does this person want to know that I am uniquely able to teach?" [18]

17 See the **SEED Metrics Appendix** for more details and charts.

18 For more on mentor questions and preferences, and how Mentor Wish Lists are created, read the section **Picking Your Mentor, Picking Your Mentee**.

Notice that relatively few mentor questions are about the content or topics requested in the mentee's learning goals. SEED mentors have come from almost every professional area in Sun worldwide. Most of the non-engineering staff were recruited as SEED mentors at the specific request of a mentee who asked to learn from them. (In two 2009 terms for Global Sales and Service mentees, only 35% of the 77 mentors were also from GSS. The rest came from Sun Engineering, Legal, Finance, SunIT, Sun Federal, and Workplace Resources.) Sun's General Counsel (the most senior lawyer) was originally recruited as a mentor because a Software Engineer wanted to learn more from his success as a business leader. Here is Mike Dillon's description of that experience:

"I must admit that when I was asked by an engineer to serve as a mentor, I was somewhat surprised. After all, what learnings could an attorney provide to a member of our technical community? However, I have found through the process of working with each SEED mentee that there are many things that I could share, for example, about problem solving, leadership, organizational management and also providing a more global perspective of our business. Equally important, I found that through participating in SEED, I gained tremendous insight into key technical projects and developed a better understanding of the challenges our engineers face. These insights have helped me to be much more effective in my legal role."
Mike Dillon, Sun Executive Vice President, General Counsel and Corporate Secretary,
6-time SEED mentor, and New VP Mentor

A Finance Vice President was recruited by SEED because a Systems Program Manager wanted a mentor who professionally understood financial planning, revenue and cost management. Sun Microsystems is an engineering-driven company, so most non-engineering staff are eager to help (as well as extend their own connections in engineering).

It seems that the more experienced or senior a mentor is, the more willing they are to discuss a broad range of topics. It is usually the more junior mentors who question their breadth of ability or the value of their experience outside of their immediate area of professional expertise. The mentors who seem to get the most out of their SEED experience are the executives. One Software Vice President said that his hour with his mentee was his vacation, the only time all week when he knew the answers. Another Software VP reported that he always looked forward to meeting with his mentee: it was his only non-confrontational meeting. This positive experience is reflected in SEED's metrics for repeat mentor participation and the high percentage of executive participation:

- 48% of the 474 mentors who have served have been mentors more than once. This includes principal-level senior staff plus executives.

- 78% of those repeat mentors are executives (178 out of 228).
  54% of executive mentors have served more than once. [19]

A Marketing Vice President wrote in evaluation of his sixth SEED mentoring experience: "This continues to be a great program and I get a lot out of it -- possibly more than the mentees."

"The significance of mentoring increases the higher one goes in the management hierarchy, for the very reason that one's influence and impact is broader reaching at the Director and VP levels. The nature of the mentoring is also up-leveled and it is more about leadership issues than just tactics as is typical with starting employees. There is an opportunity to provide insight and context about the bigger picture of the company, and compare and contrasts the strategies, cultural differences and success metrics across different companies in the industry. A lot of benefits come from the informal connections and cross-functional bonds that get created through the interaction with Directors/VPs from other parts of the company. I personally took delight in every such mentoring engagement that came my way and certainly made some lasting friendships as a result of these."
Sunil Joshi, Senior Vice President, Custom Designs & Tools, Microelectronics

"Feedback from the Mentees has been universally positive and the relationships have gone on well beyond the end of the program. What was unanticipated was how much learning I benefited from the relationship."
Crawford Beveridge, Executive Vice President and Chairman, EMEA, APAC and the Americas (former Executive Vice President People and Places and Chief Human Resources Officer),
4-time New VP Mentor, Sponsor with Greg Papadopoulos in 2000 of the original SEED design project

19 See the **SEED Metrics Appendix** for more details and charts.

4 Formal vs. Informal Mentoring

One of the common questions about the SEED engineering mentoring program is about formal versus informal mentoring. In eight years, SEED has developed into a formal system with published processes, metrics, and web tools. However, as in most companies, Sun staff also benefits from many informal mentoring relationships. At Sun, there are at least three times the number of undocumented informal mentoring pairs as there formal mentoring pairs.

Whether the mentee is a junior Engineer just out of the university (a New College Hire) looking to learn basics from someone one or two grades above them, or an already-accomplished technical star who wants to learn even more working with a world-class master of her craft, mentoring is a key tool. In as much as the experience, scope of understanding, and perspective of the mentor informs, inspires, and strengthens the mentoring experience, benefiting from the most senior mentor available is important. Because a structured formal program makes it easier for executive mentors to participate, such a program also makes the wisdom of executive mentors more available longer-term to a larger and more diverse group of mentees.

Style and **Focus** are the two main benefits of a formal mentoring program.

4.1 Style

Style means the personal manner, preferences, and comfort in communicating between the mentor and the mentee. Even in professional or corporate circumstances, mentoring requires a personal relationship and commitment that can be harder to initiate and maintain in an informal environment, particularly when the mentor is much more senior than the mentee (as is the case in most SEED relationships).

For the mentee:

> Some people are comfortable with marketing themselves, for example, they are confident enough to call up a potential mentor and just ask for time. Others find this approach too bold, or they may be too modest or private to approach a senior or accomplished person in this way. A structured mentoring program can be of great value to someone who is not comfortable marketing herself cold to a potential mentor.

Gender and cultural issues come into this as well: for example, a woman who wants to be mentored by a senior man may be concerned about how he would interpret her direct request, or in a strongly hierarchical national culture, a junior staff member may feel it is not her place to ask for mentoring from someone outside of her management. She may be rightly concerned about how her immediate management would respond to her making such a direct request. Knowing that her own manager has formally approved her participation in mentoring (that this professional development program is part of her day job) is empowering.

For the mentor:

Some potential mentors are comfortable being approached by junior staff asking for mentoring but others may find such a request offensively direct (inappropriate, pushy or arrogant). Also, the more senior a person is, the more valuable her time is. In particular, senior executives need to make the best use they can of their very limited time. SEED is run for the convenience of the mentors and is set up to make it as comfortable as possible for executives to participate.

A popular or famous executive may get too many requests for informal mentoring to evaluate the benefit and circumstances of each one, so she ends up rejecting all, or just spending a little time with each, or only accepting requests from people she already knows. The executive may never have been a mentor and is not sure how to proceed (and doesn't feel comfortable admitting this). A formal program that includes training may get the mentor started, to the advantage of her mentee, the company as a whole, and her own understanding.

By evaluating and validating potential mentees in advance, a formal mentoring program can save time and avoid mismatches as well as avoiding the awkwardness or embarrassment of a potential mentor rejecting or discouraging promising junior staff members because of lack of time (or just feeling rushed).

In a program such as SEED, all mentor-mentee matches are made privately. That is, the mentee submits to SEED a prioritized Mentor Wish List of potential mentors with whom they would like to work with detailed reasons for preferring each one.[20] The SEED program staff act as brokers,

20 See the section **Picking Your Mentor, Picking Your Mentee** for more on creating a Mentor Wish List

providing a buffer between potential mentor and mentee. SEED gives potential mentors ample validated background information on the potential mentee (that is, information that the potential mentor can trust) and allows them time to consider the offer.[21] Many mentors who would reject a direct approach will accept a mentee when given well-selected information and an opportunity for reflection.

4.2 Focus

In the SEED formal mentoring program, the mentee's manager advocates for her staff member to join the program. The manager also makes an explicit time commitment for her staff member to be in the program. That up-front awareness highlights the mentee's strengths and often means that the manager has a better focus, understanding, and value of her staff member. (When it is time for annual evaluation or, unfortunately in these difficult economic times, lay off decisions, it can be truly to the advantage of the SEED mentee that her management has seriously considered her capabilities and value while writing a recommendation letter.)

Informal mentoring usually does not require this kind of commitment or focus by the mentee's manager. Once the mentee enters the program, her new mentor (who for over 70% of SEED mentees is an executive) also gains a greater appreciation and understanding of the mentee's work.

Metrics:

The SEED program regularly collects and evaluates these performance and success metrics:

- Satisfaction (of mentee, mentor, and mentee's manager)
- Participation (number of applicants, number of managers who have had more than one direct report in the program, number of mentees returning as mentors, number of mentors who return term after term, etc.)
- Diversity (demographic, geographic, professional area)
- Promotion Rate (compared to Sun overall and Sun Engineering)
- Annual Performance Evaluation (percentage of 1-Superior ratings, compared to Sun overall and Sun Engineering)

21 See the SEED and Mentoring@Sun Examples in the **Mentor Selection Systems** section for details on how these mentoring programs work.

- Attrition (voluntary and involuntary)

These metrics enable understanding of how program participants and Sun as a whole benefit from SEED. Because of the nature of informal mentoring, such metrics are difficult to collect, particularly in an active work environment. This lack of specific or trend information makes improvement and valuation of informal mentoring almost impossible.

How it works: [22]

The individual and positive focus by management on a mentee entering a formal mentoring program is often enhanced by the work of the mentoring pair once the term gets going. Most SEED mentee and mentor pairs report talking about the following topics:

- Regular projects/work
- Joint special projects
- Setting goals (short/long term)
- Finding the best path to success
- Homework from mentor: people to contact, reading material, etc.
- Industry current events/trends in technology
- Sun strategy/products/current events
- Soft skills development (negotiating, public speaking, conflict management, etc.)
- Career development
- Personal development

By spending six or more months focused on these topics in discussion with a talented executive or senior staff member, SEED participants improve their value to Sun. In the quarterly feedback reports, mentees report that participation in the SEED program positively influenced the following:

- Greater understanding of Sun's overall architecture, strategy, or business direction
- Better career direction
- Broader network of contacts (peer or executive)
- Increased visibility, within or outside work group

22 See the SEED and Mentoring@Sun Examples in the **Mentor Selection Systems** section for details on how these mentoring programs work.

Another aspect of Focus is geographic proximity. 88% or more of SEED mentoring pairs have worked at a distance, that is, the mentor and mentee are based in different cities, states, or countries. It is harder to make and maintain informal connections when the mentor and mentee are not local to each other. In a global workforce, potential mentees may work in an area where there are no senior staff available to mentor them. In their case, being mentored at a distance is their only choice. If only informal mentoring is available, promising staff who do not work at headquarters or at other large sites may not get mentored. A formal mentoring program allows potential mentors to focus on a broader group of potential mentees, not just those who work near them.

4.3 Informal Mentoring

Despite the strong benefits of formal mentoring, there are some advantages to informal mentoring:

- Informal mentoring has the advantage of a quick start-up (no application forms) and less overhead in managing the relationship.
- Informal mentoring may be more appropriate for peer mentoring in which hierarchy is less of an issue.
- Informal mentoring may work better than formal mentoring for short-term task-based learning ("how do I do *this*?") if that is the goal (as opposed to long-term professional growth and change).
- Informal mentoring is less expensive to provide because program staff, tools, tracking and communication are not needed. However, this benefit must be balanced against the long-term cost to the organization of not taking full advantage of executive mentoring capabilities available through formal mentoring.
- Because informal mentoring requires no administration, it scales - that is, many more can participate.

Mentoring of any kind (formal or informal) may not be the best solution for remedial learning, needed by staff members who are not meeting management expectations. Informal mentoring shares a key place with formal mentoring: both are important tools for professional development. An individual who wants to see what mentoring can do (as either a mentee or mentor) may get a better start within the structure of a formal program. An organization that wants to build or nurture a mentoring culture should plan to encourage the use of both formal and informal mentoring.

5 Internal or External Mentoring Program?

5.1 Benchmarking:

Since 1996, Sun has learned about many successful ways of mentoring both inside of Sun and more generally. Sun's mentoring staff are often contacted with questions by other companies with internal programs, companies offering mentoring as a product for sale, non-profit organizations, and academic administrators or faculty. Sun mentoring program leaders compare notes and benchmark not only each other but against external-to-Sun professionals who run mentoring programs.

"Benchmarking" implies comparison and measurement of one system, process, or product and its performance against another. Benchmarking assumes that there is a standard for excellence or set of best practices against which to compare. In mentoring, each program must be tailored to the organization it serves. SEED has been called an industry best practice program but, as has been found each time SEED extended into a new area of service, even best practices must be optimized for particular circumstances.[23]

In addition to collecting information about other mentoring programs, Sun also transfers it to others. An example: In 2006, Katy Dickinson set up a Grace Hopper Celebration panel called "Mentoring by the Numbers: Research and results drive mentoring programs that last" featuring Carol Muller (founder of MentorNet) and Mary Jean Harrold (who created a technical infrastructure for women faculty at Georgia Tech) in addition to Katy Dickinson.[24]

5.2 Internal or External Mentoring Program?

Sun is often contacted by companies researching alternatives after they have had a poor experience with an external mentoring company. Sun has found since 1996 that internal mentoring programs have a longer and costlier start-up time but will probably be less expensive and more effective in

23 See the section called **Best Practices for Mentors** for more information.

24 The National Center for Women & Information Technology published Practices papers on MentorNet, SEED, and the Georgia Tech mentoring programs. The NCWIT SEED study is in the **Appendix**. Also in 2006, Carol Gorski (then a Sun Human Resources Director) and Katy Dickinson gave a presentation called "5 Years of Mentoring by the Numbers" at the TechLeaders Workshop associated with the 2006 Hopper Conference.

the long run. External programs have a lower start-up time and cost but are likely to be more expensive long term.

Mentoring programs are either *internal* (developed and managed inside of a company, university, or other institution), *external*, or a combination of the two. SEED and Mentoring@Sun are examples of internal corporate mentoring programs. Mentor Resources[25] is an example of an external company of good reputation that sells mentoring as a service or product. Some organizations combine the two, starting off with an external program as a boost to help develop their internal program.

Key areas to compare when deciding on whether to have an internal or external program are: **Cost (Start-up and Maintenance)** and **Ownership & Control**, specifically:

Cost (Start-up and Maintenance) [26]

- The cost of any mentoring program must be balanced by its benefits if the program is to continue in use. SEED's priorities are to:
  1. Increase the value, satisfaction, and retention of program mentees and their mentors.
  2. Build Sun's engineering community by making and strengthening connections between its members and with the rest of Sun.
  3. Work to balance the diversity of mentees in terms of demographics, professional area, and geographic location. [27]
- Internal mentoring programs cost more to start up because the organization has to think through what is wanted and what will fit, and then develop key program elements: Process, Training and Educational Materials, Management and Web Tools, and Staff. For example: SEED's development took a design team, a marketing team, a metrics team, and a content team working for a year. After the kick off, many of those original team members continued to participate in the program as mentors or team members. One Distinguished Engineer on the design team went on to be a five-time SEED mentor. That is, SEED's design process created both the program itself, a group of dedicated evangelists, and the organizational buy-in to make it successful. SEED was set up to be a long-term program.

25 Mentor Resources information: *http://www.mentorresources.com/*

26 See “Calculating ROI for Mentoring” in the **Mentoring in Good Times and Bad** section of this report for specifics on the Return on Investment for mentoring.

27 See the **SEED Metrics Appendix** for performance details and charts.

- Once an internal program is running, there is little ongoing cost other than staffing (and the mentoring pair's time). Internal program costs can be managed to match company requirements, going up in good times (for example, paying for travel for mentoring pairs working at a distance who may not otherwise meet) or turned way down if company circumstances so require.
- External mentoring companies offer expertise, plus existing processes and tools - all needed for success and all taking years to develop. Externally-provided mentoring programs are cheaper and easier to start. However, costs may be much higher than anticipated and contracted payments may be substantial (and continue as long as the program is used). Bringing in an outside group may also require significant internal marketing for the program to succeed.
- In costing out any mentoring program, consider what internal support staff are required. Privacy and confidentiality laws and practices will limit information access of an external company, so Human Resources support will be required whether the program is internal or external. Also, communications require insider information, so a program manager (possibly plus administrative staff) may have to be assigned whether the program is internal or external.
- Mentoring@Sun started as an internal program provided by an outside vendor in 1992 but Sun's experience was unsatisfactory. Helen Gracon was hired in 1996 and she turned Mentoring@Sun into an effective internal mentoring program. A second external company was later tried, with similar negative results.
- The SEED program was developed by Sun to address engineering organization needs unmet by Mentoring@Sun. That is, SEED is an internal mentoring and leadership growth program focused on a key professional area, running in parallel with a more general internal program.
- The cost of any mentoring program may be offset by reduced cost in other areas. For example, the SEED program has improved retention (reducing staff replacement costs) and SEED mentees as a group earn more promotions and higher performance ratings than Sun overall (measures of improved productivity). Diversity programs may also benefit from being associated with mentoring. For example, Women and non-US staff have for many years taken advantage of the SEED program at a consistently higher rate than their representation in engineering.

Ownership & Control

- Strength in a mentoring culture develops over time. The program may start off small (SEED had just 32 mentees in its first term in 2001) but will grow as mentors, mentees, and managers

experience good value. SEED now runs eleven overlapping terms annually with up to fifty pairs per term. Over time, mentoring experience can be written into staff development goals and become part of expectations for leadership growth. SEED was started as a New College Hire mentoring program supporting just two Sun divisions. It now offers four kinds of terms (new hires, established staff, PreSEED for junior staff, and special pilots) and supports Sun Engineering staff worldwide.

- Mentoring programs benefit from recommendations by happy mentees, mentors, or managers. Managers and mentees may return as mentors. About 25% of current SEED mentors were originally SEED mentees. Participants develop a feeling of ownership: program completion becomes a matter of pride. SEED references show up on resumes, in blogs, and in promotion justification statements.
- Another benefit of program ownership is flexibility and the opportunity to tailor mentoring practices to the culture and information of the organization. With an internal program, the company keeps and controls its competency and knowledge of the program. The company can integrate an internal program into its staff development goals and it can make internal/private information (such as annual performance review scores) part of the program.

6 Mentor Selection Systems

The most common formal mentor selection systems used inside and outside of Sun are:

1. Mentee evaluates potential mentors' **Demonstrated Accomplishments**, experience, personality, capabilities, and skills, then creates a prioritized list of preferred mentors. Mentoring program staff approaches mentors on behalf of mentees.
2. In a **Self-identified Competency** System, mentors and mentees are presented with lists of competencies (sometimes including key experiences they may have had)[28] from which to select. The mentor-mentee match is based on what was selected.[29] Mentee approaches potential mentors directly.
3. Assignment of mentors by management.
4. A combination of the options above.

SEED and the New VP's mentoring programs use Demonstrated Accomplishment selection systems. Mentoring@Sun uses a combination of Self-identified Competency lists and assignment of mentors by management. There have been Sun mentoring programs that used a Self-identified Competency list-based system providing self-service mentor-mentee matching but those programs did not last longer than eighteen months. Their major problem was that mentees were not satisfied with the mentor selection offered. Also, many did not feel comfortable making their own match.

6.1 Self-identified Competency Systems

In the **Appendix** is a short description of the concept of cognitive bias, important in mentor selection because people are often bad at knowing what they are good at. Most mentor selection systems rely on Self-identified Competency lists. Competency lists vary widely depending on the context and goals of the mentoring program. Some examples:

- Negotiation
- Customer Focus

28 What this report calls a Self-identified Competency selection system, Peg Boyle Single and Carol Muller of MentorNet call "Bi-directional Matching" in the chapter "When Email and Mentoring Unite" in *Creating Mentoring and Coaching Programs* from the ASTD In Action Series, by Phillips and Stomei, 2001.

29 See the Mentoring@Sun Example in this section for more.

- Building Trust
- Listening Effectively
- Strategic Decision Making
- Selling the Vision
- Building Successful and Effective Dispersed Teams
- Technology Impact Assessment
- Working Across Cultures
- Network Design and Architecture
- Problem Solving

Those using a Self-identified Competency Selection System should be aware of cognitive bias as it may get in the way of finding a good match. That is, neither the mentee nor the potential mentor can be fully objective in assessing strengths and weaknesses (competencies), so the match will to some extent be based on a false compatibility evaluation. However, the seemingly-objective way in which the match was made (how can you go wrong picking from a list?) may mask selection errors until they are demonstrated in experience, sometimes frustrating both mentor and mentee.

Competency lists can be used to control the scope of learning in a mentoring program. So, if a Vice President wants to direct her organization to learn more about working with virtual or dispersed teams, she could pick a list of competencies that had to do with that skill area, thus encouraging mentor and mentee to discuss the desired topic. This may limit the scope of discussions (that can be good or bad, depending on what the program sponsor and participants are looking for). Controlling competency scope will also limit which mentors are considered (or available). A requirement for shared professional context will reduce the potential for mentor-mentee matches and learning between professional organizations. Some mentees and mentors will find the preferred discussion topic too simplistic and may either break off their relationship or ignore the sponsor-preferred topic limitations.

When the competencies are specific to a particular job or profession, a Self-identified Competency Selection system works best when the mentor and mentee share a professional context and interpret the competency lists similarly. For example, if both mentor and mentee are in SunIT, they will understand the competency "Identity Services" to mean "experience with the design and implementation of a multi-level identity/authorization strategy" but someone in Marketing

Communications would probably interpret "Identity Services" as having to do with branding, image, and corporate identity management. The professional context may also be one of seniority. If the mentor and mentee are both Vice Presidents, they are likely to share an interpretation at a higher organizational level. This shared interpretation is less likely if the mentor is a Vice President but the mentee is a junior Engineer. Shared context is less important when the competencies are soft skills, such as negotiating, public speaking, conflict management, etc.

6.2 An Example of Competency-based Selection and Mentor Matching from the Mentoring@Sun Program[30]

A Mentoring@Sun program term is usually drawn from one intact work group or functional area. Before the term starts, the executives who are sponsoring it identify competencies and experiences relevant for their employees. The executives can pick from a standard list or add competencies and experiences that are specific to their area. The list for each term is programmed into a web tool created for Mentoring@Sun. The executives also pick a small group of dedicated senior managers and Directors (Group Mentors) who will evangelize the program, recruit the mentors, and use the web tool to make the mentor-mentee matches.

During enrollment, the mentees for the term use the web tool to identify their learning goals. It is recommended but not required that each mentee review her professional development plans or have a development discussion with her manager. The mentors and mentees enroll during the same period of time. Mentors pick competencies that they think they have; mentees pick competencies they want to develop.

To match sixty mentors and mentees using the web tool, the Group Mentors usually meet with the Mentoring@Sun program manager by phone for about five hours (spread over three meetings). All pair matching announcements are sent out at the same time, after the three meetings are complete. Between meetings, the Group Mentors often have to recruit additional mentors to accommodate mentees who have selected unique experiences or competencies that were not on the term's list.

After the matching meetings, each mentee receives up to two candidate mentor names plus a list of questions for them to ask the candidate mentors to make certain the match is a good fit. Each

30 See the SEED program selection and matching example later in this section.

mentor is given no more than two candidate mentee names. It is up to the mentee to contact potential mentors. The mentee can go back for more names if the first list does not offer good fit.

After the match is final, mentoring kick-off facilitation (training) through a term-wide webinar is recommended. Mentors and mentees meet for one hour every two weeks, for six months. Time can be scheduled in larger or smaller chunks, depending on preferences and schedules. A regular cadence of mentor-mentee meetings is recommended. The program offers a mid-term alignment conference call or a general email feedback opportunity for all of the mentors and mentees in the term. There is a wrap-up term-wide conference call, followed by an email on how to close the partnership (including a final program evaluation survey).

6.3 Demonstrated Accomplishments and SEED

SEED and the New VPs program use a system that relies on Demonstrated Accomplishments for mentor selection.[31] Both programs are regularly given 90% or higher satisfaction ratings.

The SEED program maintains a list of Potential SEED Mentors (over 450 now). The list includes the name, job title, division, and city/state/country of each potential mentor, plus links to biographical information such as SEED mentoring history and evaluation, personal web pages, blogs, executive profiles, LinkedIn professional community profiles, resumes, etc.

The SEED program has an open list of potential mentors: any senior Sun Engineer or executive is eligible. SEED mentees are not limited to the choices on the Potential SEED Mentors list. About a third of the mentors in most terms are new to SEED and were not originally on the Potential SEED Mentors list. The SEED program welcomes Mentors from both the business and technical tracks: Distinguished Engineers, Principal Engineers, Sun Fellows, Senior Staff Engineers, Directors and Vice Presidents of engineering, and other senior engineers and executives from any area of Sun are all welcome as Mentors. Potential mentors must be at least principal level; many are at executive level (Director or Vice President or equivalent). In creating her Mentor Wish List, each SEED mentee needs to make two hard decisions:

1. What they want to learn
2. Who has already accomplished the kind of things they want to do
   (that is, who is already down the path that they see themselves walking)

31 See the section **Picking Your Mentor, Picking Your Mentee**

The SEED engineering mentoring program takes a long-term view and does not have a preference for one kind of learning over another. That is, the mentoring partnership learning does not have to have anything to do with the mentee's current job.

Selecting a mentor based on Demonstrated Accomplishments is more obviously subjective than selection based on Self-identified Competencies. However, with SEED, there are fewer mis-matches and greater diversity in matched pairs using Demonstrated Accomplishments. Diversity in SEED terms includes demographic, geographic, professional variety. By encouraging the mentee to discuss a broad range of topics, and providing a wide variety of mentors from which to select, communication is promoted across organizational, professional, and geographic silos.

6.4 An Example of Demonstrated-Accomplishments-based Selection and Mentor Matching from the SEED Program[32]

SEED terms are offered on a regular cycle throughout the year. The preferred selection criteria and scope are published on Sun internal web pages.[33] The program's process flow charts are also available on company web pages (and published in "SEED: Sun engineering enrichment & development" Research Disclosure Database Number 482013).[34] Most SEED terms are open enrollment, available to anyone in Sun Engineering who falls within the program scope. Mentees are selected using a competitive process.

During the SEED application process, the potential mentee provides detailed background information by submitting an application form and resume. The applicant's manager also submits a confidential letter of recommendation. Additional letters of recommendation by executives may be required if the applicant has no annual performance ratings (as is the case of a new hire or new acquisition) or no 1-Superior ratings during the prior three years. These materials may be passed on to potential mentors if the applicant is accepted into the program. Part of the application form are three learning objectives plus a list of potential mentors in whom the applicant is interested. There

32 See the Mentoring@Sun program selection and matching example earlier in this section.

33 See SEED's preferred selection criteria table in the **Mentoring in Engineering and Computer Science** section under “Why Engineering Mentoring?”

34 "SEED: Sun engineering enrichment & development" Research Disclosure Database Number 482013, defensive publication in Research Disclosure, Published in June 2004. This entire document is in the **Appendix**.

is an opportunity for both of these to be revised if the applicant is accepted. All application materials are submitted through secure Sun internal web pages.[35]

After the application deadline, the Human Resources member of the SEED team verifies key information about each applicant (hire date, performance ratings, job grade and title). SEED has two mentee selection systems, depending on the kind of term. For PreSEED terms, selection is based on the time that the last of the required application documents was submitted. For other SEED terms, a selection committee picks the mentees. Depending on the term, the selection committee may be just the SEED staff, or it may be six or more Directors and Vice Presidents.

Selection committee members are given secure access to SEED's web pages so that they can read the applications during the week between the application deadline and selection date. The selection meeting is held by phone and takes about an hour to pick sixty mentees. The SEED program staff send email to all applicants and their managers on the day of the selection saying who was picked and encouraging managers of unsuccessful applicants to call for feedback.

After selection, the new SEED mentees-to-be have two weeks to prepare their ten-name prioritized Mentor Wish Lists with reasons for mentor preference.[36] These lists include a revised version of the mentee's three learning goals. It takes time and mature consideration to work through all of this. Creating the Mentor Wish List is probably the hardest part of the SEED program. Once all of the lists have been submitted, the SEED program staff use the web tools to prepare an initial contact list; this takes about an hour. The working contact for each mentee is the highest priority eligible mentor from her Mentor Wish List.

Once the working contact list of potential mentors is prepared, the program staff sends an individual "Please Respond: SEED Mentor Request" email containing information about both the program and the mentee to each working contact. The potential mentor is strongly encouraged to review the mentee's personal web page and talk with the mentee before accepting. Contacting the potential Mentors is a *serial* process. The program staff do not contact all ten potential mentors for a mentee in parallel. Some mentees are matched within a day of the first email going out to their top priority potential mentor. Others take six weeks and cycling through two Mentor Wish Lists before a good match is identified.

35 See the **Mentoring Program Web Tools and Process** section for details.

36 See the section **Picking Your Mentor, Picking Your Mentee** for more on creating a Mentor Wish List

The mentee is not kept informed of each step in the match process. The mentee does not know which potential mentor from their Wish List is contacted. Potential mentors need to have space and time to consider the possibilities of a mentoring partnership without risk of offending the potential mentee or interfering with future communications with them or their manager. Once a mentor accepts a mentee, the mentee takes over all communications from the SEED team.

In the email from the SEED program confirming the match, the mentor and mentee are invited to request an individual partnership facilitation session. The training takes the form of a two-hour phone conversation set up at the convenience of the mentor, mentee, and the trainer. After the match, mentors and mentees meet for one to two hours every two weeks for six months. Time can be scheduled in larger or smaller chunks, depending on preferences and schedules. A regular cadence of mentor-mentee meetings is recommended. SEED offers monthly phone-in meetings featuring executive speakers on technical and business topics plus two in-person meetings annually (with about 100 participants at each meeting). Quarterly web-based feedback reports are required from each mentee, mentor, and mentee's manager during the formal period of their term.

At the official end of their SEED term, mentors and mentees are encouraged to have a formal conversation on whether they want to extend their meetings for a further period, or come to a close. Some mentoring pairs go on meeting for years while others meet only for the agreed-to six months. Mentees, mentors, and the mentee's manager are encouraged to continue to participate in SEED. As alumni, they are eligible to join all meetings and events long-term. All mentees and managers who are at or above principal level are asked to consider becoming a SEED mentor. Current and alumni mentees, mentors, and managers inside and outside of Sun are invited to join the exclusive SEED group on LinkedIn to strengthen their professional connections. That group has over 500 members.

6.5 Demonstrated Accomplishments vs. Self-identified Competency Selection Systems

Given the disadvantages of a Self-identified Competency Selection System, why would a mentoring program use this option? Such a system is relatively easy to automate so, depending on how much management is involved in mentee selection and mentor matching, a Self-identified Competency Selection System can potentially scale to support a much larger mentee group. There will be more mis-matches but that risk is acceptable in some mentoring programs. For example, if

the program is being offered to a large group of junior staff whose potential mentors are just one or two seniority levels above them, the consequences of a mis-match are relatively low.

On the other hand, if the mentees are drawn from a smaller group of high potential, highly promotable, high value staff who will mostly be matched with executive mentors (as is the case with SEED), or are solely from the executive ranks (as is the case in Sun's new Vice President mentoring program), the consequences from a mis-match are much greater. When the great majority of the mentors are executives, mis-matches are too expensive in terms of wasted time and potential damage to staff and program reputation. A Demonstrated Accomplishment system requires individualized communications consistent with the best way to work with executives whose time is both limited and valuable. Some program aspects can be automated (such as mentee and mentor application, and match tracking) but the development of each mentee's potential mentor list is research-intensive and most communications are personal.

A Demonstrated Accomplishment system also needs a very senior mentoring program staff member to act as a broker. The broker needs to be a diplomatic but persistent communicator to help make a great match. It also helps if the broker is well known and has a good professional reputation so that potential mentors will respond promptly and provide an opportunity for the broker to tell them about the mentee who has requested them. Getting an executive to respond to the first email or even pick up the phone can sometimes be the greatest challenge in making a match.

7 Picking Your Mentor, Picking Your Mentee

7.1 Using a Formal, Structured Approach

Because most people have the capacity and, over time, have the opportunity to be both a mentor and a mentee, this section speaks to would-be-mentees as well as to potential mentors on how to pick their mentoring partner. Both are addressed here so that mentor and mentee can see the whole picture and understand how they fit into a mentoring system.[37] Because of Sun's long-term success with formal mentoring programs, a structured approach is recommended as the best place to start.[38]

7.2 For the Mentee: Start with a Mentor Wish List and Learning Goals

Before the mentor matching cycle starts, each SEED program mentee is asked to prepare a ten name Mentor Wish List that is prioritized and includes a reason why the mentee would prefer to work with each mentor included. Three learning goals are also part of the SEED Mentor Wish List.

- *Why ten names?*
  SEED has run mentoring terms in which five names were requested but it wasn't enough: the SEED staff ended up going back to the mentee for more potential mentor names too many times. SEED has also run terms in which mentees were asked for fifteen names but since each name requires serious thought and research and all fifteen were rarely needed. In practice, ten potential mentor names seems the right number. During a mentor matching cycle for a group of eighty mentees, SEED usually needs to go back to only three for additional names.
- *Why prioritize potential mentors?*
  First, to get the mentee-to-be to think seriously about mentor qualifications by forcing a ranked comparison. It takes time and mature consideration to work through all of this. Creating the Mentor Wish List is probably the hardest part of the SEED program; however, that advance thinking contributes to a more successful mentoring partnership.

37 Specific mentor matching systems are covered in the **Mentor Selection Systems** section.
38 Read more about **Formal vs. Informal Mentoring** in the section of that name.

Second, the mentee's prioritization helps the program staff decide when there are many requests for the same mentor.[39]

> "Think very carefully: 'What is your goal?' - Now try and find someone who can get you there. And assuming you manage to get the right candidate then you need to be patient, understanding to their timetable and show that you appreciate their help and not just take for granted the assistance someone is offering you." (SEED Mentee in Zurich Switzerland, July 2009)

- *Why require mentees to write reasons for preference?*
  SEED asks for reasons for preference to answer the #1 question asked by potential mentors: "Why me? What does this person want to know that I am uniquely able to teach?" That is, before they make any decision to accept or deny, potential mentors (especially executives whose time is particularly valuable) want to gauge the mentee's motivation and seriousness. They want to see if spending six months with this mentee is a good use of time.

  SEED sends each potential mentor an email including the potential mentee's resume, three learning goals, plus reasons for preference. The SEED program offers additional information (the application form and letters of recommendation) but most matches are made based on the first email plus a pre-match conversation between the potential mentor and potential mentee. Often, the potential mentee's own words in her preference statement makes the match. Some mentees think to save time by providing the same reason for preference for all of their potential mentors. Mentor Wish Lists are returned for revision when this happens. Reasons for preference should be as unique as the mentors themselves and respectful of the generosity of potential mentors in considering the match.
- *Why require learning goals?*
  The mentee's three learning goals give the potential mentor an idea of initial topics for discussion (where their conversations will begin). This helps the potential mentor evaluate whether they can help the mentee. The SEED engineering mentoring program takes a long-term view and does not have a preference for one kind of learning over another. That is, the mentoring partnership learning does not have to have anything to do with the mentee's current job. Some people want to learn to be better technical managers, others want to know how to get their ideas to customers faster. Many want to improve their soft skills: public presentation or speaking, negotiating, influencing, conflict management, and coaching. Still others want to

39 See “Mentor Request Management” in the **Mentoring Program Web Tools and Processes** section

improve their work and family balance and still have a great career. More general and broader learning goals usually work better than specific or highly technical goals. Extremely specific goals or requests to work on one particular project often discourage even the most accomplished mentor and make the mentee very difficult to match. Three examples of 3 broad learning goals:
1. Learn more about how to lead a virtual team.
2. Learn how to communicate with my management team.
3. Learn how to communicate better with customers.

1. To be engaged intellectually with senior peers.
2. To apply my analytical skills and interests to a new and interesting area.
3. To increase my own motivation.

1. Diversify my knowledge by learning from individuals in other business units at Sun.
2. How to take on more responsibility and enhance my visibility at Sun.
3. Improve my understanding of corporate expectations from a technical leader and improve my leadership skills.

"I have been very fortunate in my mentor pairing. I think this came about due to a couple of factors. First, I had a pretty firm idea of what I wanted to get out of the program. This helped guide me in my potential mentor list. It wasn't so much about marquee names as from whom could I best learn the things I wanted to learn. Second, in building the potential mentor list, I spent a lot of time thinking about this and making it worthwhile."
(SEED Mentee in Alpharetta, Georgia USA, July 2009)

7.3 For the Mentee: Who Goes on Your Mentor List?

Potential Mentors should be included on a Mentor Wish List primarily because of their accomplishments, experience, personality, capabilities, or skills.[40] The focus of mentoring in the SEED program is long-term professional and technical development. It is not appropriate for a mentee to request a mentor with the sole aim of being hired into a specific job, securing project funding, or gaining a particular political advantage.

40 For more on this "Demonstrated Accomplishment" selection system, read **Mentor Selection Systems**.

"I thought finding a mentor was the hardest part, obviously. People need to spend time researching and also it is good to ask around informally to other colleagues about potential mentors."
(SEED Mentee in Grenoble France, July 2009)

Social Context, Gender, and Mentoring

In addition to Demonstrated Accomplishments, many mentees seek a mentor who shares their social or personal context in terms of gender, race, ethnicity, shared language, nationality, or other demographics. These characteristics may properly be part of why a particular mentor is requested; however, these characteristics by themselves do not provide enough commonality for six months of discussions, so no one of them will be successful as the sole reason for preference. When the SEED program receives a Mentor Wish List containing inappropriately simplistic reasons for preference like "He is a very successful Chinese in Sun" or "Female Mentor in a top role in an organization", that list is returned to the potential mentee for expansion.

Social and personal characteristics can be important in professional life and are appropriate topics for some mentor-mentee discussions. Because of their importance, SEED routinely tracks a variety of participant metrics, including demographics, location, and professional organization.[41]

Gender in particular may have an influence on how mentors and mentees respond to mentoring programs. Women and non-US staff have taken advantage of the SEED program at a consistently higher rate than their representation in engineering overall. An excellent 2008 study called "Climbing the Technical Ladder: Obstacles and Solutions for Mid-Level Women in Technology" reported:

> "Technical employees in Silicon Valley are decidedly ethnically diverse. In fact, only 53.9 percent of our respondents are White, while a large proportion of technical employees are Asian (39.1%). Technical women are more ethnically diverse than are technical men." p.14
>
> "Women at the mid level are more likely to rate the availability of mentors and mentoring programs as important to retention than are men (48.7% versus 36.2%). (The gender difference on this item is especially wide at the entry level, where 60.6% of technical women point to a need for mentoring programs, compared to 39.1% of men.)" p.66 [42]

41 See the **SEED Metrics Appendix** for more details and charts.

42 The Anita Borg Institute for Women and Technology, and Michelle R. Clayman Institute for Gender Research, Stanford University, "Climbing the Technical Ladder: Obstacles and Solutions for Mid-Level Women in Technology" by Caroline Simard, Andrea Davies Henderson, Shannon K. Gilmartin, Londa

As reported in SEED's "5 Years of Mentoring by the Numbers"[43], there are three consistent gender patterns with regard to mentor matching in Sun Engineering:[44]

- More male mentors are requested by both male and female mentees overall.
- Female mentors seem more willing than male mentors to accept a mentee, regardless of gender.
- Female mentees request twice as many female mentors on their Mentor Wish Lists as do male mentees.

Some questions this has raised:

- **"Is there a substantive difference in reported satisfaction between mentees with male mentors and those with female mentors?"**
  One of the opinions (often a seemingly-unquestioned assumption) often heard from managers of other mentoring programs is that women exclusively want and benefit from having mentors who are also women. While the SEED engineering mentoring program's data show that female mentees have a strong preference for female mentors, it also shows that men and women mentees report the same program satisfaction (90% average), regardless of their mentor's gender. That is, SEED's data over many years show that there is no real gender difference in reported satisfaction. The sample size of female mentees is smaller than the sample of males (this is engineering, after all); however, there is no pattern of satisfaction difference.
- **"What is the downside to special mentoring programs just for women?"**
  As Dr. Ellen Spertus wrote in "Why are There so Few Female Computer Scientists?" (*MIT AI Lab Technical Report* 1315, August 1991):

  > "While there is a need for affirmative action programs, they have large negative effects that must be considered. Even if a program does not entail lower standards for women, doubts are cast on a woman's qualifications in a society that already mistrusts them. Programs with lower qualifications may be a tactical mistake (in addition to being unjust) because people may be put in situations for which they are not qualified, giving them less overall success and self-confidence than they would have had otherwise. These negative effects should be weighed when considering implementing an affirmative action program."

Schiebinger, and Telle Whitney, 2008.

43 Carol Gorski and Katy Dickinson gave a presentation called "5 Years of Mentoring by the Numbers" at the TechLeaders Workshop associated with the 2006 Hopper Conference.

44 See the **SEED Metrics Appendix** for more details and charts.

- *Unlocking the Clubhouse*
  For effective and specific suggestions on how to set up a program that supports women participants without the potentially negative effects of traditional affirmative action programs, read *Unlocking the Clubhouse: Women in Computing* by Jane Margolis and Allan Fisher (2001).

7.4 For the Mentee: Researching Potential Mentors

A good background search by the mentee will result in more detail and understanding of the potential mentor, also resulting in a more convincing reason for preference. Many times, the mentee's explanation convinces the potential mentor to consider them seriously. Sometimes, it makes the match. Mentees should not confuse researching mentors with asking someone to be their mentor: these are two different steps.

Mentor Research Steps:

1. The mentee should start by thinking about mentoring relationships she has already had (personal, academic, or professional) and ask herself: What would I do the same or differently? Do I want a mentor who is similar or different? She should also think about what she wants to learn from another mentoring relationship: what need or gap does she want to fill in her accomplishments, experience, personality, capabilities, or skills? Are there patterns of behavior or performance feedback to be considered?
2. The mentee's second step in researching potential mentors should be to ask her supervisor or manager for support and advice. The manager knows the mentee and has a professional stake in the mentee's success. Also, the mentee should ask for advice from other people who know her well - taking advantage of their experience, wisdom, and networks.
3. A general search for background on the potential mentor using a public web search engine is the next step. In particular, the mentee should look for professional profiles on web communities such as LinkedIn or Plaxo[45] (rather than the more social communities such as Facebook). Many Directors and Principal Engineers will have executive profiles prepared by their company. Most VPs will have such a page. The web home page of potential mentors' professional or academic organizations may also be a fruitful source of information. Groups such as Association for Computing Machinery (ACM) and IEEE offer biographies of award winners, office holders, etc.

45 Plaxo is available at *http://www.plaxo.com/*

4. In searching for mentors, it may help the mentee to go through a list of leaders or executives in her professional or academic area to pick out the people who have titles the mentee wants for herself someday. The mentee should pick out names of people who are already far down the career path in which she has an interest. This is like doing research for a university paper - hunting for leads, backtracking, looking for key words, hunting again. Mentees should expect to spend many hours developing a good Mentor Wish List.
   Part of creating a list of potential mentors includes considering the effect of distance. If a mentee requests a mentor who is many time zones apart, the mentee must also commit to doing everything possible to make the relationship and communications work, even at great inconvenience to themselves, for the duration of the term. The mentee always drives the mentoring partnership.

   If the mentee uses up more than a few of her potential mentor list slots with very senior executives or contributors, she is placing bets on the availability of people who are famously unavailable. Having a few extremely senior executives or world-famous names on the list is appropriate, especially if they are people for whom the mentee feels a strong affinity, but such names should not make up most of the list. It may help to break the list into three sections based on a realistic assessment of availability: Likely, Possible, and Very Difficult.
5. The mentee's manager can provide perspective by checking the Wish List after it is complete, before the mentee goes into the mentor matching cycle.

"You should define clear goals for what you want to achieve out of the relationship. Be ready to drive the direction of the discussions."
(SEED Mentee based in Burlington Massachusetts USA, July 2009)

"One of the best mentoring program I have come across even though it is time consuming. Lucky me, my mentor is in the same city but different offices, I made it a point to meet up with him during our one to one session where he share lots of ideas with me based on his past experience. My mentor have been dishing out very 'real life' advice that I believe no inspirational books can impart."
(SEED Mentee based in Singapore, July 2009)

7.5 For the Mentor: Deciding to Become a Mentor

"I look forward to each new mentoring term because it's an opportunity to get to know the front line of our employees better -- to see our executive messages, strategies, problems, issues and successes – through the eyes and ears of the people who are either most responsible or most affected by them. during each term, I've learned something about sun, about my own style,or about our employees' culture that makes the entire experience meaningful -- hopefully for the mentee as much as it is for me."
Hal Stern, Distinguished Engineer and Vice President, Global Systems Engineering, 14 time SEED Mentor
Somerset, New Jersey USA, August 2009

Since the mentee drives the relationship, the mentor is usually in the position of deciding whether to accept a specific mentoring proposal, rather than having to seek out a mentee. Common questions from mentors include:

Why become a mentor?

In their own words:

- One SEED mentor who had turned down several mentee requests wrote when he did accept someone: "I've been struggling with this however I've (finally) decided that I want to do it. I've asked other people for help along these lines so I guess it's time for me to give a little back."
- A Vice President and Sun Fellow mentor who had already served in several SEED terms wrote in his first email to his newest mentoring partner: "I look forward to our mentor-mentee relationship. This will be a good experience for both of us. I will learn some and you will learn some, it is up to us to make the most out of it."
- A Distinguished Engineer wrote in his quarterly report: "This is a very worthwhile program that I'm pleased to be able to participate in. In the two times I've participated as a mentor I've gotten at least as much out of the experience as the mentee."
- A Software Staff Engineer wrote about his second SEED mentorship: "Love the SEED program. Low cost to shareholders, high value to shareholders."
- A Distinguished Engineer who is an eleven-time mentor wrote: "SEED is a great opportunity for both Mentor and Mentee. It opens both personal and technical doors by providing a 1-1 context outside of normal work requirements."

- In addition to giving personal and professional satisfaction, becoming a mentor can help expand understanding and experience. Mentoring may also specifically support professional development in organizations where leadership is one of the criteria for evaluating promotion potential.

"It's a good feeling helping people with steps in their career."
(SEED Mentor based in Amersfoort, The Netherlands, July 2009)

"A good way of helping others 'grow' as engineers, and for you to hone your coaching skills." (SEED Mentor based in Grenoble, France, July 2009)

"What do mentors do?"

The mentor recommends training and experiences, makes introductions, provides continuing advice, assistance and support, shares successes and failures, and evaluates progress. While respecting confidentiality, the mentor may communicate with the mentee's manager if the mentee so requests. Some mentors may work together with their mentee on a project. Mentors may also be asked to support the development of the mentee's soft skills such as public presentation/speaking, negotiating, conflict management, and coaching.

"The new VPs are often looking for the 'unwritten' rules / expectations about being a VP at Sun - I'm glad to have been able to share my experiences with them. It's critical that new VPs get off on 'the right foot' when they step into their new roles - I think the mentoring program helps them do just that. I've had a wonderful experience (mentoring new VPs) - the relationships last long after the program is over."
Bob Worrall, Senior Vice President and Chief Information Officer,
SEED Mentor and New VP Mentor, in Menlo Park, California USA, July 2009

"What do mentors look for in mentees?"

- The mentor should be interested in at least some of the same work areas, problems, or projects as the mentee. However, working in the same broad professional area (software, microelectronics, sales, etc.) may or may not be an advantage to a mentoring pair. There have been many successful mentoring partners who shared a technical focus but were in divergent professional areas. Sometimes having a different specialty can be a real advantage because there is more to talk about and learn.

- Personal compatibility and commonality (with both the mentee and the mentee's manager with whom the mentor may need to communicate from time to time).
- Physical proximity or time zone proximity may or may not be important. Proximity may mean that the mentor and mentee have offices near each other or that one of them can travel for an in-person visit from time to time. However, while face-to-face meetings are valuable, they are not always possible. A great deal can be accomplished over the phone and by email (the major communication methods reported)[46]. 88% of SEED mentor-mentee pairs work at a distance (in difference cities, states, or countries). In a global workforce, potential mentees may work in an area where there are few or no senior engineering staff available to mentor them. In their case, being mentored "at a distance" is their only choice.

In April 2003, a mentor wrote in his quarterly SEED report: "...the impact one can make by being a mentor in a non-US Geo is considerably high, as per my personal experience. I derived a lot of satisfaction and good perspective during this mentoring program. Also, this Mentoring program made me think about some issues affecting the local engineering center, and we are working towards addressing these issues."

In July 2009, a PreSEED mentee working in Japan spontaneously wrote an evaluation of his relationship with his mentor (who works in Israel): "I cannot thank more for his effort he put into this program, his frankness and openness as well as shared knowledge not only regards to the professional life but also the personal life. ... Though my goal was slightly different at the beginning of the term, learning from someone who is ahead in professional life, while managing his work-life balance provide me a new perspective. Managing balance is still challenging for me, but sharing similar experience about family from different point of view was and continue to be helpful for myself. Visiting the differences in each others' culture starting from the calendar was, for me an exotic experience and continue to be interesting one. I am looking forward to continuing our relationship."

- Availability (if the mentor is a senior executive or a manager with a large staff, she will have less time).
- Potential conflicts of interest or areas of discomfort with the mentee or the mentee's manager (for example, it may be a problem if the mentor and mentor are in the same management chain, or if there are close personal relationships). Mentor and mentee should talk about these potential conflict areas before being matched.

46 See the **SEED Metrics Appendix** for information on how mentors and mentees communicate.

Common questions mentors report thinking about when deciding whether to accept a particular mentee include:

1. *Why me? What does this person want to know that I am uniquely able to teach?*
   Potential mentors (especially executives whose time is particularly valuable) want to gauge the mentee's motivation and seriousness. They want to see if spending six months with this mentee is a good use of time.

> "You will likely learn as much as the mentee will, if you just ask them about their job. Mentoring somebody through SEED gives me perspective on how others less experienced than myself think about Sun and their jobs. It's refreshing, and helpful." (SEED Mentor in Menlo Park, California USA, July 2009)

2. *Do I already know the mentee who has requested me (or know of them, or know their manager)?*
   That is, is there a prior connection or knowledge? The prior connection may allow the mentoring partnership to start sooner and at a deeper level, or the history between the mentor and mentee may slow or prohibit the development of a partnership. In any case, it needs to be thought through.
3. *Is there a line reporting relationship?*
   It may be a problem if the mentor and mentor are in the same management chain.
4. *What is my availability during the mentoring term?*
   Most mentors are earnest, take mentoring seriously, and want to be sure they have the time to do a good job as a mentor. If the potential mentor has just taken a big new job or has irreducibly large personal or professional time commitments, she probably will not accept a mentee until her schedule is lighter.
5. *Can I effectively partner "at a distance"?*
   Mentoring across distance and time zones may be a skill that the potential mentor needs to develop. **SEED and Mentoring@Sun mentoring pairs who work at a distance have for many years reported the same satisfaction level as those working locally; however, mentors and mentees both report that working at a distance is more time consuming.**

> "It can be quite interesting and rewarding. I believe that in general it is far easier if your mentee is local." (SEED Mentor based in Santa Clara, California USA, July 2009)

Circumstances mentors have identified as being important when considering a mentee include:

1. Mentor's availability when asked (*often the #1 consideration*)
2. How well the potential mentor's and mentee's schedules match (and their flexibility to accommodate each other)
3. Mentee's accomplishments, experience, seniority
4. Mentee's capabilities, skills, potential
5. Common intellectual or professional interests
6. Personal compatibility or common ground (including linguistic abilities: whether the mentor and mentee share a common language)
7. Physical, geographic, or time zone proximity

"I get a lot out of mentoring too, it is not just a one-way process. I get a good view into another area of the business, I am made to think about new issues and can add additional contacts to my network."
(SEED Mentor based in London, England, July 2009)

"The big surprise was to learn something unexpected about myself. I'd certainly do this again." (SEED Mentor based in Austin, Texas, USA, July 2009)

8 Best Practices for Mentors

By its nature, mentoring is a personal experience, even when the topics discussed are professional. Each mentoring experience will be different; however, what follows are some best practices that have proven useful for a wide variety of mentors in SEED, the Sun Engineering worldwide mentoring program. The focus here is on what the mentor can do.

Some context to establish credibility... After all, anyone can say theirs is the best practice![47]

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Date: Friday, 10 July 2009

Katy,

Your SEED mentoring program has been a "bench mark" for other mentoring programs
at Sun. It has been a key component in increasing Sun's overall engineering
strength and capability -- resulting in significant positive impact for Sun.

Thanks for sharing the information and the articles. This is great work and
deserves external recognition as well.

...Congratulations on such great work!

Regards,
Karen
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Karen Rohde, Senior Vice President Human Resources, Sun Microsystems' Chief Talent Officer,
SEED Mentor, and New VP Mentoring Program Sponsor
Menlo Park, California USA

8.1 Mentoring Isn't Rocket Science

Mary Artibee was a SEED mentee before she became a four-time SEED mentor. Before leaving Sun, Mary was a Senior Staff Engineer in Software, based in the San Francisco Bay Area. Her mentees were in Colorado (USA), Russia, India, and China. In 2008, Mary gave a SEED presentation about what she had learned about mentoring. Mary's "Mentoring Isn't Rocket Science" talk provides a succinct overview of some of the best advice from many experienced mentors.

47 See the **SEED Metrics Appendix** for more details and charts.

Worst Practices

(How To Dis-serve Your Mentee**)**

No time, no time...

- Cancel at the last minute because something really important comes up
- Come late, leave early
- Oops, I forgot
- Why bother to schedule meetings

Did you say something?

- I'm the ME in MENTOR
- When I want your opinion, I'll ask for it
- If it worked for me, it will work for you

Everything you do is wrong

- Why in the world did you do that?
- Well, if you can't explain it, I can't help you
- Just do what I say and don't ask questions

No explanations necessary

- Surely you can learn by osmosis
- No need to share this since it was sent to an email group
- If everyone knew about these resources, who'd need me?

So as I told your manager...

- Confidentiality, what confidentiality?
- I didn't think you'd mind my sharing...

Did you want to get something out of this

- Goals? goals? we don't need no stinkin' goals...
- Did I say I'd do that?
- Your satisfaction is not my problem

Best Practices

(There's More to Mentoring than Meets the Eye**)**

The Fine Art of Effective Listening

- Two ears, one mouth...[48]
- Patience: problems can be more complex than you think
- Sounding board, not “bored”
- When remote, acknowledge frequently (paraphrase, clarify)

Advise and Catalyze

- Not just one answer: It's recognizing and weighing options
- Share problem-solving skills and let the mentee find the solution
- Discuss the impacts of taking various actions

Flexibility (the Mentoring Asana)

- Respect mentee's choice to do what's right for their situation
- Accommodate changes in topics and goals
- Life happens – reschedule, don't disengage (deadlines, holidays, illnesses)

Objective Support

- Provide timely constructive feedback as a *disinterested third party*
- Be a safe harbor for venting; be a trustworthy confidant
- Evaluate progress and adjust goals
- Encourage getting outside comfort zone (reward risk-taking; learn through failure)

Share Yourself, Be Committed

- Meet regularly – It's not mentoring if it doesn't actually happen
- Meet in person whenever possible
- Have an open door
- Provide the connect between their goals and the company's goals
- Connect mentee with your network, engage in theirs
- Share your passion and have a passion for sharing

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48 From Epictetus (circa 55-135 AD): "We have two ears and one mouth so that we can listen twice as much as we speak"

8.2 A Peek into Mentoring

One way to take a peek into successful mentoring relationships to see how they really work is to read blogs. From time-to-time, a SEED mentor or mentor blogger is inspired to document something notable about her mentoring experience. It is worth the time to search out these fascinating personal snapshots because each blog post offers an immediacy and freshness of expression never seen in quarterly feedback reports!

Here are some refreshing *http://blogs.sun.com* posts on mentoring experiences:

- "This past month, I asked my former graduate adviser if I could have permission to launch and run a new program — a mentoring workshop series to help students and alumni to get their work published in a professional journal, magazine, or presented at a conference ... and he said "yes". So we start next Thursday, with a panel of 7 speakers, and 20 participants. It's not a class. There's no grade. I won't get paid. But this is my one small step — this is my walk on the moon."

  From "This is my one small step; this is my walk on the moon" 30 May 2008 blog - in Musings on design & other stuff, jen's place by Jennifer McGinn (who also wrote an excellent six-part blog series in 2007 called "Things I tell my mentees")
  Jennifer McGinn (SEED mentee, and also a two-time SEED mentor)

- "Mentors get as much out of the relationship as the mentees. It seems rather odd. Here you are supposed to be giving great advice to someone who is spending their time listening to you, trying to gain knowledge and to further their careers, and it boomerangs. Yep, that's right. It happened today to me."

  From "A Swift Kick" 10 September 2007 blog - in *Susan's Blog: Seeing is...* by Susan Miller (SEED mentor and manager of SEED mentees)

- "Our mentoring relationship comprises a phone call every couple of weeks and face-to-face meetings if we ever end up in the same city at the same time. I have to admit, I was pretty intimidated the first time I called Radia - she is not exactly a shrinking violet - but we seemed to hit it off and have spent several hours - well - chatting, basically."

  From "Chatting with Radia" 23 March 2007 blog - in *Superpatterns* by Pat Patterson (SEED mentee, and also a two-time SEED mentor)

- "Here's what I got out of that relationship...
  - Introductions to people I never would have met unless I walked up and introduced myself....
  - Respect by association. People thought that because I hung around with my mentor, I must be pretty sharp too....
  - A champion who did some awesome PR for me. My goal today is to try to live up to the reputation she built for me."

  From "I'm not sure what I would get out of a mentor relationship..." 5 Feb 2007 blog - in *The Downtown Diner* by Melanie Parsons Gao (SEED mentee & mentee manager)

- "I was inspired by the “Technology and Courage” paper by Ivan Sutherland.[49] I decided I'd like to try to increase my knowledge in an area I've just started getting interested in - electronics and hardware design.... As electronics and hardware project construction were new to me, my primary goal was to try to be self sufficient in constructing new simple circuits by the end of the six month mentoring period."

  From "Playing with LEGO at Sun - Mentoring Projects" 16 June 2004 blog - in *Rich Burridge's Weblog* by Rich Burridge (SEED mentee, also a SEED mentor)

8.3 Priority Best Practices

After discussing Mary Artibee's list, the authors came up with these top best practices for mentors:

1. **Confidentiality:** Mentors and mentees should keep their discussions confidential. If either wants to pass on information or impressions from their discussions to anyone, they should check with the other party before doing so.
2. **Commitment of time:** The mentor should respond promptly to the mentee, and make their mentoring time a priority. SEED recommends that mentoring pairs spend one to two hours together every two weeks.
3. **Listening and Passion:** To teach and inspire, the mentor needs to ask questions, listen to the mentee, and share their passions.
4. **Setting Expectations:** The mentor and mentee need to define clear expectations around their learning goals and working relationship, including meeting agreements, and how to provide constructive feedback. Setting a measure for success for each goal is helpful.

49 Ivan Sutherland “Technology and Courage” 1996 (Sun Labs Perspectives-96-1)

9 Mentoring Program Web Tools and Process

Web tool design is a technical art that requires an unusual combination of software programming, usability engineering, and program management skills. Sun Microsystems' SEED engineering-wide worldwide mentoring program has been gifted with two talented staff members who can do this work. Tanya Jankot has been SEED's Applications Engineer since 2003. Before Tanya, Justin Yang held the position of SEED Program Manager for two years.

SEED developed its own set of tools for mentoring program and information management, as did Mentoring@Sun. These tools have not been “productized” (the tools are not available to the public).[50] The material in this section represents one way to set up mentoring web tools and processes; each program will be different based on its circumstances, scope, resources, and goals.[51]

9.1 Tools and Process Overview

The original SEED program was based on a year-long need analysis and program design in 2000 by a team mostly made up of Sun Human Resources (HR) and Engineering staff. The process itself was created on-the-fly during the first pilot term in 2001. The SEED mentoring program has expanded to a much larger audience in recent years and SEED's web tools have developed and been redesigned accordingly. In the program's first year, 2001-2002, there was just one term. In 2008-2009, there have been 12 overlapping terms in four groups (Recent Hires, Established Staff, PreSEED, and special pilots).

The SEED team created a new mentoring system essentially from scratch while running the 2001 pilot term. Team guidelines for process and tool development were:

1. Keep it simple
2. Check in with customers and stakeholders frequently
3. Only include the minimum:
   question the need for each step before it goes in, and again at every review, and again before publication

50 Why not use an external-to-Sun set of web tools? For the answer, read the section called **Internal or External Mentoring Program?**

51 For how mentoring web tools can be used, see the SEED and Mentoring@Sun Examples in the **Mentor Selection Systems** section.

4. Let the process define the web tools
5. Assume that process and tool users will have access to only the most basic web resources and performance
6. Collect and analyze data routinely and make decisions based on those data

These guidelines have continued to serve SEED well. SEED also kept using the concept of a "pilot" to expand the program. In pilot terms, the rules, process, and/or scope are somewhat different from the regular SEED program. The Established Staff group was created in 2002 and the PreSEED program was created in 2008 using pilot programs; both have been truly popular offerings. A pilot allows something imperfect to be used, to see what works. Sometimes pilots fail (for example, the SEED-2 or SEED Alumni term in 2007 only attracted ten mentees).

SEED now has two major formal processes, for mentee selection, and for mentor selection. These processes are published in full detail for the use of Sun internal program participants. Flow charts are also publicly available at "SEED: Sun engineering enrichment & development" Research Disclosure Database Number 482013[52].

In November 2008, Tanya Jankot created and gave an internal-to-Sun presentation on developing simple web technologies using the SEED tools as examples. Her presentation was created to educate other Sun project teams and web teams. The information following about SEED web tools is derived from that presentation. Tanya Jankot's overview of SEED's current web tools:

- The technology was built to model SEED mentoring processes that were already designed and pilot tested (SEED tried to fit the tools into the existing work flow rather than build processes around the tools).
- The tools have evolved with the program: need for greater automation to allow scaling, new requirements as the program expanded across geographical areas regions, organizations, etc.
- SEED relies on existing Sun corporate data systems as much as possible, only gathering additional information not already available elsewhere.

More specific details follow about SEED's web tools and the technology and process behind them.

52 "SEED: Sun engineering enrichment & development" Research Disclosure Database Number 482013, defensive publication in *Research Disclosure*, Published in June 2004, Electronic Publication Date : 17 May 2004. This entire document is in the **Appendix.**

9.2 Developing Simple Web Technologies for SEED Mentoring[53]

The Tools Behind the Program

The systems supporting the SEED program have evolved with it over time. They currently include:

1. A system to manage each term's application process.
   See *"Term Application Materials" and "Term Application Management", below.*
2. A system to support the mentor matching process.
   See *"Mentor Request Management", below.*
3. An archive of program applicants, mentees, mentors, etc. that enables long-term program management and metrics.
   See *"SEED Program Database", below.*
4. Applications to support regular program activities, such as regular quarterly feedback reports and bi-annual events for mentees, mentors, and the mentee's managers.

The common goals in developing these tools has been to:

- Ensure the integrity and confidentiality of applicant and mentee data.
- Increase the ease-of-use for program participants and SEED staff.
- Increase program efficiency and quality of data available to the SEED team, extend the number of participants, raise the value of mentee experience, and justify their trust in the program.

Simple Technologies

In order to develop the SEED systems, simple technologies and methods already in use within the company were employed. Almost all of the tools make use of the following:

- "SAMP" (Solaris™, Apache, MySQL™, and Perl & PHP)
- Sun standard authentication and Sun confidential employee records access
- Email (electronic mail)
- And still making use of old-fashioned static web pages

53 See the overview diagram in **Appendix: SEED Web Tool Workflow**

Term Application Materials

SEED terms have an mentee application period, usually lasting two to three weeks, with firm deadlines. In addition to submitting a completed application form, applicants must also submit their resume, their manager must submit a letter of recommendation, and in some cases they must also secure additional letters of recommendation from Sun executives. All materials are submitted through web-based forms.[54]

One of the primary design considerations for the SEED application system is that applicants are located worldwide. Because of this, application materials need to be as clear and simple as possible because for many employees, English is not their primary language. In addition, applications must be functional on all Sun systems and locations. This includes Sun hardware with Solaris software, Sun Ray™ systems, experimental systems, as well as a variety of Macs, laptops, and personal computers.

Application materials must also reflect Sun's organizational structure and Human Resources policies in an understandable way. Many applicants are new to Sun and are not familiar with its organization or policies. This includes the nomenclature used for divisions, organizations, job codes, titles, and the company's staff performance review system.

SEED manager and executive recommendation letters are submitted confidentially but are a required part of an application. Because of this, a secure and private website is needed for applicants to view the status of their application and the materials that have been received, but not the details of all materials.

From a program management perspective, in order to ensure that all materials are submitted correctly and not "lost" (i.e., a recommendation letter is submitted against an incorrect applicant SunID, or employee identification number), Sun confidential employee records system lookup, email confirmations, and database audits of the database are used. In addition, each term's application materials are stored in a separate database for easy management. Key applicant data that needs to be tracked long-term is loaded into the SEED archive database at the end of the application period.

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54 See the SEED and Mentoring@Sun Examples in the **Mentor Selection Systems** section for details.

Term Application Management (SEED Team Website)

The SEED team website is a central website used by the SEED program staff to efficiently track the status of applicants and their materials. Access is restricted to program staff only, with limited access granted to selection committee members during a mentee selection period as it is used by SEED's executive selection committee to review each applicant thoroughly. Application materials are tracked and managed throughout the term application period, and at the end of the application period key applicant data is verified against Sun's Human Resources records.

To allow effective and efficient management of the program, the team website needs to present useful summary data in a small amount of space. While providing a useful summary view, it must also accurately reflect the status and materials received for each applicant and allow a complete review of each applicant's submitted materials. It makes information easy to find to answer questions from applicants, mentees, managers, and mentors quickly and accurately.

Mentor Request Management

Upon acceptance to the program, all mentees-to-be are required to submit a ten-name Mentor Wish List of mentors they would like to work with. This is also done through a web-based form. At the close of the mentor request period and receipt of all wish lists, the SEED program staff begins the mentor match process. For each mentee, the goal is to match them with the highest priority eligible mentor from their Mentor Wish List.

The mentor matching process has some complexity: a decision is made by program staff in each case where more than one potential mentee requests the same potential mentor. In SEED's current terms, eighty mentees prepared ten-name lists, that resulted in 387 unique mentor requests. There were ten potential mentors with multiple first Priority requests and 39 mentors who were requested by five or more mentees. This is a common problem: as many as twenty-two potential mentees in one term have requested the same mentor. The primary basis for this decision is the priority order on the Mentor Wish List provided by the mentee. The mentee's seniority (number of years at Sun or grade level rank) may be used as a tiebreaker, with the more senior mentee getting preference.

In order to support this process, the Mentor Wish List system needs to ensure that the data received is both accurate and standardized, especially with respect to potential mentor names. For each mentor requested, both name and SunID are required to be entered due to variations in name entry

and frequent errors in entering SunIDs. A name auto-suggest widget based on Ajax technology[55] that is available within Sun has been very useful in creating cleaner submissions. Ensuring that the list received from each mentee-to-be is accurate and comparable, and simplifying the comparison process to highlight multiple requests for the same mentor, has allowed this process to be managed much more effectively.

SEED Program Database

Beyond the management of individual SEED terms is the need to manage the program long-term. This is supported by the SEED program database, that maintains records of all program mentors, mentees, and applicants, even after they have left Sun. The database allows tracking of past applicants, mentees, and mentors, and management of the list of 450+ Potential Mentors: mentors who have volunteered to work with program mentees. These records allow for regular metrics analysis of the program, currently done annually. Automated metrics tracking is a goal that is in progress.

Among the challenges of keeping the system useful while preserving historic data is maintaining the data so it is meaningful over time. For example, divisional organizational changes (reorganizations) make it difficult to summarize the number of participants there have been from each organization over the life of the program. In addition to historic data, some current data is tracked, especially for potential mentors. This requires integration with other Sun systems and a process to keep the mentor records up-to-date, particularly for removing broken links, updating job titles in a timely way.

Developing Simple Web Technologies for SEED Mentoring - Conclusions

The systems and tools that support SEED have evolved with the program over time. They are not a single unified system, but being modular are easy to modify or extend when changes are required. Using the technologies that are available and used by others within the company to develop these tools has allowed development and maintenance to be more efficient: learning from their work, and sharing components when possible.

55 See Wikipedia on “Ajax (programming)” *http://en.wikipedia.org/wiki/Ajax_(programming)*

10 Mentoring in Good Times and Bad

10.1 Mentoring and the Economy

When the authors started the "Sun Mentoring: 1996-2009" documentation project, one big question was: **"Is mentoring success tied to the larger economy?"** How much of the impressively positive mentoring programs metrics for promotion, higher ratings, retention, satisfaction, etc. are because a rising tide lifting all boats? That is: does mentoring make a big difference in spite of general economic improvements benefiting all participants? Fortunately, there is a great deal of internal-to-Sun data available about mentoring program participants. Also, Mentoring@Sun was the subject of a formal research study...

Gartner on Mentoring@Sun

The Mentoring@Sun study is:
"Case Study: Workforce Analytics at Sun" by James Holincheck[56].

For the original study, Helen Gracon worked with Capital Analytics[57], pulling data from 1998-2001 about 95 mentor-mentee pairs who participated in the Mentoring@Sun program in 1999. (The data was collected for one year before the Mentoring@Sun terms and for two years after.) All were in one of four intact workgroups. Three of the groups studied were in Sun Engineering and one was in Sun's Worldwide Operations. The 95 pairs were compared against almost 1,500 members of a control group of Sun staff (taken from the same business groups). The data were analyzed in 2002 and published by Gartner in 2006.

The authors reviewed the 1998-2001 data and 2002 analysis, then checked back with Dr. W. Boyce Byerly (Chief Scientist and CTO of Capital Analytics, who worked on the original study) with questions for this report. There were some differences in operational definitions. For example, in Gartner Figure 3, the labels of Administrators (8.5% change in salary grade), and Engineers (6.2% in salary grade) are switched. The Sun group called "Administrators" in Gartner's report were actually salaried (exempt, senior grade) Engineers, so their 8.5% change in pay grade makes more sense. Those called "Engineers" in the Gartner report were in fact Sun salaried non-technical staff.

56 "Case Study: Workforce Analytics at Sun" by James Holincheck, Gartner Research ID #G00142776, Publication Date: 27 October 2006.

57 Information on Capital Analytics: *http://www.procourse.com*

However, since the switched labels were used consistently, the numbers and analysis are still valid, but not the conclusions. Another operational definition that did not match Sun's standard usage has to do with high performance. In the Gartner report, the "high performers" were those who had the highest salary before the beginning of the mentoring program. Sun uses "high performer" or "high potential" to mean staff who routinely get 1-Superior annual performance ratings. Again, the operational definition was consistent, so the data are comparable.

Gartner's positive findings were in the areas of change in salary, promotion, and retention. Gartner also had a negative finding:

> "...investing in a mentoring program for high performers does not yield as significant a return as might be assumed. Rather, the better investment for Sun would be to spend the money on lower performers to help them raise their level of performance."

This last finding is similar to the analysis of an excellent *Harvard Business Review* report called "Let's Hear It for B Players"[58] Because B players make up the great majority of employees: 80% of a company (as opposed to the top 10% of star A players, and the bottom 10% of incompetent C players), providing them with mentoring has a similarly larger benefit. This HBR article was one of the inspirations that lead to the creation of Sun's popular PreSEED mentoring group in 2008, because, as Delong and Vijayaraghavan wrote:

> "Like all prize-winning supporting actors, B players bring depth and stability to the companies they work for, slowly but surely improving both corporate performance and organizational resilience.... They will never garner the most revenue or the biggest clients, but they also will be less likely to embarrass the company or flunk out.... these players inevitably end up being the backbone of the organization."

Other Sources

In addition to the external-to-Sun Gartner report, the authors used a Sun-internal report prepared by SEED's former Program Manager Justin Yang. In "1996 - 2000 Engineering New College Hire Data Summary", Justin Yang analyzed information from 485 New College Hires with the title Member of the Technical Staff (MTS-1 through MTS-4 seniority levels). In 2002, Katy Dickinson

58 *Harvard Business Review* report called "Let's Hear It for B Players" (by Thomas J. Delong, Vineeta Vijayaraghavan, Jun 01, 2003. Prod. #: R0306F-PDF-ENG).

asked Justin Yang to prepare this report so that there would be a baseline against which to compare future performance of the then-newly-created SEED mentoring program.

For boom and bust cycle date ranges, information came from Wikipedia articles such as: "List of recessions in the United States" and "Dot-com bubble"[59]. Information on Sun's history came from The Motley Fool - Sun Microsystems, Inc. (JAVA) and the Sun Microsystems - Annual Report Archive.

The data in the Gartner report were pulled during the "dot-com bubble" of 1998-2001, as was most of the data in Justin Yang's report. The information in these two reports was clearly collected during boom times. The worldwide recession (that started in 2007) represents a bust time for the Silicon Valley in general and for Sun Microsystems in particular.

10.2 Calculating ROI for Mentoring

Calculating Return on Investment (ROI) for mentoring is dependent on assumptions and variables used. In 2002, Capital Analytics used the following formula to calculate the three year return on $695/person paid to SunU for the 95 mentor-mentee pairs in the 1999 Mentoring@Sun program.

(Return - Cost) / Cost

Dr. W. Boyce Byerly confirmed that Capital Analytics found 1,000% ROI, for Sun mentoring, using their most conservative measures of job and salary grade improvement. Their analysis methods are published in the 2004 paper on ProCourse ROI software "Measuring the True Business Impact of Training".

Mentoring@Sun is offered at a per-participant charge by SunU (the former name for Sun Learning Services). The SEED program is offered for free to participants (program costs were covered by the Chief Technologist's Office). This difference in how the program costs were covered probably does not effect the ROI.

Some of the assumptions used in this ROI calculation may be controversial:

- Compensation paid to employees reflects their value to the company.

59 Wikipedia: *http://en.wikipedia.org/wiki/List_of_recessions* and *http://en.wikipedia.org/wiki/Dot-com_bubble*

- A dollar increase in compensation reflects a dollar increase in value to the company.
- Higher compensation in the years after mentoring program participation is reflective of that participation.
- The company will recognize improvement in value, and increase compensation accordingly.

Triple Creek is a mentoring service company that was not involved in the 1998 to 2001 Sun case study but has published an interesting analysis using the well-known 2006 report by Gartner. In Triple Creek's 2007 paper "Mentoring's Impact on MENTORS / Doubling the ROI of Mentoring", an ROI of 1,500% to 1,710% was calculated.

10.3 Analyzing Different Groups Over Ten-Plus Years

Since there are many variables, what is presented here is more a broad indication of patterns than a targeted scientific study. There are a variety of mentoring terms (or individual groups) represented:

- Some were Sun-wide terms but others were limited to Sun Engineering.
- Some terms were for senior or high-potential staff but others available to anyone who could get management approval (self selection).
- Some terms were created through open enrollment, others included intact workgroups, many were selected by competitive application.
- Most terms were sponsored by an executive. Greg Papadopoulos (Sun's CTO and Executive VP of Research and Development) sponsored over thirty terms. Karen Rohde (Senior VP of Human Resources and Sun's Chief Talent Officer) and Bob Worrall (Senior VP and Chief Information Officer) each sponsored five terms.
- All of the staff who took the mentoring programs worked for Sun Microsystems as regular employees (not interns, contractors, or temporary staff) for at least some of the time from 1996 to 2009.
- Sun's mentoring programs are voluntary: the mentees and mentors may be encouraged to participate by their managers or peers but the programs are not remedial (not for people on a required performance improvement plan, for example).

For some measures, there are more specifics than others, for example:[60]

- **Gender**

  All the terms included mixed gender mentor-mentee pairs.

  - SEED has an average 20% female mentee participation, and 15% female mentor participation, 2001-2009. This reflects the lower percentage of women in engineering than in Sun overall. SEED's range is 0% to 30% women mentees per term. The Recent Hire and Established Staff SEED mentees had the highest percentage of women (22%) while the special pilot programs were much lower (17%).
  - Mentoring@Sun included engineering and non-engineering staff but gender data were not collected for all terms. The Mentoring@Sun range is 5% to 75% women mentees per term, reflecting the higher percentage of women in Sun overall than in just engineering.

- **Distance**

  In most terms, the majority of pairs were working at a distance (in different cities, states, or countries) rather than local to each other.

  - SEED had 88% mentor-mentee pairs working at a distance, 2005-2008
  - Mentoring@Sun had about 75% mentor-mentee pairs working at a distance, 2005-2008

- **Satisfaction**

  Complete metrics in all time ranges for all three mentoring programs are not available. What there is:

  - SEED has quarterly satisfaction ratings from 775 mentees averaging 90% (2004-2008). In addition, 93% of SEED mentees reported that meetings with their mentor were worthwhile. 83% of mentors believe their mentee's participation in the SEED program made them more valuable to Sun (from 330 mentor reports). 88% of mentors said they wanted to be a SEED mentor again.
  - In the New VPs program, almost all participants rated program as effective or very-effective and agreed to mentor a new VP by the end of the program. Almost all mentors and mentees report recommending the New VP Program to their peers.

60 See the **SEED Metrics Appendix** for more details and charts.

- Consistent satisfaction measures for the largest of the three programs, Mentoring@Sun, are not available but the reports that exist are enthusiastic.

Sun's mentoring programs are different in numbers of mentors and mentees:

- Mentoring@Sun: about 6,000 mentees and 4,500 mentors (1996-2009)
- New Vice Presidents: 138 mentees and 87 mentors (2004-2009)
- SEED: 1,162 mentees and 474 mentors (2001-2009)

There is overlap and duplication between the mentors in the three programs (these are extremely generous people!). Also, about 25% of current SEED mentors were originally SEED mentees. **The totals for these three mentoring programs are about 7,300 mentees and 5,000 mentors.**

The authors decided to focus on three measures for which there is the most information:

- **Attrition** (higher voluntary termination, opposite of retention, *lower is better*)
- **Compensation** (salary increases, pay raises, *higher is better*)
- **Promotion** (increase in job seniority or salary grade, *higher is better*)

In context, these three metrics can be compared between the various sets of mentoring program information without being misleading. "Context" includes understanding larger population patterns than just those in the area of research:

- These numbers may or may not be representative of overall patterns. For example: because exactly how many new college graduates Sun hired 1996-2000 is not known, the percentage of that population represented by the 485 Members of the Technical staff in Justin Yang's report cannot be provided. However, there are some contextual glimpses. In the year 2000, there were over 500 new college graduates hired in all of Sun. So, for 2000, Justin Yang's report covers roughly one fifth of the population of all new college graduates hired.
- The three metrics do not stand alone; they interact with each other and other measures and are tied to many factors having little to do with mentoring.
- New College Hires (such as those in Justin Yang's report) seem to be a special case. For example: his report showed that there is a higher retention rate for more recently hired staff. Promotion is tied to retention: if New College Hires are promoted, they are more likely to stay. The more recent hires were promoted more quickly.

10.4 Comparing Boom to Bust

The authors used the measures of Attrition, Compensation, and Promotion during three periods:

- **Boom** (1998-2001)
- **Between** (2002-2006)
- **Bust** (2007-2009)

Based on the results shown in the table below, the following conclusions can be drawn about the performance of participants in Sun's mentoring programs:

1. Attrition went down after the Boom period and then went down again during the Bust.
2. Pay raises (Compensation) went up substantially after the Boom period, and continued high during the Between and Bust periods. However, raises fell slightly during the Bust (although Bust period raises were still higher than during the Boom period).
3. Promotions went up substantially after the Boom period. Promotions fell by 38% during the Bust period but were still much higher than during the Boom period.

Circumstances that may help in understanding these conclusions:

1. SEED mentoring program performance numbers may show more success because the program is focused on selecting high potential future engineering leaders, who are then given additional support to help them succeed. The success of the individual participants is due to their own capabilities and hard work (plus available opportunities and good management!). Increased success of the participants as a group may be attributable in part to the SEED program.
2. The SEED mentees in this analysis included senior and junior engineering staff. However, when Tanya Jankot ran the numbers for the junior staff (Recent Hires and PreSEEDs) in SEED, the results were only slightly different than for overall SEED performance.
3. The four Mentoring@Sun groups in the 2002 Capital Analytics study were intact work groups, three from engineering and one from Worldwide Operations. Some support staff were included in the work groups. The Capital Analytics control group was taken from the same work areas.
4. As described above, Engineering New College Hires seem to be a special case, especially in terms of their promotion and retention patterns; however, since SEED

includes a Recent Hire group that includes some New College Hires, their patterns are important.

The question the authors wanted to answer was: **"Is mentoring success tied to the larger economy?"** Based on these analyses, in the case of the Sun mentoring programs, it seems that success is only loosely tied to the performance of the larger economy. The Bust period caused both Compensation and Promotion numbers to fall but both remained substantially higher than during the Boom period. Participants in Sun's mentoring programs outperformed control groups and participants show remarkable success in all measures.

Comparing Boom, Between, and Bust:[61]

	Boom (1998-2001)	**Between (2002-2006)**	**Bust (2007-2009)**
Attrition	GAR-*mentoring*: 28% attrition GAR-*control*: 51% attrition ECH: 26% attrition	SEED-*rolling*: 20% attrition	SEED-*rolling*: 14.3% attrition
Compensation	CA-*mentoring*: 7.8% average base salary increase CA-*control*: 4.2% average base salary increase	SEED-*rolling*: 15.8% average base salary increase	SEED-*rolling*: 13.2% average base salary increase
Promotion	GAR-*mentoring*: 25% promoted GAR-*control*: 5.3% promoted ECH: 47% promoted	SEED-*rolling*: 65.6% promoted	SEED-*rolling*: 40.3% promoted

61 See “Table Reference Key” following for number of participants, length of study, etc.

Table Reference Key:

CA-*mentoring*	2002 Analysis by Capital Analytics of 1998-2001 data on 95 mentees, in four Mentoring@Sun groups. CA-*mentoring* is compared to CA-*control*. 3 year study.
CA-*control*	2002 Analysis by Capital Analytics of 1998-2001 data on about 1,500 Sun staff in a control group (not in a mentoring program). CA-*control* is compared to CA-*mentoring*. 3 year study.
ECH	"1996 - 2000 Engineering New College Hire Data Summary" - 1996-2001 baseline data on 485 junior Sun Engineering staff recently hired out of college (not in a mentoring program). ECH does not have a control group. Data shown is last 3 years of a 5 year study.
GAR-*mentoring*	Gartner "Case Study: Workforce Analytics at Sun" - based on Capital Analytics' 1998-2001 analysis on 95 mentees, in four Mentoring@Sun groups. GAR-*mentoring* is compared to GAR-*control*. 3 year study.
GAR-*control*	Gartner "Case Study: Workforce Analytics at Sun" - based on Capital Analytics' 1998-2001 analysis of about 1,500 Sun staff in a control group (not in a mentoring program). GAR-*control* is compared to GAR-*mentoring*. 3 year study.
SEED-*rolling*	Sun Engineering-wide world-wide mentoring program data on 756 mentees (2001-2007). SEED does not have a control group. SEED changes over time are compared with SEED itself for this analysis. In this table, the rate of population attrition, promotion, and salary increase are **over a three year period** (during and 2-years post-SEED-participation) and are calculated as an average over the population of mentees who participated in a mentoring program during the given years included in the Between or Bust cycle. This is different than the Sun standard formulas used to calculate annual attrition and promotion rates in the **SEED Metrics Appendix**. There, the **annual** attrition rate and **annual** promotion rate is calculated as an average over the population of all SEED mentees, 2001-2009.

11 Sun Mentoring: 1996 to 2009 - Conclusions

1) Strong and visible long-term executive sponsorship and funding are needed for mentoring to thrive and become part of an organizational culture as the community develops. Continuity builds program strength over time. Mentees, mentors, and managers knowing that a program will continue to be available allows them to include mentoring in their formal and informal development plans. [62]

2) Mentoring returns good value for the time and money it takes. The ROI on mentoring can be 1,000% or better and grows as the program matures.[63]

3) Mentoring can be used for larger corporate purposes in addition to improving the performance of individuals. At Sun, mentoring has been used to bring in new or acquired individuals and groups, to improve the network between existing groups in different organizations, and to reduce isolation of those geographically distant from headquarters.[64]

4) "Real work – real time" Mentoring and being mentored is professional work that can be done as a part of a day job, during business hours, not only during personal time.[65]

5) It is important to collect and analyze data routinely on both subjective (satisfaction) and objective (promotion, retention, compensation) success metrics. Make program decisions based on those data. Maintain participant data long-term to see bigger patterns. [66]

6) Key mentoring program elements (Process, Training and Educational Materials, Management and Web Tools, and Staff) should be designed to attract and support a wide diversity of participants from many cultures.[67]

7) The program should be run for the convenience of the mentors. [68]

62 See "Program Sponsorship" in the **Mentoring in Engineering and Computer Science** section
63 See "Calculating ROI for Mentoring" in the **Mentoring in Good Times and Bad** section
64 See the **SEED Terms Appendix**
65 See the **SEED Metrics Appendix** for amount of time mentors and mentees spend
66 See the **Mentoring Program Web Tools and Process** section
67 See "Why Engineering Mentoring?" in the **Mentoring in Engineering and Computer Science** section
68 See "For the Mentor" in the **Formal vs. Informal Mentoring** section

8) A formal mentoring program should offer training that launches the relationship with clear goals and success measures so that mentors and mentees feel comfortable from the start and work well together for the entire term.[69]

9) Automated web tools and individualization must be balanced to accommodate the size and seniority of the group served.[70]

10) The base mentoring system must fit the current target group and also be designed for flexibility so that it can be modified for future groups. [71]

11) Don't expect or promise miracles. The goal is not perfection but improvement.

69 See “Training Focus” in the **Mentoring in Engineering and Computer Science** section

70 See the **Mentoring Program Web Tools and Process** section

71 See the **Mentoring Program Web Tools and Process** section

12 Acknowledgments

Sun's mentoring team get deep satisfaction and feel honored to help bring these seekers and guides together. That the mentors so often get as much or more from their experience as the mentees takes nothing away from their greatness of heart in reaching back to help others in the first place. All thanks to Dr. Greg Papadopoulos (Chief Technology Officer, and Executive Vice President of Research and Development) for his support and mentorship, without which these mentoring programs would not now exist.

In addition to Greg, the authors thank our program sponsors: Dr. Bob Sproull, Karen Rohde, and Dr. Karie Willyerd for their generous support. SEED team members (past and present) include: Matt Artz, Katy Dickinson, Sy Dimitroff, Carol Gorski, Helen Gracon, Janice Hall, Tanya Jankot, Sheri Kaneshiro, Danielle Patton, John Plocher, Justin Yang, and Peggy Yonts. Mentoring@Sun team members (past and present) include: Lisa Cavallaro, Helen Gracon, Wayne Hays, Claudia King, Ken Kirste, Al Lowe, Dale Silva, Linda Withrow, and Annette Woodham. Mentoring trainers include: Linda Artel, Yvonne Blockie, Diane McIntyre, and Maureen Shiells. We also thank all of the mentors and mentees who have made this program possible.

Particular thanks to the SEED Mentor stars who worked with more than one mentee:

Vicki Abe, mentee and 3 time mentor
Omid Afnan, 2 time mentor
Parmod Aggarwal, 4 time mentor
Avinash Agrawal, 3 time mentor
Srinivas Alavilli, mentee and 2 time mentor
Eric Allen, mentee and 2 time mentor
Raju Alluri, mentee and 3 time mentor
Marcy Alstott, 7 time mentor
Ross Altman, 2 time mentor
Lance Andersen, mentee and 3 time mentor
Rajeev Angal, 4 time mentor
Christopher Armes, 4 time mentor
Geoff Arnold, 5 time mentor
Eric Arseneau, 3 time mentor
Mary Artibee, mentee and 4 time mentor
Christopher Atwood, 2 time mentor

Anna Barski, mentee and 6 time mentor
James Baty II, 9 time mentor
Daniel Berg, 7 time mentor
Peter Berkman, 2 time mentor
Gerald Beuchelt, mentee and 4 time mentor
Deepak Bhagat, 2 time mentor
Aimie Blair-Aronica, 2 time mentor
David Blasingame, 2 time mentor
Robin Blatt, 2 time mentor
Brad Blumenthal, 3 time mentor
Gregory Bollella, 6 time mentor
John Bondi, 2 time mentor
John Bongiovanni, 3 time mentor
Jeffrey Bonwick, 2 time mentor (Sun Fellow)
John Bost, 2 time mentor
David Bowen, 3 time mentor
Tim Bray, mentee and 6 time mentor
Alan Brenner, 2 time mentor
Robert Brewin, 4 time mentor
James Britton, 2 time mentor
Kimberley Brown, mentee and 2 time mentor
Kirk Brown, 3 time mentor
Glenn Brunette, 5 time mentor
Edward Burns, mentee and 2 time mentor

Xiao-Ding Cai, 3 time mentor George Cameron, 4 time mentor James Carlson, 2 time mentor Jason Carolan, 2 time mentor Harold Carr, mentee and 2 time mentor James Cates, 3 time mentor Rick Cattell, 2 time mentor John Cecere, 2 time mentor **Sheueling Chang-Shantz, 8 time mentor** Liang Chen, 4 time mentor Stephen Chessin, 4 time mentor Thomas Childers, 2 time mentor Cynthia Chin-Lee, 2 time mentor Murthy Chintalapati, mentee and 2 time mentor Cristina Cifuentes, 2 time mentor Adrian Cockcroft, 3 time mentor Danny Cohen, 4 time mentor Mark Connelly, 2 time mentor John Cooley, 3 time mentor Harriet Coverston, 5 time mentor **Beverly Crair, 5 time mentor** Timothy Cramer, 2 time mentor John Crupi, 2 time mentor **Robert Cypher, 5 time mentor**	**Vasanthan Dasan, 5 time mentor** Scott Davenport, mentee and 3 time mentor Howard Davidson, 2 time mentor Alfred Desantis, 3 time mentor **Whitfield Diffie, 5 time mentor** Casper Dik, 2 time mentor **Michael Dillon, 6 time mentor** Andrei Dorofeev, 2 time mentor David Douglas, 2 time mentor David C. Douglas, 2 time mentor George Drapeau, 3 time mentor **John Dutra, 5 time mentor**
Hans Eberle, 3 time mentor **Jerry Evans, 6 time mentor**	John Ferrill, 2 time mentor Michelle Finneran Dennedy, 4 time mentor Mark Firstenberg, 2 time mentor Marina Fisher, mentee and 2 time mentor Markus Flierl, mentee and 2 time mentor Edwin Flores, 2 time mentor Kevin Fox, 3 time mentor
Gilda Garreton, mentee and 3 time mentor Michael Gay, 2 time mentor Chris Gerhard, mentee and 2 time mentor **Paula Getz, 5 time mentor** Sanjay Goil, mentee and 3 time mentor Li Gong, 2 time mentor **James Gosling, 2 time mentor (Sun Fellow)** **Darryl Gove, mentee and 5 time mentor** **Susan Graham Johnston, 6 time mentor** Jon Greaves, 3 time mentor **David Greenhill, 6 time mentor** Dirk Grobler, mentee and 4 time mentor **Kenneth Gross, 7 time mentor** Rory Grubb, 3 time mentor Anil Gupta, 2 time mentor Arun Gupta, 2 time mentor **Vineet Gupta, 5 time mentor** Vipul Gupta, mentee and 2 time mentor David Gurchinoff, 2 time mentor Erik Guttman, 4 time mentor	Chet Haase, 2 time mentor Michael Habeck, 2 time mentor **Kristen Hake, mentee and 6 time mentor** Klaus Hank, 4 time mentor **Mark Hapner, 11 time mentor** Mike Harding, 2 time mentor Scott Harrelson, 2 time mentor Nolen Hayden, 2 time mentor **Raymond Heald, 6 time mentor** **Steven Heller, 5 time mentor** Ariel Hendel, 2 time mentor Willis Hendley, 2 time mentor **Carl Hensler, 5 time mentor** **Rick Hetherington, 6 time mentor** Mark Hodapp, 2 time mentor Tim Horel, 2 time mentor David Hough, 3 time mentor Michael Hsieh, 3 time mentor **Daryl Huff, 5 time mentor** **James Hughes, 5 time mentor** Jeannette Hung, 2 time mentor Charles Hunt, 3 time mentor Michael J. Hunt, 2 time mentor **Edward Hunter, mentee and 6 time mentor** Jerry Hunter, 2 time mentor Dan Hushon, 3 time mentor

Sorin Iacobovici, 2 time mentor **Martin Itzkowitz, 5 time mentor**	Jeffrey Jackson, 3 time mentor Sarah Jelinek, mentee and 4 time mentor **Kathleen Jenks, 6 time mentor** Peter Jensen, mentee and 3 time mentor
Christopher Kampmeier, 3 time mentor Jeetendra Kaul, 4 time mentor Kohsuke Kawaguchi, 2 time mentor Stans Kleijnen, 2 time mentor Lewis Knapp Jr, 3 time mentor Keng-Tai Ko, mentee and 4 time mentor Janet Koenig, 4 time mentor Georgios Konstadinidis, 2 time mentor Noreen Krall, 3 time mentor	Grigori Labzovsky, mentee and 3 time mentor Leslie Lambert, 3 time mentor Susan Landau, 3 time mentor Robert Lavender, 2 time mentor Wai-Hip Anthony Lee, 2 time mentor Rodrigo Liang, 2 time mentor Arthur Licht, 2 time mentor Tim Lindholm, 3 time mentor
Chun Ma, 2 time mentor **Tim Marsland, 3 time mentor (Sun Fellow)** Linda Martino, 2 time mentor Daniel Maslowski, 2 time mentor Vijay Masurkar, mentee and 2 time mentor James Mauro, 2 time mentor Stacy Maydew, mentee and 4 time mentor Martin Mayhead, 2 time mentor Richard McDougall, 2 time mentor Jennifer McGinn, mentee and 2 time mentor Roger Meike, 2 time mentor Ronald Melanson, 4 time mentor Christopher Melissinos, 2 time mentor David Miner, 3 time mentor Russ Mirov, 3 time mentor **James Mitchell, 3 time mentor (Sun Fellow)** Paul Monday, 2 time mentor Mark Monroe, 2 time mentor Sharon Moore-Lisbonis, 4 time mentor Phillip Morris, 3 time mentor Alec Muffett, 2 time mentor Jiri Mzourek, 3 time mentor	Prakash Narayan, 2 time mentor Steve Nathan, 2 time mentor Paul Neary, mentee and 2 time mentor Mark Nelson, 3 time mentor **William Nesheim, 5 time mentor** **Erik Nordmark, 9 time mentor**
Kelly O'Hair, 4 time mentor Brian O'Krafka, 2 time mentor Ann O'Leary, 3 time mentor **Diann Olden, 9 time mentor**	**Kuldipsingh Pabla, mentee and 5 time mentor** Karen Tegan Padir, 4 time mentor Michael Paleczny, 2 time mentor **James Parkinson, 5 time mentor** Michele Parry, 2 time mentor Ishwardutt Parulkar, mentee and 3 time mentor Pat Patterson, mentee and 2 time mentor Kenneth Paulsen, 2 time mentor Lisa Pavey, 3 time mentor Steven Peixoto, 2 time mentor Eduardo Pelegri-Llopart, 4 time mentor S Raju Penumatcha, 4 time mentor Kenneth Pepple, 3 time mentor **Radia Perlman, 7 time mentor (Sun Fellow)** Vincent Perrot, mentee and 2 time mentor **Gary Peterson, 6 time mentor** Gabriella Poczo, mentee and 3 time mentor Ludovic Poitou, mentee and 2 time mentor **Robert Porras, 5 time mentor** Ira Pramanick, 3 time mentor
Scott Radeztsky, 3 time mentor Kay Ramme, 2 time mentor	Curtis Sasaki, 2 time mentor Ashley Saulsbury, 3 time mentor

Achutha Raman Rangachari, mentee and 3 time mentor "KNR" Nageswara Rao, 4 time mentor Ramamoorthi Rengavittal, mentee and 2 time mentor Lynn Rohrer, 3 time mentor **Steven Rubin, 5 time mentor** Andy Rudoff, 2 time mentor Giuseppe Russo, 2 time mentor	Eric Saxe, 2 time mentor Robert Scheifler, 4 time mentor Christoph Schuba, mentee and 2 time mentor Randall Seidl, 2 time mentor Preeti Shrikhande, mentee and 2 time mentor **Joshua Simons, 8 time mentor** **Nigel Simpson, 5 time mentor** Inderjeet Singh, 2 time mentor Sanghamitra Sinha, mentee and 2 time mentor Kenneth Smith, 2 time mentor Randall Smith, 2 time mentor William Smith, 2 time mentor Robert Snevely, 4 time mentor **Juan Carlos Soto, 6 time mentor** **Michael Speer, mentee and 6 time mentor** **Michael Splain, 4 time mentor (Sun Fellow)** **Robert Sproull, 12 time mentor (Sun Fellow)** **Guy Steele, 2 time mentor (Sun Fellow)** **Hal Stern, 14 time mentor** Allan Strong, 3 time mentor Pavel Suk, 2 time mentor Charles Suresh, 3 time mentor
Madhu Talluri, 2 time mentor Jan Testarmata, 2 time mentor **Jeffrey Thomas, 8 time mentor** Malte Timmermann, mentee and 2 time mentor Partha Tirumalai, 3 time mentor Laurie Tolson, 3 time mentor David Trachy, 2 time mentor Trung Duc Tran, mentee and 2 time mentor Donald Traub, 4 time mentor Marc Tremblay, 4 time mentor Sunay Tripathi, mentee and 2 time mentor	Timothy Uglow, mentee and 4 time mentor Steve Uhlir, 2 time mentor
David Van Couvering, 3 time mentor Michael Van De Vanter, 2 time mentor William Vass, 4 time mentor Harry Vertelney, 2 time mentor Christopher Vick, mentee and 2 time mentor Petr Vlasaty, 3 time mentor	Annette Wagner, 2 time mentor **James Waldo, 7 time mentor** Sin-Yaw Wang, 4 time mentor Christopher Webster, mentee and 2 time mentor Joel Weise, 4 time mentor Joshua Weiss, 2 time mentor Cathleen Wharton, mentee and 2 time mentor Emrys Williams, 2 time mentor Ann Wondolowski, 2 time mentor Brian Wong, 2 time mentor Jason Woods, 3 time mentor **Michael Wookey, mentee and 10 time mentor**
Jun Ye, mentee and 2 time mentor Bill Yeager, 3 time mentor Norman Yeung, 2 time mentor Peter Young, 2 time mentor	Kornelija Zgonc, 2 time mentor Shudong Zhou, 3 time mentor Richard Zippel, 4 time mentor John Zolnowsky, 4 time mentor Susan Zwinger, 2 time mentor

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SEED Metrics Appendix

List of Charts

These numbers are not statistically sampled, they reflect the entire population for the given dates. Most charts are for 2001 to 2009. Some date ranges are a subset of the 2001 to 2009 SEED program dates, to avoid the distortion of startup years, because of incomplete information for the current year, or for similar reasons.

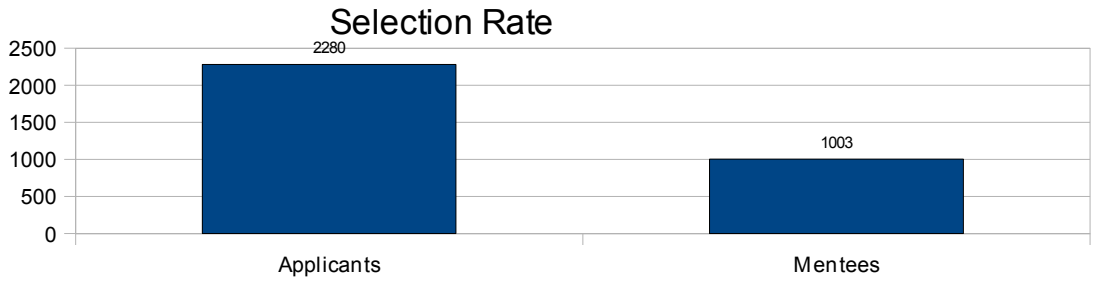
SEED mentoring program performance numbers may show more success because the program is focused on selecting high potential future engineering leaders, who are then given additional support to help them succeed. The success of the individual participants is due to their own capabilities and hard work (plus available opportunities and good management!). Increased success of the participants as a group may be attributable in part to the SEED program.

- SEED Program Scope, 2001-2009
  - Participation
  - Repeat Participation
- SEED Program Demographics, 2001-2009
  - Location
  - Organization
  - Gender
- Success Metrics
  - Satisfaction
  - Performance Ratings
  - Promotions
  - Attrition
- How Do Mentees and Mentors Meet and Communicate?

SEED Program Scope, 2001-2009

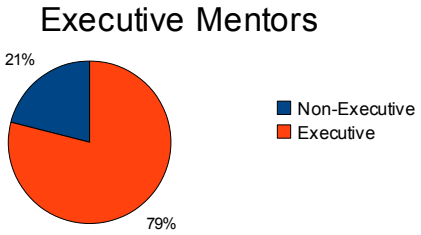
Participation[72]

- Total SEED mentee applications: 2280
- Total SEED mentees selected: 1003 (44% selection rate)



Executive Partnerships[73]

- Total SEED partnerships: 1030
- Total SEED executive partnerships: 809 (79% of SEED mentoring partnerships)

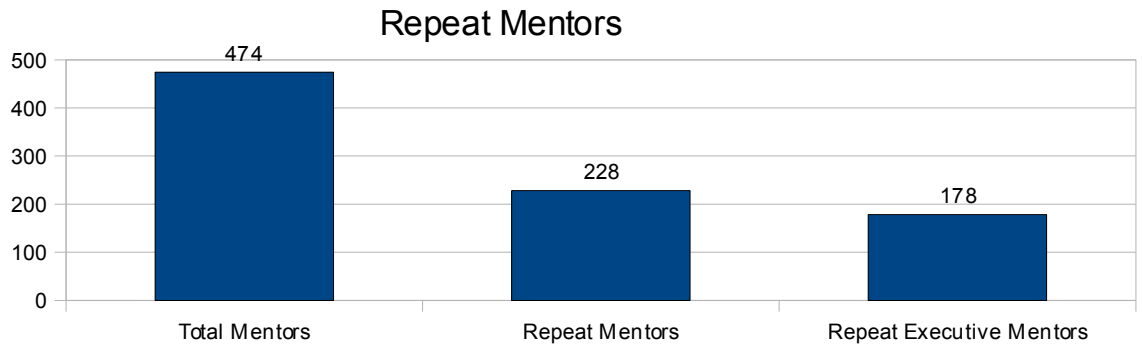


72 Does not include PreSEED program mentees.

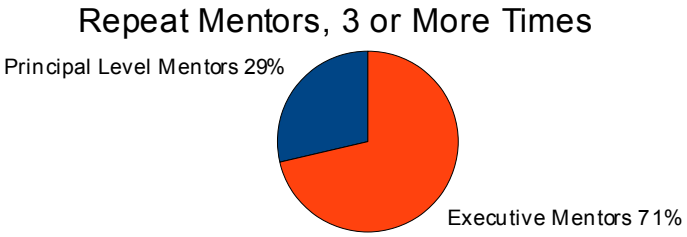
73 Does not include PreSEED program partnerships. It was a PreSEED requirement that mentors be junior to the executive level.

Repeat Participation[74]

- Repeat Mentors: 228 (48% of 474 Mentors who have served as SEED mentors)
- Repeat Executive Mentors: 178 (78% of repeat SEED mentors were executives, 54% of executive mentors mentored multiple times)



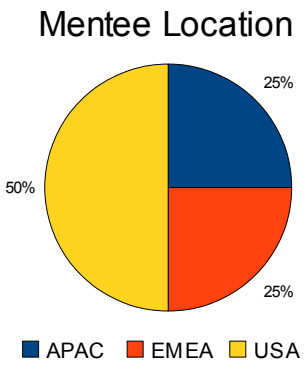
- Individuals (executive and non-executives) who mentored 3 or more times: 150 (26% of SEED Mentors)
- Executives who mentored 3 or more times: 107 (71% of SEED mentors who mentored 3 or more times)

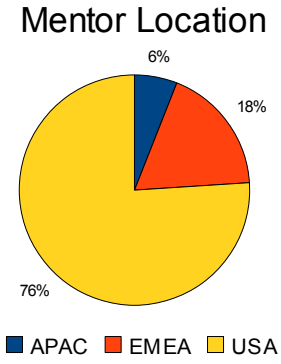


74 Includes only mentors who served more than one time in the SEED program. It was a PreSEED requirement that mentors be junior to the executive level.

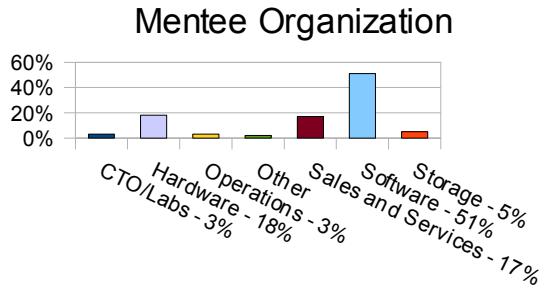
SEED Program Demographics, 2001-2009

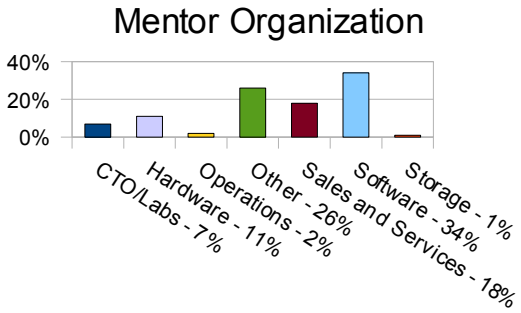
Location



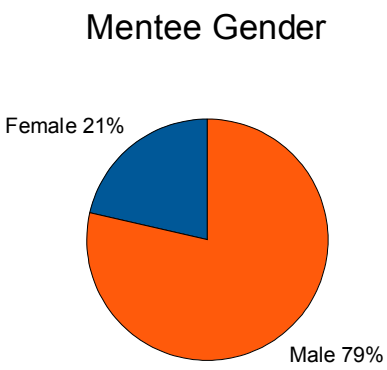


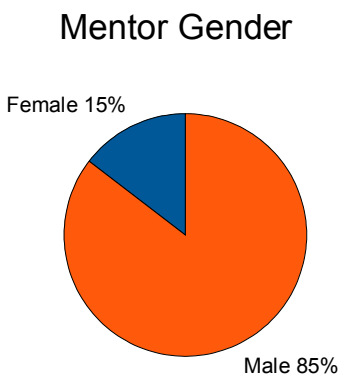
Organization

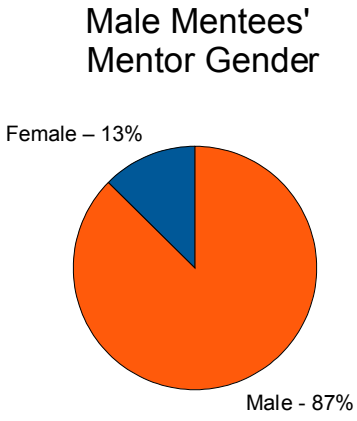


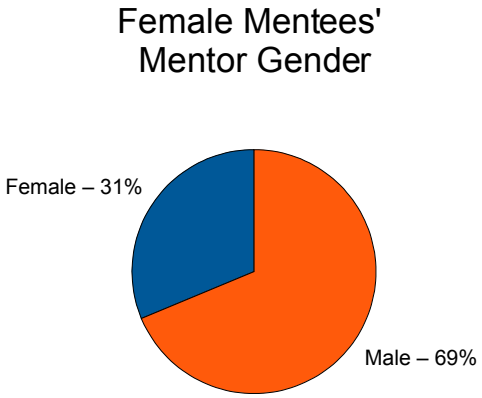


Gender[75]









75 For more, see: “Social Context, Gender, and Mentoring” in the **Picking Your Mentor, Picking Your Mentee** section

SEED Success Metrics

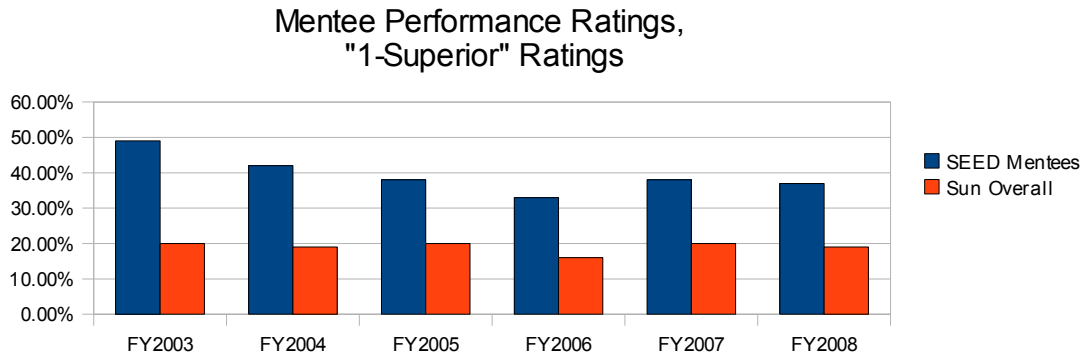
Satisfaction

Mentee Satisfaction with the SEED Program (5 years of quarterly report responses, 2004-2008, 541 mentee responses total)

- 90% of mentees who responded were satisfied with the program[76]
- 93% of mentees who responded thought meetings with their mentor were worthwhile
- Of the 541 Mentees who responded, 118 (22%) were co-located with their mentor, and 423 (88%) were remote or at-a-distance. Both groups reported an equal level of satisfaction with the SEED program. There is no difference in satisfaction whether partnered locally or with a remote mentor.

Performance Ratings[77]

From FY2003-FY2008, SEED mentees received 1-Superior performance ratings at an average annual rate of 40%, twice that of the general Sun employee population that had an average annual rate of 19%.

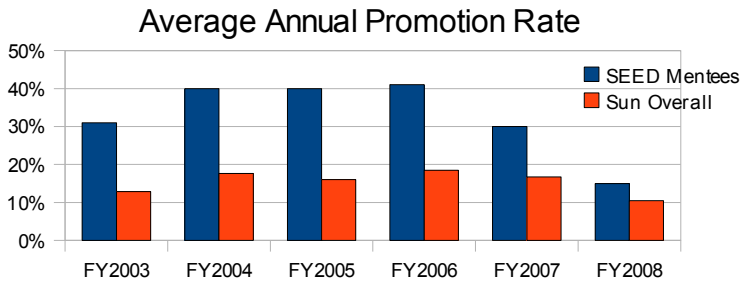


76 Satisfaction means a rating of 5,6, or 7 out of 7 possible, where 4 represents neutral and 7 represents very-satisfied.

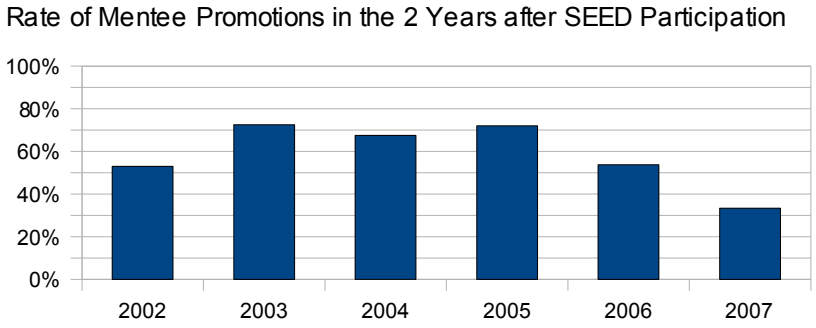
77 Note that after a promotion, it is Sun policy to drop an individual's 1-Superior rating to a 2-Standard rating. Higher numbers of promotions result in decreased numbers of 1-Superior performance ratings.

Promotions

From FY2003-FY2008, SEED mentees were promoted at an average annual rate of 33%, more than twice that of the 15% general Sun employee population rate. Promotions fell by 38% during the 2007-2009 Economic Bust period.[78]



Another perspective on SEED mentee promotions is provided in the **Mentoring in Good Times and Bad** section. There, individual mentee promotions were tracked for a span of 3 years: during and 2 years after participation in a SEED term. 66% of SEED mentees were promoted in the two years after their SEED participation during the Between period (2002-2006); 40% of mentees were promoted during the Bust period (2007-2009).[79] These two charts show different views of the same data – the one above shows the chances of being promoted in a given year, the other shows the chances of an individual SEED mentee being promoted during their mentoring term and the two years following.

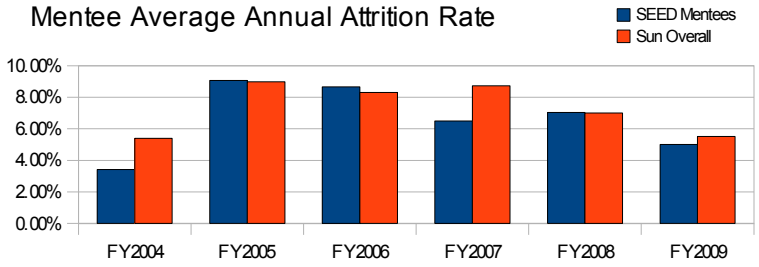


78 Average annual promotion rate comparison of SEED mentees to the overall Sun employee population during Sun's FY2003-FY2008. Analysis compares the average annual rate of salary grade change between the two populations. Sun's Fiscal Year runs July to June.

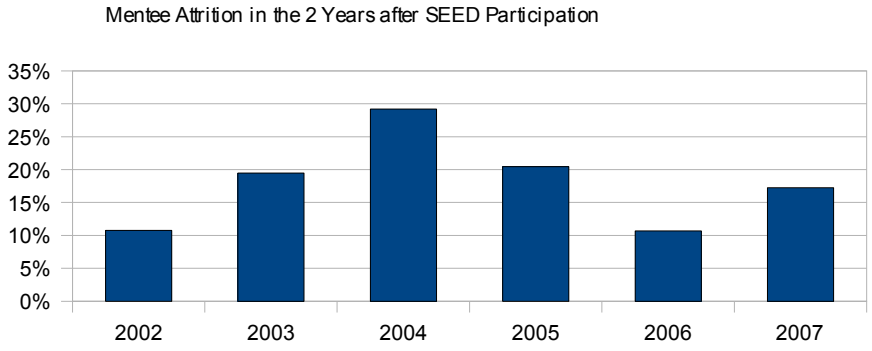
79 The promotion rate of SEED mentees **over a three year period** (during and 2-years post-SEED-participation), calculated as an average over the population of mentees who participated in a mentoring program during the given years included in the Between or Bust cycle. Mentees participating in terms during calendar years 2002-2007 are included; SEED terms after 2007 are not included due to incomplete information for the current year. This represents the same formula used in the **Mentoring in Good Times and Bad** section where SEED data was compared to the Capital Analytics and Gartner reports.

Attrition

From FY2004 through FY2009, SEED participants had an average attrition rate of 6.18%, compared to Sun's 7.32%.[80] SEED mentees are high-potential staff looking for a change, so even a little lower attrition is a positive measure.



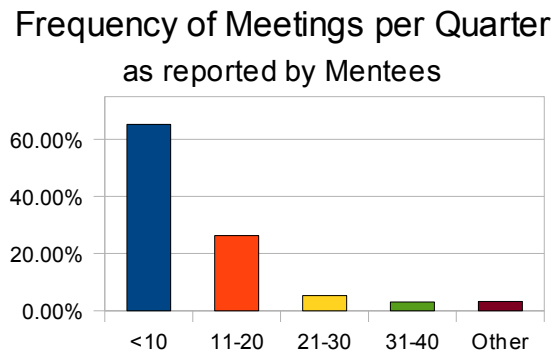
Another perspective on SEED mentee attrition is provided in Chapter 9, **Mentoring in Good Times and Bad.** There, mentee attrition was tracked over a span of 3 years; during and 2 years after participation in a SEED term. During that 3-year timespan, 20% of SEED mentees had voluntary terminations during the Between period (2002-2006), and 14.3% of mentees had voluntary terminations during the Bust period (2007-2009.)[81] As above, these two charts show different views of the same data – the one above shows the chances of leaving in a given year, the other shows the chances of an individual SEED mentee leaving during their mentoring term and the two years following.

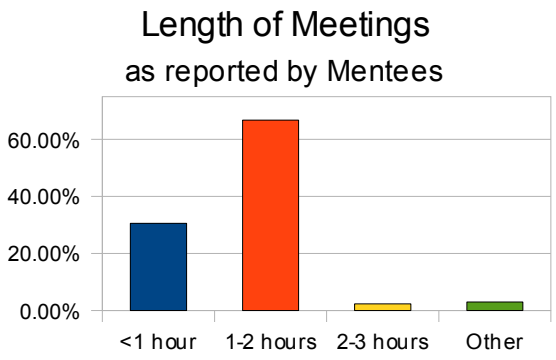


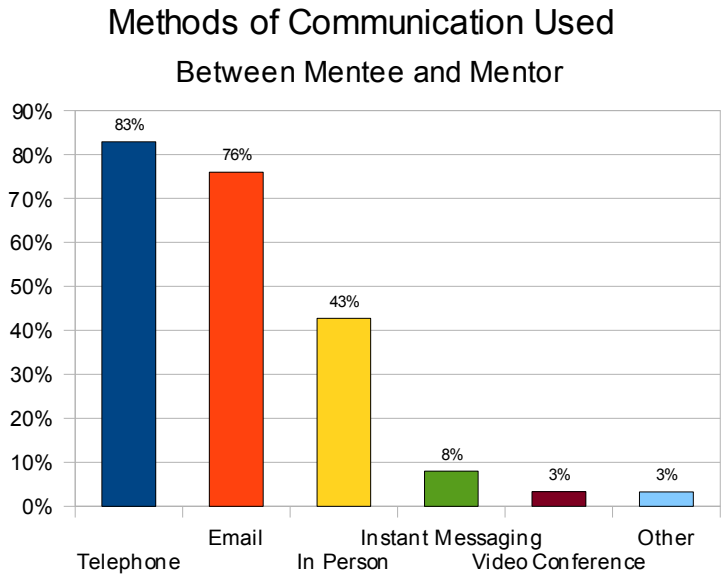
80 Average annual attrition rate comparison of SEED mentees to the overall Sun employee population during Sun's FY2004-FY2009. Analysis compares the average annual rate of voluntary terminations between the two populations. Sun's Fiscal Year runs July to June.

81 The attrition rate of SEED mentees **over a three year period** (during and 2-years post-SEED-participation), calculated as an average over the population of mentees who participated in a mentoring program during the given years included in the Between or Bust cycle. Mentees participating in terms during calendar years 2002-2007 are included; SEED terms after 2007 are not included due to incomplete information for the current year. This represents the same formula used in the **Mentoring in Good Times and Bad** section where SEED data was compared to the Capital Analytics and Gartner reports.

How Do Mentees and Mentors Meet and Communicate?[82]







82 Data as reported by mentees over 2 years of quarterly satisfaction reports, 2007-2008, 347 mentee responses total. Most mentor-mentee pairs use more than one method of communication during their partnership.

Appendix: SEED Terms

Year, Total & Term Count	Recent Hires	Established Staff	Pilot or Special Term	PreSEED
2001 32 Total , 1 term	32 Total	*no program*	*no program*	*no program*
2002 68 Total, 2 terms	40 total	28 total	*no program*	*no program*
2003 108 Total, 3 terms	35 total	33 + 40 = 73 total	*no program*	*no program*
2004 59 Total , 2 terms	19 total	40 total	*no program*	*no program*
2005 119 Total 4 terms	34 total	37 total	22 Bangalore Site + 26 Beijing Site = 48 total	*no program*
2006 179 Total 5 terms	41 total	45 total	32 Europe and MiddleEast-1 Sites + 33 Europe and MiddleEast-2 Sites + 28 StorageTek Acquisition = 93 total	*no program*
2007 191 Total 6 terms	25 total	49 + 44 = 93 total	10 SEED-2 + 52 Four Site + 11 Distinguished Eng. = 83 total	*no program*
2008 217 Total 5 terms	23 total	50 + 63 = 113 total	*no program*	29 PreSEED-1 +52 PreSEED-2 = 81 total
2009 237 Total 5 terms	*no program*	47 total	54 Sales&Service-1 + 23 Sales&Service-2 = 77 total	55 PreSEED-1 + 58 PreSEED-2 = 113 total
1210 Total **33 terms**				

Appendix: Cognitive Bias

In the **Mentor Selection Systems** section of this report, the term "cognitive bias" is used. This is a small detour to introduce the concept of cognitive bias, specifically the Dunning-Kruger effect humorously described by Justin Kruger and David Dunning, (then both of Cornell University) in their much-cited and entertaining paper "Unskilled and Unaware of It: How Difficulties in Recognizing One's Own. Incompetence Lead to Inflated Self-Assessments." (*Journal of Personality and Social Psychology*, 1999, Vol. 77, No.6. 1121-1134). Two findings from that paper that are pertinent to mentor selection are:

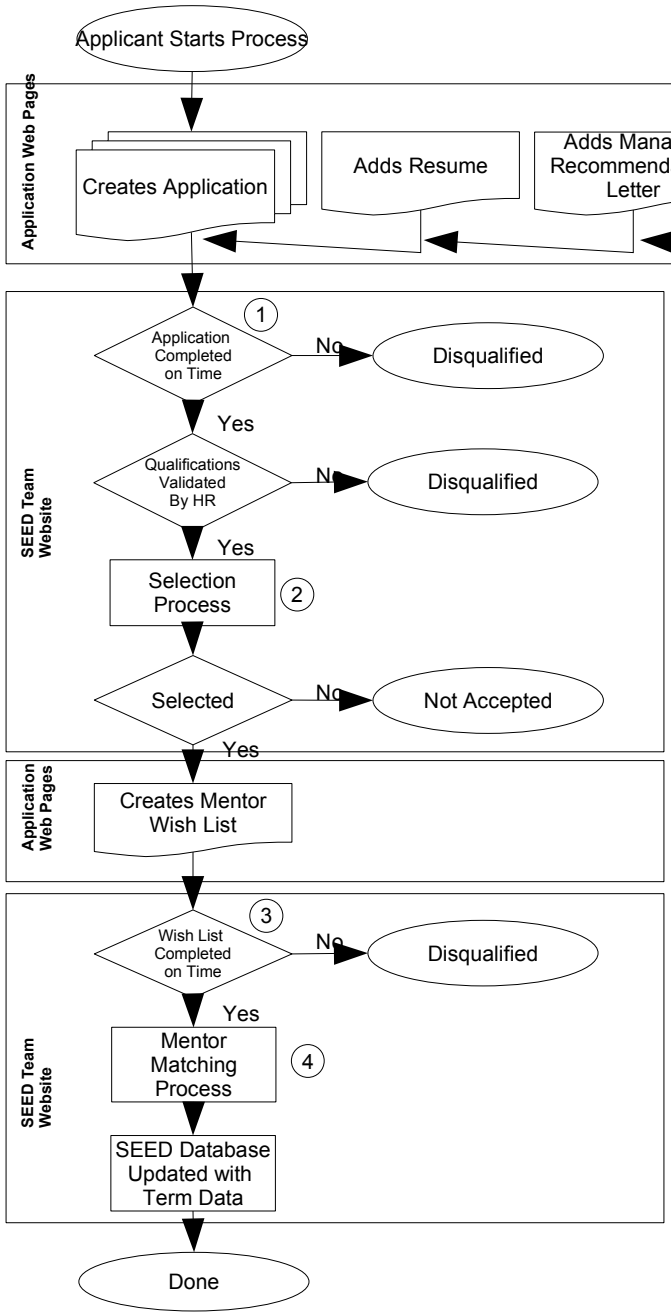
- "the incompetent will tend to grossly overestimate their skills and abilities"
- "participants in the top quartile tended to underestimate their ability and test performance relative to their peers"

Kruger and Dunning quote Charles Darwin (1871): "ignorance more frequently begets confidence than does knowledge." That is, people are often bad at knowing what they are good at.

Read this paper not only to understand cognitive bias but also to enjoy Kruger and Dunning passages such as:

- "...knowledge about the domain does not necessarily translate into competence in the domain, one can become acutely — even painfully — aware of the limits of one's ability. In golf, for instance, one can know all about the fine points of course management, club selection, and effective 'swing thoughts,' but one's incompetence will become sorely obvious when, after watching one's more able partner drive the ball 250 yards down the fairway, one proceeds to hit one's own ball 150 yards down the fairway, 50 yards to the right, and onto the hood of that 1993 Ford Taurus."
- "In sum, we present this article as an exploration into why people tend to hold overly optimistic and miscalibrated views about themselves. ...Although we feel we have done a competent job in making a strong case for this analysis, studying it empirically, and drawing out relevant implications, our thesis leaves us with one haunting worry that we cannot vanquish. That worry is that this article may contain faulty logic, methodological errors, or poor communication. Let us assure our readers that to the extent this article is imperfect, it is not a sin we have committed knowingly."

Appendix: SEED Web Tool Workflow



1) Application and Supporting Materials Submitted

2) Mentee Participant Selection
By the Selection Committee. See the "SEED: Sun engineering enrichment & development" Research Disclosure Database Number 482013 in the **Appendix** for details of the Selection Process.

3)Mentor Wish Lists Submitted by Mentees

4) Mentee-Mentor Pairs Matched. See the "SEED: Sun engineering enrichment & development" Research Disclosure Database Number 482013 in the **Appendix** for details of the Mentee-Mentor Matching Process.

SEED: Sun engineering enrichment & development

Author: Katherine V.G. Dickinson

Research Disclosure Database Number 482013

Published in June 2004
(Electronic Publication Date : 17 May 2004 10:45)

Research Disclosure Journal, ISSN 0374-4353

www.researchdisclosure.com
info@researchdisclosure.com

SEED: Sun engineering enrichment & development

Introduction

This document describes the SEED - Sun Engineering Enrichment & Development - program and its major processes. SEED was created by Sun Microsystems in 2001 and has proven to be remarkably successful. The details here will be of particular interest to companies interested in creating a technical enrichment and mentoring program.

SEED participants should be those who can reasonably be expected to rise to the top of Sun Microsystems' Engineering's individual contributor or management ranks. The overall purpose of SEED is to increase the value, satisfaction, and retention of program participants and their Mentors. In addition, the program builds Sun's Engineering community by making and strengthening connections between its members and with the rest of Sun. This program is sponsored by Sun's Chief Technology Officer and Executive Vice President, Dr. Greg Papadopoulos. More information about the SEED program is available in the 18 February 2004 article “Tapping into the Knowledge Network: The SEED Program is a Showcase for Nurturing and Developing Top Engineering Talent” available at URL http://research.sun.com/spotlight/2004-02-18.SEED.html

The program offers two groups: Recent College Hires (who have been with Sun less than 3 years, this is a 1-year term), and Established Staff (who are Principal Engineers or higher in seniority, & have been with Sun more than 3 years, this is a 6-month term). Members of both SEED groups participate in mentoring and program events. The Recent College Hires must also spend at least two weeks working directly with external customers. The SEED program includes works to balance the diversity of participants in terms of demographics, professional area, and geographic location.

SEED has two major fully-documented processes: the “Participant Selection Process”, and the “Mentor Selection Process”. Flow charts of these processes follow. The program is largely managed through internal web pages and email. This is particularly helpful to international and remote-location participants who have fewer casual sources of information than those who work out of Sun's headquarters in the Bay Area of California. More information about the SEED's Recent College Hire program is available at http://www.sun.com/corp_emp/zone/special.html

Success Measures

Since the program started in 2001, SEED success metrics have been impressive. Key measurements are the rate of promotions and employee performance ratings among SEED participants, plus their own satisfaction with the program:

1) In the 3 completed terms, many more SEED Participants are promoted than the company average. This trend has continued even in the year after participation. For example, the 1st term's Participants earned over triple Sun's average promotion rate at the end their term. A year after their term ended (two years after they entered the SEED program), that same group had earned ten times the Sun average promotion rate.

2) About double the number of SEED participants earn the highest performance rating ("Superior") than the company average (for the three completed terms).

3) The program consistently gets very high satisfaction ratings from its participants. In the most recent quarterly reports, 91% thought the meetings with their Mentor were worthwhile and 87% were satisfied to very satisfied with the program.

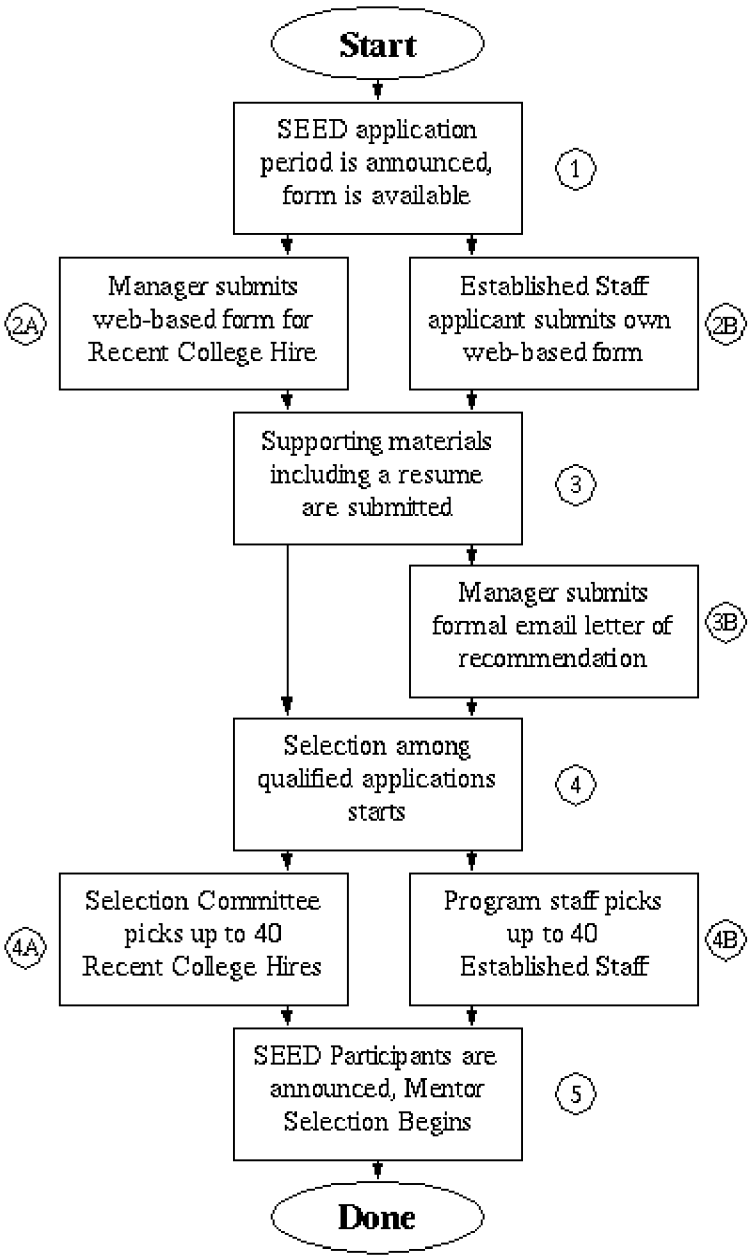
Other SEED metrics have to do with the demographic, professional, and geographic diversity of Participants. For example:

- About 20% of SEED participants work internationally, mostly in China, India, and Europe. About 70% of participants list a country of origin outside of the USA. Many mentoring partners are working across boundaries of business units and professional area. Others work at a distance geographically.

- SEED includes participants from all Sun Engineering professional focus areas (software, hardware, chip design, service, storage, research & development, etc.). During most terms, all of Sun's Engineering business units have Participants accepted.

- About a quarter of all SEED participants are women. This is consistently higher than the pipeline of women graduates with engineering degrees, specifically in electrical engineering or computer science, from colleges and universities.

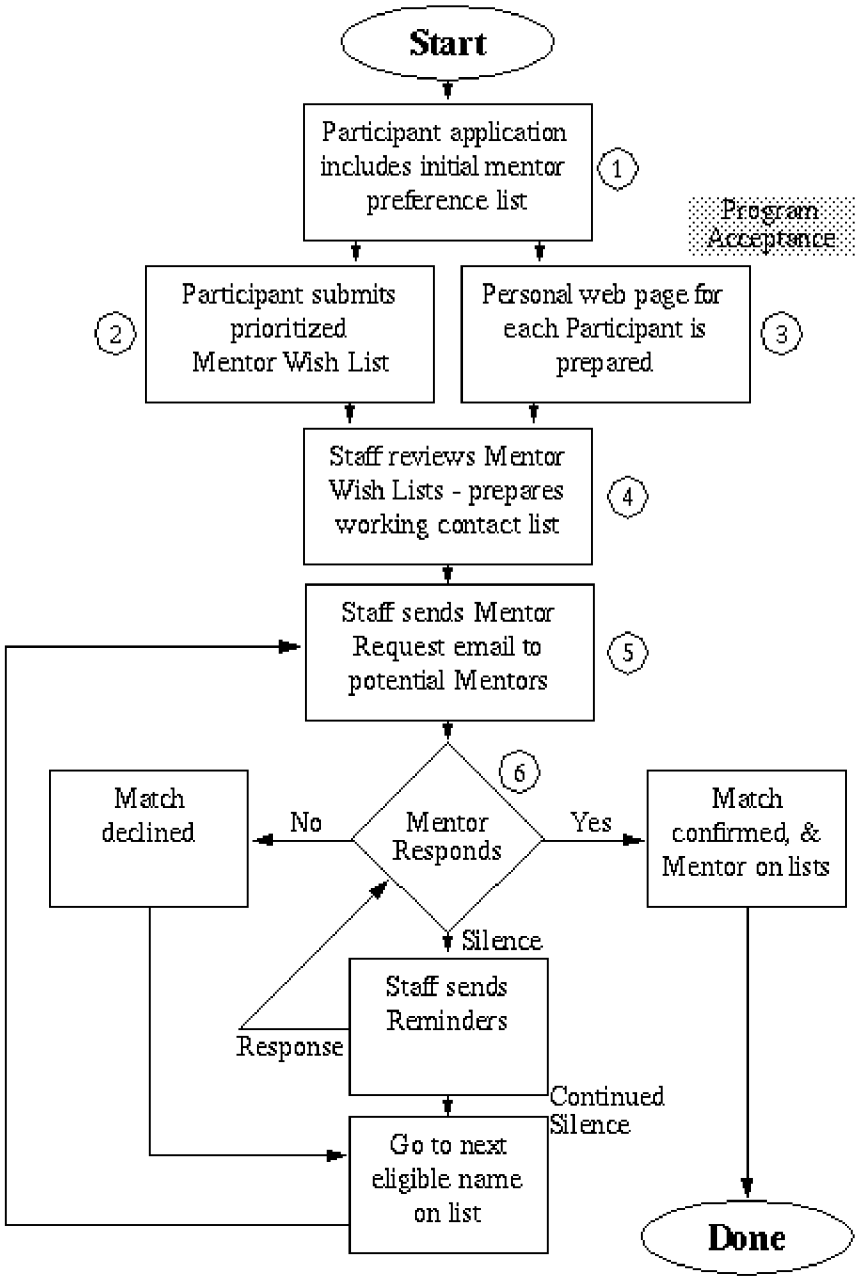
Figure 1 - SEED Participant Selection Flow Chart



A path is for Recent College Hires
B path is for Established Staff

1) Announcement is made to Engineering, application form is available
2) Application is submitted
3) Supporting materials are submitted
4) Selection by Selection Committee
5) Announcement to Engineering of selection results

Figure 2 - SEED Mentor Selection Flow Chart



Mentor Wish List (preference list) developed by participant
1) Mentor Wish List submitted to SEED program staff
2) Participant web pages developed
3) Working contact list of Mentors developed
4) Potential Mentors contacted
5) Mentor responds

Disclosed by Katherine V.G. Dickinson

National Center for Women & Information Technology

PROMISING PRACTICES

Sun Engineering Enrichment and Development (SEED) Program (Case Study 1)

Mentoring Technical Women at Work

Career

The Sun Engineering Enrichment and Development (SEED) program pairs promising new hires and established employees with executives and senior Engineering staff volunteer mentors. The goal of the program is to make both the protégé and mentor more valuable to Sun and more satisfied with their careers.

The program lasts one year for recent hires and six months for established staff. During that time, protégés regularly meet one-on-one with their mentors, attend monthly group meetings for all SEED participants, and take part in other SEED events, activities, and informational meetings. Many mentor-protégé pairs are geographically distant so they communicate mostly by phone and email. Participants maintain their current job while participating in the program; it is not a rotation program. During the mentoring period, participants focus on technical mentoring or specific engineering skills. Protégés typically learn about "soft skills", ranging from how to improve teamwork skills to navigating the complex maze of office politics.

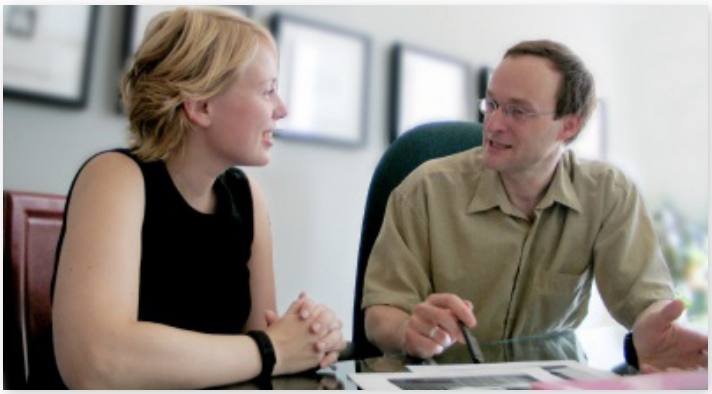
SEED's participants must all be in Engineering and be regular Sun Microsystems employees. Applicants with superior annual performance ratings are preferred, and manager support is required for participation in SEED. In addition to these four general selection criteria, the SEED program requires that mentor applicants hold a senior position and have been with Sun for more than two years. Protégé applicants are accepted based on their potential value to Sun, taking into account both technical excellence and leadership ability.

EVIDENCE OF EFFECTIVENESS

In the last five years, 385 protégés and more than 230 mentors participated. Women and non-US staff take advantage of the SEED program at a consistently higher rate than their representation in Sun Engineering overall. About 25% of all SEED participants are women. This percentage far exceeds the percentage of new hire or existing women engineers.

SEED's effectiveness has been measured through program satisfaction ratings and by comparing participants with non-participants. Although participants are pre-selected for likely success at Sun, annual reviews of participants' cumulative progress since 2001 showed the following patterns of career achievement among participants:

- About four times the number of SEED participants than the company average were promoted. This trend continues even in the year after participation.
- Participants earn about double the number of Sun's highest performance rating (Superior) compared with the company average.
- All participants and their managers provide a quarterly summary of their participation, level of satisfaction, suggestions, and professional development activities. SEED's reported satisfaction levels consistently run about 90%.



TEN GENERAL PRINCIPLES AND ESSENTIAL INGREDIENTS

1. The SEED process works best where junior and senior staff can interact in an "open door" environment.
2. Appreciate that the benefit and effectiveness of a mentoring system grows over time. This program will not work well in an environment where only quick results have value.
3. SEED depends on a partnership between Engineering and Human Resources. The program would not function if this communication and trust were missing.
4. Use evaluation results to evolve, expand, and change the program.
5. Secure strong executive sponsorship for the program.
6. Document rules and processes; participant selection must be fair and be seen to be fair. Set forth the scope and expectations clearly and then meet them.
7. If the program wants to have very senior or executive mentors, it has to be designed and run with a focus on their convenience and learning. They need to trust the program or they will not participate.
8. Have a quick "no fault divorce" option if the mentor and protégé pair is not getting along.
9. Involve the protégés manager in the process and program.
10. Publicly honor and applaud both the protégés and mentors. They are sharing their time, experience, and wisdom and deserve both respect and thanks.

NCWIT offers practices for increasing and benefiting from gender diversity in IT at the K-12, undergraduate, graduate, and career levels.

This case study describes a research-inspired practice that may need further evaluation. Try it, and let us know your results.

ncwit.org **Authors | Lecia Barker and J. McGrath Cohoon**

NCWIT Investment Partners: National Science Foundation, Avaya, Microsoft, Pfizer, and Bank of America

National Center for Women & Information Technology
PROMISING PRACTICES

How Do You Mentor Technical Women at Work?

with Case Study 1

Career

Mentoring has positive effects for both protégé (mentee) careers and organizations. Mentors also benefit. Protégés experience advancement and reduced work-family conflicts. Organizations experience improved productivity, recruiting, and employee socialization, acculturation, and retention. Mentors experience personal satisfaction, collegiality and networking, and career enhancement. Because of the advantages mentoring offers, it is one of the most common programs used for increasing women's participation in the IT workforce. Furthermore, more than half of Fortune Magazine's 100 Best Companies to Work for in America had mentoring programs.

Volunteers have often been in mentoring relationships in the past. This experience gives them a realistic view of the costs and benefits associated with mentoring. Employees who have never experienced mentoring before overestimate the time and energy that being a mentor would require.

In some cases, programs fail to produce the positive outcomes generally attributed to mentoring. A benign failure is when selection criteria favor employees who would have succeeded anyway without a formal mentor. More damaging are the failed mentoring relationships. In the same way that other human relationships can go wrong, mentoring relationships occasionally have bad results. Protégés can lose self-esteem or have their careers sabotaged; mentors can be betrayed or have to deal with overly dependent protégés. Organizations can suffer too; when mentoring relationships are negative, productivity can be reduced. For these reasons, it is important to carefully construct a mentoring program that avoids or minimizes potential problems.

Important ingredients for successful mentoring are: voluntary participation; mentors and protégés having input on the matching process; immediate supervisors not acting as mentors for their employees; easy termination of the relationship; mentors training that includes advice on how to handle problems in the relationship; communication of reasonable expectations about what mentoring can accomplish; proactive recruiting of mentors and realistic estimates of costs and benefits from the organization.

WHAT IS MENTORING?

Mentoring occurs when an experienced person serves as a trusted counselor, teacher, and advocate to an inexperienced protégé. Mentoring usually happens on a personal level in the context of a relationship that develops over time, in contrast to the more remote and one-dimensional role modeling. Mentoring may combine affective support, such as offering a sympathetic ear, with instruction in professional behavior and tasks. It includes actions such as sponsoring, coaching, acquiring resources, and providing exposure and protection to the protégé.

Formal mentoring programs usually have several components. They match mentors with protégés, offer events or activities to develop mentoring relationships, provide resources and instruction for achieving the desired outcomes, and evaluate results for participants and the organization. Effective mentoring programs are carefully planned, with attention to specifying, communicating, and measuring objectives, and developing sufficient resources to implement fully.

Mentoring programs most commonly fail due to unanticipated high costs of operations; usually time costs for program facilitation are severely under-estimated. Although mentoring is not always a positive experience, it usually enhances career commitment for men and women, including women in male-dominated fields such as IT. Benefits include more rapid career advancement and career satisfaction, as well as enhanced academic self-confidence of women in disciplines where the majority of faculty members are men. Both same-sex mentoring and mixed-sex mentoring are effective, although participants may find same-sex mentoring more comfortable.

RESOURCES

Please see NCWIT's Mentoring-in-a-Box: Technical Women at Work, http://www.ncwit.org/resources.res.box.industry.html
Multiple publications from: Belle Rose Ragins, School of Business Administration, University of Wisconsin-Milwaukee; Terri A. Scandura, Department of Management, University of Miami.
Lois J. Zachary. (2005). *Creating a Mentoring Culture: The Organization's Guide*. Jossey-Bass.

Authors | Lecia Barker and J. McGrath Cohoon

NCWIT Investment Partners: National Science Foundation, Avaya, Microsoft, Pfizer, and Bank of America

CHAPTER 6: CASE STUDY—SUN MICROSYSTEMS, INC.

In addition to snapshot interviews, Catalyst conducted a more in-depth interview with Sun Microsystems, Inc. about the Sun Engineering Enrichment and Development (SEED) program. This case study demonstrates how Sun uses its international two-track mentoring and development program to address employee needs. The program has two dimensions: one for recent college hires and one for established staff. The case study also provides a look inside one employee's experience.

The History of the Initiative

In 2001, the Human Resources department for Sun Engineering had a corporate goal to create an Engineering Best of the Best (BOB) program to help orient and integrate recent college hires into the workplace at Sun. HR started with the model of BOB programs in other areas of Sun. To complete the design and implementation of the program, they reached out to Katy Dickinson, a senior member of the Chief Technologist's Office, who was already working with college students as an instructor at the University of California, Berkeley. She designed and implemented an online development program for the Engineering division. Based on the research and feedback on this first program, a need was identified to have a similar program for established employees. In 2002, Sun introduced the established staff program. Currently, there are three mentoring programs per year: two six-month established staff programs and one one-year recent college hire program.

One factor contributing to the continued existence and development of the SEED program is the commitment of senior leadership. The leaders of the program believe that mentoring programs are particularly effective in making change for women, and the program has full support of Sun CTO and Executive Vice President Dr. Greg Papadopoulos. Evidence of Dr. Papadopoulos' commitment to the SEED program is his willingness to allocate one of his direct reports to run the SEED program. Ms. Dickinson, who holds the director-level titles of Master Black Belt: CTO & Sun Labs, and Process Architect, spends about half of her time managing the SEED program.

Sun completed a pilot for each of the programs to aid in its design and implementation. While program details are never changed during an active session, modifications are made between groups based on the feedback and experiences of the previous group. Past participants are often asked for feedback on materials and events.

The current recent hire program has five components:

1. **Mentoring:** Yearlong mentoring relationship with senior staff. A large majority (about 80 percent) of the mentors have very senior job titles: Distinguished Engineers, Directors, Vice Presidents, Fellows, and Senior Vice Presidents. The program guidelines suggest that mentor and mentee pairs meet for one to two hours every two weeks.

2. **Group meetings:** Monthly meetings for all SEED participants—ten meetings by phone and three in person. Meetings are designed to expose the group to relevant content (e.g., quality practices, intellectual property law) and influential people and role models within the company or industry. Past participants are welcome to attend.
3. **Events and activities:** In-person networking and informational meetings. The events include presentations and tours of labs and/or local sites.
4. **Customer exposure:** Participants are required to spend at least ten days at a customer site or working directly with customers. Participants are encouraged to spend time in the customer-facing departments at Sun locally or accompany them in the field.
5. **Assessment and communication:** All program participants—mentors, mentees, and managers—complete quarterly feedback reports. All quarterly reports are published on the program web site. Participants can also communicate informally and privately with the program manager, and are encouraged to do so.

The established staff program overlaps with the recent college hire program: participants attend the same events and meetings, and have the same mentoring and feedback structure. As the established staff typically have experience interacting directly with customers, customer exposure is not a component of their program.

Objectives

The overall goal of the SEED program is to increase employee value, satisfaction, and retention. As Ms. Dickinson explained: "We help develop, enrich, and broaden the experience and understanding of senior engineering staff or recent college hires with the goal of making both the mentee and the mentor more valuable to Sun and more satisfied with their careers at Sun." There is also a strong emphasis on reaching out to traditionally marginalized groups within the organization and attempting to ensure diverse participation (in terms of geography, gender, and professional expertise).

Target Audience

The SEED program is targeted at employees in the engineering groups at Sun. Employees must be involved with the development, support, or research of Sun's products to be eligible for the program. The specific definition of "engineer" in this context was developed by the Technology Architecture Council (a group of Sun's chief technologists). The recent college hire program is open to employees with strong academic backgrounds who are within three years of graduation. The established staff program is open to senior engineers (below the VP level) who have been at Sun for at least three years and who are or are expected to become top contributors. The SEED program is international in scope.

Implementation

Program goals, selection criteria, activity descriptions, and FAQs are available online. The recent college hire program is advertised on Sun's hiring page, and in addition to sending out division-wide emails, Ms. Dickinson works with global engineering site leaders to help engage international communities. A personal web page is also created for each mentee and mentor.

The selection process is explained in detail on the web site. For the recent college hire program, the employee's manager submits the program application. Employees can also submit supporting materials such as a resume, publications, and letters of recommendations. The selection committee for the recent college hires consists of a Vice President, two Directors, and three Distinguished Engineers, plus a SEED program participant from the prior term. Established staff submit their own applications and a formal letter of recommendation written by their managers. They may also submit additional materials, but this is usually not necessary since they have been with the organization longer and have established a record of their performance.

Once the employee is accepted into the program, the mentor matching process begins. The participants have access to an online list of current mentors. Participants work with their managers to develop a wish list of mentors. The list includes a paragraph on each potential mentor explaining why the person would be a suitable mentor, and what the mentee is specifically looking for. Ms. Dickinson then talks to all the potential mentors and individually matches the participants. Once the mentor and mentee are matched, the relationship parameters are established (roles, responsibilities, expectations). Mentoring pairs can request optional mentoring/partnership training with a facilitator. Mentoring activities and quarterly feedback reports are all posted online. This enables future participants to look up what a relationship with a particular mentor was like.

Ms. Dickinson emphasizes the importance of having a program manager who has good relationships within the organization: "I've been here for almost 20 years and I know everybody. I have to be able to call these executives and say, 'You told me last time I talked to you that in six months, you would have time to do this mentoring. Well, I have this really clever person, would you consider mentoring them?' It's important to have someone who has a good relationship with a lot of senior people or it doesn't work. Executives need to trust the matchmaker and the matching process."

In developing the program, Ms. Dickinson wanted to ensure longevity and ease of use. Travel is not required in the program so as not to exclude participants with managers who don't have a travel budget. The complete documentation of all steps and online information storage are designed to make the program easy to understand, inexpensive, and adaptable to other divisions. "We're developing these tools so people in non-engineering divisions who wish to create a similar system can easily implement it," Ms.

Dickinson explained. "They would only need to designate staff for the hand-matching, which is the most time-consuming piece of the program."

Measuring Progress

The quarterly report that all participants fill out is the main feedback mechanism of the program. The report asks questions in three areas: program participation, program satisfaction/suggestions, and professional development activities. The first part is about specific involvement in the program—hours spent with mentor/mentee, how often they met, length of meetings, value of meetings, participation in the events. Participants are then asked for feedback on the program in general—what they think about the program and what could be done better. Lastly, participants are asked for feedback on themselves: what they have been doing in terms of objective success measures. The report asks about published papers, patents, presentations, classes, and other professional activities. The quarterly feedback is aggregated and reported for each program.

The diversity of participants is also tracked. Ms. Dickinson explained the reasoning behind this: "We have done research on the Sun community to make sure we understand where the balance seems to be important and we keep track of our pipeline." To ensure that everyone feels invited to the program, Ms. Dickinson often reaches out to specific groups (international sites, traditionally marginalized groups) to understand the best ways to communicate with them. For example, the original name of the program, "Engineering Best of the Best," was changed in response to feedback from some of the global employees. These groups wouldn't participate in the program because they thought the name was too American and made it sound like participants would be saying they were better than others. Increasing participation is an area that Ms. Dickinson continues to work on: "I'm constantly trying to understand what prevents people from participating and then remove that barrier—whether it's functional, process-related, or structural. That's the hardest part of the process."

Results

Ms. Dickinson reported that the program is doing well in terms of diversity and quarterly feedback. In the three completed terms, many more SEED participants have been promoted than the company average. About double the number of participants earn Sun's highest performance rating (superior) than the company's average. More than one-third of the mentors overall have served more than one term. About 20 percent of participants work internationally, mostly in China, India, and Europe. Many mentoring partners are working across boundaries of business units and professional areas. About one-quarter of all participants are women. The program has also been successful in reaching other parts of the Sun community. The taped monthly meetings are frequently accessed by other divisions within Sun, and the VP of Marketing Technology is currently working on implementing a similar program in her division.

Individual Perspective—Lisa Pavey, Sun Microsystems, Inc.

Lisa Pavey is the Director of Networking Technology and SunLabs Europe. She has been at Sun for seven years and has participated in the SEED program as a mentor for two years.

How did you get involved in the SEED program? Why did you choose to participate?

I heard about the SEED program in staff meetings and other discussions because the person who is organizing it is in the same business unit as I am. I wanted to become involved because I have strong opinions about mentoring and wanted to make sure I had a voice to influence the program from the inside. I volunteered to serve on the committee and to serve as a mentor. I've been with the SEED program for two years and I'm now working with my third mentee.

Do you have any informal mentoring relationships outside of the SEED program?

Yes, I actually mentor five other people. I think mentoring is so important; it's part of everybody's job.

Do you have any mentors?

No, I don't, and I really wish I had someone. I've asked a couple of people at Sun, but they haven't had the time. Organizationally, there aren't many people who are senior to me. But I think you can be mentored by someone who is organizationally more junior, or even less experienced.

There are a couple of people in my past who were my mentors, although I didn't realize it at the time. And if I could have exploited those relationships a bit more, I probably could have accelerated my personal growth.

What have been your major responsibilities as a mentor? How much time is involved?

My travel schedule is so hectic, but I try to see my mentees for an hour every week when I'm in town. They have my phone numbers, so they can always reach me. I see myself as someone in their support network. So if they have some big disaster at work and they need some advice, I like to try and be available for them.

We're only required to be involved with mentees for about 6 to 12 months, but I just keep them. If they want to keep coming and talking to me, I let them.

What are the goals of your mentoring relationships?

My main focus is soft skills; I don't do any technical mentoring. I'm trying to help people get introduced to Sun. I have a good overall knowledge of how their business unit fits in with the rest of Sun. One of my mentees was going to meet her director for the first time and she was very worried about it, so we did some role-playing. It's very much about helping them get the best out of where they are.

How have your mentees benefited from your relationship?

In the SEED program, the mentees fill out feedback sheets so you can actually get some real data. My first mentee said something outrageous like everything she learned in the last 12 months was due to me. I really don't think that all of her improvements were because of me, but I think she wrote that on the form to make me feel good. And it did!

She is a great example of someone who came into my office as a mouse and left as a lion. She developed confidence, networking skills, and presentation skills. She developed skills in communication to better her interactions with her team. She also started doing career planning, which she hadn't done before.

How have you personally benefited from being a mentor?

I enjoy it, and I get a lot out of it. One of my mentees had a big success and it came out of something I was advising her to do, and I felt absolutely thrilled.

And I've learned skills from people that I didn't have before. I find out about things that I didn't know about. I use my mentees as ways of finding out what's going on technically in the rest of the company. In particular, I was working with somebody who was always really calm, and never rose to take the bait when someone was picking at her. I've always struggled with that. I learned from her about how to be much more relaxed and think about what I was going to do and not just blurt things out. It was a sobering experience to work with someone who was much more junior to me and handled something so much better than I did.

Has your career benefited in any way from being a mentor?

Absolutely! It's a good way of people networking. I think it's also given me confidence. Certainly when you advise someone and they go off and have a success—or even a failure—you learn something from it—something that perhaps you wouldn't have had time to learn yourself. So it's kind of vicarious learning.

How do you define a successful mentoring relationship?

A successful relationship is one where you can see actual results and progress. You come out of the conversation thinking something worthwhile happened. Sometimes mentoring sessions with me end up being a sort of chitchat. We might not actually drill into things. But it always feels good.

What are the factors most critical to a successful mentoring relationship?

I think you have to have enthusiasm on both sides. If one of you is a bit disengaged, then it's not successful. Goals are important at the beginning, to initiate the conversation. As the relationship progresses, I think they become less important, because it becomes self-sustaining. The mentee will bring things into the discussion that weren't evident a few months before and they're just as valid to talk about.

What are the most important organizational factors that are critical to successful programs?

Because I'm quite senior, no one's watching the clock with me. But that's rarely the case with my mentees. So organizationally, they have to be given time to go do this. I tell people to do things that are going to take time and that are not normally a part of their jobs.

As part of the program, they have to get their manager's permission to sign up for it, and I think that's important. The manager doesn't receive any sort of report and the confidentiality is absolutely between the mentor and the mentee. But if you're taking some of this individual's time during the workday then it's absolutely the manager's business.

What are some of the greatest challenges you've associated with the program?

Within the constraints of the program, I'm pretty satisfied with it. I do get frustrated a little bit, because people see a mentor program as meaning that they don't have to do anything because there's a program to take care of it. I think it makes some people a little bit lazy. As I said at the beginning, I think it's part of everyone's job to mentor. So I think that's a down side. On the positive side, I think it's bringing mentoring to people who haven't had the opportunity before, so that's a good thing. But I would definitely like to see it go company-wide.

What are some tools that have been helpful?

I've taken advantage of some of the training they've offered. They have a facilitator come in for a couple of hours at the beginning of the relationship and take you through the whole process of being a mentor and a mentee. It's mainly designed to help the mentees get the best out of their experience and to give them a list of subjects to start out with. That's been very useful, because the mentees seem to be very nervous at first. It really is a good icebreaker to have someone facilitate the first discussion.

What advice would you give to organizations that want to engage a similar program?

The main thing I would say is that it should be open to all. I think everybody benefits and should have access to a mentoring program. I also think that mentoring should be throughout the ranks of the company and not just for people who have very little experience.

Not everybody is suited to be a mentor. So you need to have a set of criteria that weeds out the people you don't want and attracts people who want to be mentors. You also have to get excellent mentors. I think it really has to come down from the top that mentoring is part of everybody's job. That's something I certainly believe and something I try to instill in my direct reports.

There's also a huge investment in people time. Actually getting the names of people is pretty straightforward. Matching them up, dealing with the issues, sorting through the lists of names—it all takes a huge amount of time. You have to have people who are 100 percent into what they're doing. You have to get a good sifting program for the mentees. And you have to be prepared to put a lot of time into it.

What advice would you give employees who are thinking about being mentors?

Try it. What have you got to lose? If you try it and you hate it, you can stop doing it. The chances are you might enjoy it. The benefits are enormous. I get a huge amount out of it and I think I give a lot to the mentees. It's good to take yourself out of your normal working day and immerse yourself in someone else's world for a change.

Do you have any advice for mentees?

I think they have to examine their motivations. If all they want is visibility and a chance to chat with James Gosling, then they should just go drop by his office. But if people are genuinely interested in personal growth, I don't think anything beats it. A couple of hours of sitting down with a good, constant, decent mentor is worth thousands of hours of training.

About the Authors

Katy Dickinson is the **Director for Business Process Architecture** in Sun Microsystems' Chief Technologist's Office. Katy has worked for Sun since 1984 in Engineering, Marketing, Quality, Operations, Legal, and Sun Laboratories. She is the Six Sigma Master Black Belt for the CTO and Sun Labs. Katy has a patent in electronic commerce (2000) and a defensive patent publication on the SEED process (2004) as well as two other patent applications. In 1992-2004, Katy was a lecturer and reviewer for the University of California at Berkeley's Engineering-110 ("Venture Design: The Start-up Company") class. She was graduated from U.C. Berkeley in 1979 with a BA in English with High Honors and Distinction.
Bio: *http://www.linkedin.com/in/katydickinson* and
http://research.sun.com/people/mybio.php?c=571
Blog: *http://blogs.sun.com/katysblog/* and *http://katysblog.wordpress.com/*

Tanya Jankot is the **Applications Engineer** for the SEED engineering-wide world-wide mentoring program at Sun Microsystems. Before starting work on SEED in 2003, Tanya was a Business Application Developer in Sun's Quality Office, 1999-2003. She worked as a Web Application Developer for Lockheed Martin Enterprise Information Systems 1997-1999. Tanya was graduated from Colby College in 1997 with majors in Computer Science and Mathematics. She Graduated Magna Cum Laude, with Distinction in both majors.
Bio: *http://www.linkedin.com/pub/tanya-jankot/0/156/918* and
http://research.sun.com/people/mybio.php?c=664

Helen Gracon is has been a **Mentoring Program Manager**, Trainer, and a Consultant for Sun Microsystems since 1996. She has managed the Mentoring@Sun world-wide program and the New Vice Presidents' mentoring program for Sun Learning Services. Helen graduated with a BS from Pennsylvania State University with a major in Biology. She holds a Masters degree in Counseling from the University of Pittsburgh.
Bio: *http://www.linkedin.com/pub/helen-gracon/0/231/7a4*

Sun Microsystems Laboratories
16 Network Circle
Menlo Park, CA 94025

Sun Mentoring: 1996-2009

Katy Dickinson, Tanya Jankot, and Helen Gracon

SMLI TR-2009-185