



Evaluating the DAAD's Research Internships
in Science and Engineering (RISE) Program:
A Final Report

Prepared for

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by

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TABLE OF CONTENTS

Executive Summary	4
Organization of the Report and Methodology	8

Findings from the RISE Intern Survey, 2004-2008 Cohorts

1. <u>Profile of RISE Interns</u>	
1.1 Current Demographic and Educational Characteristics of 2008 Cohort.....	9
1.2 Current Educational and Professional Status of Former Interns.....	10
2. <u>Motivating Factors for Participation in RISE</u>	
2.1 Learning about the RISE Program.....	11
2.2 Overall Motivating Factors for Participation	11
2.3 Initial Expectations Prior to the Start of the Program.....	13
2.4 Germany as a Destination.....	13
3. <u>Personal and Professional Impacts of the RISE Program</u>	
3.1 Level of Satisfaction with the Internship.....	14
3.2 Enhancing International Capability.....	15
3.3 Impact on German Language Ability.....	16
3.4 Academic and Professional Impacts.....	18
3.5 Improvement in Personal Competencies.....	21
3.6 Connection to Current Work.....	22
3.7 Impact on Future Plans.....	24

Findings from the RISE 2008 Mentor Survey

4. <u>Profile of RISE Mentors</u>	
4.1 Demographic Characteristics.....	26
4.2 Current Status of Mentors.....	26
4.3 Prior Experience with RISE or North Americans.....	27
5. <u>Factors Related to Mentors' Participation in RISE</u>	
5.1 Learning about the RISE Program.....	28
5.2 Motivating Factors for Mentors' Participation in RISE.....	28
5.3 Level of Support from Host Institution.....	30
6. <u>Mentors' Assessment of their Intern's Work</u>	
6.1 Perceived Level of Rigor of Project.....	30

6.2 Hours Worked vs. Time Saved for Mentors.....	31
6.3 Satisfaction with Interns' Work.....	32
6.4 Satisfaction with Program Procedures.....	33
7. <u>Personal and Professional Impacts of the Program on Mentors</u>	
7.1 Personal and Professional Impact on Mentors.....	34
7.2 Impact on Language Ability.....	36
7.3 Sustainability of Relationships and Implications for Exchange.....	37

Findings from the RISE Pro 2008 Intern Survey

8. <u>Respondent Demographics</u>	
8.1 Demographic and Educational Characteristics of RISE Pro Interns.....	39
9. <u>Personal and Professional Outcomes for RISE Pro Interns</u>	
9.1 Overall Satisfaction with Internship.....	39
9.2 Enhancing International Capability.....	40
9.3 Impact on German Language Ability.....	41
9.4 Academic and Professional Outcomes.....	42
9.5 Improvement in Personal Competencies.....	44
9.6 Impact on Future Plans.....	46

Program Recommendations and Conclusions.....	47
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Appendices

Appendix A: Additional Information

Appendix B: RISE Pre-Departure Survey (administered to 2008 cohort only)

Appendix C: RISE Alumni Survey (2004-07 cohorts)

Appendix D: RISE and RISE Pro Intern Survey (2008 cohort)

Appendix E: RISE and RISE Pro Mentor Survey (2008 cohort)

Executive Summary

This summary provides an overview of the key findings from data and feedback collected during the course of a six-month evaluation conducted by the Institute of International Education (IIE) on behalf of the German Academic Exchange Service (DAAD) for its Research Internships in Science and Engineering (RISE) program. The program provides funding and placement support to Canadian and U.S. science and engineering undergraduates for summer internship and research opportunities in German higher education institutions.

The purpose of the comprehensive evaluation was to assess recent and longer-term impacts of the program on its participants. The evaluation required a multi-phase approach that involved a series of individual surveys targeted at each cohort between 2004 and 2008. For RISE, the scope of the evaluation included pre- and post-assessment surveys of U.S. and Canadian undergraduates (interns) and German Ph.D students (mentors) who participated in the program during the summer of 2008. In order to gauge longer-term impacts of RISE, a separate survey was also administered among alumni interns of the program who participated in previous cohorts dating back to the inception of the program in 2004.

The second portion of the evaluation assessed RISE Pro, a relatively newer program that is modeled after RISE but that focuses on providing career-building experience by placing recent graduates, Masters and Ph.D. students at a German company for the summer. The program recently completed its inaugural award cycle, and was included in this evaluation using similar methods and a post-assessment survey of interns participating in 2008.

In consultation with the DAAD, the evaluators chose to assess a number of aspects related to these programs, including, among other areas:

- motivations for intern and mentor participation;
- personal and professional impacts of the program;
- impact on academic and career path in the science and engineering fields;
- impact on intercultural and international research skill sets; and
- effectiveness of program administration and placement.

Overall, the positive outcomes and impact of the program, which are described in detail throughout the full report that follows, serve as strong indicators of the RISE program's success over the past four years. As it has grown in size, the program has been able to provide valuable research experience and opportunities to enhance personal and professional skills and competencies for an increasing number of North American undergraduates, while also enhancing their intercultural skills in an international research setting.

For German mentors and supervisors, the program effectively provides them with supervisory experience with a highly qualified undergraduate research assistant, an

opportunity to improve their English language skills, and the opportunity to work in a multicultural team. Based on the findings from this evaluation, RISE will likely remain a unique and valuable fellowship program that will continue to build on its early successes, providing lasting academic and professional opportunities for future North American and German participants.

Key Findings:

Why do participants apply and what do they hope to gain from their experience?

Interns:

Most interns were motivated to apply to the RISE program primarily because:

- they wanted to participate in an internship program that promised hands-on practical research (98 percent responding)
- they wanted the opportunity to work and travel abroad (97 percent)
- they felt it would increase their global competence (96 percent)
- it took place during the summer months (91 percent)

Academic obligation or degree requirement was not cited as a key reason for participating: 57 percent of interns said they would not, in fact, receive any academic or internship credit, while 28 percent did not know whether they would receive credit from their home institution for their participation in RISE.

Mentors:

The most important motivating factors among mentors relate to the professional benefits and skills they would gain from a work or research-based relationship with a North American intern. Ranked well above all the other listed factors, the desire to gain supervisory experience was the top motivating factor for mentors' participation, reported by 83 percent of all mentors. A high percentage of mentors also agreed or strongly agreed that they wanted to secure an intern with strong qualifications (69 percent), while also choosing to participate in the program because RISE offered them the opportunity to improve their English language skills through close interaction and communication with a North American intern (68 percent).

That German mentors, most of them Ph.D. students, expressed a strong motivation to work with a North American student for these reasons, points to a significant need for a program such as RISE, which aims to provide future German researchers and professionals with practical supervisory experience in addition to the "softer" intercultural and language skills gained from working with a well-qualified North American intern.

What type of North American undergraduate student participated in RISE?

In terms of field of study and academic background, 33 percent of the 2008 interns were pursuing their degree in engineering fields, 26 percent in the field of biology, 21 percent in chemistry, and 16 percent in physics.

How do potential participants first hear about RISE at their institutions?

For both types of participants—mentors and interns—word-of-mouth at the institution serves as the most widespread and effective form of communicating information about the program. For interns, the top sources of information were concentrated at the institutional level: 21 percent of interns heard about the program from a professor at their institution, 20 percent from a fellow student, 14 percent through a study abroad office, 10 percent from students’ advisors, and about five percent from former RISE fellows.

The DAAD website and other internet resources were cited less frequently as the first sources of information about the program. However, it is possible that advisors and faculty members learn of the program through the website and other electronic resources and then relay the information directly to their students.

Did the program meet its goals and were intern expectations met?

- The vast majority of interns (87 percent) agreed that they were satisfied with the amount of practical, hands-on research that they were involved in during the internship. Overall, 77 percent of the interns felt that their expectations of the program were fully met.
- There was also strong consensus among students that they were satisfied with their relationship with their mentor or supervisor (84 percent), with how their project matched the original description and focus in the placement period (82 percent), and with the scope of their own responsibilities as interns (80 percent). Interns also agreed that they were largely satisfied with the level of rigor of their research projects (74 percent).
- For mentors, the most success and impact was seen in an intercultural context: 81 percent said it improved their ability to function in or manage a multicultural team; and 75 percent said it improved their understanding of North American cultures and lifestyles.
- Related to program administration, virtually all mentors (91 percent) found overall RISE program procedures to be satisfactory, and more specifically, that the placement process was effective and satisfactory (83 percent).
- 89 percent of mentors would recommend the program to another potential mentor/company in the future.

What were the impacts on international capabilities for interns?

- Virtually all interns (96 percent) who have participated since the program’s inception between 2004 and 2008 agreed that their participation in RISE broadened their understanding of Germany, its culture and its customs.
- 90 percent agreed that they had acquired an understanding of German professional practices and standards.
- 86 percent agreed that they had acquired an international career outlook directly because of RISE.

Specifically among the 2008 cohort:

- 91 percent of interns increased their desire to travel abroad.
- 87 percent increased their interest in world affairs.

- 77 percent learned about international business, industry and/or careers.
- 68 percent agreed they engaged in better research opportunities through RISE.

What are the longer-term impacts of the program?

Although the evaluation does not presume causality, RISE participants eventually pursue advanced degree study after their participation in the program. At the time of the survey, 40 percent were in graduate school, while 26 percent were still finishing their undergraduate degrees. Although only 8 percent of alumni who responded to the survey had begun pursuing their Ph.D. degrees, a longer-term assessment (and more responses from the earliest cohorts) would be needed to assess how many alumni eventually pursue graduate and doctoral study, and what role, if any, the RISE experience played in their decision. Among the 2008 cohort, 66 percent of undergraduate interns said they planned to pursue a master's and doctoral degree in the future.

About one in four returns to Germany. Since their participation in the program, more than a quarter (26 percent) of alumni had returned either to visit while on vacation (17 percent) or to pursue other opportunities for work or study (9 percent). Ten percent of all alumni were living outside the U.S. or Canada at the time of the survey, some of whom were in Germany participating in the RISE Pro program, since this program attracts former RISE interns and other DAAD scholarship participants.

As far as whether they would consider returning to Germany, interns in both cohorts seemed to be in favor of either pursuing their graduate or doctoral studies in Germany or securing a job in the country: 55 percent of interns said they were considering graduate/post-graduate study in Germany, while another 34 percent were also considering working there in the future. Compared to the most recent cohort, interns who participated between 2004 and 2007 show a slightly greater level of interest in considering a job there (41 percent) and slightly less interest in graduate/post-graduate studies in Germany (37 percent). These differences might be explained by the fact interns who have recently finished the program are more inclined to want to return in the near future, in this case for a graduate or post-graduate degree. Interns who have been away from the program for a year or longer, on the other hand, may feel more inclined to return at a later stage either for doctoral studies or to pursue a career.

Organization of the Report

The report begins with a brief description of the overall methodology of the evaluation, followed by a discussion of the key findings from data and responses collected from RISE interns, RISE mentors, and RISE Pro interns. Findings for the 2008 cohort are often presented separately since this would be the most current and relevant data useful for the sponsor. A final section outlines recommendations and a summary of participant feedback for the RISE and RISE Pro programs.

Methodology

Because the evaluation involved gathering and analyzing feedback from interns and mentors who participated over a period of four years, two surveys were designed and implemented: one to RISE alumni interns of the program who participated in the summer of 2004, 2005, 2006 or 2007; and a separate but similar survey administered among the most recent 2008 RISE and RISE Pro cohorts. While both surveys focused on similar themes and questions, certain sets of questions were posed only to the groups to whom they were applicable. For instance, in order to assess some of the longer-term impacts of the RISE program, such as whether relationships were sustained between mentors and interns over time, the alumni survey had a section appropriately devoted to this area while the 2008 survey did not. One of the goals of the evaluation was to also measure some of the short-term impacts and outcomes relative to interns' initial expectations. Hence, the 2008 cohort received an additional "pre-departure" survey prior to their participation.

The final groups to be surveyed were the mentors who participated in RISE and RISE Pro in 2008. Using a set of questions that focused on similar themes as the intern survey, the mentor survey addressed additional topics that focused on feedback from their perspectives, relating to themes such as supervising an intern, overall satisfaction with the intern's work, and benefits that the program provides to mentors and host organizations and institutions. Mentors were also asked to provide open-ended feedback for program improvement. Because RISE and RISE Pro mentors completed the same survey at the end of the 2008 internship, the analysis reflects data collectively from both sets of mentors.

The surveys described above were administered at various times in the summer of 2008; each cohort received an email from DAAD that contained a link to the online survey, which respondents had approximately two weeks to complete. A note on response rates and categorization of cohorts is included in Appendix A.

Findings from the RISE Intern Survey, 2004-2008 Cohorts

This section provides an analysis of the data collected from two surveys administered among RISE interns who participated in the program between 2004 and 2008. Two surveys were used to collect this data: one targeted to alumni of the program that participated between 2004 and 2007; and another targeted to the most recent cohort that participated in the summer of 2008. For this most recent cohort, the evaluators were able to collect an even broader set of data not available among the other cohorts, by conducting a short separate survey prior to the group's departure in May 2008 in order to allow for a comparative assessment and measurement of specific areas of knowledge and competencies gained after they returned. The results of this pre-departure survey also included an analysis of the expectations and motivations of the interns prior to the start of the program, and are discussed later in the report.

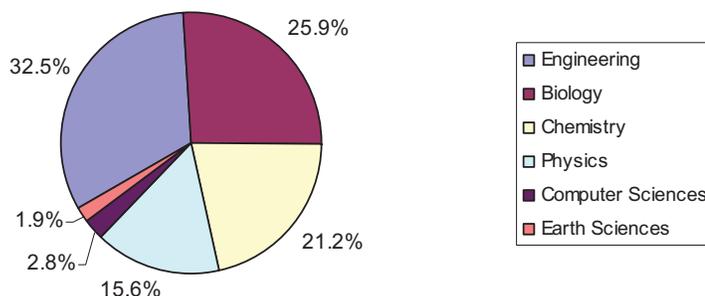
1. Profile of RISE Interns

1.1 Current Demographic and Educational Characteristics of 2008 Cohort

Respondents to the 2008 cohort survey were equally represented across gender lines with 50 percent male and 50 percent female responding. A large proportion of this group (77 percent) came from a U.S. institution, while 23 percent were from a higher education institution in Canada, reflecting the geographical distribution of the participants in the program.

Interns in the 2008 cohort were pursuing diverse fields of study as part of their undergraduate degree: a third were in engineering fields, 26 percent in biology, 21 percent in chemistry, and 16 percent in physics (fig. 1). Less than five percent were studying the computer sciences or earth sciences.

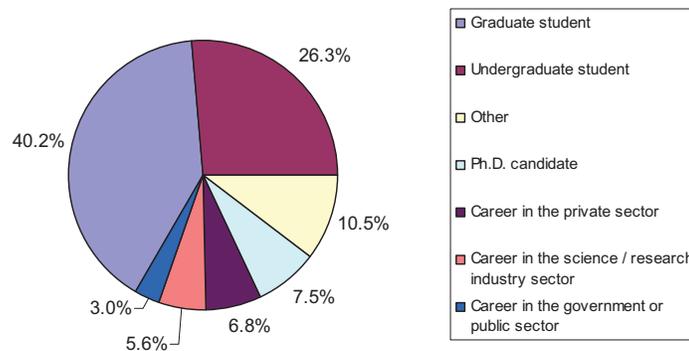
Figure 1. Current Field of Study Among 2008 Cohort, percent responding



1.2 Current Educational and Professional Status of Former Interns

Of the alumni interns who participated between 2004 and 2007, the majority classified themselves as graduate students (40 percent), while 26 percent were still completing their undergraduate degree (fig. 2).¹ Compared to those who were enrolled in graduate and undergraduate study at the time of the survey, only eight percent of alumni were pursuing doctoral study at the Ph.D. level. Another seven percent had entered a career in the private sector, and six percent were working in the science/research sector.² Very few were working in academia or the non-profit sector, which could be explained by the fact that students graduating with an undergraduate or graduate degree in the science or engineering fields are more than likely to enter the science/research or private industry sector immediately upon graduation. A longer-term study that covers a broader length of transition from higher education into the workforce might reveal a broader dispersal into various work sectors, especially into academia.

Figure 2. Current Educational and Professional Status of Alumni, percent responding



2. Motivating Factors for Participation in RISE

This section focuses on findings from the pre-departure survey administered among the 2008 cohort in May 2008. The goal was to collect data on initial perceptions, motivations and expectations of the RISE Program from the most recent group of interns who were about to begin their internship in Germany.

¹ In the separate survey targeted solely at the 2008 cohort, virtually all interns (99 percent) were still completing their undergraduate degrees at the time of the evaluation.

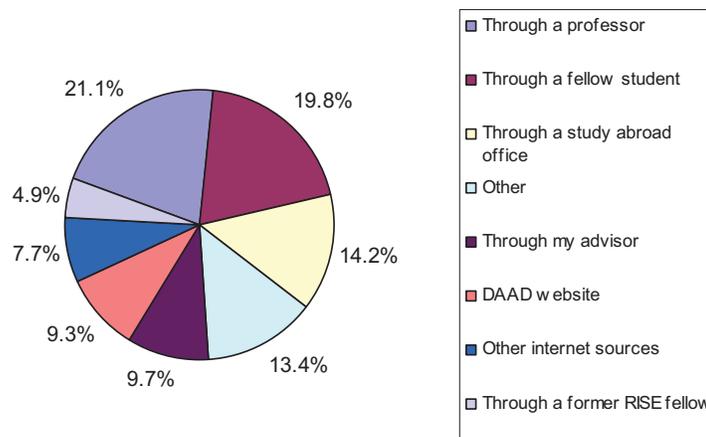
² The evaluators recognize that there might be some overlap between the categories of “private sector” and “science/research sector”.

2.1 Learning about the RISE Program

Although the 2008 cohort of interns noted a wide variety of resources and information channels through which they first learned of the program, the top sources of information were concentrated at the institutional level: 21 percent of respondents heard about the program from a professor at their institution, 20 percent from another student, 14 percent through a study abroad office, and 10 percent from students' advisors (fig. 3). Especially for this cohort, most of the information about RISE appears to circulate within the home institution, most likely coming from faculty members familiar with the program or other students who have heard of the program.

Surprisingly, students who forward information about the program to their peers have not necessarily participated in previous years: former RISE interns accounted for only five percent of responses to this survey question. The DAAD website as well as other internet resources also do not seem to have as much of a direct impact on how students first hear about the program. However, it is possible that advisors and faculty members learn of the program through the website and other electronic resources and then relay the information to their students. Other sources of information about the program came in the form of campus-wide e-mail announcements, departmental listservs and newsletters, and fliers circulated at the home institution.

Figure 3. How Did You First Find Out About RISE? (percent responding)



2.2 Overall Motivating Factors for Participation

The pre-departure survey asked respondents to assess the relative importance of a number of factors that typically influence a student's decision to apply for a particular scholarship program, including: the opportunity to participate in a hands-on research project abroad; the availability of an internship experience offered in the summer; and a perceived long-term connection between the internship experience and future academic and professional goals.

A variety of these motivating factors influenced interns' application to and participation in the program. Virtually all interns agreed or strongly agreed that they were attracted to RISE because they wanted to participate in an internship program that promised hands-on practical research (98 percent), and that provided them the opportunity to work and travel abroad (97 percent) (fig. 4). Many of the interns also said it was important to increase their global competence, agreeing that RISE offers the opportunity to develop international skills (96 percent).

More practical issues such as the timing of the internship and the level of funding played an important role in affecting students' decisions to apply and participate. A large majority (91 percent) agreed that it was important that the program took place during the summer months, which, for many U.S. students in the science and engineering fields, is usually the only time they are able to participate in a study abroad program. 93 percent agreed that the amount of funding was important to take into consideration. For many students, it was also important that the program took place in Germany (85 percent). Figure 4 highlights the relative importance of other factors such as the opportunity to collaborate with German peers.

Receiving academic or internship credit for their participation in RISE did not appear to be a strong motivating factor for almost half of the students (45 percent). In a follow-up question, 57 percent of interns said they would not, in fact, receive any academic or internship credit while another 28 percent did not know whether they would receive credit from their home institution for their participation in RISE. This may serve as one potential area for improvement of the program—that DAAD might consider new ways of approaching U.S. institutions, specifically faculty members within science and engineering departments, to emphasize the academic and work merit of the program. If perhaps more internship and academic credit were awarded, the program might even see a higher quality of applicant due to wider interest among future applicant pools.

Figure 4. Motivating Factors for Interns' Participation in RISE, percent responding

	Strongly disagree	Somewhat disagree	Neutral	Agree	Strongly agree
It is important that the program takes places in Germany.	0.0% (0)	2.0% (5)	13.4% (33)	40.9% (101)	43.7% (108)
It is important that the German language is not required.	2.4% (6)	6.9% (17)	15.8% (39)	26.7% (66)	48.2% (119)
It is important that I have the ability to engage in practical, hands-on research.	0.0% (0)	0.0% (0)	2.0% (5)	21.1% (52)	76.8% (189)
It is important that I get to select a research project myself.	0.4% (1)	2.0% (5)	7.7% (19)	39.3% (97)	50.6% (125)
It is important that I have intensive research collaboration with other young people.	0.4% (1)	2.0% (5)	16.3% (40)	43.5% (107)	37.8% (93)
It is important that it takes place during the summer months.	1.2% (3)	2.9% (7)	4.9% (12)	21.6% (53)	69.4% (170)
The amount of financial support is important.	0.0% (0)	2.8% (7)	4.9% (12)	27.5% (68)	64.8% (160)

It is important that I increase my global competence.	0.0% (0)	0.4% (1)	4.1% (10)	24.4% (60)	71.1% (175)
It is important that I get to work / travel abroad.	0.0% (0)	0.4% (1)	2.9% (7)	20.9% (51)	75.8% (185)
It is important that I will receive academic credit.	11.4% (28)	21.5% (53)	44.7% (110)	14.6% (36)	7.7% (19)

2.3 Initial Expectations Prior to the Start of the Program

The vast majority of interns had high expectations across the board for the program, from seeking to engage in better research opportunities (91 percent), learning about another culture (90 percent), improving their German language skills (86 percent), making professional and personal connections (85 percent), to improving career prospects (82 percent). Comments elicited in a follow-up open-ended question further illustrate the interns' anticipation and expectations (fig. 5).

2.4 Germany as a Destination

Prior to their departure, more than two-thirds of the RISE interns in the 2008 cohort had never been to Germany before (68 percent). Those who had traveled there previously had done so on vacation (19 percent), with very few having already participated in a previous study abroad trip or a high school exchange program in Germany (5 percent).

These data would suggest that most students were entering the program with very little academic or professional experience in the country. Only about 1 in 5 had visited the country and had some first-hand knowledge of it, which more than likely was limited to cultural knowledge acquired through vacations or previous study abroad trips. The RISE program is unique in its approach in that it targets students who have not had a significant level of cultural, academic or professional experience in the country. By targeting and selecting these students to participate, it seeks to meet its broader objective of exposing students to German academia and its research and science sectors.

Figure 5. Selected Comments about RISE at the Onset of the Program, 2008 cohort.

- *"I think the RISE program is an amazing opportunity for students to be able to try something different over the summer and be able to obtain real world research experience that may not be present at their home institutes."*
- *"I think this program is fantastic, and I can't even begin to explain to you how excited I am to have the opportunity to participate in it this summer. It is exactly the kind of experience I need right now to show me whether or not getting my PhD is the right choice for me."*
- *"I really like how students are given an opportunity to select their favorite choices when it comes to research projects. It's been very helpful having someone in Germany to finalize all the details of my trip (housing, banking, etc.) that I am unable to do from the States."*

3. Personal and Professional Impacts of the RISE Program

This section focuses on the level of personal and professional impacts of the RISE program on interns. The analysis includes findings from both the alumni and 2008 cohorts in order to capture a broader perspective on how the program has influenced the development of personal competencies and capabilities, in addition to how it has made an impact on interns' current and future academic and career paths.

3.1 Level of Satisfaction with the Internship

In order to gauge the immediate outcomes of the most recent cohort's experiences, the 2008 RISE interns were asked about their level of satisfaction in regards to specific components of the internship (fig. 6). Overall, 77 percent of the interns felt that their overall expectations of the program were met. Looking at more specific aspects of the program, the vast majority of interns (87 percent) agreed that they were satisfied with the amount of practical, hands-on research that they were involved in during the internship. Considering that this was one of the main motivating factors for applying to the program for interns, the program was successful in meeting this objective.

There was also strong consensus (84 percent) among students that they were satisfied with their relationship with their mentor or supervisor; with how their project matched the original description and focus in the placement period (82 percent); and with the scope of their own responsibilities as interns (80 percent). Interns also agreed that they were largely satisfied with the level of rigor of their research projects (74 percent).

Figure 6. Level of Satisfaction with Internship Components, 2008 Cohort, percent responding

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
I was satisfied with the amount of practical, hands-on work I took part in.	1.9% (4)	4.7% (10)	6.1% (13)	31.8% (68)	55.1% (118)	0.5% (1)
I was satisfied with the scope of my responsibilities during the internship.	2.3% (5)	6.1% (13)	10.7% (23)	40.7% (87)	39.7% (85)	0.5% (1)
I was satisfied with the level of rigor of the research I took part in.	1.9% (4)	10.3% (22)	13.1% (28)	40.7% (87)	33.2% (71)	0.9% (2)
I was satisfied with my work relationship with my mentor/supervisor.	3.3% (7)	4.7% (10)	6.5% (14)	20.1% (43)	63.6% (136)	1.9% (4)
The research project I selected matched the original description and focus.	1.9% (4)	5.6% (12)	10.3% (22)	44.4% (95)	37.4% (80)	0.5% (1)
My overall expectations of the internship were fully met.	1.9% (4)	6.1% (13)	14.5% (31)	35.0% (75)	41.6% (89)	0.9% (2)

3.2 Enhancing International Capability

Many RISE interns noted that their participation in the program enhanced their international capabilities, which include a combination of deepened cross-cultural understanding, knowledge of another country's systems and practices, and a broader academic and professional outlook that goes beyond the scope of their home country. Key findings include the following:

- Virtually all interns (96 percent) who have participated since the program's inception between 2004 and 2008 agreed that their participation in RISE broadened their understanding of Germany, its culture and its customs (fig. 7).
- A majority of interns (90 percent) agreed that they had acquired an understanding of German professional practices and standards.
- 86 percent agreed that they had acquired an international career outlook directly because of RISE.

A few additional questions were posed solely to the 2008 cohort to further assess any additional international capabilities they may have acquired:

- 91 percent of interns in the 2008 cohort reported an increased desire to travel abroad;
- 87 percent increased their interest in world affairs;
- 77 percent learned about international business, industry and/or careers; and
- 68 percent felt they engaged in better research opportunities through RISE.

Figure 7. International Capabilities Acquired through RISE. 2004-2008 Cohorts, percent responding

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
Through the program, I acquired an understanding of German professional practices and standards.	0.0% (0)	2.1% (10)	6.8% (32)	44.6% (211)	45.2% (214)	1.3% (6)
I have acquired an international career outlook because of my internship.	0.4% (2)	2.1% (10)	10.2% (48)	33.5% (158)	52.0% (245)	1.7% (8)
It gave me opportunities to build lasting professional relationships.	1.1% (5)	5.7% (27)	16.5% (78)	40.4% (191)	35.3% (167)	1.1% (5)
I engaged in better research opportunities through the program.*	1.9% (4)	6.6% (14)	22.7% (48)	36.5% (77)	31.8% (67)	0.5% (1)
It broadened my understanding of another country, culture and its customs.*	0.0% (0)	0.0% (0)	3.3% (7)	19.4% (41)	76.3% (161)	0.9% (2)
It increased my desire to travel abroad.*	0.5% (1)	2.4% (5)	6.2% (13)	21.0% (44)	69.5% (146)	0.5% (1)
Through the program, I learned about international business, industry, and/or careers.*	0.9% (2)	6.2% (13)	14.7% (31)	47.4% (100)	29.9% (63)	0.9% (2)
It increased my interest in world affairs.*	0.0% (0)	0.9% (2)	11.8% (25)	33.2% (70)	53.6% (113)	0.5% (1)

* Indicates responses for which additional data were collected from the 2008 intern cohort.

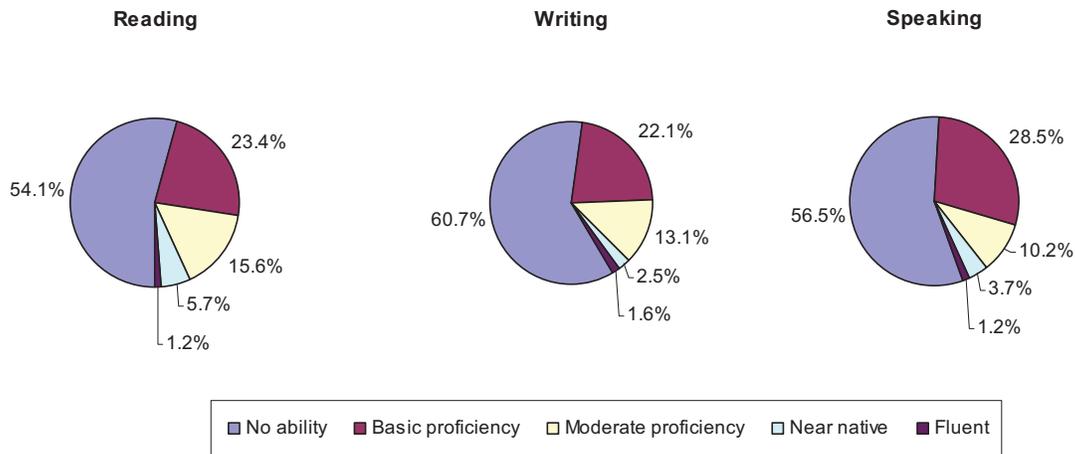
3.3. Impact on German Language Ability

One of the indirect benefits for RISE participants was the opportunity to improve their German language skills. A thorough assessment of language abilities, which would have included the administration of pre- and post-tests for specific language skills, was not within the scope of this evaluation. However, language acquisition was gauged by asking respondents to self-report their abilities, a measurement that while somewhat less accurate than actual testing, was one that was deemed appropriate for this type of evaluation which looked at many other outcomes in addition to language skills.

Although the work and research conducted during the internship was facilitated primarily in English between interns and their German mentors, immersion into German culture and social life undoubtedly had an impact on the acquisition of language skills. In general, RISE interns reported strong gains in language skills and improvement based on their abilities prior to and after their time in Germany. In addition, the RISE program provided deep cultural immersion opportunities for interns, since North American interns seemed to have limited access to their English-speaking North American peers while in Germany.

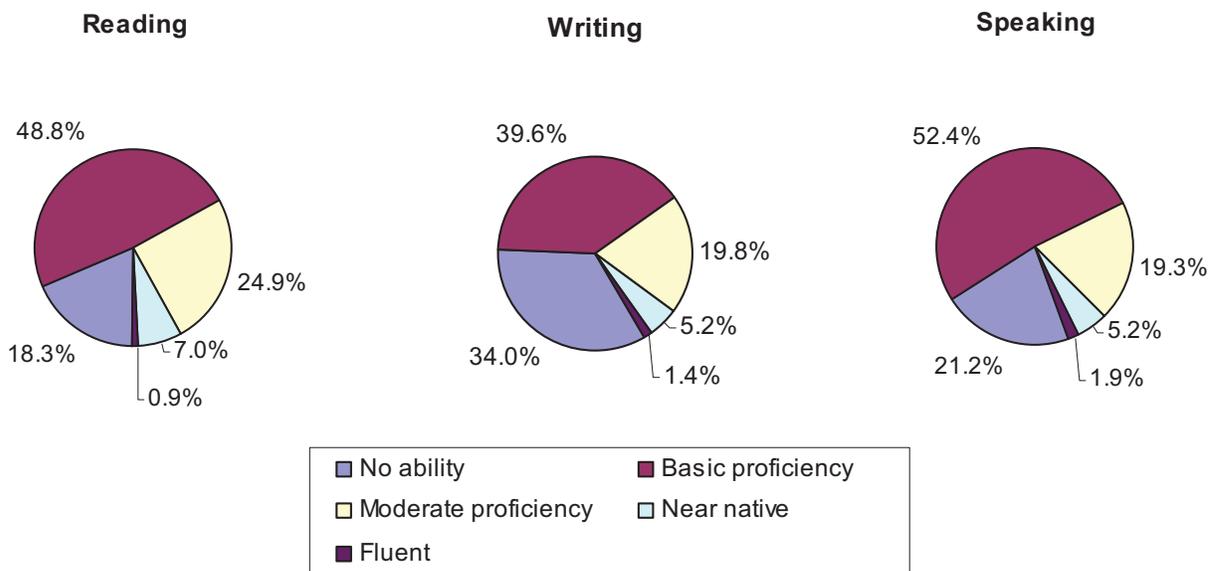
Prior to their departure, virtually all of the interns from the 2008 cohort (98 percent) expressed interest in improving their German language skills during the program. At the onset of the program, most interns had most likely never taken a German language course prior to their participation in RISE, with up to 61 percent reporting “no ability” at speaking, writing and reading in German (fig. 8). Others reported slightly higher levels of moderate proficiency in reading (16 percent) and writing (13 percent) than in speaking (10 percent). The highest level of “basic proficiency” reported was in speaking skills (29 percent), suggesting that close to a third of the interns had already had some prior experience with German, albeit limited exposure to it, either in the classroom or at home.

Figure 8. German Language Skills Prior to Departure, 2008 cohort, percent responding



To measure progress of German language acquisition, interns were asked if these skills had improved and how much of an impact the RISE program had on their language skills upon completion of the program (fig. 9). While basic and moderate proficiency increased significantly for reading and writing skills, the highest gains were for speaking, which would be the most likely language component to improve in a short-term immersion experience. More than half of the 2008 interns (52 percent) reported having acquired a basic speaking proficiency, up from 29 percent prior to their departure. Interns also saw impressive gains in the “moderate proficiency” level, most notably in their reading abilities: 25 percent noted moderate proficiency in reading compared to 16 percent prior to their departure. In addition, the percentage of interns reporting “no ability” dropped dramatically in all three language categories.

Figure 9. Reading, Writing and Speaking Skills Post-Participation. 2008 cohort, percent responding



Following their return, most interns also reported that less knowledge of the German language did not pose any limitations in carrying out their internship (85 percent). While just over half of the interns (53 percent) agreed that it posed no limitations outside of the internship, about one in four interns felt that their lack of German language skills presented some limitations to their social and living experiences. This is understandable, considering that most students who study abroad in a country that they have never visited before are more than likely to face challenges in adjusting due to the language barrier.

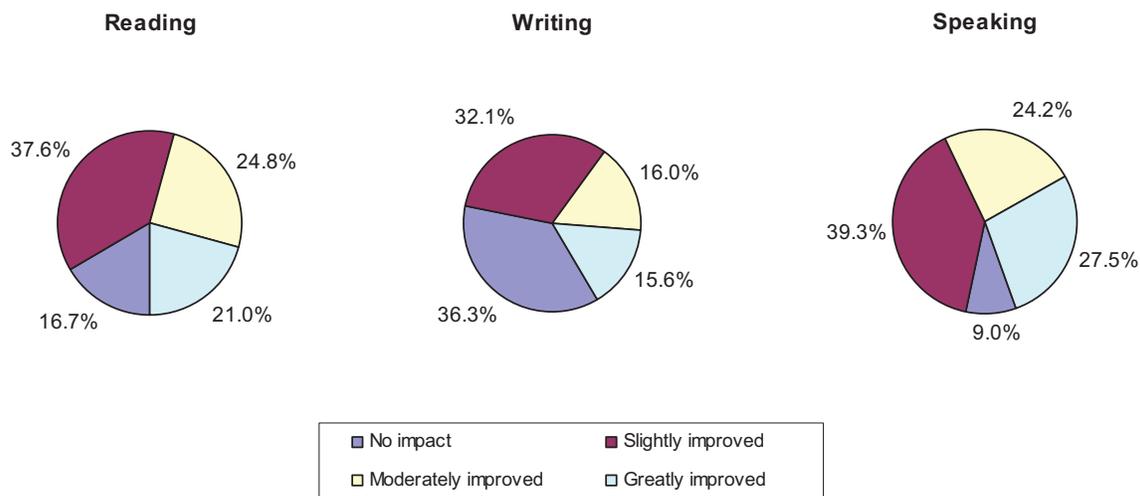
The optional language course that the DAAD offers to interns may have had a direct impact on some of the gains noted above. In open-ended questions, a large number of students said they wished they had had the opportunity to enroll in the offered language course, but because of space limitations, did not have the opportunity to do so. In the future, the DAAD may wish to consider making available more seats for the course so it

will allow a greater number of students to acquire a basic proficiency at the onset of the program, which may lead to an overall improved experience for the interns.

For those alumni who had participated in cohorts prior to 2008, enrollment in German language study was popular even after RISE: close to a third had taken a German language course since they had returned home (29 percent), with an additional 36 percent saying they were planning to take a course in the future. Upon their return, almost half (49 percent) of the 2008 cohort said they planned to take a language course.

Interns were also asked about the perceived impact of the program on their foreign language acquisition, with many reporting that their participation in the program helped improve these skills (fig. 10). More than a quarter of the 2008 interns (28 percent) said their participation greatly improved their speaking skills, while overall, 91 percent reported at least some improvement in speaking skills attributed to their participation in RISE. As would be expected, the greatest level of impact was reported for speaking skills since the RISE internship experience did not involve significant exposure to reading or writing in a research or academic context for most interns.

Figure 10. Perception of Program Impact on Language for the 2008 Cohort, percent responding



3.4 Academic and Professional Impacts

Today’s science and engineering undergraduate and graduate students seek meaningful and practical research experiences that will help them acquire the skills and necessary training that will support their academic interests and enhance their future job prospects. This section focuses on some of the academic and professional outcomes of the program.

Among RISE interns who participated between 2004 and 2008, one of the most valuable outcomes, reported by 87 percent of interns, was the hands-on field-specific knowledge

gained through the internship (fig. 11). Most (81 percent) agreed or strongly agreed that RISE also reinforced their commitment to pursuing a science or engineering degree and their interest in pursuing a career related to science or engineering (83 percent). Other interns may have felt inclined to pursue a science or engineering career within academia, since there were also a large number of interns who agreed that RISE reinforced their interest in pursuing an academic career (60 percent). It is interesting to see such strong interest in academia, considering that the majority of jobs available to recent graduates in science and engineering would be in the industry or private sector. One explanation might be that interns who have graduated and are relatively new to the workforce might be considering academic pursuits for their long-term career path.

More than half of alumni (58 percent) also noted that their internship experience and current line of work or study were closely related, while another 43 percent had frequently used their RISE research in applied work. Although not directly related to the program, almost half of the RISE alumni went on to increase their involvement in leadership positions back in school after their participation in the program (44 percent).

Figure 11. Academic and Professional Impacts from RISE. 2004-2008 Cohorts, percent responding

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
RISE reinforced my commitment to continue pursuing an education focused on science or engineering.	0.2% (1)	2.7% (13)	14.6% (69)	39.0% (185)	42.4% (201)	1.1% (5)
RISE reinforced my interest in pursuing a science or engineering-related career.	0.2% (1)	4.2% (20)	11.5% (54)	42.0% (198)	40.6% (191)	1.5% (7)
RISE reinforced my interest in pursuing an academic career.	1.5% (7)	10.1% (48)	25.3% (120)	32.9% (156)	27.6% (131)	2.5% (12)
RISE motivated me to apply for other prestigious awards.	0.8% (4)	4.4% (21)	22.4% (106)	36.3% (172)	34.4% (163)	1.7% (8)
Through RISE, I gained valuable field-specific knowledge.	0.4% (2)	1.9% (9)	10.1% (48)	39.7% (188)	47.1% (223)	0.6% (3)
I increased my involvement in leadership positions upon my return to school.*	1.5% (4)	11.4% (30)	40.3% (106)	28.1% (74)	16.0% (42)	2.7% (7)
My internship experience and my current line of work / study are closely related.*	5.3% (14)	17.2% (45)	17.6% (46)	34.4% (90)	23.7% (62)	1.9% (5)
I have frequently used my RISE research in applied work.*	4.6% (12)	22.8% (60)	28.5% (75)	31.6% (83)	11.0% (29)	1.5% (4)

* Indicates responses for which data were collected only from RISE alumni (2004-2007).

In an open-ended follow-up question, alumni were asked what the “greatest” impact of the program was for them (fig. 12). While many interns listed a combination of factors that influenced their experience, a majority cited the improvement of their research skills and professional competencies as one of the greatest impacts of the program. In many instances, interns noted that their improved research skills and competencies had broadened their career outlook, with potential employers already taking interest in their RISE experience. For those interns who were considering graduate school, they expressed confidence that the international research skills and experience gained through RISE had strengthened their graduate school applications. Many of the interns considering further studies remarked how the program reaffirmed their decision to pursue a certain field of study or how it even helped expose them to new fields of study.

Another theme that emerged from the open-ended responses suggests that the RISE program had a significant impact at a personal level, contributing to a deeper understanding of German culture and its higher education and professional research sector, which included specific practices, techniques and standards that exposed North American interns to new approaches and ways of thinking. Many interns broadened their knowledge of German social, professional and academic culture, developing a strong appreciation for the cross-cultural differences and similarities between their own U.S. and Canadian backgrounds and those of their mentors and counterparts in Germany.

Other interns expressed that the program’s greatest impact was on how they viewed their own potential academic and career paths extending beyond North America. Many specifically said they were strongly considering returning to Germany to pursue graduate studies. Others reported that the program had broadened their sights to Europe in general, as a few students had already been awarded Fulbright and Erasmus funding for their studies in Germany. Among those who did not mention a specific location, many were at least open to the idea of working outside the U.S. or Canada or pursuing a graduate

Figure 12. Impact of the RISE Program as Reported by Alumni.

- *“It was really the beginning of my eyes being opened to how many opportunities are out there if you just search them out. After RISE in 2006, I participated again in 2007, and this year in 2008 in RISE-Pro. Through encouragement from RISE, I also found out and applied for an Erasmus Mundus master's which I've been accepted for and start this fall in Würzburg. It will then take me to Sweden and the UK, so I am greatly indebted to RISE for how it broadened my mind and my goals.”*
- *“...the fact that I could experience what life as a graduate student doing real current research would be like. Also learning that Germany was very international, especially in the lab where I carried out my internship, and that I could come back to Germany for post-graduate programs even if I didn't speak much German.”*
- *“I learned new techniques and ideas about research that I have been able to apply daily in my current research project.”*
- *“I think the personal relationships I developed, and the glimpse into international research, are the greatest benefits I took away from the RISE program. I loved the work atmosphere and everyone in my department -- I know that an academic career in Ecology is where I'm headed. I also see myself doing more research abroad in the future.”*

degree abroad in the future, a prospect that many had not considered before their participation in the program.

Still others commented that the program’s greatest impact was on the relationships and professional networks that the program fostered. Many interns said they had developed professional and personal connections with German scientists, Ph.D. students, and their own German peers and colleagues. These kinds of relationships appear to serve interns well in the long term, as some interns have relied on these networks to identify and pursue other research and opportunities for degree study in Germany and elsewhere.

3.5 Improvement in Personal Competencies

The post-assessment survey asked recent participants and alumni to assess the level of improvement for select personal competencies that are typically developed or enhanced through a research internship experience abroad, including communication skills, enhanced research skills, cross-cultural teamwork skills, and characteristics reflecting greater independence and improved self-confidence.

There was strong consensus among all interns that they had, in fact, improved personal competencies. Key findings include the following:

- 93 percent agreed that the program made them more independent and self-sufficient while it also improved their ability to work in a multi-cultural work environment (fig. 13).
- Based on the project they worked on, 92 percent of interns agreed that it gave them a deeper understanding of a particular research area.
- 89 percent had increased their self-confidence, while 87 percent improved their skills to conduct research.
- 84 percent agreed that it helped them improve their interpersonal skills.

Figure 13. Improvement in Personal Competencies. 2004-2008 Cohorts, percent responding

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
Ability to communicate more effectively.	0.0% (0)	1.7% (8)	20.5% (97)	50.3% (238)	26.6% (126)	0.8% (4)
Improved my interpersonal skills.	0.0% (0)	1.9% (9)	13.7% (65)	55.9% (265)	28.1% (133)	0.4% (2)
Increased my self-confidence.	0.0% (0)	1.5% (7)	9.9% (47)	43.8% (207)	44.8% (212)	0.0% (0)
Made me more independent and self-sufficient.	0.2% (1)	0.6% (3)	5.7% (27)	35.9% (169)	56.7% (267)	0.8% (4)
Ability to function in a multi-cultural work environment.	0.0% (0)	0.2% (1)	6.5% (31)	38.4% (182)	54.2% (257)	0.6% (3)

Ability to work in a team.	0.0% (0)	4.7% (22)	27.5% (130)	41.9% (198)	23.3% (110)	2.7% (13)
A deeper understanding of a particular research area.	0.4% (2)	1.7% (8)	4.9% (23)	44.9% (213)	47.0% (223)	1.1% (5)
Skills to conduct research.	0.2% (1)	2.3% (11)	10.4% (49)	47.1% (223)	39.5% (187)	0.4% (2)
An understanding of professional and ethical responsibilities.	0.0% (0)	3.2% (15)	26.0% (122)	45.5% (214)	23.8% (112)	1.5% (7)

In open-ended follow-up questions, interns noted that they were able to greatly improve inter-personal and communication skills.

Interns also cited increased levels of cross-cultural understanding, self-confidence and independence gained from working in a new environment and interacting with Ph.D. students and mentors in another culture.

The quotes included in Figure 14 are illustrative of other personal competencies reported by recent interns and alumni in follow-up questions related to personal competencies developed or enhanced during the internship.

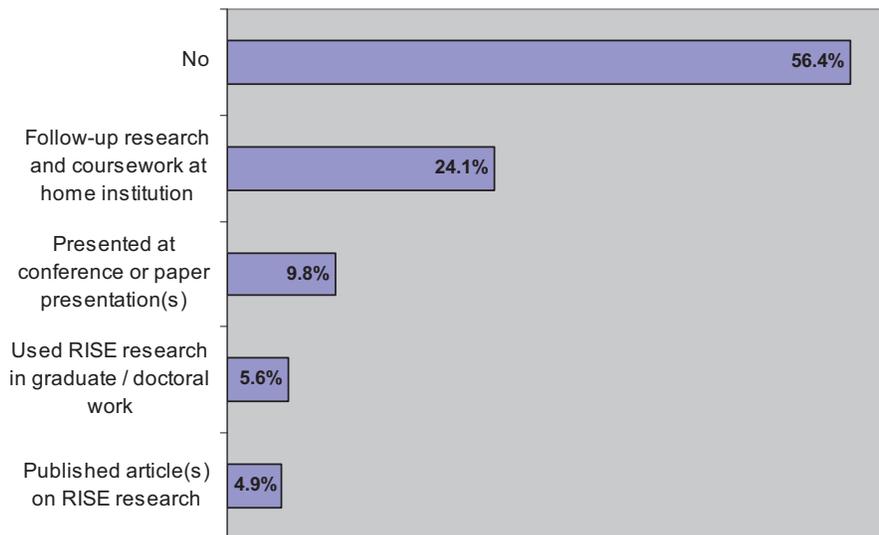
3.6 Connection to Current Work

RISE alumni were asked if they had applied their internship experience and research back at their home institutions. While the majority (56 percent) had not done so, about a quarter (24 percent) had used the experience to engage in follow-up research and coursework in a similar field (fig. 15). About ten percent had also presented the research they conducted during the internship at conferences.

Figure 14. Selected Comments on Impact of the RISE Program on Personal Competencies.

- *“It forced me to take more initiative in my work and it gave me more responsibilities. It proved to me that I can handle a position in a lab and hold my own.”*
- *“It improved my self-confidence and ability to work in different environments and on different projects.”*
- *“I learned to work with a different lab environment where people are straightforward and don't give as much positive feedback as they do constructive criticism.”*
- *“My German improved greatly and my self-reliance has also improved dramatically. “*
- *“I became aware of how little we really know, and that the best results in science come from people acknowledging that fact, and then inquiring into the unknown together to learn and discover.”*
- *“The program really helped me see research as a more global effort as opposed to one individualized to a particular country or a particular area of research. I really enjoyed the research seminars where professors shared results of their ongoing research with other scientists that worked in different areas of research.”*
- *“It was humbling as it was a lot of hard work, with a nation who spoke my language, even though I could not speak theirs. I have a huge amount of respect for the German people. This was a scientific exchange, but I think that the most valuable lesson I have learned is the importance of communication, specifically: languages. Sadly, North America is a little behind Europe on that one.”*

Figure 15. Have you used your RISE experience for additional research opportunities? Alumni Cohort, percent responding



In a separate question focusing more specifically on publication and presentation opportunities, a slightly higher percentage of alumni (20 percent) reported that the research they conducted as RISE interns had been published in academic or non-academic publications or presented at conferences. While some interns' research had been published in peer-reviewed academic journals, other alumni had contributed to research that had been presented or co-authored with their mentors in Germany. Research by interns was cited in the following publications, among others: *Acta Materialia*, *Electrochimica Acta*, the *Journal of Electronic Materials*, the *Journal of Economic Entomology*, the *Journal of Physical Chemistry*, and *Molecular Ecology Resources*, among others.

It is clear from the broad array of project descriptions collected in the survey that interns participated in a wide variety of research projects during the course of their internship which spanned the scientific and engineering fields. A sample of these project descriptions is listed in Figure 16.

Figure 16. Descriptions of Research Conducted by RISE Interns.

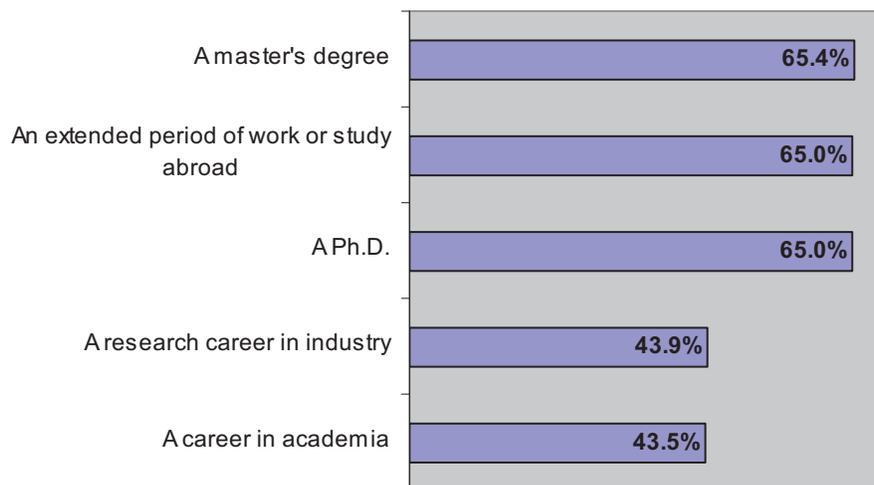
- *“The goal of the research was to determine what may be the best back-fill material for nuclear waste containers to prevent contamination in the event of a leak.”*
- *“Determining the variability of gene expression in a population.”*
- *“I worked on finding out what effects textiles such as alkaline-resistant glass and carbon fiber had on the strength of concrete at high temperatures.”*
- *“I worked on improving image de-noising algorithms in MRI using mathematical techniques.”*
- *“Kinetic assays to determine the molecular profile of chronic heart failure in transgenic mice.”*
- *Modeling the effects of urbanization on gully erosion in South American cities.”*
- *“We used 200 plots of grassland communities and various weather manipulations to study the effects of severe weather events. This was studied in light of the changes that will occur during global warming. I wrote a manuscript on how an increase in the frequency and severity of extreme weather events will affect ecological communities and the people that depend on them.”*

These brief descriptions not only illustrate the depth and diversity of interns' projects, but they characterize the broad set of science and engineering fields and topics of study pursued through RISE. One particular theme that emerged from alumni feedback on these projects was a focus on the environment and the general perception among North American interns that the German science and industry sector, through the projects that many interns worked on, reflected a commitment to "green" technological solutions to the challenges and questions their research addressed.

3.7 Impact on Future Plans

Many of the interns who recently participated in RISE expressed interest in a variety of academic and professional pursuits in the future. Nearly two-thirds of the 2008 interns (65 percent) had plans to pursue a graduate degree up to the Ph.D. level, and study or work abroad again for an extended period of time in the future (fig. 17). In the long term, about 44 percent of respondents planned to pursue a research career in industry³, while another 44 percent envisioned a career in academia. A longer-term assessment would be needed to assess whether interns ultimately pursue these paths, especially considering the high percentage of interns who expressed interest in pursuing their studies up to the Ph.D. level.

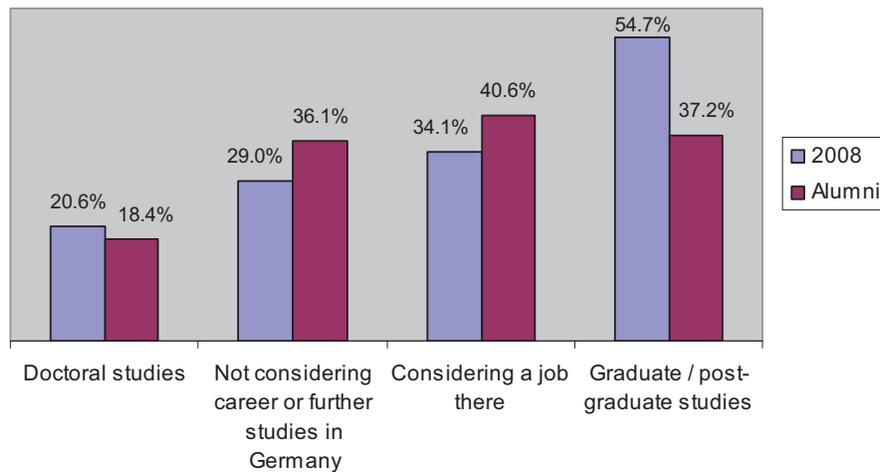
Figure 17. RISE Interns' Future Plans. 2008 Cohort, percent responding



³ RISE alumni were asked a similar question on future plans, and the data are nearly identical for both groups. However, the percentage of alumni planning to pursue a career in industry versus academia was slightly higher at 53 percent, due to a variation in the wording of the question posed to alumni: the word "research" was omitted in the phrase "a career in industry". In each survey, respondents were asked to select all that may apply.

As far as whether they would consider returning to Germany, interns in both cohorts seemed to be in favor of either pursuing their graduate or doctoral studies in Germany or securing a job in the country: 55 percent of the 2008 cohort said they were considering graduate / post-graduate study in Germany, while another 34 percent were also considering working there in the future (fig. 18). Alumni that participated between 2004 and 2007 showed a slightly greater level of interest in eventually considering a job there (41 percent); and slightly less interest in graduate/post-graduate studies in Germany (37 percent). These differences might be explained by the fact that interns who have recently finished the program are more inclined to want to return in the near future, in this case for a graduate or post-graduate degree. Interns who have been away from the program for a year or longer, on the other hand, may feel more inclined to return at a later stage either for doctoral studies or to pursue a career.

Figure 18. Interns’ Perspectives on Returning to Germany. 2004-2008 Cohorts, percent responding



Organizations, institutions and programs that interns are considering cover a variety of sectors, and the diversity of companies and institutions would suggest that RISE interns had already been exposed to many of these organizations during their internship (for a complete list of these institutions, see Appendix A).

One way to measure the likelihood that interns would eventually return to Germany was to look at the number of alumni who have already been back since their internship. Although not a causal factor, the number of interns who return either for a short- or long-term duration would suggest that some interns have established strong ties to the country and who would potentially serve as ideal candidates for graduate school or future employment in the country. Since their participation in the program, more than a quarter (26 percent) of alumni had returned either for a vacation (17 percent) or to pursue other opportunities for work or study (9 percent). Ten percent of all alumni surveyed were living outside the U.S. or Canada at the time of the survey, some of whom were in Germany participating in the RISE Pro program.

Findings from the 2008 RISE Mentor Survey

This section describes the results and findings from a survey conducted among RISE mentors, who serve primarily as supervisors to the interns during their internship in Germany and whose role is to provide ongoing guidance and professional support to the intern. Mentors also serve a unique role in being the primary German contact the interns are exposed to at the onset of the program. As such, the success of the RISE program depends largely on the mutually beneficial relationships that develop between German mentors and North American interns.

4. Profile of RISE Mentors

4.1 Demographic Characteristics

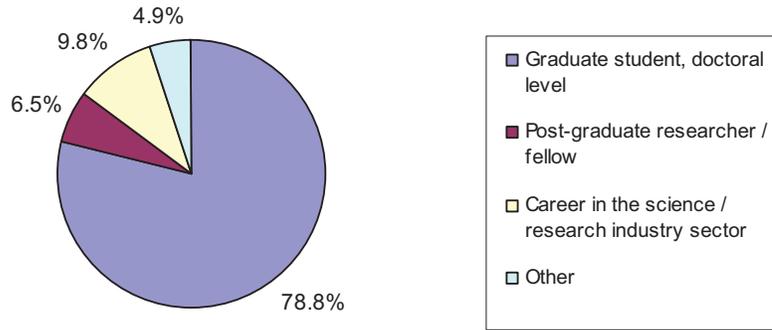
Overall, 245 mentors that participated in the 2008 internship responded to a post-assessment survey. While some of these mentors worked only with interns in the RISE program, a few served as a mentor to both a RISE and RISE Pro intern. Relatively few reported that they solely served as RISE Pro mentor (6 percent), while the majority of responses came from mentors that participated in RISE (94 percent). For this reason, this section reports combined findings for the surveys administered to RISE and RISE Pro mentors.

Among mentors responding to the survey, there was a higher percentage of males (59 percent) than females (41 percent). While there might be many reasons for this difference, one reason might be that ensuring gender parity among participating RISE mentors is not a focus of the program. In the case of RISE interns, on the other hand, the program encourages equal participation by men and women, in part to combat the lower presence of women in the sciences and engineering.

4.2 Current Status of Mentors

The vast majority of mentors were full-time graduate and Ph.D. students (79 percent). Ten percent of mentors reported that they were working in the science or research sector. Very few were studying beyond the Ph.D. level or working in another sector (fig. 19). The fact that most mentors were doctoral-level graduate students indicates that the program has met its overall objective of pairing North American undergraduates with German Ph.D. students in the science and engineering fields.

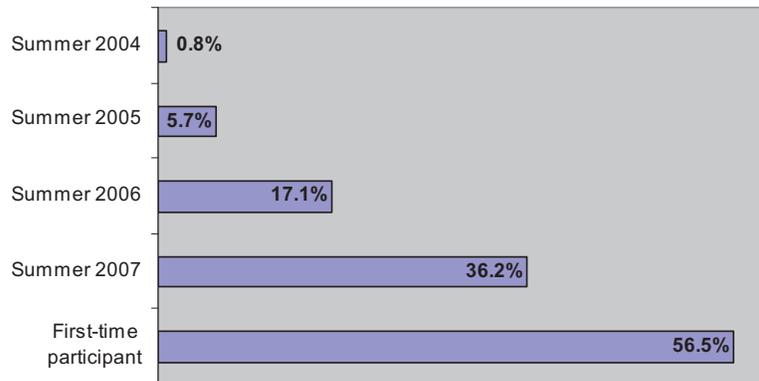
Figure 19. Current Full-Time Status of Mentors



4.3 Prior Experience with RISE or with North Americans

One of the key goals of the program is to build upon existing partnerships with German host organizations and institutions from previous years. While a number of mentors and their representative organizations had participated in a previous year and were familiar with the program, over half (57 percent) of mentors were participating for the first time (fig. 20).

Figure 20. Mentors' Past Participation in RISE or RISE Pro, percent responding



What is particularly noteworthy is that a larger majority of mentors (62 percent) reported that they had never worked with a North American prior to their participation in RISE. Earlier data presented in this report noted that 68 percent of the 2008 RISE intern cohort had never been to Germany before their participation, and more than likely, would not have had significant work experience with a German. Therefore, there are a roughly even proportion of participants in both groups who have not had the opportunity to work with a German mentor or North American intern, as the case may be. This finding suggests that the RISE program has helped fill a critical void by providing these two groups with the first-ever opportunity to conduct research and collaborate in an international and multicultural setting.

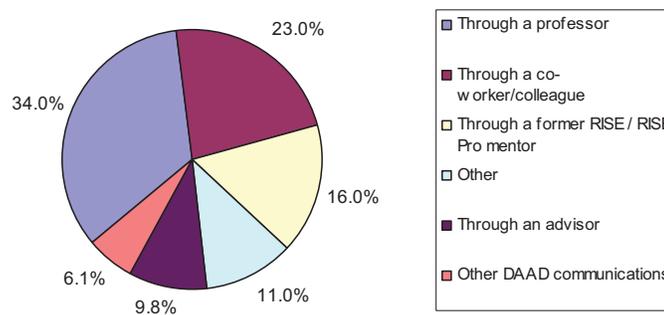
5. Factors Related to Mentors' Participation in RISE

This section discusses some of the motivating factors for institutions to serve as hosts to RISE interns, as well as the level of support institutions offer mentors to participate in the program. The questions posed to mentors also address individual motivations in addition to assessing how mentors first heard about the RISE program

5.1 Learning about the RISE Program

Like RISE interns in North America, most German mentors (57 percent) first learned of the RISE program from someone at their institution: about a third of mentors (34 percent) heard about the RISE program from a professor, while 23 percent learned about the program from a co-worker or colleague at their institution (fig. 21). Only about 16 percent first learned of the program directly from a former RISE or RISE Pro participant.

Figure 21. How Did Mentors First Learn of RISE? (percent responding)



It would seem that for both types of participants—mentors and interns—word-of-mouth at the institution is the most widespread and effective form of communicating information about the program. However, one difference worth noting is that RISE interns are somewhat more likely to hear about the program from a broader set of individuals at their institutions, including their peers, other students, and advisors, than their German mentors. This might suggest that the program benefits from a more diversified level of exposure and marketing outreach among U.S. institutions than it does at German institutions and organizations.

5.2 Motivating Factors for Mentors' Participation in RISE

The most important motivating factors among mentors who choose to participate in RISE relate to the direct benefits and skills they would gain from a work relationship with a North American intern. Ranked well above all the other listed factors, the desire to gain supervisory experience in this type of collaborative work setting was the top motivating factor for mentors' participation, reported by 83 percent of all mentors (fig. 22). A high

percentage of mentors also agreed or strongly agreed that they wanted to secure an intern with strong qualifications (69 percent), while also choosing to participate in the program because RISE offered them the opportunity to improve their English skills through close interaction and communication with a North American intern (68 percent).

That German mentors, most of them Ph.D. students, expressed a strong motivation to work with a North American student for these reasons, signals a significant need for a program such as RISE which aims to provide future German researchers and professionals with practical supervisory experience in addition to the softer intercultural and language skills gained from working with a well-qualified North American intern.

Although not entirely a personal motivating factor per se, many of the mentors agreed that they chose to participate because the DAAD handled most, if not all, of the logistical preparations and arrangements in matching interns with mentors (67 percent). Not surprisingly, this factor would be important to Ph.D. students especially, who are faced with logistical pressures and deadlines of their own related to their coursework, independent research and grant and fellowship funding applications.

Mentors agreed somewhat less with other factors for participation in the program, including: wanting to secure a competent research assistant (52 percent); the fact that there would be no significant financial costs to the host organization (50 percent); building ties with the intern’s home institution or company (49 percent); and wanting to add an international component to their resume (42 percent).

Figure 22. Motivating Factors for Mentors’ Participation, percent responding

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
Gaining an additional intern with strong qualifications	2.0% (5)	7.3% (18)	21.6% (53)	40.4% (99)	28.2% (69)	0.4% (1)
Wanting to secure a competent research assistant	2.5% (6)	13.1% (32)	29.1% (71)	35.2% (86)	16.8% (41)	3.3% (8)
Having the opportunity to build ties with intern’s U.S. or Canadian home institution/company	4.5% (11)	15.9% (39)	29.4% (72)	32.2% (79)	17.1% (42)	0.8% (2)
I/we wanted to acquire improved English skills through conversation with intern.	6.1% (15)	8.6% (21)	15.2% (37)	33.2% (81)	35.2% (86)	1.6% (4)
There would be no significant financial costs to our company/institution.	4.5% (11)	13.6% (33)	28.4% (69)	33.3% (81)	16.5% (40)	3.7% (9)
The fact that the program took place during the summer months was important.	23.3% (57)	33.5% (82)	26.5% (65)	7.8% (19)	7.3% (18)	1.6% (4)
The fact that arrangements for the program were handled by DAAD was important.	2.4% (6)	9.0% (22)	21.2% (52)	33.5% (82)	33.5% (82)	0.4% (1)

Wanting to add an international component to my resume	6.5% (16)	14.3% (35)	33.1% (81)	30.6% (75)	11.8% (29)	3.7% (9)
Wanting to increase my supervisory experience	2.0% (5)	4.1% (10)	9.4% (23)	38.4% (94)	44.9% (110)	1.2% (3)

5.3 Level of Support from Host Institution

Mentors reported that their own institution or company was very supportive of hosting an intern. On a scale from 1 to 5, with one indicating “not supportive at all” and 5 indicating “very supportive” of hosting an intern, the average of all responses from mentors was 4.22. As many of the organizations had already participated in RISE in previous years, past experience with working with a RISE intern no doubt had a positive impact on the willingness of a host institution to continue its relationship with the DAAD and its own commitment to hosting an intern.

6. Mentors’ Assessment of their Interns’ Work

6.1 Perceived Level of Rigor of Project

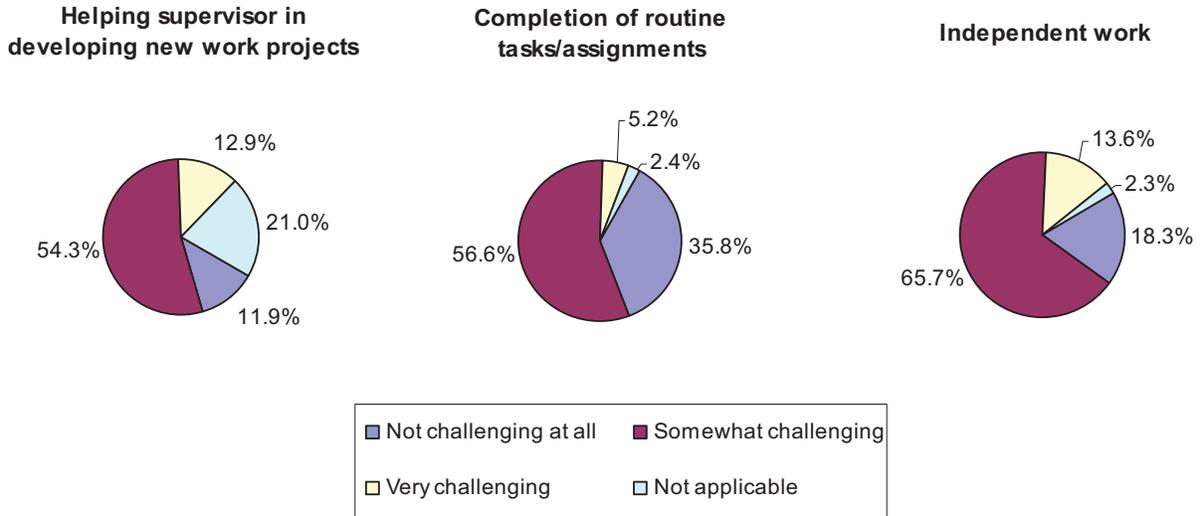
When asked how challenging certain components of the internship were for interns, both interns and mentors generally agreed on the level of rigor of these components including the design of new experiments in collaboration with the mentor; the completion of routine tasks; and independent work (fig. 23).

Among all three categories, interns and mentors considered independent work to be the most challenging aspect of the internship: overall, 79 percent of interns said it was somewhat or very challenging. To a somewhat lesser degree, helping their mentor design new experiments was somewhat or very challenging for 67 percent of interns, while 62 percent said that completion of routine tasks was somewhat or very challenging.

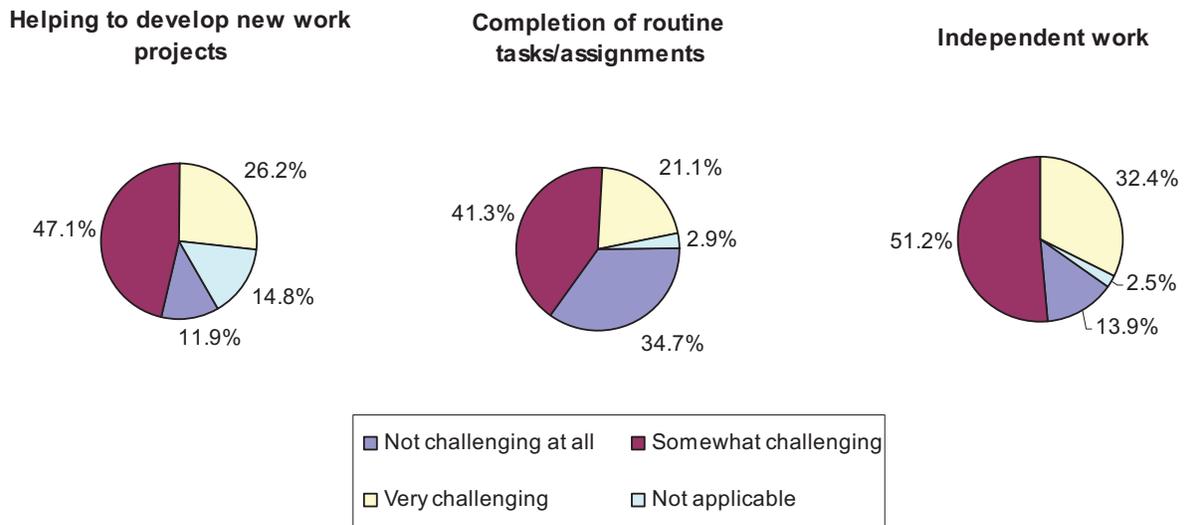
Mentors generally had the same perceptions toward the level of rigor for each component of the intern’s work: 84 percent of mentors reported that independent work was somewhat or very challenging, followed by the intern’s ability to help them design new experiments (73 percent) and the intern’s completion of routine tasks (62 percent).

Figure 23. Interns' and Mentors' Perception of Level of Rigor of Internship, % responding.

Perception of 2008 RISE Intern Cohort



Perception of 2008 RISE Mentor Cohort

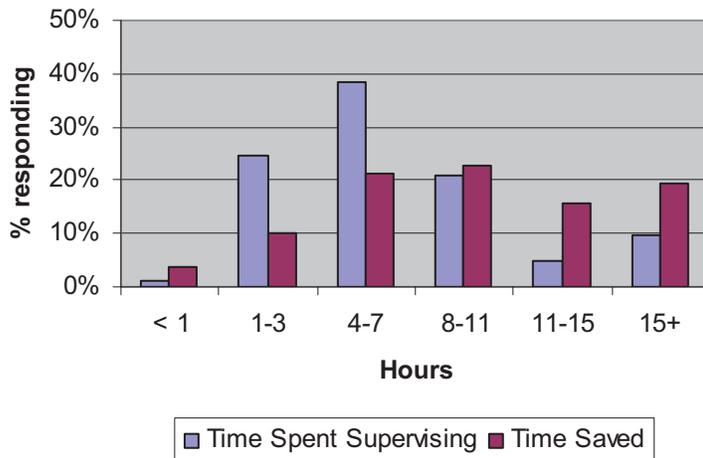


6.2 Hours Worked vs. Time Saved for Mentors

On average, interns worked for 38.75 hours a week (the median was 40 hours) at their host institution. Most mentors (39 percent) reported that they spent between four and seven hours directly supervising their intern per week, while 25 percent of the mentors

said they only spent one to three hours supervising (fig. 24). Slightly fewer—21 percent—supervised their interns on average between 8-11 hours, or a little more than one day out of the work week.

Figure 24. Mentors’ Time Spent Supervising vs. Time Saved (per week).



Many mentors found that while the internship required some time devoted to supervising and overseeing the intern’s work—in some cases, as little as 7 hours a week—mentors saved considerable time with the help of an intern. Over half of all mentors (58 percent) reported saving at least 8 hours during the week from having an intern work with them; and close to 20 percent of all mentors saved more than 15 hours, which is impressive considering that most mentors only spent around half that time supervising.

6.3 Satisfaction with Interns’ Work

The vast majority of mentors were satisfied with their interns: virtually all mentors agreed or strongly agreed that their intern was reliable and responsible (91 percent); that the intern was competent (87 percent); that the intern was able to complete most, if not all, tasks on time (83 percent); and that the quality of the intern’s work met or exceeded mentors’ expectations (74 percent) (fig. 25).

Figure 25. Mentors’ Satisfaction with Interns’ Work and Professional Qualities, percent responding

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
The intern was competent.	0.4% (1)	4.1% (10)	8.2% (20)	38.0% (93)	49.0% (120)	0.4% (1)
The intern was reliable and responsible.	0.4% (1)	2.4% (6)	6.5% (16)	32.7% (80)	58.0% (142)	0.0% (0)
The quality of the intern’s work met or exceeded expectations.	0.8% (2)	8.6% (21)	15.9% (39)	32.7% (80)	41.6% (102)	0.4% (1)

The intern completed most, if not all, tasks in a timely manner.	0.4% (1)	5.7% (14)	10.6% (26)	39.2% (96)	43.3% (106)	0.8% (2)
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These overall positive reviews of the interns by their mentors highlight the effectiveness of the DAAD’s screening process and its ability to attract and place well-qualified North American undergraduate students in Germany.

The fact that about one in four mentors were neutral or did not agree that the quality of the intern’s work met or exceeded expectations might suggest some potential room for improvement. This may not reflect so much on the DAAD’s selection process as it does on the unique relationship established over the course of the internship between the mentor and intern, and it may present an opportunity for a more in-depth analysis. One way this might be achieved (if not already established) would be if the DAAD considered enacting a policy that required interns and mentors to identify and define measurable objectives that are unique to their particular research project at the onset of the internship and for the mentor to conduct a performance assessment to see if these objectives were met.

6.4 Satisfaction with Program Procedures

In addition to asking how satisfied they were with their interns’ work, mentors were asked about their level of satisfaction with general program and administrative procedures related to RISE. Virtually all mentors (91 percent) found overall RISE program procedures to be satisfactory and, more specifically, that the placement process of placing interns in Germany was effective and satisfactory (83 percent) (fig. 26). They were roughly split, however, on whether having mentors attend intern site visits would be beneficial in the future: 46 percent agreed or strongly agreed that it would be an area to pursue. Another 43 percent of mentors thought a peer mentor meeting would be beneficial in the future, however, both of these potential areas did not seem to receive overwhelming support or interest.

In open-ended responses, many mentors generally spoke highly of RISE for its administrative procedures, including its detailed communications and emails, and organizational instructions. Overall, mentors noted that program administrators were attentive to any issues that arose during the placement process.

A few mentors pointed to some areas of improvement related to the administrative and logistical aspects of RISE. The top-cited issue primarily revolved around timing and receiving information in advance to make sure mentors had enough time to better help the intern secure housing and open a bank account.

Figure 26. Mentors' Satisfaction with RISE Program Procedures, percent responding

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
The placement process was effective and satisfactory.	0.8% (2)	2.4% (6)	13.1% (32)	51.0% (125)	32.2% (79)	0.4% (1)
Overall RISE / RISE Pro procedures were satisfactory.	0.4% (1)	0.4% (1)	8.2% (20)	54.1% (132)	36.5% (89)	0.4% (1)
Having mentors also attend intern site visits would be beneficial in the future.	1.2% (3)	11.1% (27)	39.5% (96)	31.7% (77)	14.0% (34)	2.5% (6)
Having mentors participate in a peer mentor meeting would be beneficial in the future.	1.6% (4)	13.5% (33)	41.2% (101)	29.0% (71)	13.9% (34)	0.8% (2)

Some open-ended comments related to administrative procedures, although not entirely representative of all mentors' experiences, are included in Figure 27.

7. Personal and Professional Impacts of the RISE Program on Mentors

While one might expect that interns are positioned to gain the most from an international internship program like RISE, mentors are also the direct recipients of benefits of the program; the personal and professional impacts on their academic and career path are widely felt among many of the mentors.

7.1 Personal and Professional Impact on Mentors

In the post-assessment survey, mentors were asked the degree to which they agreed with a series of statements related to personal and professional outcomes related to their participation in RISE.

Given that 89 percent of mentors would recommend the program to another potential mentor or host organization, mentors were largely satisfied with the outcomes of the program (fig. 28). At a personal and

Figure 27. RISE 2008 Mentors' Comments on Program Administration.

- *"I could find help and quick answers when I had questions regarding the financial support of my intern. Very strong administrative support."*
- *"The administration process was fairly uncomplicated. This is a clear advantage and certainly helped in the acceptance of the program inside our organization."*
- *"Papers that are needed to apply for a visa should be sent to the students earlier if possible."*
- *"The scholarship should have been paid earlier. I had to pay the first rent for my student in advance."*
- *"The placement process and the support from the DAAD was very good. But the gap between the end of the placement process and start of the program was a bit too short. We had difficulties getting an accommodation for our intern, and preparing an adequate working program for him."*

professional level, a majority of them agreed that the program had improved their ability to function in or manage a multicultural team (81 percent) and that it had broadened their understanding of North American cultures and lifestyles (75 percent). About half (49 percent) agreed that their participation helped increase their confidence about prospects for successful participation in international conferences and meetings.

Mentors were somewhat less likely to agree that the program provided them with opportunities to build lasting professional relationships (33 percent) or help make meaningful connections that would help their career (24 percent). (Although, this could be because the 2008 program had just concluded, and it was too early for the mentors to predict the long-term impact of the program.)

Surprisingly, mentors were also less likely to agree that the program helped them acquire an international career outlook (16 percent). In contrast, the program appears to have a much stronger impact on developing an international career outlook among interns who are in a foreign country, and not vice-versa.

Figure 28. Personal and Professional Impacts on Mentors, percent responding

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
I have acquired an international career outlook because of my participation.	9.8% (24)	27.8% (68)	42.9% (105)	14.3% (35)	1.2% (3)	4.1% (10)
It gave me opportunities to build lasting professional relationships.	5.7% (14)	19.6% (48)	40.0% (98)	28.6% (70)	4.1% (10)	2.0% (5)
It has helped me make meaningful connections that may help my career.	7.4% (18)	30.5% (74)	36.2% (88)	20.2% (49)	3.3% (8)	2.5% (6)
I would recommend the program to another potential mentor/company.	0.4% (1)	0.4% (1)	9.4% (23)	34.3% (84)	54.7% (134)	0.8% (2)
Ability to function in or manage a multicultural team	0.8% (2)	2.9% (7)	15.6% (38)	56.6% (138)	24.2% (59)	0.0% (0)
Increased my confidence about prospects for successful participation in international conferences and meetings	1.6% (4)	11.1% (27)	38.5% (94)	34.0% (83)	14.8% (36)	0.0% (0)
Improved my understanding of North American cultures and lifestyles	1.2% (3)	5.7% (14)	16.4% (40)	47.1% (115)	28.3% (69)	1.2% (3)

In other open-ended responses, mentors noted that the greatest impact was on the progress made toward their own research goals. Having an intern on board helped advance their lab work and, in many instances, helped to sustain projects that otherwise would not have been possible to continue without additional help. Mentors also greatly benefited from improvement in both supervisory skills and English language skills. For

some, it was their first time supervising an intern or undergraduate, which provided them with the opportunity to undertake tasks such as developing a work schedule in English.

Mentors also noted there were strong impacts on cross-cultural understanding between the German hosts and the intern, as the intern often provided new perspectives and approaches to addressing problems and scientific questions. In instances where research projects were team-based, other German students who happened to work alongside a mentor also benefited from contact with the intern. This contributed to an “internationalization at home” phenomenon. Especially for Germans who had not had the opportunity to study abroad, the presence of a North American intern provided substantial insight into a “foreign” culture.

Figure 29 summarizes comments from mentors that reflect the themes summarized above.

7.2. Impact on Language Ability

Using their RISE experience as an opportunity to engage in direct communication with a North American intern, mentors were able to practice their English language skills, and many expressed strong improvements. Most notably, 83 percent of all mentors reported that their English speaking skills had improved; 47 percent reported moderate to significant improvement (fig. 31).

Compared to speaking skills, German mentors noted slightly less of an impact on improvement of their English reading and writing skills, reporting some improvement in reading (34 percent) and some in writing (46 percent). These results are not surprising, considering that mentors would most likely improve their speaking skills rather than in reading or writing, since speaking served as the primary form of communication

Figure 29. Impact of the Program on RISE Mentors.

- *“I had the chance to work together with a highly motivated and interested student. She gave me the chance to proceed in an almost lost project and gained great results in there.”*
- *“Intercultural experience for my lab crew”*
- *“Having someone to supervise, who asks questions about facts which one might just have overlooked gives a whole new perspective and possibly gives rise to new points of view.”*
- *“Opening the lab co-workers to a U.S. student improved all the language and communication skills for the lab. For me, it taught me the “teaching” supervisory role and how to handle the different culture and education system.”*
- *“The most valuable impact of this program was that my institution did not know this program before and now they recommend this program to other PhD-students.”*

Figure 30. Impact of the Program on RISE Mentors’ English Skills.

- *“My spoken English improved very much. Before, I was a bit afraid to speak English particularly with a native speaker and afraid to make errors. After a few days with the intern I became more self-confident, because he understood more than expected, and was very patient.”*
- *“Improvement of English conversation on scientific topics.”*
- *“As a speaker of English who has spent a lot of time in Britain, it greatly increased my everyday knowledge of American vocabulary and understanding of different lifestyles.”*

between interns and mentors. Mentors might also be less likely to show the same level of improvement in their reading and writing skills especially if their academic coursework throughout their secondary and post-secondary academic career has already integrated English, as it has increasingly become a universal language in academia and research writing.

Figure 31. Impact of RISE on Mentors’ Language Skills, percent responding

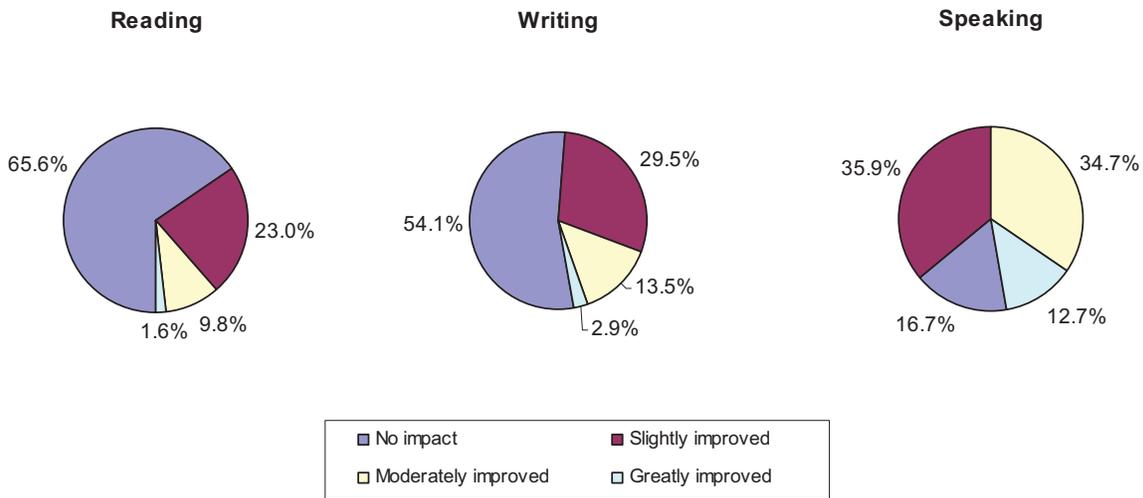


Figure 30 includes selected comments to further illustrate this point from mentors who reported strong improvement in English speaking skills.

7.3 Sustainability of Relationships and Implications for Exchange

Aside from planning to stay in contact with each other—86 percent of mentors indicated an interest in staying in touch with interns—perhaps an even more significant outcome from the mentor-intern relationship was the opportunity to build on the relationship in ways that benefit both mentors and interns throughout their academic and professional careers.

Among alumni interns, 75 percent had contacted their mentor at least once after their participation in the program. The frequency of contact was highest among the 2007 cohort (fig. 32). Close to half (49 percent) of the 2007 cohort had maintained contact at least once every few months based on responses from interns.

Figure 32. Frequency of Contact with Mentors, reported by Interns (percent responding)

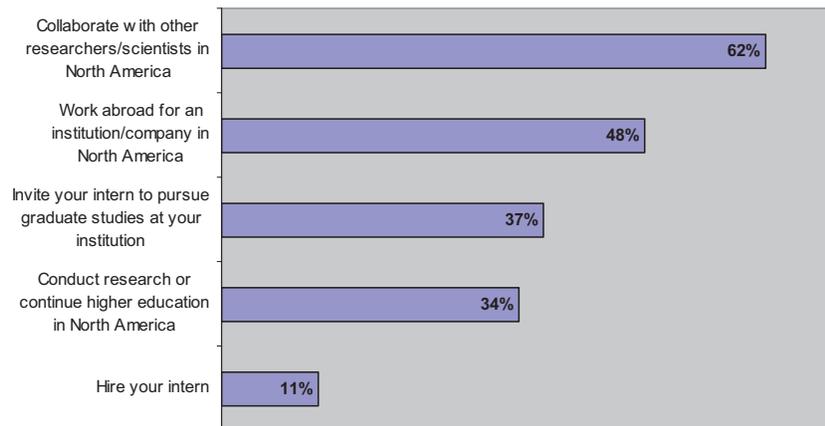
Frequency	2005 cohort	2006 cohort	2007 cohort
Weekly	0%	3%	5%

Monthly	5%	4%	10%
Once every few months	26%	26%	34%
Once or twice a year	33%	42%	33%
Never	36%	25%	19%

Sustainability need not only be measured by the level of ongoing contact between mentors and interns. Perhaps more importantly, the question of sustainability should address whether a two-way exchange is taking place in the long-term between academics and students in Germany and the U.S. Indeed, the RISE program has the potential to serve as a conduit and one of the primary higher education and research channels to achieve longer-term exchange between the U.S. and Germany.

This exchange can have a direct impact on the future placement and plans of participants. In the same way that interns expressed interest in a host of potential institutions and companies in Germany for future study or work, nearly half of all German mentors (48 percent) expressed interest in working abroad for an institution or company in North America, while 37 percent planned to conduct research or continue their higher education in North America (fig. 33). To a lesser extent, 37 percent of mentors planned to invite the intern to pursue graduate studies at the host institution or hire them (11 percent).

Figure 33. Mentors' Future Plans, percent responding



In open-ended responses, mentors listed a number of these organizations, institutions and companies they were considering, many of which included top-tier institutions and Fortune 500 companies (see Appendix A for a complete list of these organizations).

Findings from the RISE Pro Intern Survey, 2008 Cohort

RISE Pro, DAAD's newest program, saw its first cohort participate in the summer of 2008. Modeled similarly after RISE, RISE Pro is targeted to a slightly older applicant pool, placing U.S. and Canadian graduate students and young professionals at German companies and organizations to expose them to career as well as academic opportunities. The summer internships they participate in also involve a mentor component. This section describes findings from a survey that RISE Pro interns completed after their internships that is similar to a survey that RISE participants completed.

8. Respondent Demographics of RISE Pro Interns

8.1 Demographic and Educational Characteristics of RISE Pro Interns

Overall, 41 RISE Pro interns participated in the follow-up survey; the response rate was approximately 67 percent. Two-thirds of respondents were male and 34 percent were female. Reflecting the general composition of the overall participation rates in the program, 73 percent were from the U.S. and 27 percent were from Canada. A large majority of interns (70 percent) were pursuing engineering as their current field of study, while very few were focusing on other sciences.

Nearly half of the RISE Pro interns (49 percent) at the time of being surveyed were graduate students pursuing their master's degree. About 22 percent were studying at the doctoral level. Relatively few identified one of the career options listed, while respondents selecting "other" included those students who had recently completed their master's degree and who were in transition between school and a job.

9. Personal and Professional Outcomes for RISE Pro Interns

9.1 Overall Satisfaction with Internship

Of all the areas assessed for satisfaction with the program, interns were most satisfied with their relationship with their mentor or supervisor (fig. 28). Overall, approximately 70 percent of respondents agreed that their expectations of the internship were fully met. More specifically, interns expressed strong satisfaction with program areas, including: the amount of practical, hands-on work they engaged in during the internship (76 percent); and with the scope of their responsibilities (71 percent).

A somewhat fewer number of interns—about 56 percent of respondents—felt satisfied with the level of rigor of the research they conducted, and agreed that the research project they selected and ultimately completed matched the original description and focus.

Figure 28. Level of Satisfaction with Internship. RISE Pro 2008 Cohort, percent responding

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
I was satisfied with the amount of practical, hands-on work I took part in.	0.0% (0)	14.6% (6)	7.3% (3)	36.6% (15)	39.0% (16)	2.4% (1)
I was satisfied with the scope of my responsibilities during the internship.	2.4% (1)	12.2% (5)	14.6% (6)	36.6% (15)	34.1% (14)	0.0% (0)
I was satisfied with the level of rigor of the research I took part in.	4.9% (2)	14.6% (6)	22.0% (9)	29.3% (12)	26.8% (11)	2.4% (1)
I was satisfied with my work relationship with my mentor/supervisor.	2.4% (1)	2.4% (1)	9.8% (4)	24.4% (10)	61.0% (25)	0.0% (0)
The research project I selected matched the original description and focus.	4.9% (2)	17.1% (7)	14.6% (6)	29.3% (12)	26.8% (11)	7.3% (3)
My overall expectations of the internship were fully met.	9.8% (4)	7.3% (3)	12.2% (5)	31.7% (13)	36.6% (15)	2.4% (1)

9.2 Enhancing International Capability

RISE Pro participants were asked whether the program enhanced their international competencies in areas such as improved cross-cultural understanding, new knowledge of another country’s systems and practices, and a broader academic and professional outlook that went beyond the scope of their home country. Key findings suggest that:

- Virtually all interns (98 percent) agreed that their participation in RISE Pro broadened their understanding of Germany, and its culture and its customs (fig. 29). Similar outcomes were reported by RISE participants.
- A large majority (93 percent) agreed that they had acquired an international career outlook directly because of RISE Pro, and that it had increased their interest in world affairs and travelling abroad.
- 85 percent agreed that they had acquired an understanding of German professional practices and standards and improved their knowledge of international business, industry and careers.

A little less than half of the respondents (41 percent) agreed that they engaged in better research opportunities through RISE Pro. The fact that the largest majority remained neutral for this survey response seems to suggest that there was either not enough clarification in the question for respondents to compare their experience to other research experiences, or that it might point to a potential area of improvement.

Figure 29. International Capabilities Acquired through RISE Pro. 2008 Cohort, percent responding

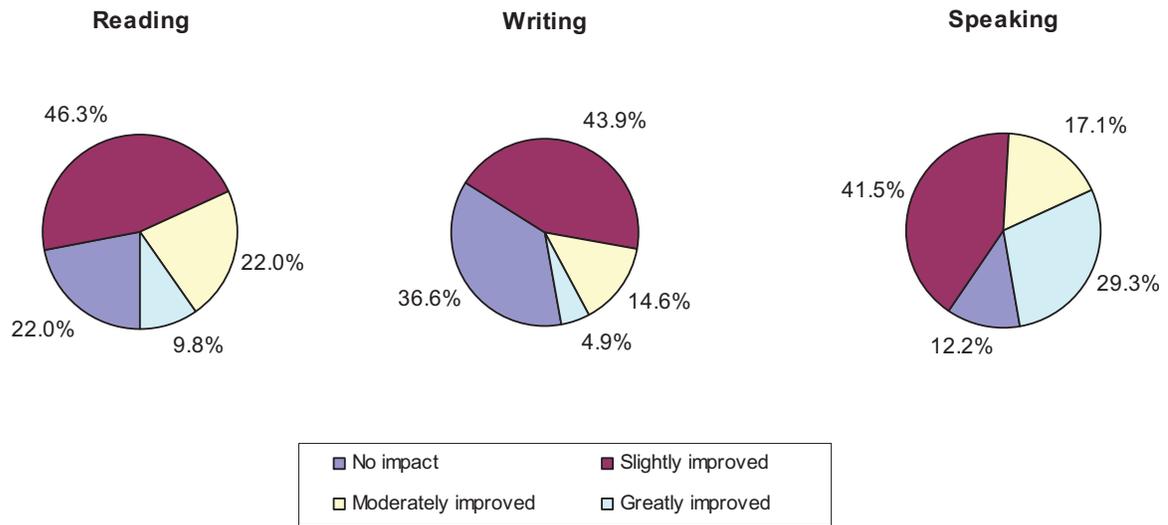
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
Through the program, I acquired an understanding of German professional practices and standards.	0.0% (0)	0.0% (0)	14.6% (6)	39.0% (16)	46.3% (19)	0.0% (0)
I have acquired an international career outlook because of my internship.	0.0% (0)	0.0% (0)	4.9% (2)	56.1% (23)	36.6% (15)	2.4% (1)
It gave me opportunities to build lasting professional relationships.	4.9% (2)	2.4% (1)	9.8% (4)	65.9% (27)	17.1% (7)	0.0% (0)
I engaged in better research opportunities through the program.	4.9% (2)	12.2% (5)	31.7% (13)	26.8% (11)	14.6% (6)	9.8% (4)
It broadened my understanding of another country, culture and its customs.	0.0% (0)	0.0% (0)	2.4% (1)	26.8% (11)	70.7% (29)	0.0% (0)
It increased my interest in world affairs.	0.0% (0)	0.0% (0)	7.3% (3)	36.6% (15)	56.1% (23)	0.0% (0)
It increased my desire to travel abroad.	0.0% (0)	2.4% (1)	4.9% (2)	31.7% (13)	61.0% (25)	0.0% (0)
Through the program, I learned about international business, industry, and/or careers.	0.0% (0)	4.9% (2)	9.8% (4)	43.9% (18)	41.5% (17)	0.0% (0)

9.3 Impact on German Language Ability

Overall, language acquisition and improvement of specific language abilities was an indirect outcome of RISE Pro even though it may not have been a primary objective of the program. The purpose of this section of the evaluation is to illustrate some of the program’s indirect, albeit valuable, benefits that interns receive from participating in RISE Pro.

As could be expected and based on similar findings from their RISE counterparts, RISE Pro interns reported the greatest amount of improvement in their German speaking skills when asked to assess their own language abilities after their participation in the program. 29 percent reported that the experience had “greatly improved” their speaking skills, while another 17 percent noted “moderate” improvement (fig. 30). As far as reading and writing abilities, the majority of interns noted “slight” improvement in both areas (46 and 44 percent, respectively).

Figure 30. Impact on Reading, Writing and Speaking Skills. RISE Pro 2008 Cohort, percent responding



9.4 Academic and Professional Outcomes

When assessing the value of an internship for any sector, it is important to examine how valuable it is in terms of knowledge and experience gained and how applicable and useful this may be to one’s long-term career. RISE Pro interns, in fact, reported a strong and positive influence of the program on their academic and professional careers.

Key findings indicate that:

- A large majority of interns (88 percent) agreed that participation in RISE Pro improved their career prospects (fig. 31).
- RISE Pro reinforced their commitment in pursuing a science or engineering related career (71 percent).
- It reinforced their commitment in pursuing a science or engineering degree (68 percent).
- Through the program, they gained valuable field-specific knowledge (71 percent).
- It motivated them to apply for other prestigious awards in the future (59 percent) and to increase their involvement in leadership positions upon their return to school (51 percent).

RISE Pro interns are less likely to pursue an academic career, with only a third of participants (34 percent) agreeing that participation in RISE Pro reinforced their interest in an academic career path. There is a clear focus among RISE Pro interns in pursuing a science and engineering career in a non-academic setting, most likely in the private sector, once they complete their graduate or post-graduate studies.

Figure 31. Academic and Professional Impacts. RISE Pro 2008 Cohort, percent responding

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
It has reinforced my commitment to continue pursuing a degree in science and/or engineering.	0.0% (0)	7.3% (3)	19.5% (8)	48.8% (20)	19.5% (8)	4.9% (2)
It has reinforced my commitment in pursuing a science/engineering-related career.	0.0% (0)	4.9% (2)	24.4% (10)	43.9% (18)	26.8% (11)	0.0% (0)
It has reinforced my interest in pursuing an academic career.	2.4% (1)	17.1% (7)	39.0% (16)	14.6% (6)	19.5% (8)	7.3% (3)
It has motivated me to apply for other prestigious awards.	0.0% (0)	14.6% (6)	19.5% (8)	34.1% (14)	24.4% (10)	7.3% (3)
I plan to increase my involvement in leadership positions upon my return to school.	0.0% (0)	7.3% (3)	24.4% (10)	31.7% (13)	19.5% (8)	17.1% (7)
Through the program, I gained valuable field-specific knowledge.	0.0% (0)	14.6% (6)	14.6% (6)	41.5% (17)	29.3% (12)	0.0% (0)
It improved my career prospects.	0.0% (0)	0.0% (0)	12.2% (5)	46.3% (19)	41.5% (17)	0.0% (0)

In response to an open-ended question that elicited in-depth feedback, interns noted that the internship provided them first and foremost with a keen insight into German industry and work and research culture. Daily interaction with their mentors and German peers also facilitated cultural exchange. Like the interns who participate in RISE, RISE Pro interns seem to show significant changes in their perception and attitudes toward working abroad as well or focusing more of their attention on applied research in the future. Figure 32 highlights interns' comments regarding the program's greatest impacts.

Figure 32. Impact of the Program on RISE Pro Interns.

- *"It gave me the international experience I need to pursue an international career. Although this is not an immediate impact, it will have a huge impact on my future."*
- *"An understanding of real-world engineering challenges, and approaches to meeting these challenges."*
- *"It has taught me more about research and how it entails coming up with new ideas, testing their validity and refining them when they don't work."*
- *"Learning that holding both a technical degree as well as good skills in English and networking with other international companies in English are extremely valuable in terms of the international workforce. I am more bold and optimistic about applying abroad now (or perhaps re-applying to German companies)."*
- *"German innovation is certainly something that every company should strive to emulate."*

The interns were also asked whether the experience had any bearing on their future academic or professional plans and prospects. For some, the experience only reaffirmed their choice of study in science and engineering. For others, it gave them a better glimpse into the structures of certain organizations and an understanding of how research could be applied in a setting outside a traditional research lab. The comments below help to summarize how it played a role in directing their future paths.

Figure 33. Impact on Academic and Professional Plans for RISE Pro Interns.

- *“Reaffirmed my decision to jointly focus on mechanical engineering and business, more specifically international business.”*
- *“It has scared me a little bit of the corporate world, since there are so many more restrictions and meetings than academia.”*
- *“It did not influence me to change my major. It let me know what other things I could do with a Chemistry degree.”*
- *“It has discouraged me from working professionally in a lab.”*
- *“I knew before coming here that I wanted to work for a multinational corporation, and now I might look a bit harder for a company that does business with Germany. After 2 internships in Germany I have become very attached with the country and its people, language, and culture.”*
- *“RISE Pro did not change my career path; instead it reignited my passion for Engineering.”*

9.5 Improvement in Personal Competencies

As with other successful fellowship or scholarship programs, a key component to an internship is the development and improvement of personal and professional competencies. RISE Pro was successful in providing interns the opportunity to develop or improve a range of competencies. Most notably, most interns (85 percent) felt that the experience in Germany helped them to become more self-confident, independent and self-sufficient, which are valuable personal traits in the workplace and in an intercultural setting (fig. 34).

Communication skills, especially in a cross-cultural context, vastly improved—most interns agreed that their participation had improved their ability to function in a multi-cultural work environment (80 percent), that it improved their interpersonal skills (73 percent), and their ability to communicate more effectively overall (71 percent).

As a result of the competencies gained from the research they conducted, 63 percent of interns noted an improved understanding of professional and ethical responsibilities in Germany, and of a particular research area (59 percent). Over half (53 percent) agreed that their research skills had been improved from their participation in the program.

Although the program seemed to improve cross-cultural and communication skills widely, there was less of an impact on students being able to develop teamwork skills. A little less than half (46 percent) agreed that it improved their ability to work in a team, which may suggest that the opportunity to participate in collaborative work or research was not available nor a critical component for certain projects.

Figure 34. Personal Competencies Improved by RISE Pro, percent responding

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
Ability to communicate more effectively.	0.0% (0)	4.9% (2)	22.0% (9)	48.8% (20)	22.0% (9)	2.4% (1)
Improved my interpersonal skills.	0.0% (0)	7.3% (3)	19.5% (8)	56.1% (23)	17.1% (7)	0.0% (0)
Increased my self-confidence.	2.4% (1)	4.9% (2)	7.3% (3)	41.5% (17)	43.9% (18)	0.0% (0)
Made me more independent and self-sufficient.	0.0% (0)	0.0% (0)	12.2% (5)	43.9% (18)	43.9% (18)	0.0% (0)
Ability to function in a multi-cultural work environment.	0.0% (0)	0.0% (0)	20.0% (8)	42.5% (17)	37.5% (15)	0.0% (0)
Ability to work in a team.	4.9% (2)	9.8% (4)	34.1% (14)	24.4% (10)	22.0% (9)	4.9% (2)
A deeper understanding of a particular research area.	2.4% (1)	12.2% (5)	22.0% (9)	36.6% (15)	22.0% (9)	4.9% (2)
Skills to conduct research.	0.0% (0)	14.6% (6)	24.4% (10)	41.5% (17)	12.2% (5)	7.3% (3)
An understanding of professional and ethical responsibilities.	0.0% (0)	0.0% (0)	34.1% (14)	43.9% (18)	19.5% (8)	2.4% (1)

Specific comments elicited in open-ended responses further illustrate a few other areas that were developed or that remained a challenge for RISE Pro interns.

Figure 35. Impact on Developing Personal Competencies for RISE Pro Interns.

- *“I was pleased to find out that the skills I acquired at my previous institution were useful at my German company. Thus, my confidence in my abilities has been duly increased, as I am certain that they will serve me well in my future undertakings.”*
- *“It improved my skills in cooperating with people from different academic and ethnic backgrounds. Also it vastly improved my skills to live in a foreign country like Germany.”*
- *“The skill set required for my internship was almost identical to that which I acquired as a grad student.”*
- *“I screwed up a lot, so I suppose my fear of screwing up more made me realize that there is actually a lot more planning ahead involved in science than I had ever realized in classes.”*
- *“I knew before coming here that I wanted to work for a multinational corporation, and now I might look a bit harder for a company that does business with Germany. After 2 internships in Germany I have become very attached with the country and its people, language, and culture.”*

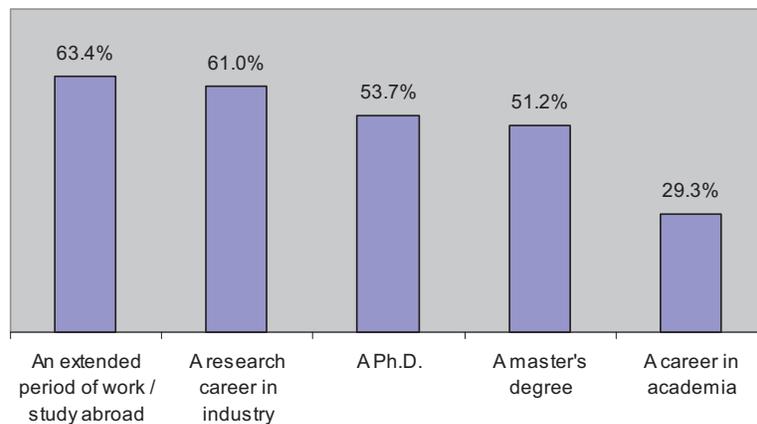
9.6 Impact on Future Plans

The program had a substantial impact on a large number of interns, enough for a large majority of them to consider returning to Germany either for continued academic study or to pursue a career or work opportunity.

While 56 percent of RISE Pro interns had been to Germany at least once prior to their participation in the program, the fact that 78 percent expressed interest in returning in the future reflects how much of an impression the German culture and work experience had left on the interns. With the option to select more than one response, 44 percent of interns said they would consider returning for post-graduate studies; another 20 percent would consider doctoral studies in Germany. And overall, 63 percent of interns would also consider returning to Germany for a job.

Figure 36 indicates the percentage of interns considering other options in the future either in Germany or elsewhere.

Figure 36. Future Plans for RISE Pro Interns. 2008 Cohort, percent responding



Program Recommendations and Conclusions

The evaluation findings suggest that from the perspectives of both North American interns and German mentors, the RISE and RISE Pro programs have clearly been successful in meeting their goal of improving higher education exchanges between the U.S. and Germany in Science and Engineering. But as with any internship program, especially one that spans two countries and several cohorts, there is always room for improvement. As a complement to the quantitative data presented in the preceding parts of the report, this section summarizes interns' and mentors' recommendations for program improvement.

A. Pre-departure information and application process:

- Ensure that interns and German mentors are fully aware of the responsibilities and requirements of the internship by providing them with adequate information well ahead of time. An outline listing tasks that would be appropriate for undergraduate interns would prove especially helpful for mentors and supervisors. Providing examples of research tasks from past successful projects may help mentors better prepare for assigning tasks to their interns.

“Give better instruction to Ph.D. students to construct a more fruitful project to start with...”

“Make sure that grad students who apply for interns actually have work for the intern. My grad student was writing his thesis this summer so I rarely saw him (maybe once every three to four weeks) and he gave me about 10 hours of work for the entire summer, so I ended up trying to scramble to find work from other sources.”

“I would strongly recommend warning the mentors of the intercultural differences, for example, by sending them a leaflet about differences in mentality, work style, and expectations. Creating awareness of the most common misunderstandings between Europeans and North Americans could help prevent their occurrence.”

- Consider developing a stream-lined online application system. Mentors would benefit from receiving electronic applications and would be able to more easily compare and review applications from interns.

“It would be helpful to have a web portal which allows supervisors and participants to interact more directly during the advertisement phase of RISE Pro. One way would be a website where the supervisor can present the position using a combination of web forms and a wiki.”

- Consider revising the deadlines for award announcements and notifying interns earlier with the announcement. Interns repeatedly emphasized that they would

have benefited from having more time to decide whether they would participate in RISE versus taking another job or internship offer in the summer.

“My only suggestion would be an earlier notification of acceptance. I feel that by late March, students will have already accepted other positions simply because they want to assure themselves of an opportunity for the summer.”

- Provide sufficient information about applying for and receiving an extended visa for those students who plan on staying in Germany for over three months. This proved problematic for a few interns who wanted to stay on for travel after the internship period.

B. Communication prior to and during the internship:

- Ensure RISE interns have access to appropriate RISE program staff, including contact information of those designated as point persons for different program areas either in the U.S. or Germany.
- Ensure communication (via email and mail) occurs in a timely fashion. Interns said they would have liked to have received their information packets and acceptance into the language training program well ahead of their departure date (especially those who said it would have saved them substantial costs if they could have booked their flight sooner); others encouraged faster communication and higher responsiveness via email from DAAD program staff, in general.

“I would suggest improving the communication between the DAAD organization and participants. Many times I would send an email about a specific concern I had while I was abroad and I would not receive a response until many weeks later when the problem was no longer relevant.”

C. Enrichment Activities:

- Allow more interns to participate in the German language course offered as part of the internship. Alternatively, provide funding or logistical support for interns who wish to take a language course at the host institution in Germany. The enrollment cap in the offered language course was a main concern among interns who did not have a chance to participate, but wanted to do so. Those who did participate reported it as a valuable and worthwhile opportunity.

“The language course in Berlin was awesome, but the amount we paid for board or half-board with our host families was drastically out of

proportion with the quality of what we got. Students signing up for that should know what it's likely to include.”

- Provide interns with more exposure to career or job opportunities in Germany. While most interns benefited from the site visits, some felt that they could be better tailored to their own future plans. DAAD may wish to consider various site visits for interns based on their academic or career interests; for example, one visit could be tailored to those with plans toward continued research and higher education, while another might focus on the corporate or industry sector and the process of securing a job as a U.S. or Canadian citizen for those more interested in working in Germany.
- Consider organizing a closing conference where interns would have the opportunity to present or participate in poster sessions describing some of the outcomes of their research internships. This would help to ensure accountability and improve learning impacts. Alternatively, and perhaps more cost-effective than organizing a separate large-scale meeting such as a conference, establish a requirement that interns summarize the research component of their experience in a written report at the end of the internship; the best reports could be edited and featured in a DAAD publication or newsletter.

“Provide more insight into the outcome of the projects. Offer to present some final reports or presentations.”

“Workshop to meet all participants (interns + mentors) combined with poster presentations.”

“Involve mentors in meetings, such as the Heidelberg meeting and give examples for previous work and experience of former mentors.”

D. Local Arrangements:

- Prior to their departure, provide a user-friendly summary of what RISE interns should expect upon their arrival in Germany. Interns said they would benefit greatly from earlier correspondence related to their host institution, city, and other information that would help them upon arrival. Former RISE alumni interns and mentors may serve as a good resource here in drafting brief summaries for each respective host institution or city.

“For each city where Rise interns have been placed, all information like accommodation possibilities and so on should be collected for new mentors. After participating twice in the program, I know so many organizational things that would help somebody who participates the first time. A bulletin board is also a nice thing.”

E. Funding and Financial Issues:

- Consider basing the stipend amount on location and local cost of living expenses. Interns living and working in more expensive cities tended to feel the stipend amount was not entirely sufficient for their living situations.
- If financially feasible, raise the lump sum amount awarded to students to make it more financially competitive with industry internships in the U.S. Interns noted that they should receive more support to cover travel and flight costs in addition to basic living expenses.

“The stipend, although generous, is not really enough to live on. Either increase the stipend or provide more assistance in helping participants find cheap housing.”

“Increase the stipend by 200 euros per month. Students have to fly here, pay for expenses for moving-in (I had to buy cooking equipment, sheets, etc), so the stipend should be at least enough to cover day-to-day expenses, but it's not.”

F. Other Program Recommendations:

- To continue to improve institutional linkages, coordinate with alumni interns to ensure relationships are sustained between home and host institution. One possible approach would be to encourage former RISE and RISE Pro interns to work with their U.S. or Canadian department (or perhaps a faculty member who provided a recommendation letter) to sponsor or host a German intern. This is currently taking shape, as the RISE in North America program is launched in the coming months.
- Continue to improve follow-up of former alumni of the program. If not already established, stay in contact through a newsletter or listserv to obtain updated contact information and current status of former participants as this is one of the key ways to build strong alumni networks and to assess longer-term impacts.
- Depending on the flexibility of the project, increase length of internship to a period of 4-6 months. Mentors noted that more time is needed for interns to settle into the internship, become acclimated, and begin effectively contributing to a research project.
- Continue to explore academic credit as another incentive for attracting applicants to the RISE program. DAAD might work with former interns' home institutions to design an online supplemental course with readings and opportunities for online discussion posts before and during the internship. If sending institutions felt there was a substantial experiential learning component involved, they may be more likely to consider awarding credit to their students.

Appendix A: Additional Information

For the RISE alumni survey, there was higher representation and a higher response rate among interns who participated in more recent years.⁴ The 2008 cohort had the highest response rate at 71 percent, followed by the 2007 cohort at 57 percent. Response rates varied due to the size of the cohorts and also, in part, to the number of alumni who received and ultimately responded to the survey. The sizes of the cohorts also increased as the RISE program developed and grew over the past five years, attracting more applicants and allowing for more interns to participate.

RISE response rates, by cohort.

In 2008, 302 interns participated in the program; of these, 214 responded to the post-assessment survey.

Cohort	Number of Responses	Response Rate
2004 ⁵	3	13%
2005	42	42%
2006	69	33%
2007	152	57%
2008	214	71%

Institutions and Companies Listed by RISE Interns

RISE interns identified the following organizations and companies in which they would be interested in pursuing further studies or a job.

Aachen
ABB AG Corporate Research Germany
Adidas
Advanced Material Sciences-München Excellence Cluster
Advanced Materials Science (AMS): Ludwig Maximilian University Munich
BASF
BAYER
BMW
Bosch
Charite
Daimler
Deutsche Bank
Deutschland Jahre
DLR
DoCoMo Eurolabs

⁴ For the purpose of this report, when discussing “alumni”, the percentages refer to data from the alumni survey conducted among the 2004-2007 cohorts, of which 266 responses were collected and analyzed. Percentages describing data from the 2008 cohort refer to the separate 2008 cohort survey, of which 214 responses were collected and analyzed. The evaluators analyzed the 2008 cohort’s responses separately since this would be the most current and relevant data useful for the sponsor.

⁵ Data for 2004 were negligible as only three out of a possible 23 interns who participated in 2004 responded to the survey, contributing to the lowest response rate. Also contributing to relatively lower response rates, in general, for the 2005 and 2006 cohorts, was the likelihood that email invitations for the survey were more likely to be returned due to out-of-date student email addresses on file with the DAAD which were no longer in use.

EMBL
Erasmus Mundus
Freiburg, Konstanz, TU Berlin
Freie Universität Berlin
Fulbright Grant
Technische Universität Dresden
GKN Sinter Metals
Göttingen Universität
Hannover Medical School
Humboldt
IMPRS Graduate School of Neural and Behavioral Science
Institut für Mechanik
Julius-Maximilian Universität Würzburg
Justus Liebig University Giessen
Konstanz University
Ludwig-Maximilians-Universität München
Max Planck Institute
Max-Delbrück Center for Molecular Medicine
Max-Planck Institute for biophysics (in Frankfurt)
McKinsey
Mercedes Benz
Merck
MPI - Postdam
MPQ
Porsche
Roche
Ruhr-Universität Bochum
RWTH Aachen
University Berlin
SAP
Siemens
Technical University of Munich
Technisches Institut München
The University of Kassel
T-mobile
Universität Hamburg
Universität Bremen
Universität Duisburg-Essen
Universität Kassel
Universität München
University of Duisburg-Essen
University of Halle-Wittenberg
University of Heidelberg
University of Hannover
University of Munich
University of Augsburg
University of Offenburg
University of Oldenburg
University of Bonn
University of Stuttgart

Institutions and Organizations listed by Mentors

RISE and RISE Pro mentors identified the following organizations and companies in which they would be interested in pursuing further studies or a job.

Boston University
Brigham Young University
Brown University
Caltech University
Cargill
Center for High Magnetic Field Research in
Tallahassee
Colorado School of Mines
Cornell Weill Medical School
DuPont
EPA
GE
Georgia Institute of Technology
Georgia Tech
Google
Harvard Medical School
Harvard University
Henkel
IBM
Institute of Concrete Structures
Jackson Labs
JPL
LLNL DMC - DYNAMIC MATERIALS
COOPERATION
Merck
MIT
Mount Sinai Medical School
NASA
National Institute of Health
Natural History Museum in New York
New York Sloan-Kettering Memorial Cancer
Center
New York University
NorBAC
Northwestern University
Ohio State University
Princeton
Siemens
Stanford University
University of Georgia
University of Alabama
University of Bayreuth
University of British Columbia
University of California at San Diego
University of California at Berkeley
University of Chicago

University of Delaware
University of Pennsylvania
University of Rochester
University of Technology
University of Texas Austin
University of Virginia
US National Labs
Wacker
Yale University

Appendix B: RISE Pre-Departure Survey (administered to 2008 cohort only)

RISE Pre-Departure Survey

As part of its Research Internships in Science and Engineering (RISE) program, the DAAD is conducting this pre-departure survey among students who have been accepted into the program and who will soon be embarking on their research internships in Germany.

The goal of this short survey is to collect data on initial motivations, expectations and attitudes related to your participation in the program. The results will help the DAAD and its sponsors to continue to monitor and improve the program for all participants.

Instructions: Please answer all questions to the best of your ability. The survey should take no longer than 5 minutes to complete. To be included in the prize drawing, please make sure to provide your email address (all survey responses will be kept separate from identifying information, and only aggregate data will be reported). If you have any questions, please email policyresearch@iie.org.

Please provide the following basic information:

What is your gender?

- Male
- Female

What is your current field of study? (Select the field that best fits your degree program.)

- Biology
- Chemistry
- Physics
- Computer Sciences
- Earth Sciences
- Engineering

Where is your home institution located?

- U.S.
 - Canada
-

1. How did you find out about the RISE program? (Select the best response.)

- Through a fellow student
- Through a professor
- Through my advisor
- Through a study abroad office
- DAAD website
- Other internet sources
- Through a former RISE fellow

Other (please specify)

If you selected other, please specify

2. To what level do you agree or disagree with the following statements related to aspects of the RISE program?

	Strongly agree	Agree	Neutral	Somewhat disagree	Strongly disagree
It is important that the program takes places in Germany.	<input type="radio"/>				
It is important that the German language is not required.	<input type="radio"/>				
It is important that I have the ability to engage in practical, hands-on research.	<input type="radio"/>				
It is important that I get to select a research project myself.	<input type="radio"/>				
It is important that I have intensive research collaboration with other young people.	<input type="radio"/>				
It is important that it takes place during the summer months.	<input type="radio"/>				
The amount of financial support is important.	<input type="radio"/>				
It is important that I increase my global competence.	<input type="radio"/>				
It is important that I get to work / travel abroad.	<input type="radio"/>				
It is important that I will receive academic credit.	<input type="radio"/>				

2a. Will your home institution provide any academic or internship credit for this experience?

- Yes
- No
- Don't know

3. Have you ever been in Germany before? (Select all that apply.)

- No
- Yes, my family has lived there
- Yes, on a study abroad trip
- Yes, on vacation
- Yes, with a high school exchange program
- Other (please specify)

If you selected other, please specify

4. How would you rate your German language ability right now? (Select one response for each row.)

	No ability	Basic proficiency	Moderate proficiency	Near native	Fluent
Speaking	<input type="radio"/>				
Writing	<input type="radio"/>				
Reading	<input type="radio"/>				

5. Are you interested in learning / improving your German?

- Not interested
- Somewhat interested
- Very interested

6. Are you seriously considering any of the following options? (Select all that apply.)

- A master's degree
- A Ph.D.
- A career in academia
- A research career in industry
- An extended period of work / study abroad

7. What do you expect to get out of the RISE program? (Select all that apply.)

- To improve my career prospects
- To make connections and personal contacts that may aid in my professional development
- To engage in better research opportunities
- To learn about another culture
- To improve my German language skills

8. We appreciate any other comments or suggestions you might have.

To be included in the prize drawing, please provide an email address where you can be reached:

Thank you for filling out this survey.

Appendix C: RISE Alumni Survey (2004-07 cohorts)

RISE Alumni Survey for Cohorts 2004-07

As part of its Research Internships in Science and Engineering (RISE) program, DAAD (in conjunction with the Institute of International Education) is conducting this follow-up survey among alumni who participated in the program between 2004 and 2007.

The goal of this short survey is to gather information on some of the longer-term impacts of the program. The results will help DAAD and its sponsors to improve the program for all participants in the future.

Instructions: Please answer all questions to the best of your ability. The survey should take no longer than 10-15 minutes to complete. To be included in the prize drawing, please make sure to provide your email address (all identifying information will be kept strictly confidential and will not be reported). If you have any questions about the survey, please email policyresearch@iie.org.

Part I: Background Information

1. When did you participate in the RISE program?

- Summer 2004
- Summer 2005
- Summer 2006
- Summer 2007

2. Which of the following best describes your current status?

- Undergraduate student
- Graduate student
- Ph.D. candidate
- Post-graduate researcher / fellow
- Career in academia / education
- Career in the government or public sector
- Career in the non-profit / foundation sector
- Career in the private sector
- Career in the science / research industry sector
- Career in independent consulting
- Other (please specify)

If you selected other, please specify

2a. Please provide the specific industry/sector of your current area of work or study: (e.g., Chemical Engineering):

2b. What is the highest level of education you have completed to date?

- Bachelor's degree
- Master's degree
- Doctoral degree
- Other (please specify)

If you selected other, please specify

3. What country are you currently living in?

- Canada
- U.S.
- Other (please specify)

If you selected other, please specify

3a. When you participated in RISE, what was your home country of origin:

- Canada
- U.S.

Part II: Program Outreach and Dissemination

4. Since the time you participated, have you recommended the RISE program to anyone? (select all that apply)

- No
- Yes, to an undergraduate student
- Yes, to a faculty member or professor
- Yes, to a potential RISE mentor
- Yes, to a study abroad/international office at an institution
- Other (please specify)

If you selected other, please specify

5. Have you been back to Germany since you completed the RISE program? (Select all that apply)

- No
- Yes, to live and work
- Yes, to complete graduate/post-graduate work
- Yes, to participate in another study abroad program
- Yes, on vacation

6. Have you had contact with your mentor since you completed the program?

- Yes
- No

7. How often have you kept in touch and communicated with your mentor?

- Weekly
- Monthly
- Once every few months
- Once or twice a year
- Never

8. To what degree would you be interested in an alumni communication network to keep in touch with your former RISE colleagues and mentor?

- Very interested
- Somewhat interested
- Neutral
- Not really interested

Part III: Impacts and Outcomes

9. Please rate each of the following statements on academic and professional impacts:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
RISE reinforced my commitment to continue pursuing an education focused on science and/or engineering.	<input type="radio"/>					
RISE motivated me to apply for other prestigious awards.	<input type="radio"/>					
I increased my involvement in leadership positions upon my return to school.	<input type="radio"/>					
RISE reinforced my interest in pursuing an academic career.	<input type="radio"/>					
RISE reinforced my interest in pursuing a science/engineering-related career.	<input type="radio"/>					
Through RISE, I gained valuable field-specific knowledge.	<input type="radio"/>					
Through RISE, I acquired an understanding of German professional practices and standards.	<input type="radio"/>					
My internship experience and my current line of work / study are closely related.	<input type="radio"/>					
I have frequently used my RISE research in applied work.	<input type="radio"/>					
I acquired an international career outlook because of my RISE experience.	<input type="radio"/>					

RISE gave me opportunities to build lasting professional relationships.	<input type="radio"/>					
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9a. What was the greatest impact the program has had on you?

9b. If applicable, in what ways did RISE affect your career path or influence your decision to change majors/careers?

10. My participation in RISE contributed to the development and improvement of the following competencies:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
Ability to communicate more effectively.	<input type="radio"/>					
Improved my interpersonal skills.	<input type="radio"/>					
Increased my self-confidence.	<input type="radio"/>					
Made me more independent and self-sufficient.	<input type="radio"/>					
Ability to function in a multi-cultural work environment.	<input type="radio"/>					
Ability to work in a team.	<input type="radio"/>					
A deeper understanding of a particular research area.	<input type="radio"/>					
Skills to conduct research.	<input type="radio"/>					
An understanding of professional and ethical responsibilities.	<input type="radio"/>					

10a. If applicable, in what other ways did the program improve personal, academic or professional competencies:

11. Have you taken any German language courses since the time you participated in RISE?

- Yes
- No; but will most likely in the future
- No

11a. How would you rate your German language ability right now? (Select one response for each row.)

	No ability	Basic proficiency	Moderately proficient	Near native	Fluent
Speaking	<input type="radio"/>				
Writing	<input type="radio"/>				
Reading	<input type="radio"/>				

11b. To what extent did your participation in the RISE program improve these language skills?

	1 = no impact	2 = slightly improved	3 = improved	4 = greatly improved
Speaking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reading	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. To what extent did your participation in the RISE program affect your ability to live and study abroad?

	1 = no impact	2 = slightly improved	3 = improved	4 = greatly improved
Live and adapt to another culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intern/research/work in another culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. Have you used your RISE internship experience to conduct any further research in a similar field? (select all that apply)

- No
- Yes, follow-up research and coursework back at my home institution
- Yes, published article(s) on my RISE research
- Yes, presented at conference or paper presentation(s)
- Yes, used my RISE research in my graduate / doctoral work
- Other (please specify)

If you selected other, please specify

13a. Please provide a brief description of the research project you worked on as a RISE intern:

14. Has the research you conducted as a RISE intern been published in a peer reviewed and/or academic publication(s) or in nonacademic publications or been presented at conferences?

- Yes
- No

14a. If yes, please list the citations:

15. Are you seriously considering any of the following options for the future? (select all that apply)

- A career in academia
- A career in industry
- A master's degree
- A Ph.D.

16. Are you considering working or studying in Germany again? (select all that apply)

- Yes, for graduate / post-graduate studies
- Yes, for doctoral studies
- Yes, I'm considering a job there
- No

16a. If yes, please indicate the institution or organization you are considering:

17. What suggestions or recommendations do you have for improving this or similar internship programs?

18. Finally, please share any other feedback on your experience as a RISE intern or any other impressions of the program in the space provided:

Thank you for filling out this survey.

Appendix D: RISE and RISE Pro Intern Survey (2008 cohort)

RISE and RISE Pro Post-Assessment Survey

As part of its Research Internships in Science and Engineering (RISE and RISE Pro) programs, the DAAD is conducting this post-assessment survey among interns who have recently completed the program in Germany.

The goal of this short survey is to collect feedback on your participation in the program. The results will help the DAAD and its sponsors to continue to improve the program for all participants.

Instructions: Please answer all questions to the best of your ability. The survey should take no longer than 15 minutes to complete. To be included in the prize drawing, please make sure to provide your email address (all survey responses will be kept separate from identifying information, and only aggregate data will be reported). If you have any questions, please email policyresearch@iie.org.

1. Please provide the following information:

What is your gender?

- Male
- Female

Where is your home institution/company located?

- U.S.
- Canada

Which program did you participate in?

- RISE
- RISE Pro

What is your current field of study? (select the field that best fits your degree program)

- Not applicable (not in a degree program)
- Biology
- Chemistry
- Physics
- Earth Sciences
- Computer Sciences
- Engineering

2. Which of the following best describes your current status?

- Undergraduate student
- Graduate student, master's level
- Graduate student, doctoral level

- Post-graduate researcher / fellow
- Career in academia / education
- Career in the government or public sector
- Career in the non-profit / foundation sector
- Career in the private sector
- Career in the science / research industry sector
- Career in independent consulting
- Other (please specify)

If you selected other, please specify

2a. Please provide the specific industry/sector of your current area of work or study: (e.g., Pharmaceuticals, Chemical Engineering, etc.):

2b. What is the highest level of education you have completed to date?

- Some undergraduate studies
- Bachelor's degree
- Master's degree
- Doctoral degree
- Other (please specify)

If you selected other, please specify

3. Had you ever been to Germany before the program? (select all that apply)

- No
- Yes, my family had lived there
- Yes, on a study abroad trip
- Yes, on vacation
- Yes, with a high school exchange program
- Other (please specify)

If you selected other, please specify

Part I: Program impacts and outcomes

4. To what extent do you agree with the following statements related to aspects of the program?

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
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I was satisfied with the amount of practical, hands-on work I took part in.	<input type="radio"/>					
I was satisfied with the scope of my responsibilities during the internship.	<input type="radio"/>					
I was satisfied with the level of rigor of the research I took part in.	<input type="radio"/>					
I was satisfied with my work relationship with my mentor/supervisor.	<input type="radio"/>					
The research project I selected matched the original description and focus.	<input type="radio"/>					
My overall expectations of the internship were fully met.	<input type="radio"/>					
It was important that the program took place during the summer months.	<input type="radio"/>					
It was important that the program took place in Germany.	<input type="radio"/>					
The German language did not pose limitations to my internship experience.	<input type="radio"/>					
The German language did not pose limitations to my social/living experience.	<input type="radio"/>					
The amount of financial support was sufficient for my living expenses.	<input type="radio"/>					

4a. Additional comments on these or other experiences:

5. On average, how many hours per week did you spend working as an intern at your host institution/company:

_____ Hours (in whole values)

6. Briefly describe your position and main responsibility, task or research project(s) you worked on:

7. How challenging were the following aspects of the internship for you?

	1=Not challenging at	2=Somewhat challenging	3=Very challenging	Not applicable
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	all			
Independent work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Completion of routine tasks/assignments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helping my supervisor in developing new experimental setups / work projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. Will your home institution provide any academic or internship credit for this experience?

- Yes
- No
- Not sure
- Not applicable

Part II. Academic, professional and personal impacts

9. Please rate each of the following statements on academic, professional and personal impacts of the program:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
It has reinforced my commitment to continue pursuing a degree in science and/or engineering.	<input type="radio"/>					
It has reinforced my commitment in pursuing a science/engineering-related career.	<input type="radio"/>					
It has reinforced my interest in pursuing an academic career.	<input type="radio"/>					
It has motivated me to apply for other prestigious awards.	<input type="radio"/>					
I plan to increase my involvement in leadership positions upon my return to school.	<input type="radio"/>					
Through the program, I gained valuable field-specific knowledge.	<input type="radio"/>					
Through the program, I acquired an understanding of German professional practices and standards.	<input type="radio"/>					
I have acquired an international career outlook because of my internship.	<input type="radio"/>					
It gave me opportunities to build lasting professional relationships.	<input type="radio"/>					
I engaged in better research opportunities through the program.	<input type="radio"/>					

It broadened my understanding of another country, culture and its customs.	<input type="radio"/>					
It increased my interest in world affairs.	<input type="radio"/>					
It increased my desire to travel abroad.	<input type="radio"/>					
Through the program, I learned about international business, industry, and/or careers.	<input type="radio"/>					
It improved my career prospects.	<input type="radio"/>					

9a. What was the greatest impact the internship has had on you?

9b. If applicable, in what ways has RISE or RISE Pro affected your career path or influenced your decision to change majors/careers?

10. My participation in the program contributed to the development and improvement of the following competencies:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
Ability to communicate more effectively.	<input type="radio"/>					
Improved my interpersonal skills.	<input type="radio"/>					
Increased my self-confidence.	<input type="radio"/>					
Made me more independent and self-sufficient.	<input type="radio"/>					
Ability to function in a multi-cultural work environment.	<input type="radio"/>					
Ability to work in a team.	<input type="radio"/>					
A deeper understanding of a particular research area.	<input type="radio"/>					
Skills to conduct research.	<input type="radio"/>					
An understanding of professional and ethical responsibilities.	<input type="radio"/>					

10a. If applicable, in what other ways did the program improve personal, academic or professional competencies:

11. Do you plan to take any German language courses now that you have finished the program?

- Yes
- No
- Not sure

12. How would you rate your German language ability right now? (Select one response for each row.)

	No ability	Basic proficiency	Moderate proficiency	Near native	Fluent
Speaking	<input type="radio"/>				
Writing	<input type="radio"/>				
Reading	<input type="radio"/>				

12a. To what extent did your participation in the program improve these language skills?

	1=no impact	2=slightly improved	3=moderately improved	4=greatly improved
Speaking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reading	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. To what extent did your participation in the program affect your ability to live and study abroad?

	1=no impact	2=slightly improved	3=moderately improved	4=greatly improved
Live and adapt to another culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intern/Research/Work in another culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. Are you seriously considering any of the following options in the future? (Select all that apply.)

- A master's degree
- A Ph.D.
- A career in academia
- A research career in industry
- An extended period of work / study abroad

15. Are you considering working or studying in Germany again? (select all that apply)

- Yes, for graduate / post-graduate studies
- Yes, for doctoral studies
- Yes, I'm considering a job there
- No

15a. If yes, please indicate the institution(s) or organization(s) you are considering:

16. What suggestions or recommendations do you have for improving this or similar internship programs?

17. Finally, please share any other feedback on your experience as an intern or any other impressions of the program in the space provided:

Thank you for completing this survey.

Appendix E: RISE and RISE Pro Mentor Survey (2008 cohort)

RISE and RISE Pro Mentor Survey

As part of its Research Internships in Science and Engineering (RISE and RISE Pro) programs, the DAAD is conducting this post-assessment survey among mentors who have recently participated in the program by overseeing the work of an intern.

The goal of this short survey is to collect feedback on your participation in the program as a mentor/supervisor. The results will help the DAAD and its sponsors to continue to improve the program for all participants.

Instructions: Please answer all questions to the best of your ability. The survey should take no longer than 15 minutes to complete. To be included in the prize drawing, please make sure to provide your email address (all survey responses will be kept separate from identifying information, and only aggregate data will be reported). If you have any questions, please email policyresearch@iie.org.

Part I: Background Information

1. Please provide the following information:

Which program did you participate in?

- RISE
- RISE Pro

What is your gender?

- Male
- Female

What is your job title? (e.g., Student, Professor, Director, Senior Researcher, Analyst, etc.)

Your intern was from a university in:

- USA
- Canada

2. Which of the following best describes your current full-time status?

- Graduate student, doctoral level
- Post-graduate researcher / fellow
- Career in the science / research industry sector
- Career in the private sector (not science / research industry)

- Career in independent consulting
- Other (please specify)

If you selected other, please specify

2a. Please provide the specific industry/sector of your current area of work or study: (e.g., Pharmaceuticals, Chemical Engineering, etc.):

3. Have you (or your institution/company) served as a RISE or RISE Pro mentor previously? (select all that apply)

- No, this was my first time
- Yes, Summer 2007
- Yes, Summer 2006
- Yes, Summer 2005
- Yes, Summer 2004

3a. Had you ever worked with North Americans before your participation in the program?

- Yes
- No

3b. If yes, in what capacity?

4. How did you first find out about the RISE or RISE Pro program?

- Through a former RISE / RISE Pro mentor
- Through a co-worker/colleague
- DAAD website
- Other DAAD communications
- Other internet sources
- Through a fellow student
- Through a professor
- Through an advisor
- Other (please specify)

If you selected other, please specify

Part II: Motivating Factors for Participation

5. What motivated you (or your company) to participate as a mentor to an intern?

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
Gaining an additional intern with strong qualifications	<input type="radio"/>					
Wanting to secure a competent research assistant	<input type="radio"/>					
Having the opportunity to build ties with intern's U.S. or Canadian home institution/company	<input type="radio"/>					
I/we wanted to acquire improved English skills through conversation with intern.	<input type="radio"/>					
There would be no significant financial costs to our company/institution.	<input type="radio"/>					
The fact that the program took place during the summer months was important.	<input type="radio"/>					
The fact that arrangements for the program were handled by DAAD was important.	<input type="radio"/>					
Wanting to add an international component to my resume	<input type="radio"/>					
Wanting to increase my supervisory experience	<input type="radio"/>					

6. On a scale of 1 to 5, with 1 being "not supportive at all" and 5 being "very supportive", how supportive was your institution/company of your participation as a RISE or RISE Pro mentor?

- 1
- 2
- 3
- 4
- 5
- N/A; not applicable

7. If you are in touch with your intern's home institution/company, please indicate the frequency of contact:

- I have not been in contact with my intern's home institution/company.
- Every few months
- Monthly

7a. If you have not been in contact, would you be interested in establishing contact?

- Yes

- No
- Maybe

Part III. Impacts and outcomes

8. To what extent do you agree with the following statements related to impacts from your participation in the program?

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
I have acquired an international career outlook because of my participation.	<input type="radio"/>					
It gave me opportunities to build lasting professional relationships.	<input type="radio"/>					
It has helped me make meaningful connections that may help my career.	<input type="radio"/>					
I would recommend the program to another potential mentor/company.	<input type="radio"/>					

8a. What was the greatest or most valuable impact the program has had on you or your institution/company?

9. My participation in the program contributed to the development and improvement of the following competencies:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
Ability to function in or manage a multicultural team	<input type="radio"/>					
Increased my confidence about prospects for successful participation in international conferences and meetings	<input type="radio"/>					
Improved my understanding of North American cultures and lifestyles	<input type="radio"/>					

9a. If applicable, in what other ways did the program improve personal, academic or professional competencies:

10. How would you rate your English language ability right now? (Select one response for each row.)

	No ability	Basic proficiency	Moderate proficiency	Near native	Fluent
Speaking	<input type="radio"/>				
Writing	<input type="radio"/>				
Reading	<input type="radio"/>				

10a. To what extent did your participation in the program improve these language skills?

	1=no impact	2=slightly improved	3=moderately improved	4=greatly improved
Speaking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reading	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part IV: Intern Performance

11. To what extent do you agree with the following statements related to your intern's work performance?

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
The intern was competent.	<input type="radio"/>					
The intern was reliable and responsible.	<input type="radio"/>					
The quality of the intern's work met or exceeded expectations.	<input type="radio"/>					
The intern completed most, if not all, tasks in a timely manner.	<input type="radio"/>					

12. How challenging were the following aspects of the internship for your intern?

	1=Not challenging at all	2=Somewhat challenging	3=Very challenging	Not applicable
Independent work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Completion of routine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

tasks/assignments				
Helping me develop new experimental setups / work projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. Approximately how much time (per week) do you estimate you saved with the intern's help?

- No time
- Less than 1 hour
- 1-3 hours
- 4-7 hours
- 8-11 hours
- 11-15 hours
- 15 hours or more

13a. Approximately how much time (per week) did you spend directly supervising the intern?

- Less than 1 hour
- 1-3 hours
- 4-7 hours
- 8-11 hours
- 11-15 hours
- 15 hours or more

Part V. RISE or RISE Pro Program Procedures

14. To what extent do you agree with the following statements related to program procedures and areas for improvement?

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Not applicable
The placement process was effective and satisfactory.	<input type="radio"/>					
Overall RISE / RISE Pro procedures were satisfactory.	<input type="radio"/>					
Having mentors also attend intern site visits would be beneficial in the future.	<input type="radio"/>					
Having mentors participate in a peer mentor meeting would be beneficial in the future.	<input type="radio"/>					

14a. Please comment on any feedback related to administrative aspects of the program:

Part VI: Future implications

15. Are you seriously considering any of the following options in the future? (Select all that apply.)

- Conduct research or continue higher education in North America
- Collaborate with other researchers/scientists in North America
- Work abroad for an institution/company in North America
- Hire your intern
- Invite your intern to pursue graduate studies at your institution

15a. If applicable, please indicate the institutions/companies you are considering:

16. Do you plan to stay in contact with your intern?

- Yes, definitely
- Yes, most likely
- Probably not
- Definitely not

16a. What suggestions or recommendations do you have for improving this or similar internship programs?

17. Finally, please share any other feedback on your experience as a mentor or any other impressions of the program in the space provided:

Thank you for completing this survey.