



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

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by

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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.