

Globalization and Offshoring of Software

A Report of the ACM Job Migration Task Force

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Foreword



Association for Computing Machinery
Advancing Computing as a Science & Profession

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For the past six decades, the Association for Computing Machinery (ACM) has been an integral part of the evolution of computing as a science and profession. In early 2004, ACM members began expressing concern about the future of computing as a viable field of study and work. There were daily stories in national and international media describing major shifts in employment that were occurring largely as a result of offshoring. Combined with the impact of the end of the dot.com boom, these reports raised more questions than they answered in the minds of many ACM members.

Given these concerns, ACM Council commissioned a Task Force to look at the facts behind the rapid globalization of IT and the migration of jobs resulting from outsourcing and offshoring. Being an international organization, ACM expected the task force to look at the issue from a global perspective, as compared to a country-centric one. This was not intended to be a study of offshoring from the United States to India and China and the impact of that offshoring on the computing profession in the United States. Instead, the task force was charged with looking at the forces shaping the migration of jobs worldwide in the computing and information technology fields. Prior to this effort, no study has looked at offshoring on a global scale.

ACM Presidents Maria Klawe (2002-04) and David Patterson (2004-06) invited Frank Mayadas of the Sloan Foundation, Moshe Y. Vardi of Rice University, and Bill Aspray of Indiana University to lead the effort. This group commissioned a task force of computer scientists, social scientists, and labor economists from around the world. The Task Force held four in-person meetings at which the facts and data surrounding the issue were presented and discussed. In the process, trends emerged, myths were debunked, and a more realistic picture of the current state and likely future of the information technology field, profession, and industry emerged.

The report resulting from this study is significant. Moreover, the annotated bibliography available on the ACM Web site provides the most comprehensive list of reports, resources, and papers assembled on the topic of offshoring. As described in detail in the eight chapters that comprise the report, the field of computing and information technology has experienced a dramatic shift in the past five years to a truly global industry. The forces that have driven and shaped this change are still at play and will continue. The implications for every ACM member are significant. Full participation in the systems, software, and services portion of the global information technology field will require deep grounding in the fundamentals of computing, new knowledge surrounding business processes and platforms, and a deeper understanding of the global community in which work will be done. The educational systems that underpin our profession will need to change.

The future of IT is exciting, but it is a future very different from the past, and even from the present.

John R. White
ACM Chief Executive Officer