The "Career Explorations" and "From College To Career" programs are both evening outreach programs in which sons and daughters of IBM employees are invited to the IBM Somers location to learn about careers and preparing for the job market. All sessions feature IBM employee presenters talking about the work they do. The "Career Explorations" program is intended for high school students in grades 9 through 12 and runs during an academic year. Neighboring high schools are invited to partner with us in this program by identifying additional students (not sons and daughters of IBM employees) that would benefit from such a program and coordinating their students' participation. The "From College To Career" program is intended for college students who are home for the summer months. Additionally, co-op students in the area for the summer months are also invited to participate. This paper outlines both the "Career Explorations" and the "From College To Careers" programs and provides a "How To" guide for others wanting to initiate such a program. (JDM)
Career Explorations:
An IBM Outreach Program for High School Students

and

From College to Career:
An IBM Outreach Program for College Students

by

Ronald G. Shapiro, Ph.D.
Career Explorations:
An IBM Outreach Program For High School Students

And

From College To Career:
An IBM Outreach Program For College Students

Ronald G. Shapiro, Ph. D.
Program Manager, Skills and Employee Development
IBM Software Group
Somers, NY

Copyright (C) 2001, International Business Machines Corporation. All Rights Reserved.

Permission is granted to copy and distribute this paper without alteration, provided that the work is distributed without charge and provided further that copies bear all notices contained in the original, including attributions of authorship, copyright notices and this notice.
Table Of Contents

- Abstract and Introduction
- Purpose of the Program
- Attendees
- History of the Program
- Programs
- Tips For Successful Sessions
- Program Considerations
- Challenges
- Feedback From Our Employees
- Speakers and Leadership Team Photo
- Appendix: Sample Documentation, Calendar, and Checklist
- About the Author
- Acknowledgments
Abstract and Introduction

The Career Explorations and From College To Career programs are both evening outreach programs in which sons and daughters of IBM employees are invited to the IBM Somers location to learn about careers and preparing for the job market. All sessions feature IBM employee presenters talking about the work which they do. The sessions begin at 6:30 PM and end at 8:30 PM. The Career Explorations program is intended for High School students in Grades 9 through 12 and runs during the academic year. Neighboring high schools are invited to partner with us in this program by identifying additional students (not sons and daughters of IBM employees) that would benefit from such a program and coordinating their students participation. The From College To Career program is intended for college students home for the summer months. Additionally, coop students in the area for the summer months are invited to participate.

This paper outlines both the Career Explorations and the From College To Careers programs and provides a "How To" guide for others wanting to initiate such a program.
Purpose of the Program

- Interest students in technology careers to help reduce projected long term shortage of scientists and engineers
- Interest young people in our company as a possible place to work
- Provide useful tips and information to the sons and daughters of our employees (and our neighbors) as they prepare for a great career
- Explain technology and business practices to the parents who would probably not come to an education session like this one during the normal course of business
- Enhance employee morale by showing "We care."
Attendees

- Sons and daughters of our employees
- Students at neighboring high schools (our high school partners)
- Faculty at neighboring high schools (our high school partners are asked to send a faculty member to accompany their students)
- Parents accompanying their students (welcome to attend and often do, but are not required to)
- Occasionally, an employee who wants to "catch up on some introductory material"
History of The Program

- **Career Explorations:**
  - This program was developed as we realized that we had an excellent program for students in elementary and middle schools (Bring Your Child To Work Day) and an excellent summer internship and scholarship program for college students, however we had a gap in serving the needs of High School Students.

- **From College To Career:**
  - This program was developed at parental request. A parent of a college student reviewed our meeting announcement for the Career Explorations program and requested that we develop a similar program for college students who are having a challenge focusing on a career. We agreed and initiated the program. We expanded the program last summer to include our summer coop students.

- **Volunteerism:**
  - Both Career Explorations and From College To Career are volunteer programs. Neither the speakers nor the organizing committee are assigned to these programs nor do they receive any additional compensation. Thus, the cost of the program is minimal (pizza, beverages, and a slightly increased workload for the site operations crew.)
Programs

IBM is a technology company. Thus, our focus in these programs is on careers related to technology. Our programs have included:

- Technology in the future
- Software Engineering
  - Internet
  - Large Scale Computing
- Engineering
- Sales
- Marketing
- Finance
- Human Resources
- Preparing for a career: talks with a recruiter, manager and career counselor
- Intellectual Property (Patent) Law and General Corporate Law
- Career Options With A Behavioral Science Degree

An excellent first session is either a recruiter or a well known business or technology leader.
Tips For Successful Sessions

- Find great speakers who know how to reach teenagers
  - Consider people who you have seen present at:
    - Professional conferences
    - Recruiting events
    - Customer events
    - Internal employee training events, lunchtime seminars
    - Community service organizations
    - Other programs involving youth
  - A mix of:
    - Experienced professionals: Executives, Managers, Technical Professionals
    - New Hires (less than 2 years out of college)
    - Coop Students With Work Experience in the company
Tips For Successful Sessions
(continued)

- Mix of lecture and activities:
  - The most successful sessions will have a healthy mix of activities and lecture. Less than 50% of the session should be lecture material. Involve the audience a lot in sessions by asking questions. Mix the activities and the lecture (e.g., not all activities at the end).
  - In the lecture part of the session, showing often beats telling.
  - Speakers should address how to prepare for their career from high school on
    - Are there special activities to do now?
    - Is there something special to do over the summer?
    - Should you start to prepare your resume now?
- Offer small prizes (e.g., company advertising novelties, popular plush toys) for excellent participation in activities, great questions, etc.
- A Pizza dinner is often a nice way to start the evening and its not too expensive!
Program Considerations
The following were considered in our initial planning of the program and would need to be considered by others designing a similar program:

- Who will attend the programs?
  - How do we know?
- Who will present?
  - Will they do it willingly?
  - Are they good speakers with teenagers/college students?
  - How do we know?
- Who will fund food: dinner, snacks?
- Who will arrange the annual program?
- Who will organize sessions on a monthly basis?
- Who will distribute communications?
- Who will handle registration?
- Where will the programs be held?
  - Security procedures
  - Charge for facility, utilities, cleanup?
Challenges

- Many high schools initially not interested in being our partners when we contacted them due to distance from IBM site to school, faculty availability to participate, and numerous other school activities. (Now some of these schools are contacting us.)
- Sometimes speakers must back out at the last minute, due to personal emergency or unanticipated, unavoidable business trip. (A backup plan is essential.)
- Anticipating how many people will sign up, but not show up to plan for food ordering and activities. No show rate can be 25% to 50% depending upon, for example, when a school event or a TV program (like baseball game) may occur. (We find that by having people enroll in the program early in the school year, and sign up for each session about 2 weeks before the session reduces no show rate.)
- Obtaining approval to use company facility at night (not a problem for us, but this could be a significant problem initiating a similar program at other companies)
- Enrollment will vary depending upon the topic, and other events going on so plan to have different size rooms available if attendance is higher or lower than expected. Ours has ranged from about a dozen to nearly our maximum capacity of 150.
- Helping parents address the following question "I think this program is great. How do I get my son/daughter to come?"
Feedback From Our Employees

• Just wanted to say Thank You for such a wonderful presentation at last night's High School Outreach Program. I think the young adults (and the older ones, too!) really enjoy both the pizza, the games, and the prizes. What a wonderful way to open up their minds to the possibilities of the future.... In my own case, my freshman and I held a lively discussion about future careers and goals on our way home -- it was a good bonding experience.

• I attended last night's Somers high school outreach program with my son and I wanted to let you know that we both found the program to be very interesting and informative. As you probably know, that is rare praise from a high school student. The speakers had a nice mix of experience levels, and it was helpful to hear about their different backgrounds and how they ended up where they are now.

• This is fabulous ..it is great to see follow-on focus for our children throughout the year.

• This is great stuff (High School and College Outreach programs)!! Bravo to you all.

• Thanks for working to put this together.....it means a great deal to the IBMers and their 'young adults'.

• I think that this is a great program!
Career Explorations 2001
Speakers and Leadership Team
(Photo by Susan Chute)
Appendix:
Sample Documentation

- Career Explorations:
  - Program Announcement: First Year
  - Program Announcement: Subsequent Year
  - Sample Enrollment Form
  - First Session Announcement
  - Sample Program
- From College to Careers:
  - Program Announcement
  - Registration Form
- Calendar For Program Owner
- Checklist For Session Organizer
Dear IBM Parents,

It's hard to believe, but the children are headed back to school this week. As we begin this new academic year, IBM would like to help your high school aged students answer the age old question; "what do you want to be when you grow up?"

We are sponsoring a series of outreach seminars in the IBM Somers Auditorium, located in the CSB. During these sessions, IBM executives and technical employees will talk about their profession and help students consider the next steps in their education. This program is designed as a natural extension to "take your children to work" and we hope you'll encourage your high school aged children to take attend.

Sessions will begin at 6:30PM and will end by 8:30PM. We plan to keep things highly interactive and have scheduled the following sessions:

Software Engineering: Tuesday, September 21
Marketing: Tuesday, October 19
Engineering, Research Scientist: Wednesday, November 17
Sales: Thursday, January 20

Due to the seating capacity in Somers Auditorium and IBM Security Regulations, your student MUST be preregistered to come to the meeting. To register, simply complete the following form (one per student please) and return it to Donna Way (Donna Way/Poughkeepsie/IBM) no later than September 15. You will receive a confirmation notice after we process your registration form.

Bill Matson
Career Explorations:
Program Announcement Letter: Subsequent Year

Dear IBM Parents,

As our sons and daughters prepare to return to school, we begin our third year of career explorations, our High School Outreach program. As always, IBM would like to help your high school student answer the age old question, "What do you want to be when you grow up?" This year offers the most exciting program yet. If you have sons or daughters of high school age, I'd encourage them to come, learn, participate, and have fun!

This year our program will begin in September with a special presentation by IBM Senior Vice President Nick Donofrio. Nick is truly an outstanding presenter and he has a passion for communicating with students. This program is one your students should not miss. Other presentations this year will include:

October: Sales
December: Quick Tips For Landing a Great Job/Holiday Activity
February: Marketing

November: Software Engineering -- Large Systems
January: Software Engineering: Internet
March: Legal -- Mock Trial

All sessions are held in Somers in the CSB on either Tuesday, Wednesday, or Thursday evenings, beginning at 6:30 PM and ending approximately at 8:30 PM. To participate in the program series, enroll your son or daughter by completing the form below and returning it to Ronald G Shapiro/Poughkeepsie/IBM no later than September 11. A detailed announcement with exact dates will be sent to you 2 to 3 weeks before each session asking you to confirm attendance for the upcoming seminar. Due to the seating capacity and IBM security regulations, your student MUST be preregistered. Once registered, please encourage your student to attend and not cancel.

This year, we will have high school partners. Local high school principals have been invited to bring a select number of students to this program. To avoid double counting, you should sign up your sons and daughters. They should not sign up for this program through their high school. If you have questions about this program, please call Karina Saslow at tie-line 641-5047 or Ron Shapiro at tie-line 293-3146.
Career Explorations:
Enrollment Form

IBM SOMERS HIGH SCHOOL OUTREACH PROGRAM - 2001
ENROLLMENT FORM

Your Name: ____________________________  Your Tie-Line: ____________  Your Work Location: ____________________________

Students name: ____________________________  Grade: ____________
Students name: ____________________________  Grade: ____________
Students name: ____________________________  Grade: ____________
Students name: ____________________________  Grade: ____________

High School Name: ____________________________________________

Home phone: (____) ____ - _________
(Home phone is required in case of bad weather last minute cancellation)
Dear Parents,

Nicole, Karina, Susan, Danielle and I thank you for enrolling your high school student(s) in Career Explorations: The High School Outreach Program at IBM Somers. This year’s program promises to be an outstanding one. Welcome!!!

Our first presentation will be on September 20 at 6:30 PM by Nick Donofrio, one of the Senior Executives at IBM (an abstract and bio follow below). From personal experience we can tell you that Nick is an outstanding communicator and will do an outstanding job reaching out to your High School students. You won't be disappointed! Nick has also generously agreed to talk to students informally before and after his formal talk.

Given the special nature of this program we are closely managing attendance, expecting a record high turnout. To guarantee seating return the attached registration information to Ron Shapiro (Ronald G Shapiro/Poughkeepsie/IBM) as soon as possible. While our formal deadline for responding is September 14, we may achieve a "full" auditorium well before the deadline, so please sign up now.

You may request as many reservations as you like (if you plan to attend along with your high school student, don’t forget to include yourself as an attendee on the signup below--and indicate "Parent" in the Grade in School Column). We will send you a confirmation number for each attendee. We would ask that if you reserve seats you make every possible effort to attend and not cancel. In any case, DO NOT BE A NO SHOW as you will be depriving others from the opportunity to attend!!!! We do not expect to be able to accommodate walk-ins without a confirmation number.

We'll have Pizza and other refreshments available as usual.

Signup for Nick Donofrio Presentation

Name of Attendee  Home Telephone Number  Grade In School or "Parent" School  Parent Name  Pizza Preference

We'll send you detailed information on future programs two to four weeks before each program.

Sincerely,

Nicole, Karina, Susan, Danielle and Ron
(continued on next page)
Career Explorations:  
First Session Announcement

(continued)

Title: Creating the Future with Technology

Presentation
For nearly a century, IBM has put advanced technology to work on humankind's toughest challenges. Today, IBM's continued innovations and breakthroughs are creating a world in which advanced technology is fully integrated into the core of everything we do, leading to dramatic improvements in the quality and productivity of our lives. The presenter will take us on a brief journey through some of IBM's most powerful and dramatic technology advances; he'll give us a preview of how those advances will shape our future; and he'll discuss America's crucial need for more and more talented engineers and scientists.

About the Presenter
Nick Donofrio is the senior vice president responsible for IBM's worldwide technology strategy. He oversees the company's technical vitality, particularly with regard to Research, hardware & software development, and the manufacture of IBM technologies and products. He also is responsible for the skills-development and allocation of IBM's technical resources around the world, which today total more than 150,000 people. He joined IBM in 1967 as a designer of integrated circuits and logic and memory chips. He held numerous technical management positions and, later, executive positions in various IBM product divisions. He has led many of IBM's major manufacturing and development teams, including IBM's entire family of server systems. He is a vocal advocate of education and workforce diversity, and believes firmly that excellence in math and science are the keys to our nation's competitiveness. He received a BS and MS in electrical engineering from Rensselaer Polytechnic Institute and Syracuse University, respectively, and was awarded an honorary PhD. in engineering from Polytechnic University. He holds eight US technology patents.
Career Explorations:
Sample Program (Pages 1 & 4)
2001 - 2002 Career Explorations Program

September: Technology
Nick Donofrio (Senior Vice President, Technology)
Karen Calo (Vice President Human Resources)

October: Sales
Steve Bartomioli (Director of Software Sales)

November: Software Engineering -- Large Systems
Frank Hildenbrand (Software Engineering Manager)
Heather Dennis (Software Engineer)
Matthew Conway (Software Engineer)

December: Quick Tips for Landing a Great Job/Holiday Activity
Helen Walter (HR Professional; former IBM Recruiter)
Tami Cannizzaro (Finance and Marketing Professional)
April Aspinwall (IBM Summer 2001 College Intern)
Ron Shapiro (HR Professional--Employee Development)

January: Software Engineering -- Internet
Jane Harper (Internet Executive)
Mary Keough (Internet Manager)
Robert Spanos (IBM Summer 2001 High School Intern)
Konrad Lagarde (Internet Manager)

February: Marketing
Patty Linnon (Marketing Director)
Duffy Fron (Marketing Professional)
Kimberly Desmarais (Marketing Professional)

March: Legal -- Mock Trial: Hackers, Data Privacy and Confidential Information
Baba Zipkin (Global Services Division HR Legal Counsel)
JoAnn Kealy Crockatt (Global Services Division Intellectual Property Law Counsel)
Ron Kelly (IBM Director of Security)
Bob Frederick (WW, Program Director of Security, Global Services Division)

For Additional Information Contact:
Ron Shapiro
Nicole Goldman  Karina Saslow
Career Explorations:
Sample Program (Pages 2 & 3)
Nick Donofrio is the senior vice president responsible for IBM's worldwide technology strategy. He oversees the company's technical vitality, particularly with regard to Research, hardware & software development, and the manufacture of IBM technologies and products. He also is responsible for the skills-development and allocation of IBM's technical resources around the world, which today total more than 150,000 people.

Nick joined IBM in 1967 as a designer of integrated circuits and logic and memory chips. He held numerous technical management positions and, later, executive positions in various IBM product divisions. He has led many of IBM's major manufacturing and development teams, including IBM's entire family of server systems.

He is a vocal advocate of education and workforce diversity, and believes firmly that excellence in math and science are the keys to our nation's competitiveness. He received a BS and MS in electrical engineering from Rensselaer Polytechnic Institute and Syracuse University, respectively, and was awarded an honorary PhD. in engineering from Polytechnic University. He holds eight US technology patents.

The Explorations Team

Program Sponsor

Karen Calo, Vice President
Human Resources
Software Group

Program Coordinators

Ron Shapiro
Nicole Goldman
Karina Saslow
Susan Chute
Danielle Maggio
Elizabeth Genovese
Marisa DeFusco

Tonight's Program:

Creating the Future with Technology

For nearly a century, IBM has put advanced technology to work on humankind's toughest challenges. Today, IBM's continued innovations and breakthroughs are creating a world in which advanced technology is fully integrated into the core of everything we do, leading to dramatic improvements in the quality and productivity of our lives. The presenter will take us on a brief journey through some of IBM's most powerful and dramatic technology advances; he'll give us a preview of how those advances will shape our future, and he'll discuss America's crucial need for more and more talented engineers and scientists.

Agenda

The Career Explorations Program
Introduction of Keynote Speaker
Keynote Speaker
Informal Reception with Keynote Speaker

Pizza at 6:30 PM

Program begins at approximately 6:50 PM
From College To Careers

Program Announcement

May 18, 2000

Dear IBM Parents,

School vacation is almost here. As your college student(s) return home for the summer, IBM would like to help those individuals who may still be undecided about their career explore some options.

We are sponsoring a series of outreach seminars in the IBM Somers Auditorium, located in the CSB. During these sessions, IBM executives and technical employees will talk about their profession and help students consider the next steps in their education. This program is designed at the request of IBM Parents as a natural extension to the "take your children to work" and the "high school outreach program." We hope you'll encourage your college students to attend and learn how they can apply their education and skills in the job market.

Sessions will begin at 6:30PM and will end by 8:30PM. We plan to keep things highly interactive and have scheduled the following sessions:

- **June 1 (Thursday)** The Practical Aspects of Selecting a Career and an Employer -- an IBM recruiter, Career Counselor and some recent college graduates will lead this session.
- **June 20 (Tuesday)** Preparing to Apply Your Behavioral Science or Psychology Education in Industry -- PhD Psychologists will lead this session.
- **July 11 (Tuesday)** Web Design and Development -- Several web developers and an IBM executive in web development will lead this session.
- **August 16 (Wednesday)** Multimedia and Information Development -- The IBM Multimedia Team will lead this session.

Due to the seating capacity and IBM Security Regulations, your student MUST be preregistered to come to the meeting. To register, simply complete the following form (one per student please), and return it to Donna Way (Donna Way/Poughkeepsie/IBM) no later than May 26. You will receive a confirmation notice after we process your registration form.

Karen A. Calo
Vice President, Human Resources
Software Group
From College To Careers:
Registration Form:

Your Name: ____________________________
Your Tie Line: __________________________

Your Work Location: ______________________

Students name: _________________________
Home phone: ____________________________
Home phone is required in the unlikely case of last minute cancellation)

College/University Name: ____________________________________________________________
Class of: ______________

Check as applicable:

_____ My college student is signing up for the entire program and agrees to attend all sessions, notifying you if s/he must miss a session

_____ My college student prefers to sign up for only the following sessions

_____ June 1 (Thursday) The Practical Aspects of Selecting a Career and an Employer
_____ June 20 (Tuesday) Preparing to Apply Your Behavioral Science or Psychology Education in Industry
_____ July 11 (Tuesday) Web Design and Development
_____ August 16 (Wednesday) Multimedia and Information Development
Calendar For Program Owner

- Career Explorations
  - July, August: Secure speakers for fall quarter
  - August 25: Letter sent to all employees from Human Resources Vice President announcing program
  - September 15: Close date for program enrollment
  - October, November: Secure Speakers for winter quarter
  - September through March: Monthly program. Obtain abstracts and speakers biographies at least one month prior to program
  - April, May: Not good months for programs... too much going on

- From College To Career
  - March: Secure speakers for the year
  - April: Obtain abstracts and speakers biographies
  - May 10: Letter sent to all employees from Human Resources Vice President announcing program
  - June 1: Close date for program enrollment
  - June: Most effective month to hold sessions
Check List For Session Organizer

- Before the program
  - Collect title of the session, abstract, speakers biographies, and AV Needs from the lead presenter (4 weeks before session). Encourage speaker to have "gift items" if possible. (If not, I suggest at least having some small candy bars...).
  - Confirm that room is reserved with ______ at extension ______ (4 weeks before session)
  - Get CAREER EXPLORATIONS Distribution List from ______
  - Order AV equipment from ______
  - Arrange for Photos from ______
  - Send notices (Sample Below) to:
    - CAREER EXPLORATIONS distribution list (3 weeks prior to session)
    - High School Partners
  - Collect RSVPs (deadline should be 5 days before program)
  - Get larger/smaller room if needed and if possible
  - Send RSVP list to ________ (5 days before program)
  - Send revised list as needed up to day of program
  - Purchase soda, water, cups, plates, napkins, other food (such as packaged cookies)/supply items as needed. Take advantage of sale if possible/practical.
  - Check in with lead speaker 1 week prior to program
Check List For Session Organizer

(continued)

- Day of program
  - Pick up valuable AV from security. Be sure valuable AV is not left unattended. Be sure regular AV is in room.
  - Have an extra extension cord with you if possible.
  - Order Pizza and Ice from __________ at __________. Have it delivered at 6:25.
  - Print RSVP list and bring paper copy to Security around 6 PM if any changes.
  - Set up room, soda, water, plates, other food items at 5:45 PM.
  - Greet Pizza delivery person at 6:25. Set up pizza. Pay Pizza person. They take credit cards. Don't forget to Tip.
  - Introduce speaker
  - Do what is needed to facilitate program
  - Return valuable AV to security
  - Do clean up of major trash items.
  - Have room locked by security

- After program
  - Request reimbursement of expenses.
  - Send thank you to speakers.
  - Follow up with anything you may have promised students.
About the Author

Ronald G. Shapiro, Ph.D. is the Program Manager for Skills for IBM Software. Ron received his B.A. from the University of Rochester and his M.A. and Ph.D. from Ohio State University in Experimental Psychology. Ron has worked as a human factors practitioner in both the large company (IBM) and small consulting firm environments. He has managed human factors departments and has served as the corporate coordinator of Human Factors and Usability at IBM. Ron has taught psychology at the university level and presents regularly at professional psychologists' and educators' conferences, and to various college student group often on career preparation. Ron is the current chair of the Council of Technical Groups for the Human Factors and Ergonomics Society. He is an experienced recruiter, has authored several articles on recruiting, and founded both the *Career Explorations* and *From College To Career* Programs.

Dr. Ronald G. Shapiro
IBM, Mail Slot P101
2455 South Road
Poughkeepsie, NY 12601

RSHAPIRO@US.IBM.COM
845 433 3146
Acknowledgments

I would like to thank the following individuals who have helped to make Career Explorations and From College To Career a success:

- Karen A. Calo, Program Sponsor 2000 - 2002
- Susan Chute, Photographer and Host Committee 2001 - 2002
- Elizabeth Genovese, Publicity 1999 - 2001
- Danielle Maggio, Registrar 2001 - 2002
- Bill Matson, Founding Program Sponsor 1999
- Maureen Milazzo, Publicity, 1999 - 2002
- Jovina L. Roman, Host Committee 1999 - 2000
- Karina Saslow, Host Committee 2001 - 2002
- Suzanne Walsh, Host Committee 2001 - 2002
- Donna Way, Registrar and Host Committee 1999 - 2000
- Lisa Zurheide, Program Committee 1999 - 2000

- Our volunteer speakers, parent and student participants
- and Tim Keeley for an expert review of this paper,
I. DOCUMENT IDENTIFICATION:

Title: Career Explorations: An IBM Outreach Program For High School Students

From College to Career: An IBM Outreach Program For College Students

Author(s): Ronald G. Shapiro, PhD

Corporate Source: Publication Date:

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, Resources in Education (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE AND IN ELECTRONIC MEDIA FOR ERIC ARCHIVAL COLLECTION SUBSCRIBERS ONLY HAS BEEN GRANTED BY

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Level 1

[ ]

The sample sticker shown below will be affixed to all Level 2A documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA, AND FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Level 2A

[ ]

The sample sticker shown below will be affixed to all Level 2B documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Level 2B

[ ]

Documents will be processed as indicated provided reproduction quality permits. If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

Printed Name/Position/Title: Ronald G. Shapiro, PhD

Telephone: 645-413-3416

E-mail Address: RSHAPIRO@US.IBM.COM

Date: 12/05/01

(over)
II. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

<table>
<thead>
<tr>
<th>Publisher/Distributor:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Address:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Price:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

V. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

<table>
<thead>
<tr>
<th>Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Address:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

ERM Counseling and Student Services
University of North Carolina at Greensboro
201 Ferguson Building, PO Box 26171
Greensboro, NC 27402-6171

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

ERIC Processing and Reference Facility
4483-A Forbes Boulevard
Lanham, Maryland 20706

Telephone: 301-552-4200
Toll Free: 800-799-3742
FAX: 301-552-4700
e-mail: ericfac@inet.ed.gov
WWW: http://ericfac.piccard.csc.com

5-088 (Rev. 2/2000)