



Academic Initiative – Addressing Critical Skill Requirements

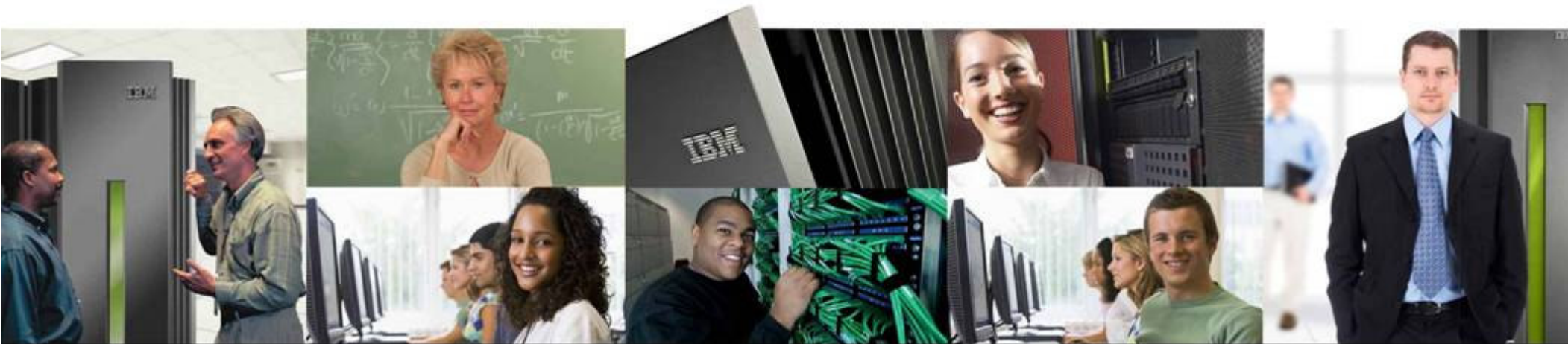
The future runs on System z

Don Resnik
System z Skills Leader

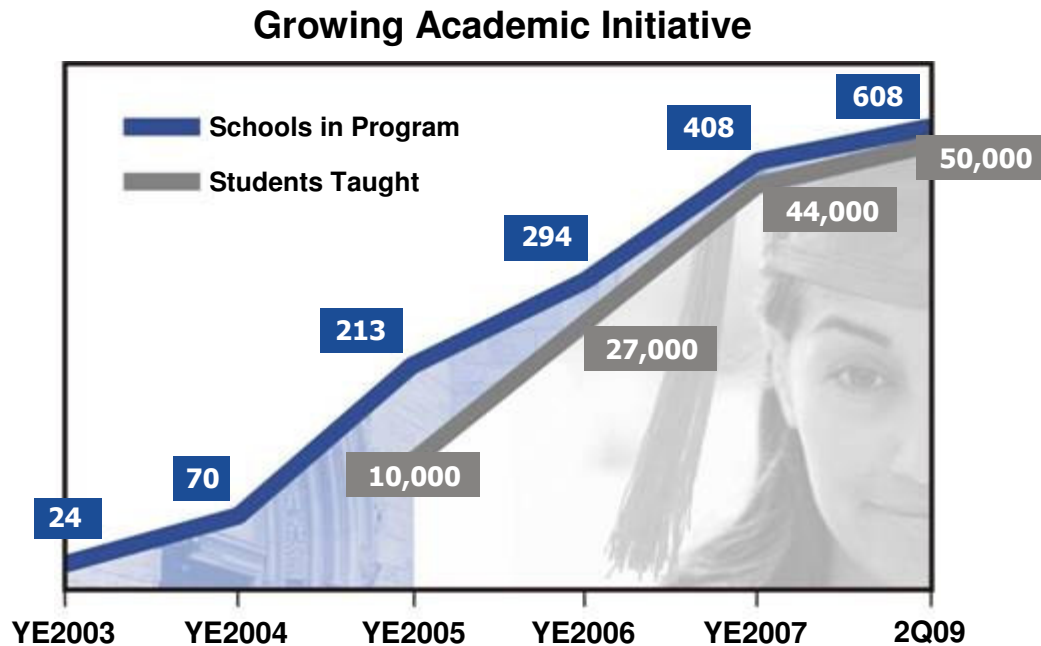


Mainframe skills opportunities

- List of schools teaching the mainframe ibm.com/university/systemz
- Enterprise Computing Community ecc.marist.edu/
- z/OS Certificate Program idcp.org/learnzos
- Community Resources ibm.com/systems/z/advantages/newtosystemz/
- z Skills Help Desk zskills@us.ibm.com



Schools teaching the mainframe



- **IBM Academic Initiative, System z:** ibm.com/university/systemz
 - ▶ **Participation** – 608 schools, >50,000 students attended mainframe education
 - 2379 schools participating in overall IBM Academic Initiative (all brands)
 - Course downloads - Rational 3283, Websphere 1492, DB2 563, Tivoli 300
 - ▶ **z Community** – 38 z Roundtable events in US with Clients / Schools / ISVs / BPs
 - ▶ **Student Mainframe Contests** – 13 countries, 14,672 students, 1,956 schools

Fundamental to the program is...

... *Flexibility*

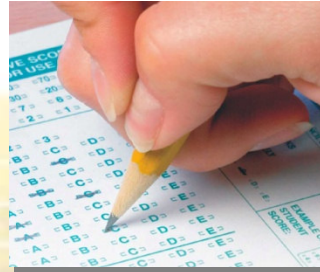
- **Participation continues to increase**
- **WW demographics**
 - ▶ 45% North America
 - ▶ 24% Europe, Middle East, and Africa
 - ▶ 16% Latin America
 - ▶ 15% Asia/Pacific
- **Wide variety of schools in the program**
 - ▶ *Different level of participation*
- **All programs are unique**
 - ▶ Designed to provide flexibility to the school to meet their requirements and capabilities



System z academic initiatives



Access to mainframes worldwide for teaching



30 courses and z/OS Mastery Exam to validate z knowledge



z Skills Help Desk to assist the community



Student Mainframe Contests to generate interest



Roundtables on Campus to get industry input

Teach the teachers ...

System z Professor Summer Seminars

Participating US schools ...

Ball State University

Baruch College

Cégep de Thetford

City University of New York (CUNY)

Clarkson University

Columbus State Community College (OH)

Columbus State University (GA)

Cuyahoga Community College

Dutchess Community College

Eastern Illinois University

Eastfield College

Estrella Mountain Community College

Fairleigh Dickinson University

Fox Valley Technical College

Georgian College

Georgia Institute of Technology

Highland Park High School

Houston Community College

Huston-Tillotson University

Illinois State University

LeMoyne College

Long Island University

Malone College

Marist College

Minnesota State University

Montclair State University

North Carolina Central University

Palm Beach Community College

Prince George's Community College

Rochester Institute of Technology

San Jacinto College

Seneca College

Southern University

Stevens Institute of Technology

SUNY New Paltz

Syracuse University

Tecnologico de Monterrey

Universidad de Colima

University of Alabama - Birmingham

University of Arkansas

University of Denver

University of Maryland Eastern Shore

University of South Carolina

University of Valencia

Weber State University

West Texas A&M University

West Virginia University

Widener University

T3s were also conducted in these countries ...

Canada

Malaysia

Mexico

Vietnam

Thailand

SHARE Attendees

Faculty spotlight on Mainframe education



Brenda McGurgan
Computer Science instructor
Highland Park High School
Dallas, TX, USA

Brenda McGurgan teaches Advanced Placement (AP) Computer Science at Highland Park High School, a public school near downtown Dallas with an enrollment of approximately 2000 students in grades 9-12.



Prof. Dr.-Ing. Wilhelm G. Spruth
Head, Chair for Computer Systems
University of Leipzig
Leipzig, Germany

Thanks to the efforts of Prof. Spruth and his colleagues, other schools can use publicly-available resources to establish mainframe programs and help their students get enterprise-level skills.



Carlos Oliveira
CEO of GrupoAméricas
Estação Business School
Curitiba Paraná, Brazil



Dr. Harvey Lowy
Associate Professor, Gildart Haase School of
Computer Sciences and Engineering
Fairleigh Dickinson University
Teaneck, New Jersey, USA



Cameron W. Seay
Lead Professor, Computer Information Systems
North Carolina Central University
School of Business
Durham, North Carolina, USA



Dr. David Douglas
Professor, Sam M. Walton
College of Business
University of Arkansas



Academic Initiative Newsletter
ibm.com/university/academicinitiative

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Enterprise computing in academia

(watch this space)

- Enterprise Computing Community – National Science Foundation grant
- Sample of mainframe education in Enterprise Systems curriculum

Syracuse University	Enterprise Technologies
DeVry University	Enterprise Systems Specialization Track
Stevens Institute NJ	Enterprise Systems Graduate Program
Marist College NY	Large Systems education and ECC
Illinois State University	Enterprise Computing Systems Curriculum
Penn State University	Enterprise Systems Architecture
Rochester Institute of Technology	Enterprise Systems Architecture
University of Arkansas	Director of Enterprise Systems – David Douglas

- Growing popularity in Historical Black Colleges and Universities
 - ▶ North Carolina Central University, University of MD East Shore, NC A&T, Southern University LA

Our goal with educators

- Explore enterprise systems education alternatives
- Not selling IBM products
- Not asking educators to teach a predefined training program
- Enable and Assist at no charge



IBM wants to enable and assist educators with IBM enterprise systems concepts, technologies, and examples.

Reference schools worldwide teaching System z

ibm.com/university/systemz – Click on ‘Participating Schools’ tab

United States

Alabama	Missouri
Arizona	Montana
Arkansas	Nebraska
California	New Jersey
Colorado	New York
Delaware	North Carolina
Georgia	Ohio
Illinois	Pennsylvania
Indiana	South Dakota
Maryland	Texas
Michigan	West Virginia
Minnesota	Wisconsin

Canada

Ontario
Quebec

Europe, the Middle East and Africa

Austria	Netherlands
Belgium	Norway
Czech Republic	Portugal
Denmark	Poland
Egypt	Russia
Finland	Slovakia
France	South Africa
Germany	Spain
Ireland	Sweden
Italy	Turkey
Latvia	United Kingdom
Lithuania	

Asia Pacific

Australia
China
India
Malaysia
Philippines
Singapore
Taiwan
Thailand

Latin America

Argentina	Peru
Brazil	Venezuela
Mexico	

Global - Master the Mainframe Contests

- **13 countries and spreading**

- **2008 U.S./Canada contest**

- ▶ 1,876 students from 325 schools
- ▶ 140% increase in registration since 2005
- ▶ 66 high schools
- ▶ Top 5 winners....

1st place: Bryan Weaver, Northern Illinois University

2nd place: Yeming Hu, Dalhousie University

3rd place: David Jones, West Texas A&M University

4th place: Bin Sun, Syracuse University

5th place: Jinhu Huang, Seneca College

- **Contests planned 2009, 2010**

- ▶ Australia, Brazil, NA, UK
- ▶ Russia – 1st
- ▶ France – 1st
- ▶ Taiwan – 1st

Location	Contests	Students	Schools
Brazil	2007 2008	5298	790
BeNeLux	2007	76	9
Nordics	2007	147	11
Thailand	2007	960	40
UK	2006 2007 2008	2277	163
North America	2005 2006 2007 2008	5464	912
Australia	2008	450	31
Totals	13	14,672	1,956

ibm.com/university/contest

Ocoee High School FL *Mainframe Masters*



Participants in the 2008 IBM Master the Mainframe Contest

Partners with System z Academic Initiative



Cole Software

assembler tool
installed on z hub




PathPoint

working with Academic Initiative schools on COBOL

“PathPoint Software is very pleased to provide a unique means to support the mainframe COBOL instructional needs of Academic Initiative participants,” said Robert Buchanan, Vice President of PathPoint Software. “Existing corporate mainframe COBOL applications are very complex and very challenging to maintain, enhance and support. Career opportunities abound for graduates who are prepared to take on this challenge; PathPoint and the Academic Initiative help them prepare,” he added.



Microfocus

joint partnership with
school in NY



RedHat and Novell

attended professor
summer seminars and
supporting z academic
hub systems with zLinux



Rocket Software

sharing emulation software
for educators



CA

providing mainframe software on
Academic hubs for educators to
teach mainframe courses

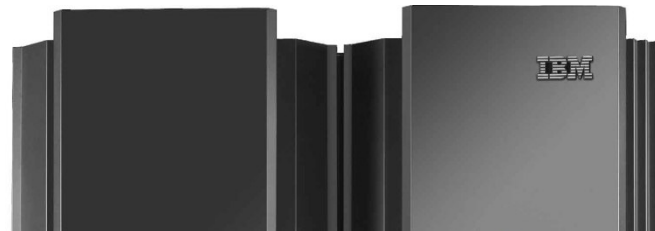


Neon Enterprise Software

active partner for recruiting schools
to teach mainframe courses

IBM Sellers

(mainline, Sirius
Computer Solutions,
etc..) – spreading the
message to clients



Professional Development

Integrate Projects

Graduate

Certificates

Examples

Hands on

Concepts

Case Studies

Undergraduate Guest Lectures

Enterprise systems education comes in many forms, but will always include a 'z'



Closing thoughts . . .

- ***System z Academic Initiative members (professors) want to partner with industry to identify jobs for their students***
- ***Enterprise Systems is gaining recognition in academia***
- ***IBM Clients are hiring from System z Academic Initiative member schools***



Let's hear from David Douglas, University of Arkansas

Important web sites and contacts

- **Academic Initiative for the Mainframe**
 - ▶ ibm.com/university/systemz
- **Assisting the z community**
 - ▶ zskills@us.ibm.com
- **z/OS Entry Level Mastery Exam & DB**
 - ▶ ibm.com/certify/mastery_tests/ovrZ01.shtml
- **zNextGen**
 - ▶ znextgen.org
- **Enhanced skills portal**
 - ▶ ibm.com/systems/z/about/charter/skills.html



Academic Initiative System z Skills Leader

Don Resnik, resnik@us.ibm.com