

Iowa Governor's STEM Advisory Council - Microsoft IT Academy Program

Presentation to the Education Appropriations Subcommittee - February 12, 2015

- I. Iowa Governor's STEM Advisory Council – Background Information
 - a. Began July 2011 (Executive Order 74); led currently by co-chairs Lt. Governor Kim Reynolds and Vermeer CEO Mary Andringa. Partnership of educators, business and industry, nonprofits, stage agencies and community leaders.
 - b. Primary vision/goal – Increase student interest and achievement in STEM fields, preparing them for important STEM careers. From 2012-2014, 9 out of 10 students who participated in STEM Scale-Up programs reported higher interest in at least 1 STEM subject or career.
 - c. Additional goal – Raise STEM awareness. From 2012 to 2014, awareness of STEM has increased from 26% to 41%
 - d. Exemplary programming including STEM Scale-Up, STEM Classrooms, STEM CAPS, Real World Externships for Teachers and Microsoft IT Academy
 - e. More than 100,000 youth and 3,106 classrooms/clubs engaged and involved in STEM Scale-Up in 2013-2014
 - f. On-going focus on engagement of business/industry with education to further promote STEM education and awareness
 - g. Technology (T in STEM)
 - i. STEM Council initial partnership to develop Code Iowa – Code.org
 - ii. Iowa STEM Support of Computer Science (STEM Council working group), co-chaired by Ann Watts and Mark Gruwell
 - iii. Iowa STEM Scale-Up programming, including HyperStream, Project Lead The Way (PLTW) Computer Science and Software Engineering
- II. Microsoft IT Academy - History of the Project
 - a. \$500,000 funding passed – 2013 legislative session
 - b. Bids from vendors accepted through September 2013
 - c. Microsoft IT Academy bid selected October 2013, by committee of STEM Council
 - d. Contract signed in November 2013 and first organizational meeting with Microsoft occurred November 22, 2013 (11th state to implement program)
 - e. Applications website launched Thanksgiving 2013
 - f. 1st round of applications accepted through January 2014
 - g. Another \$500,000 funding – 2014 legislative session
 - h. In Year 2 of 3 year agreement, contingent upon legislative support

- III. What did that funding enable?
 - a. 150 schools for IT Academy
 - b. Certiport testing site licenses for 100 schools with 500 free test vouchers per site

- IV. Why are the IT Academy and certifications important?
 - a. A search on Indeed.com generated 2,681 jobs in Iowa requiring Microsoft skills
 - b. <http://www.indeed.com>
 - c. Market Value (Salary) with Microsoft Certification – Business Entry level +\$16,312
 - d. Market Value (Salary) with Microsoft Certification – Technical Entry Level +\$10,111

- V. Microsoft IT Academy Program Benefits
 - a. Curriculum Digital Literacy, Microsoft Office
 - b. Professional Development (10/10/10)
 - c. Software
 - d. Marketing Partnership
 - e. Support and Resources for Deployment

- VI. How do Certiport and those 100 site licenses fit into this mix?
 - a. Certiport is the global administrator for the Microsoft Office Specialist (MOS) and the Microsoft Technology Associate (MTA) certification programs.
 - b. The student can attach a certificate to his or her resume to show that proficiency to prospective employers.

- VII. Training for teachers – Webinars, Test Fests, Face to Face Training, past and future

- VIII. Using the IT Academy Resources in the Classroom – Alburnett Example
 - a. Computer 6 (Introductory Word & PowerPoint)
 - b. Computer 7 (Digital Literacy & Introductory Excel)
 - c. Computer 8 (Intermediate Word, Excel & PowerPoint)
 - d. Intermediate Computer Business Applications (9th graders)
 - e. Required course for graduation
 - f. Advanced Excel, PowerPoint, Word, & Access)
 - g. Kids do Certiport testing (possibly 3 times)

- IX. IT Academy Success Metrics and Outcomes
 - a. # of teachers trained – 504
 - b. # of IT Academy face-to-face training – 4 4our-hour sessions
 - c. # of IT Academy Virtual Training Sessions (Iowa-specific) – 11
 - d. # of IT Academy Virtual Training Sessions (All ITA educators) – 21
 - e. # of Professional Development Vouchers redeemed – 139
 - f. # of certification exams uploaded – 2543

- X. Where do we go from here?
 - a. Current contract runs till November 2015
 - b. Face to face training from Certiport this coming month – 3 locations
 - c. Training and test fests this summer
 - d. Hope to offer the program to more schools
 - e. Hope to expand the program to cover the MTA exams as well.

XI. Questions?

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Microsoft IT Academy Program Benefits

- Curriculum
- Professional Development
- Software
- Marketing Partnership
- Support and Resources
- Monthly Newsletters

The screenshot displays the Microsoft IT Academy program interface. At the top right, it says "Microsoft Official Academic Course". Below that, it shows "MOS EXAM 77-418" and "Microsoft Word 2013". The main content area is titled "MLX Windows and Office 2013 Content" and lists several courses in progress, each with a play button icon and a progress bar. The courses listed are: "Microsoft Windows 8 Desktop Essentials", "Microsoft Windows 8 Start Screen Essentials", "Microsoft Excel 2013 Essentials", "Microsoft PowerPoint 2013 Essentials", and "Microsoft Word 2013 Essentials".

The screenshot shows a certificate from the Microsoft IT Academy. The certificate is dated "2014 - 2015" and identifies the recipient as a "Program Member". The text on the certificate reads: "In recognition of your commitment to student success through excellence in IT education." The certificate is signed by Satya Nadella, Chief Executive Officer. The Microsoft logo is visible in the top right corner.

Bringing IT Academy into Your Schools

Primary and Middle Schools – General Education – All Students

Introduction to Technology

•Digital Literacy

- Computer Basics
- The Internet, Cloud Services and WWW
- Productivity Programs
- Computer Security and Privacy Course
- Digital lifestyles

Academic Success

Microsoft Office Specialist 2013 (Word, Excel or PowerPoint)

- Word 2013 (1 exam)
- Excel 2013 (1 exam)
- PowerPoint 2013 (1 exam)

•Introduction to Programming

- Software Development Fundamentals
- First semester Computer Science

High School –General Education – All students

Map into standard curriculum

College Prep – Employment Readiness

•Microsoft Office Specialist Expert 2013 (Word or Excel)

- Word 2013 Expert (2 exams)
- Excel 2013 Expert (2 exams)

•Microsoft Office Specialist Master 2013 (6 exams)

- Word 2013 Expert
- Excel 2013 Expert
- PowerPoint 2013 Expert
- One Elective (Outlook, Access, SharePoint, OneNote)

Technology Foundations

- Networking Fundamentals (1 exam)
- Mobility and Device Fundamentals (1 exam)
- Cloud Fundamentals (1 exam)
- Database Fundamentals (1 exam)

High School Technical Certification

Specialized courses for technical students

Computer Science

- Software Development Fundamentals
- HTML5 App Development Fundamentals
- Database Fundamentals
- Programming with HTML5 with JavaScript and CSS3
- Essentials of Developing Windows Store Apps using HTML5 and Java Script
- Advanced Windows Store App Development using HTML5 and JavaScript

IT Infrastructure

IT Academy provides a rich set of content and resources to help any school pursue a complete technical education solution from introduction to technology to advanced professional level certifications.

Curriculum: Digital Literacy

Computer Basics

Internet, Cloud Services and the World Wide Web

Productivity Programs

Computer Security and Privacy

Digital Lifestyles

Build Your First App!



Microsoft Digital Literacy
presents

Build Your First App

38%
COMPLETE
My Progress



Build and publish apps complete with physics, sprites, and touch. Learn basic programming concepts and skills by creating scripts on the TouchDevelop web site.

[Launch "Build Your First App" course](#)

(Requires broadband connection.)

More New Courses Available

Computer Basics: Learn the fundamentals of computing, the components of a computer, operating system basics, and how to use a mouse and a keyboard.

[Launch "Computer Basics" course](#)

(Requires broadband connection.)



The Internet, Cloud Services, and World Wide Web: Learn how to connect to people, information, and resources around the world, using Web sites, search engines, and e-mail programs.

[Launch "Internet, Cloud Services, and WWW" course](#)

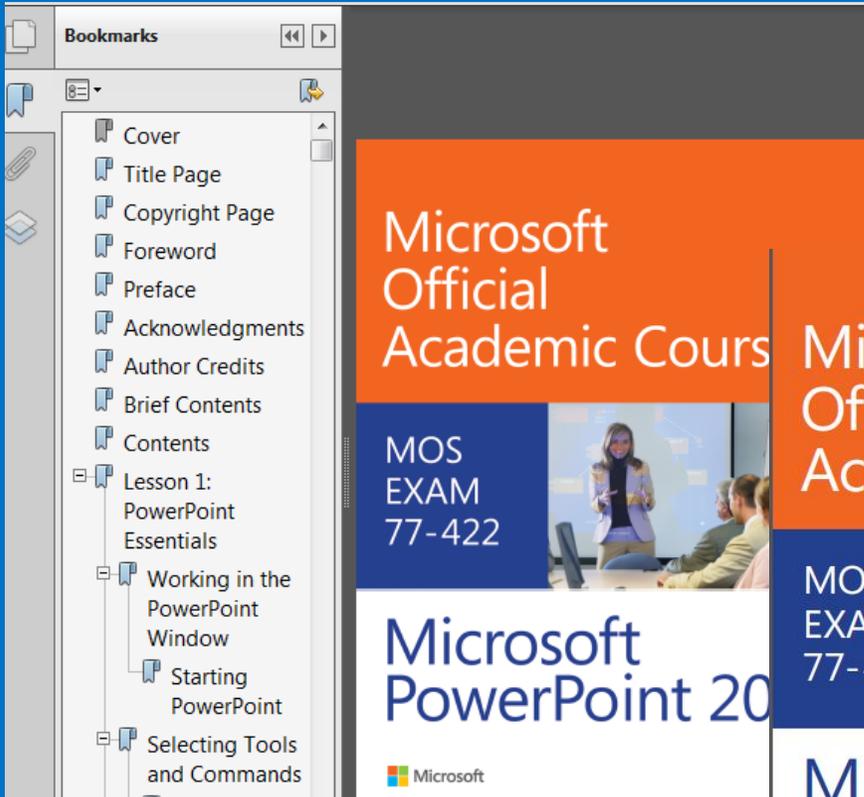
(Requires broadband connection.)

Productivity Programs: Games, demos, and interactive guides help you quickly learn the basics of word processing, spreadsheets, presentations, and databases.

[Launch "Productivity Programs" course](#)



Curriculum: MOAC Digital Textbooks



Microsoft
Official
Academic Course

MOS
EXAM
77-422

Microsoft
PowerPoint 2013



Microsoft
Official
Academic Course

MOS
EXAM
77-418

Microsoft
Word 2013



Microsoft
Official
Academic Course

MOS
EXAM
77-420

Microsoft
Excel 2013



Technologies

MTA
Microsoft Technology Associate

Office 2010 & 2013
Word, Excel, PowerPoint
Outlook, Access

Microsoft .NET Framework -
Application Development
Foundation

Microsoft .NET Framework 3.5,
ASP.NET Application Development

Designing and Developing
ASP.NET Applications Using the
Microsoft .NET Framework 3.5

Curriculum: Lesson Plans

Customizable Teaching Plans

Discussion Questions

Quizzes

Student Projects

Instructor Guides

Presentations

Instructional Mapping

Multiple Languages

Microsoft® IT Academy Program

MODULE TEACHING PLAN FOR MODULE 1: USING MICROSOFT WORD 2013

INSTRUCTOR MATERIALS FOR COURSE 70158: MICROSOFT WORD 2013 ESSENTIALS
ALIGNED WITH MICROSOFT OFFICE SPECIALIST (MOS) EXAM 77-418: MICROSOFT WORD
2013

CONTENTS

[Module information](#)

[Lesson 1: Working in Word 2013](#)

[Project: Explore Word 2013](#)

[Quiz](#)

[Instructional standards mapping](#)

Maps to
Common Core
& CCTC

Technologies

Microsoft Office

Windows

Office for Mac

Expression Web

SharePoint

Curriculum: Online Learning

Administrator Learner

MLX Preview

250 + Courses

Multiple Technologies

Evolving Administrator and Student Experience

The screenshot displays a video player interface for a Microsoft Windows 8 Desktop Essentials course. The video title is "Microsoft Windows 8 Desktop Essentials : Personalizing Windows Demonstration". The video content shows a Windows 8 Start screen with various live tiles for Facebook, Internet Explorer, Store, Trending, People, SkyDrive, Maps, Messaging, Russell 2000, NFL.com, Games, Camera, Music, and Video. The system tray at the bottom shows the time as 10:05 on Thursday, January 3, and the user name as Chris Preston. A navigation bar at the bottom of the video player includes play/pause, stop, and next buttons, along with a progress bar and a timestamp of 00:00:11 / 00:01:19. The next video in the series is titled "NEXT: Using the Charm Bar Practice".

Curriculum Overview

Basic Foundation

Digital Literacy



Main Curriculum

A screenshot of the Microsoft Official Academic Course book cover for Microsoft PowerPoint 2013. The cover is orange and white. It features the text "Microsoft Official Academic Course" and "MOS EXAM 77-422 Microsoft PowerPoint 2013". A table of contents is visible on the left side of the image.

- Available in English / some titles in Arabic for Office 2010
- Created for an academic environment
- Maps 100% to Microsoft Certification

A screenshot of the Microsoft IT Academy Program Module Teaching Plan for Word 2013. The document is titled "MODULE TEACHING PLAN FOR MODULE 1: USING MICROSOFT WORD 2013". It includes a table of contents and a list of topics to be covered in the module.

- To be used in conjunction with online learning
- Step by step guidance for teachers
- Office and technical Training on-line
- Best used in conjunction with lesson plans
- Use together for Microsoft Certification

A screenshot of the Safari browser showing a search results page for "Microsoft Official Academic Course". The page displays several search results, including a book titled "Microsoft Official Academic Course" and a document titled "Microsoft Official Academic Course".

- Available in English / some titles in Arabic for Office 2013
- Some books map 100% to Microsoft certification

Certification

A pyramid diagram representing the levels of Microsoft Office Specialist (MOS) certification. The pyramid is divided into three horizontal sections. The top section is red and labeled "Master". The middle section is orange and labeled "MOS Expert". The bottom section is yellow and labeled "MOS".

- Choose the best ITA curriculum for your situation to use in preparation

A pyramid diagram representing the levels of Microsoft Technical Certifications. The pyramid is divided into three horizontal sections. The top section is dark blue and labeled "MCSM". The middle section is medium blue and labeled "MCSE MCSD". The bottom section is light blue and labeled "MCSA MTA".

- Choose the best ITA curriculum for your situation to use in preparation

Microsoft Certified Educator

Professional Development: Professional Development Exam Vouchers

10 MCE

Microsoft Certified
Educator Exams

Teachers using technology
in the classroom

10 MOS

Microsoft Office Specialist

All teachers with
productivity skills

10 MTA

Microsoft Technology
Associate Exams

Learn & Introduce students
to technology careers

Software: DreamSpark and Microsoft Office for labs

Product Categories Line-up	DreamSpark Standard	DreamSpark Premium
Operating Systems		
Windows Client		✓
Windows Server	✓	✓
Developer & Design Tools		
Visual Studio Professional	✓	✓
Visual Studio Premium		✓
Visual Studio Ultimate		✓
Expression	✓	✓
Windows Embedded	✓	✓
Applications		
Visio		✓
Project		✓
OneNote		✓
Servers		
SQL Server	✓	✓
BizTalk Server		✓
SharePoint Server		✓

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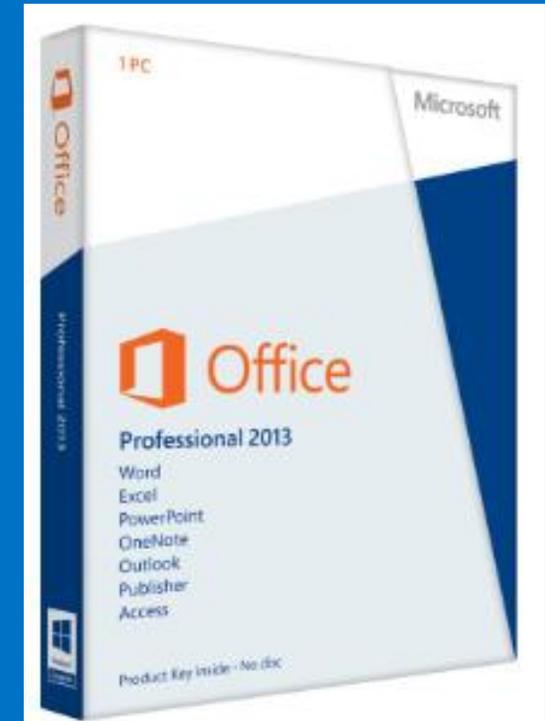
start developing for Windows Phone 7 → | Windows Phone 8 →



say hello to next generation

Create applications that deliver a Windows experience.

start developing for Windows 8 →

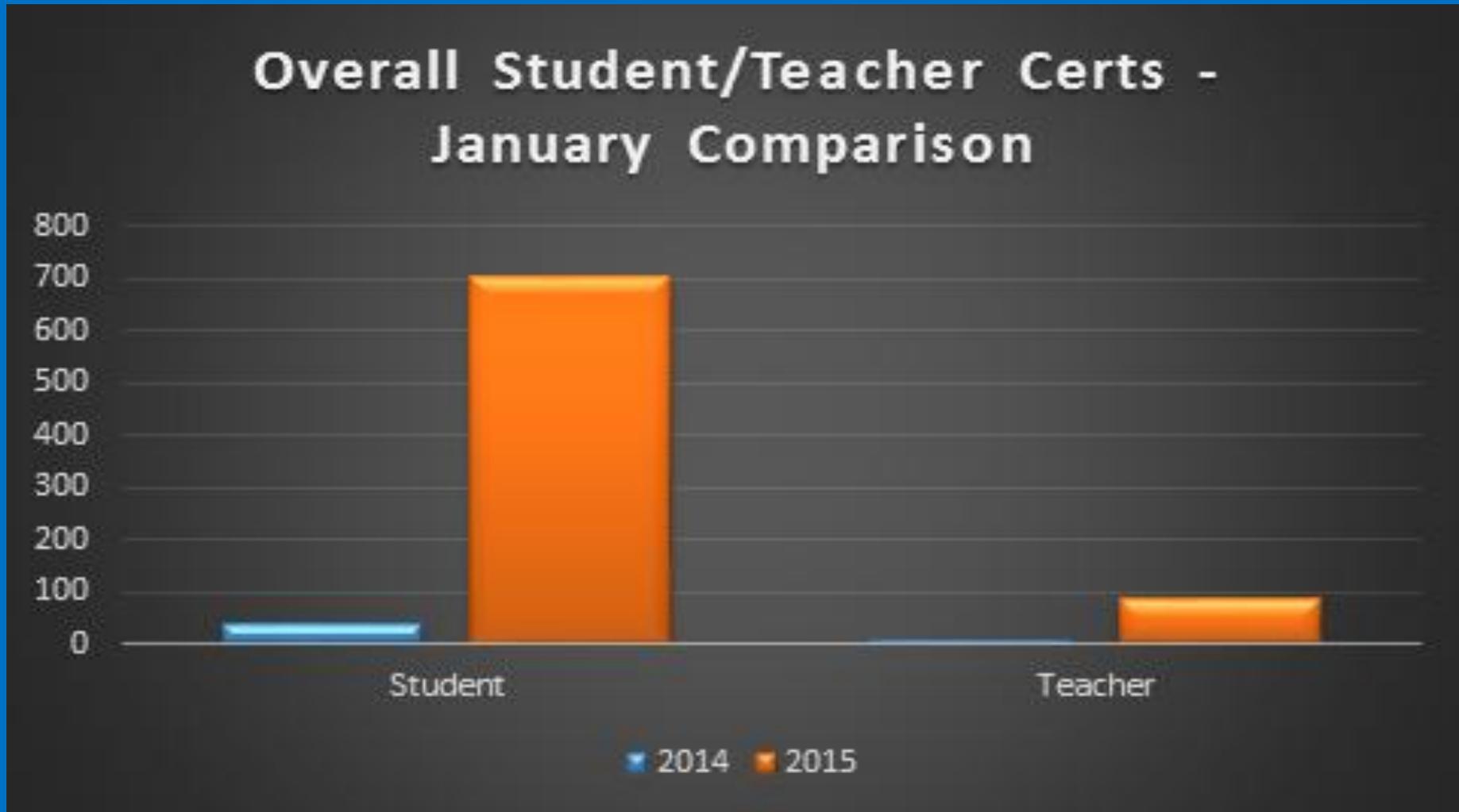


Iowa Microsoft IT Academy program

Success Metrics and Outcomes

Success Metrics	2013-2014 Results	2014-2015 numbers as of February 9
ITA Program		
# of ITAs Purchased	150	150
# of ITAs Registered	150	150
# of teachers trained (virtual and in-person)	364	504 (Total)
Total number of certifications	561	935
# of Schools Registered for Testing	35	97
# of student certifications - MOS	479	906
# of teacher certifications - MOS	82	14

How Far We've Come!



Microsoft Skills are in demand – globally!

Jobs in Demand by Technology



Microsoft Skills & Certifications:
"must have"
"good to have"
"nice to have"

IT jobs will grow from 35.6 million jobs in 2009 to 41.4 million jobs by end of 2014



Location	Google	Apple	CISCO	Adobe	Microsoft
Des Moines	18	8	34	32	523
Cedar Rapids	11	10	19	18	348
Davenport	9	6	4	7	128
Iowa City	9	4	5	5	126
Ames	6		2	10	93
Waterloo	4	5	2	2	65
Sioux City	3	3			61
Dubuque	3			3	60

Source: Indeed.com, February 2015



Microsoft IT Academy Program State of Iowa January 2015

Success for Iowa Students

The State of Iowa has exceeded their program goals in all categories for the school year ending June 2014. The total number of certification exams passed was 561 as of June 30. As of December 15, 2014 the total number of certifications passed is 813, which represents a significant growth over last year and puts us on track to meet or exceed certification goals for the 2014/2015 School year.

The IT Academy program provides digital curriculum and certifications for fundamental technology skills to help students prepare for college and careers. Different curriculum and resources are available to give teachers the flexibility to teach in the style that is best for them and their students.

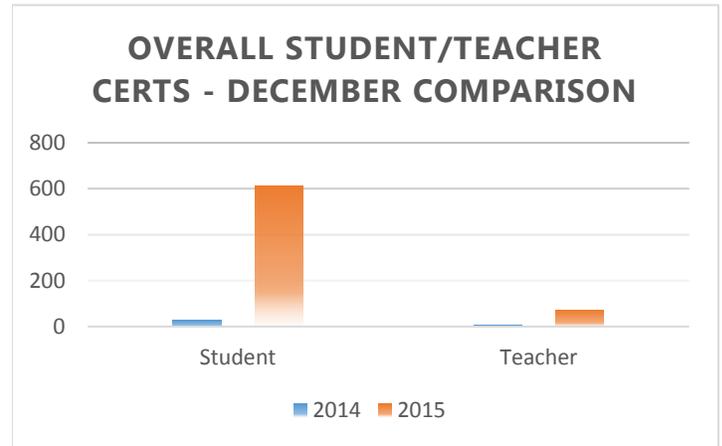
Today, Microsoft IT Academy program participants around the State of Iowa are developing essential skills for students, creating successful schools, and strengthening communities. The program also enables educators by providing the professional development resources they need to be successful in the classroom.



"Virtually all employment advertisements specify knowledge of Microsoft software programs as an essential requirement for workers. Microsoft Office Specialist certification validates this knowledge and it is indisputable. With this portable, globally-recognized credential in hand, these graduates prove that they are capable of productively and efficiently using Microsoft Office to advance their careers."

Janet M. Boone, Instructor - Business Department, Northwest Iowa Community College

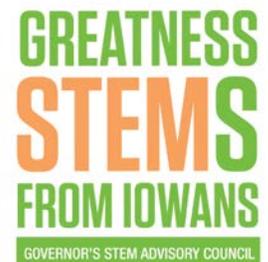
Snapshot of Success Metrics:



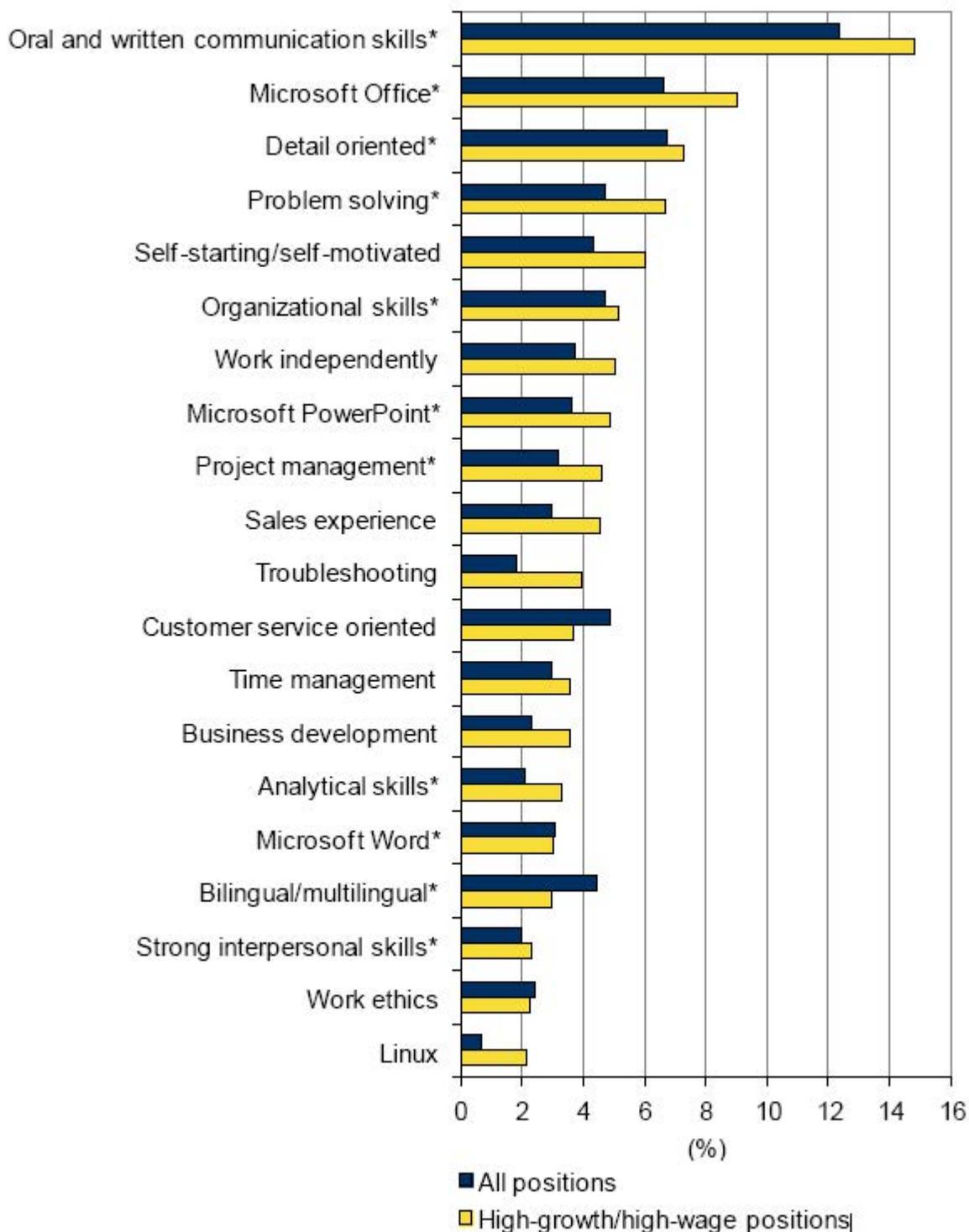
- Number of **schools registered** as IT Academies: 150 (out of 150 licenses)
- Total **teachers trained** (virtual and in-person): 504
- Number of **Online Learning users**: 910
- Number of **E-reference subscriptions**: 148
- Number of MOS **Professional Development vouchers redeemed**: 139

"If there is a skill set more broadly valued across the business and industry universe than a basic command of information technology, I am hard-pressed to know what it could be. That is why the Governor's STEM Advisory Council is so very pleased to partner with Microsoft IT Academy to provide our outstanding Iowa educators with the tools needed to prepare today's students for tomorrow's careers. Thank you all for helping to deliver on Iowa's promise of world-class education for all learners."

Lieutenant Governor Kim Reynolds, co-chair, Governor's STEM Advisory Council



Comparison of Top Skills for High-Growth/High-Wage Occupations and All Occupations in the United States



* Indicates communication, integration, or presentation skill

Source: IDC, based on WANTED Analytics and U.S. Bureau of Labor Statistics data, October 2013