



USING TECHNICAL SKILL ASSESSMENT RESULTS FOR PROGRAM IMPROVEMENT

National Career Clusters Institute
Washington, DC
June 2012

June 2012

Missouri Department of Elementary
and Secondary Education and NOCTI

Missouri's Approach to Technical Skill Attainment (TSA)

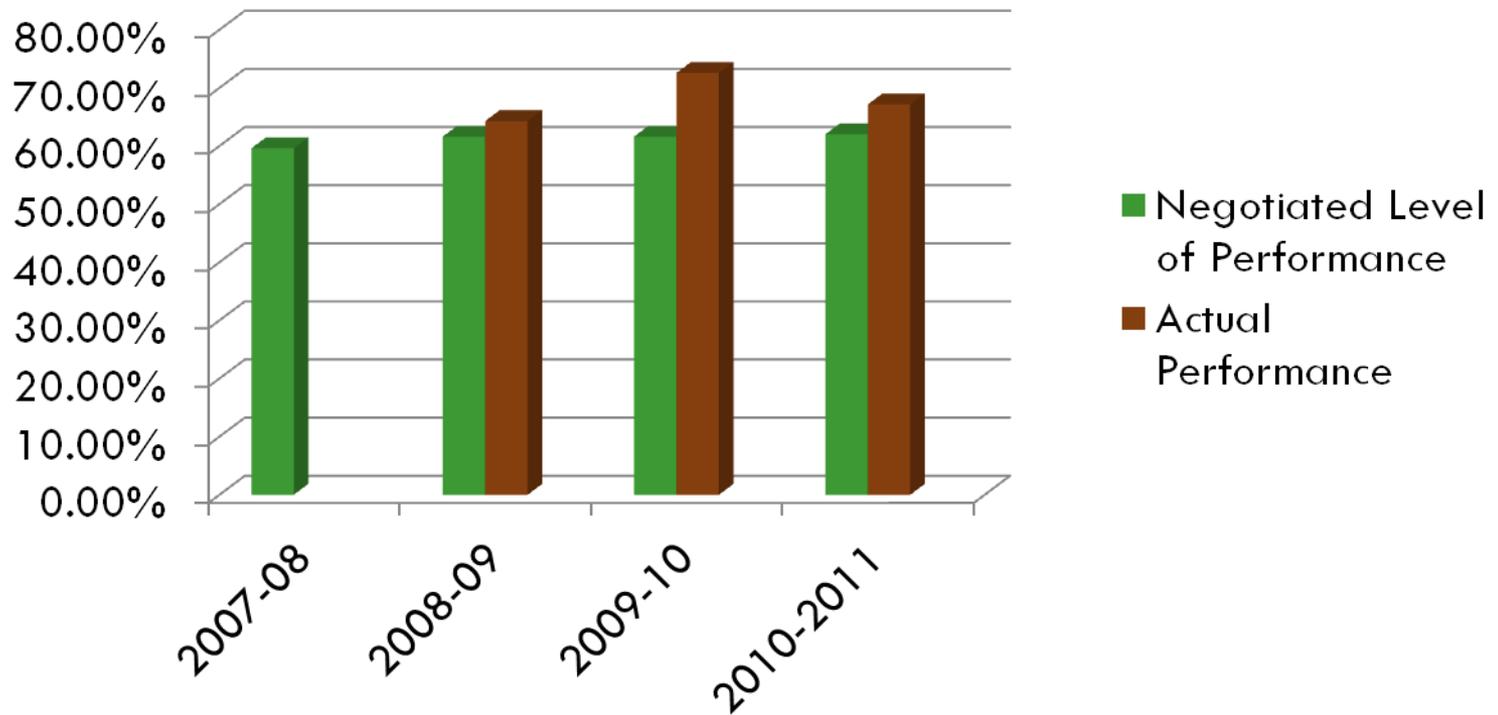
- Local Control State
- Local decision regarding which TSA to use to meet Perkins requirement
- State-approved list that locals choose TSA from
- Narrowing the list by aligning TSAs with model curriculum
- http://www.dese.mo.gov/divcareered/perkins_iv_tsa.htm.

Program Area Assessments

- Agriculture Education – uses State FFA proficiency exams and NOCTI
- Business, Marketing and Information Technology – ASK, MBA Research, NOCTI State-Developed Exam
- Family Consumer Science and Human Services – NOCTI, AAFCS, SkillsUSA, and Prostart
- Health Sciences – NOCTI, SkillsUSA, and State Certification Exams
- Skilled Technical Sciences – NOCTI, SkillsUSA, Industry Certification Exams

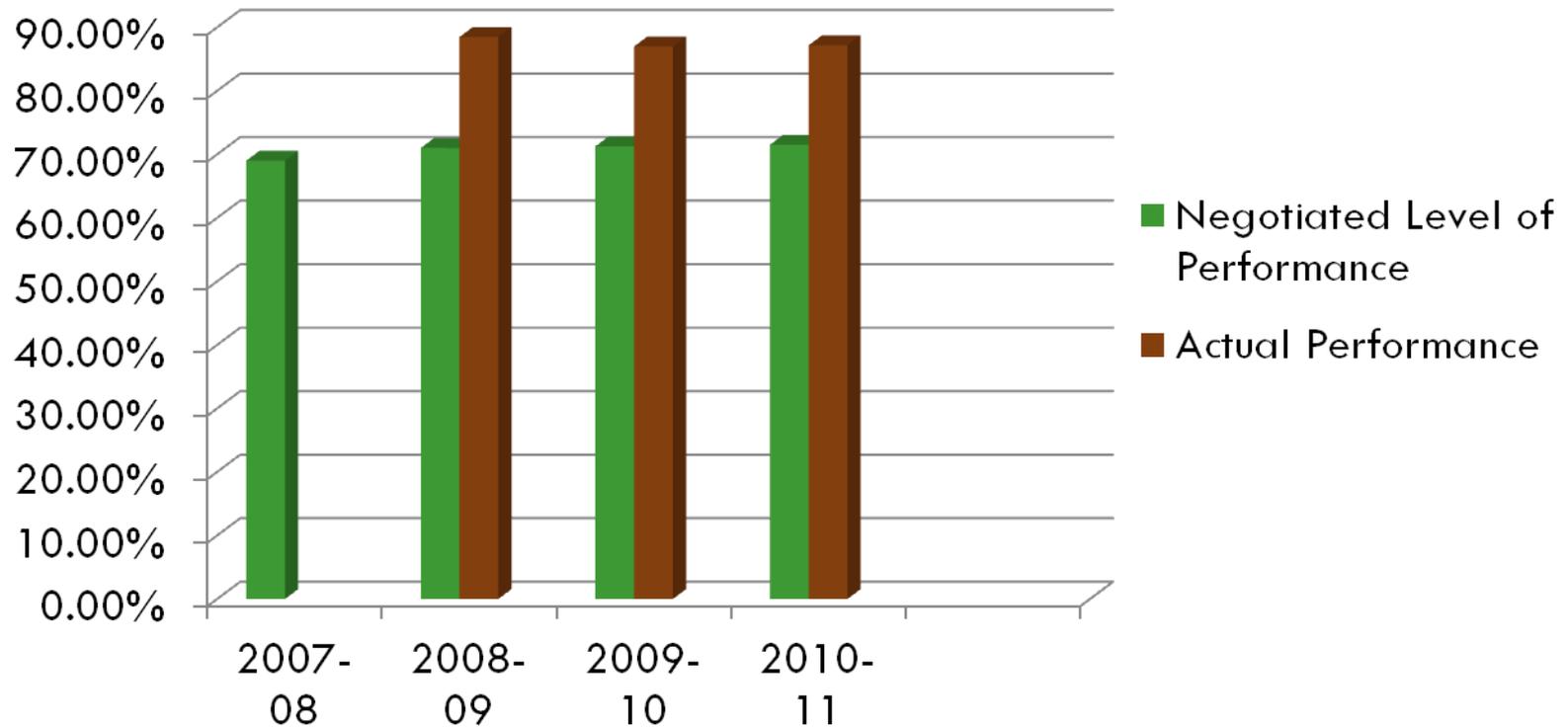
Statewide Secondary Perkins Performance

2S1 Technical Skill Attainment



Statewide Postsecondary Perkins Performance

1 P1 Technical Skill Attainment



The Missouri Plan – Testing a Percentage of Completers

Secondary

- 2008-09 25%
- 2009-10 50%
- 2010-11 75%
- 2011-12 75%
- 2012-13 100%

Postsecondary

- 2008-09 33%
- 2009-10 66%
- 2010-11 100%
- 2011-12 75%
- 2012-13 100%

The Missouri Plan – Performance Levels

Secondary

- 2008-09 61.60% pass
- 2009-10 61.60% pass
- 2010-11 62.00% pass
- 2011-12 62.50% pass
- 2012-13 63.00% pass

Postsecondary

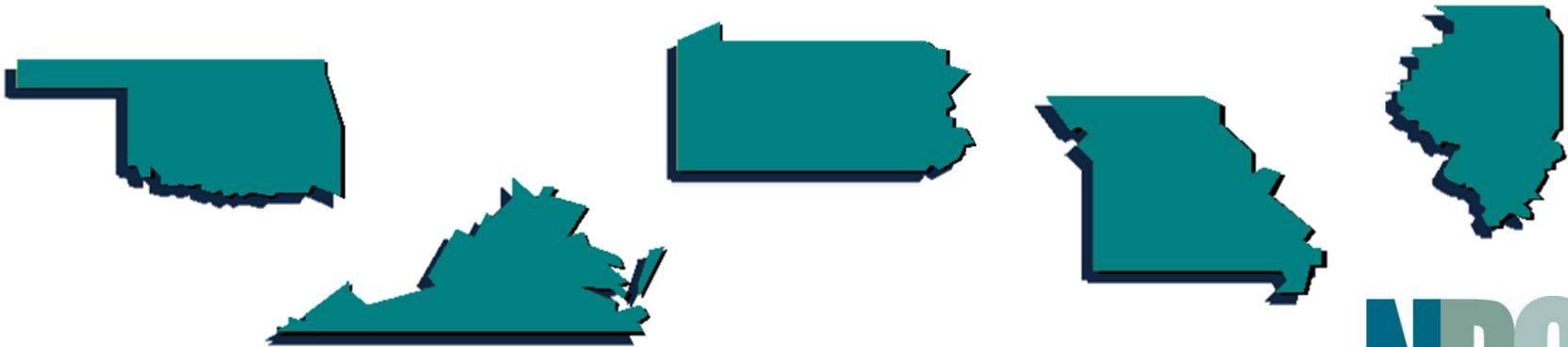
- 2008-09 71.00% pass
- 2009-10 71.25% pass
- 2010-11 71.50% pass
- 2011-12 72.00% pass
- 2012-13 72.50% pass

Determining Pass/Fail

- Four possible ways:
 - Testing vendors provide a cut score
 - National norm is available
 - Bundle (Example: NA3SA)
 - 65% becomes the cut score when the first two are not available.

Missouri Participation in NRCCTE CTEDDI

- Use a social networking site as a means of building a community of practice
- Use pre-test, post-test, questionnaires, facilitator surveys, self reported perceptions
- Involve 42-80 individual educators



Fort Osage Career and Technical Center History and Data Use

- Sixth year testing
- Have learned to look at data differently
- Incorporated many instructional activities and motivational plans
- Sustained growth the past two years with small learning communities in place
- Empowered students to be involved in the goal setting/learning process

Yearly Timeline

Fall Semester

- Pre-Test: September
- **Set Goals with Students and Show scores: Sept/October**
- PD Review Data: October
- Develop Spring Goal in small learning community: October
- **Vocabulary Strategies: November**

Spring Semester

- CTSO Contest Season: January, February, March
- **Presentations to Students (Motivational): Late March**
- Students complete test info sheet: Late March
- **Testing Season: Mid April & Early May**
- Celebration!: Mid May

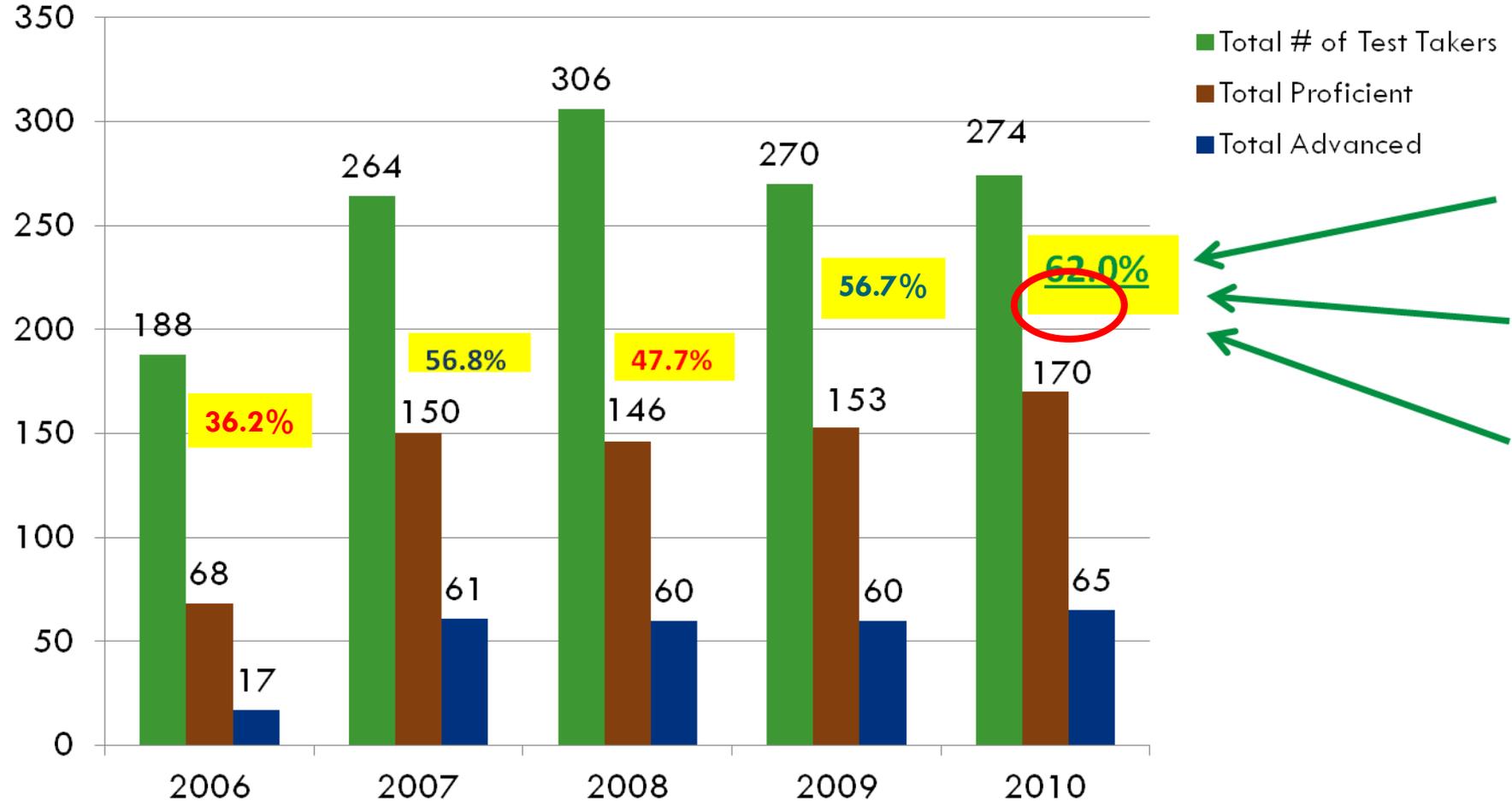
Student Motivation Plays a Huge Role in Success

- The next eight slides were an excerpt from a motivational/information presentation to students
- Fed students breakfast and snacks each day they tested
- Tested in multiple sessions to reduce fatigue
- TEAM awards versus individual played a huge role
- Large building celebration with music at end for reaching goal.

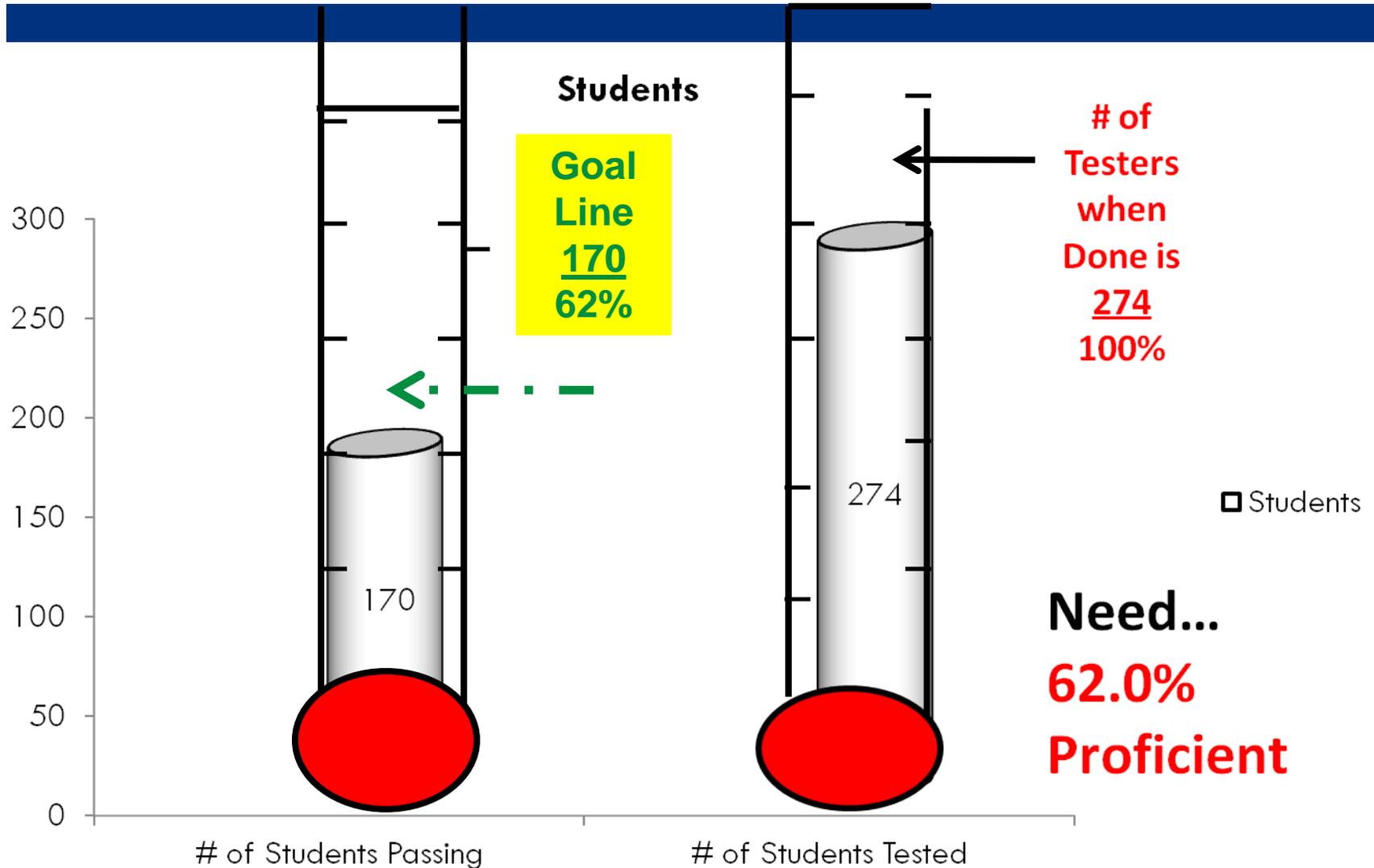
62%... Why is that
important to me?
My Class? The
CTC?

Have you seen or heard about this poster? Now you might know they are there.

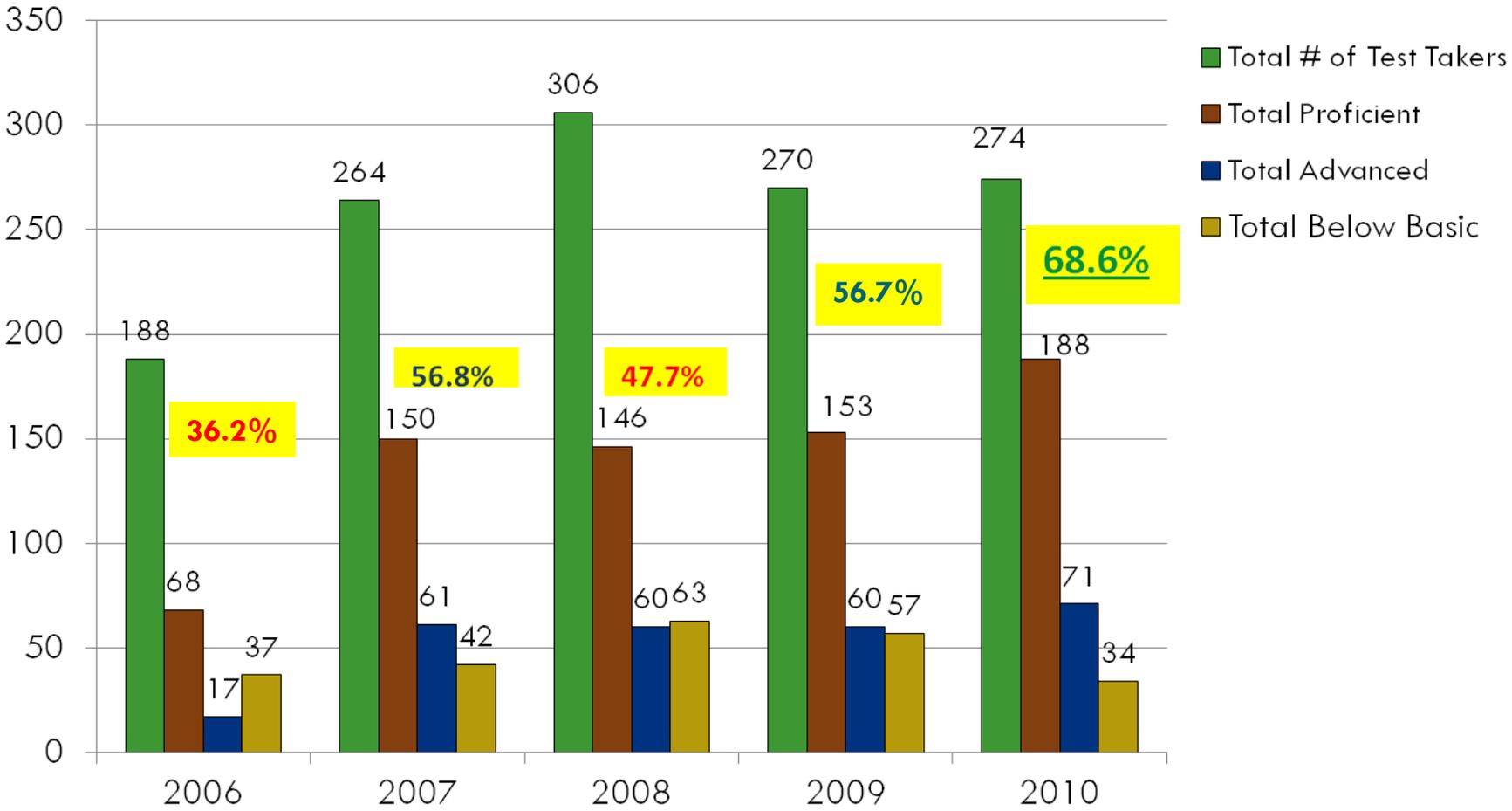
CTC 4 Year Data – And what is needed in 2010



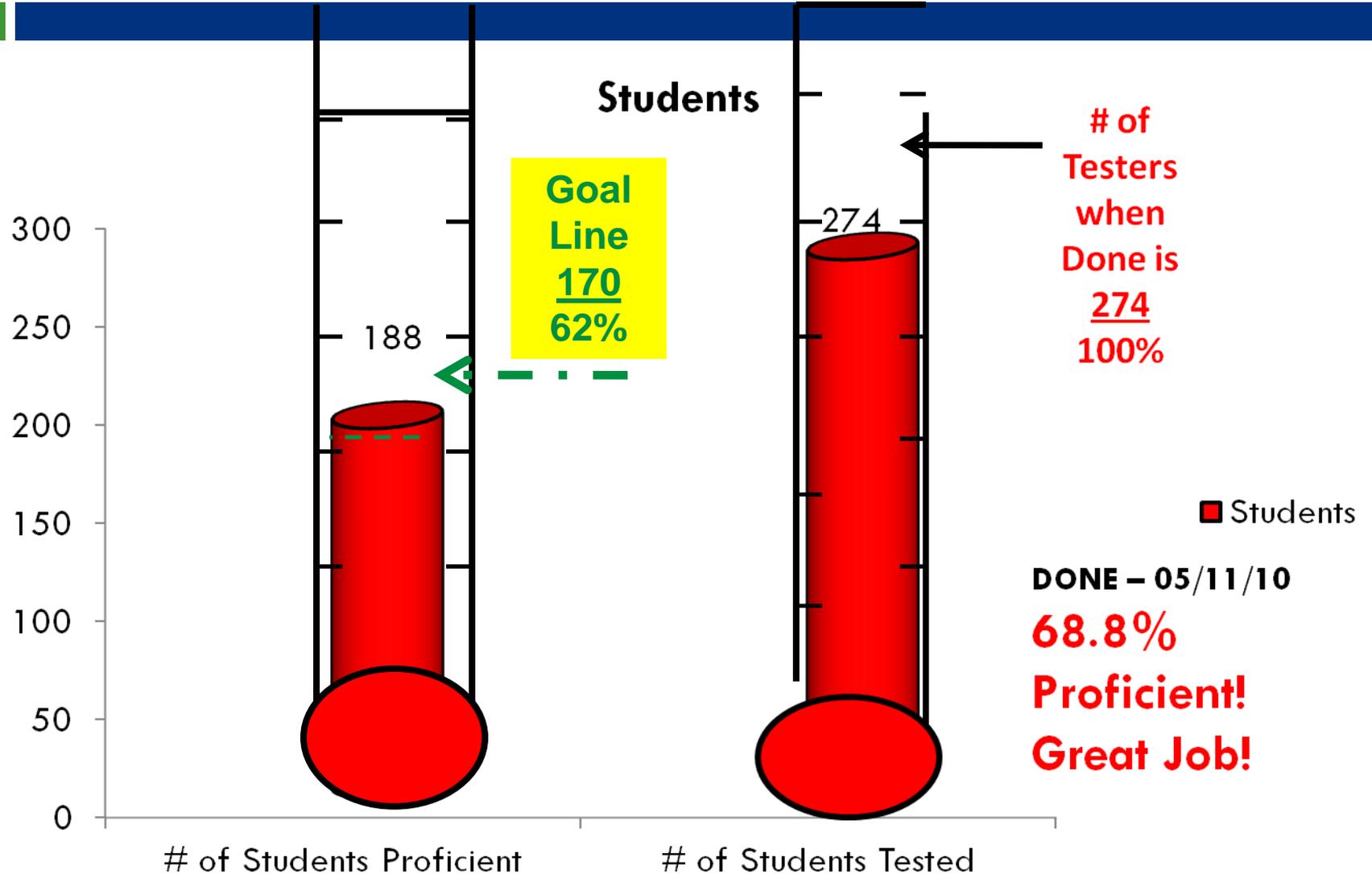
Keeping track from April 12 – May 5



CTC 5 Year TSA Data



CTC TSA Success: April 12 – May 11



So...here's what we know

- Best ever from 2005 - 2009... **56.7%** proficient.
- We needed and promoted... **62.0%** proficient.
- CTC Students came through at **68.6%**
- Great job to all students that tested. **Every Score Counted!**

Simple things to remember

- It is great that so many passed, but it is so much better and rewarding that so many tried their **absolute best!** **Every score counts!**
- Best performing students in short CTC TSA assessment history!
- All of you are awesome and that is why we **celebrate as a group/team**, not as individuals.
- Thank you, thank you, and thank you for your **effort!**

Friendly Competition – Good Data for The Students To See

2009-2010 Technical Skills Assessment Challenge

Any Course Section where **62%** or more of its participants score at the cut score (proficient) is a winner - "**Every score counts!**"

CTC Program: **Computer Support Specialist I**

Name of Assessment: **NOCTI 3415: Computer Repair**

Test Cut Score/National Avg: **58.7%**

of Questions: **155**

AM Information:	Number of Students	16	Number of Students Proficient:	14
	% of Students Proficient	<u>87.5%</u>		
	Average score on Test:	67.3%	High Score on Test:	79.3%
PM Information:	Number of Students	16	Number of Students Proficient:	12
	% of Students Proficient	<u>75.0%</u>		
	Average score on Test:	66.2%	High Score on Test:	86.5%

Winner of the CTC AM/PM TSA Challenge:

EVERYONE!

PROGRAM PROFICIENCY: **81.3%**



Factors Affecting Achievement

□ Teacher factors

- Small learning communities – one designated to TSA. Meets once a week, develops strategies for whole building
- Teacher using the data and involving students in the goal setting process
- Alignment of curriculum
 - If you teach it, the odds of students doing well in that area go up immensely – Program of Study

Data, Data, Data

2010 Career and Technology Center All Program - TSA Data Summary

Program	Number of students taking exam	TSA Pre Test	TSA Post Test	% Growth	National Norm or Test Goal	Percentage above national average or goal	Number of students scoring above national norm or test goal	% of Students Reaching the National Average, Test Goal, or 65%
CTC PROGRAM 1	26	xxx	58.2%	xxx	55.6%	2.6%	20	76.9%
CTC PROGRAM 2	32	37.8%	53.4%	15.6%	52.5%	0.9%	21	65.6%
CTC PROGRAM 3	23	45.8%	53.5%	7.7%	52.0%	1.5%	16	69.6%
CTC PROGRAM 4	11	49.9%	59.9%	10.0%	57.2%	2.7%	8	72.7%
CTC PROGRAM 5	32	50.8%	66.7%	15.9%	58.7%	8.0%	26	81.3%
CTC PROGRAM 6	18	46.7%	60.7%	14.0%	58.8%	1.9%	10	55.6%
CTC PROGRAM 7	12	48.4%	62.3%	13.8%	54.7%	7.6%	9	75.0%
CTC PROGRAM 8	11	70.4%	79.1%	8.7%	69.1%	10.0%	10	90.9%
CTC PROGRAM 9	20	56.6%	64.4%	7.8%	70.0%	-5.6%	8	40.0%
CTC PROGRAM 10	13	52.7%	63.8%	11.0%	55.0%	8.8%	11	84.6%
CTC PROGRAM 11	12	44.8%	59.4%	14.6%	55.0%	4.4%	7	58.3%
CTC PROGRAM 12	5	51.1%	55.4%	4.3%	55.5%	-0.1%	3	60.0%
CTC PROGRAM 13	37	66.2%	76.8%	10.5%	70.0%	6.8%	33	89.2%
CTC PROGRAM 14	4	xxx	67.3%	xxx	64.9%	2.4%	3	75.0%
CTC PROGRAM 15	18	xxx	58.3%	xxx	70.0%	-11.7%	3	16.7%
	274	xxx	xxx	xxx	xxx		188	68.6%
	Real Growth Average (Building Wide)			11.4%		4.8%		
*National Average Composite Average	60.6%							2010 National Averages
CTC Average Composite Average	65.5%							

Individual Score Reports Come From Each Testing Company



Mike Pantleo
 Fort Osage Career & Technology Center
 2101 N. Twyman
 Independence, MO 64058

Individual Scores

Participant Name: [REDACTED]
 Site: Fort Osage Career & Technology Center - 6604
 Test Date: 04/14/2010

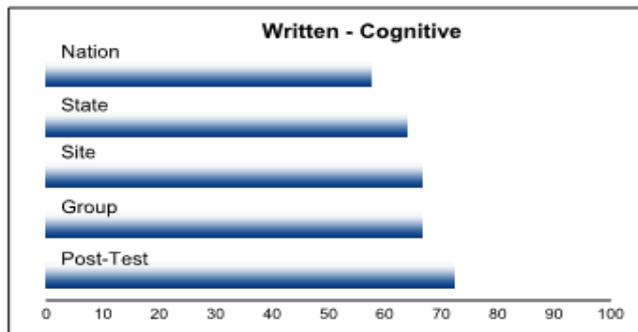
Participant ID: [REDACTED]
 Level: Secondary
 Type: Student

Computer Repair Technology - 3415 v1

Written - Cognitive

Duty #	Duty Description	Post-Test	Group	Site (Cumulative)	State	Nation
1	Installing, Configuring, Upgrading	71.4	62.5	62.5	59.9	55.4
2	Diagnosing and Troubleshooting	56.5	62.4	62.4	61.0	58.5
3	Preventive Maintenance	91.3	77.3	77.3	74.5	66.3
4	System Boards, Processors, and Memory	77.8	74.0	74.0	69.7	60.2
5	I/O (Input/Output) Devices	57.1	59.4	59.4	56.4	50.6
6	Printing	72.7	58.0	58.0	57.4	47.7
7	Basic Networking	70.8	65.6	65.6	60.5	53.8
8	Security	65.0	63.3	63.3	61.1	55.2
9	Customer Support and Ethics	100.0	84.4	84.4	81.4	72.2
Total		72.3	66.7	66.7	63.9	57.6

Written - Cognitive



Looked hard at data, Pre-test and Post-test

CSS I 2010 Post-Test Results Broken down based on assessment blueprint						Percentage Score	1. Installing, Configuring, Upgrading	2. Diagnosing & Troubleshooting	3. Preventive Maintenance	4. System Boards, Processors, and Memory	5. I/O Devices	6. Printing	7. Basic Networking	8. Security	9. Customer Support and Ethics	
Test Blueprint by Percentage						100.0%	14.0%	15.0%	15.0%	6.0%	9.0%	7.0%	15.0%	13.0%	6.0%	100.0%
Test Blueprint by # of questions per section (Estimated)						155	22	23	23	9	14	11	23	20	9	155
Last Name	First Name	#	School	Grade	Class											
AM Student 1	First 1	1	BS	11	AM	72.3%	71.4%	56.5%	91.3%	77.8%	57.1%	72.7%	70.8%	65.0%	100.0%	
AM Student 2	First 2	1	OG	11	AM	64.5%	71.4%	56.5%	78.3%	66.7%	57.1%	45.5%	62.5%	60.0%	80.0%	
AM Student 3	First 3	1	FO	11	AM	61.3%	57.1%	52.2%	65.2%	55.6%	64.3%	54.5%	62.5%	65.0%	80.0%	
AM Student 4	First 4	1	BS	11	AM	56.8%	47.6%	43.5%	73.9%	66.7%	21.4%	72.7%	58.3%	70.0%	60.0%	
AM Student 5	First 5	1	OG	11	AM	66.5%	76.2%	65.2%	82.6%	66.7%	71.4%	36.4%	66.7%	50.0%	70.0%	
AM Student 6	First 6	1	FO	11	AM	70.3%	61.9%	60.9%	78.3%	77.8%	42.9%	54.5%	75.0%	90.0%	90.0%	
AM Student 7	First 7	1	FO	11	AM	70.3%	61.9%	56.5%	78.3%	77.8%	57.1%	45.5%	83.3%	80.0%	90.0%	
AM Student 8	First 8	1	BS	11	AM	67.1%	76.2%	65.2%	91.3%	66.7%	57.1%	36.4%	58.3%	60.0%	80.0%	
AM Student 9	First 9	1	BS	11	AM	75.5%	71.4%	73.9%	87.0%	88.9%	78.6%	72.7%	58.3%	75.0%	90.0%	
AM Student 10	First 10	1	FO	11	AM	72.9%	85.7%	65.2%	82.6%	44.4%	64.3%	45.5%	75.0%	75.0%	100.0%	
AM Student 11	First 11	1	BSS	11	AM	59.4%	38.1%	47.8%	69.6%	88.9%	57.1%	45.5%	70.8%	55.0%	80.0%	
AM Student 12	First 12	1	BS	11	AM	68.4%	61.9%	69.6%	78.3%	100.0%	57.1%	72.7%	70.8%	55.0%	60.0%	
AM Student 13	First 13	1	BSS	12	AM	55.5%	52.4%	52.2%	65.2%	77.8%	35.7%	54.5%	45.8%	50.0%	90.0%	
AM Student 14	First 14	1	FO	11	AM	66.5%	66.7%	73.9%	87.0%	77.8%	35.7%	63.6%	54.2%	55.0%	90.0%	
AM Student 15	First 15	1	FO	11	AM	79.3%	76.2%	82.6%	95.7%	77.8%	64.3%	72.7%	75.0%	80.0%	80.0%	
AM Student 16	First 16	1	BS	11	AM	69.7%	76.2%	69.6%	87.0%	66.7%	57.1%	45.5%	66.7%	55.0%	100.0%	
PM Student 1	First 1	1	BS	11	PM	71.6%	71.4%	65.2%	87.0%	88.9%	64.3%	45.5%	75.0%	65.0%	80.0%	
PM Student 2	First 2	1	FO	11	PM	72.3%	52.4%	69.6%	87.0%	88.9%	78.6%	54.5%	75.0%	60.0%	100.0%	
PM Student 3	First 3	1	BS	11	PM											
PM Student 4	First 4	1	GV	11	PM	72.9%	76.2%	56.5%	78.3%	88.9%	71.4%	63.6%	83.3%	60.0%	90.0%	
PM Student 5	First 5	1	BSS	11	PM	67.7%	57.1%	73.9%	69.6%	66.7%	64.3%	45.5%	70.8%	70.0%	90.0%	
PM Student 6	First 6	1	BSS	11	PM											
PM Student 7	First 7	1	BSS	11	PM	73.5%	76.2%	65.2%	82.6%	77.8%	64.3%	72.7%	66.7%	75.0%	90.0%	
PM Student 8	First 8	1	FO	11	PM	45.2%	33.3%	34.8%	39.1%	55.6%	57.1%	45.5%	45.8%	45.0%	80.0%	
PM Student 9	First 9	1	OG	11	PM	65.2%	52.4%	69.6%	69.6%	66.7%	64.3%	81.8%	70.8%	45.0%	80.0%	
PM Student 10	First 10	1	OG	11	PM	74.8%	76.2%	60.9%	82.6%	77.8%	64.3%	54.5%	79.2%	80.0%	100.0%	
PM Student 11	First 11	1	BSS	11	PM	66.5%	61.9%	69.6%	78.3%	77.8%	64.3%	45.5%	54.2%	65.0%	90.0%	
PM Student 12	First 12	1	BS	12	PM	76.8%	76.2%	73.9%	82.6%	88.9%	78.6%	81.8%	70.8%	60.0%	100.0%	
PM Student 13	First 13	1	BS	12	PM	42.6%	33.3%	34.8%	60.9%	66.7%	28.6%	45.5%	33.3%	40.0%	60.0%	
PM Student 14	First 14	1	BS	11	PM	70.3%	57.1%	73.9%	78.3%	55.6%	78.6%	63.6%	70.8%	70.0%	80.0%	
PM Student 15	First 15	1	BSS	11	PM	86.5%	81.0%	91.3%	91.3%	88.9%	85.7%	72.7%	87.5%	80.0%	100.0%	
PM Student 16	First 16	1	BS	12	PM	65.8%	61.9%	52.2%	82.6%	77.8%	64.3%	54.5%	66.7%	55.0%	90.0%	
PM Student 17	First 17	1	BS	11	PM	52.9%	38.1%	60.9%	56.5%	44.4%	42.9%	72.7%	50.0%	50.0%	70.0%	
PM Student 18	First 18	1	BSS	11	PM	54.8%	42.9%	52.2%	56.5%	77.8%	50.0%	63.6%	45.8%	65.0%	60.0%	
		34														
Class Average (Total and per Section)						66.7%	62.5%	62.4%	77.3%	74.0%	59.4%	58.0%	65.6%	63.3%	84.4%	66.7%
National Averages (Total and per Section)						58.7%	52.2%	58.0%	63.6%	57.8%	59.7%	55.1%	66.0%	55.3%	68.8%	

TOTAL QUESTIONS and TOTAL %

Analysis of Scores

Site: Fort Osage Career & Technology Center - 6604

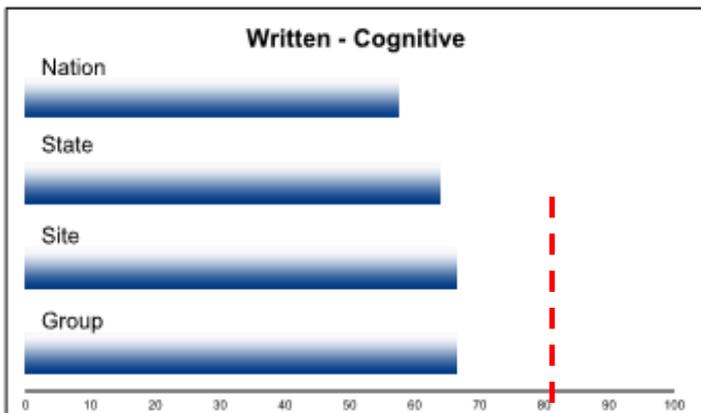
Test Date: 04/14/2010

Computer Repair Technology - 3415 v1

Written - Cognitive

Duty #	Duty Description	N=	Group	Site(Cumulative)	State	Nation	Criterion-Referenced CutScore	Standard Deviation	Standard Error of Measurement
			32	32	51	786			
1	Installing, Configuring, Upgrading		62.5	62.5	59.9	55.4		19.1	6.0
2	Diagnosing and Troubleshooting		62.4	62.4	61.0	58.5		18.0	5.7
3	Preventive Maintenance		77.3	77.3	74.5	66.3		20.0	6.3
4	System Boards, Processors, and Memory		74.0	74.0	69.7	60.2		22.9	7.2
5	I/O (Input/Output) Devices		59.4	59.4	56.4	50.6		19.4	6.1
6	Printing		58.0	58.0	57.4	47.7		19.8	6.3
7	Basic Networking		65.6	65.6	60.5	53.8		18.1	5.7
8	Security		63.3	63.3	61.1	55.2		17.1	5.4
9	Customer Support and Ethics		84.4	84.4	81.4	72.2		20.4	6.5
Total			66.7	66.7	63.9	57.6	63.7	15.4	4.9

Written - Cognitive



IT MAKES IT
EASIER
WHEN THE
COMPANY
DOES IT
FOR YOU!

Competency Profile Continued

Specific Competencies and Skills continued:

System Boards, Processors, and Memory

- Identify processor compatibility, architecture, and upgrade issues
- Identify and differentiate memory characteristics and upgrade issues
- Identify and differentiate system board characteristics and upgrade issues

I/O (Input-Output) Devices

- Display understanding of human interface devices
- Identify uses of various input devices (i.e., digital camera, scanner, biometric devices)
- Identify various I/O connectivity methods

Printing

- Identify and differentiate various printer methodologies
- Identify various printer connectivity methods

Basic Networking

- Install, configure, and troubleshoot Network Interface Cards (NICs)
- Install, configure, and troubleshoot analog and digital connections
- Install, configure, and troubleshoot wired and wireless connections
- Identify various network topologies
- Identify various network access methods
- Differentiate between a client/server and a peer-to-peer network

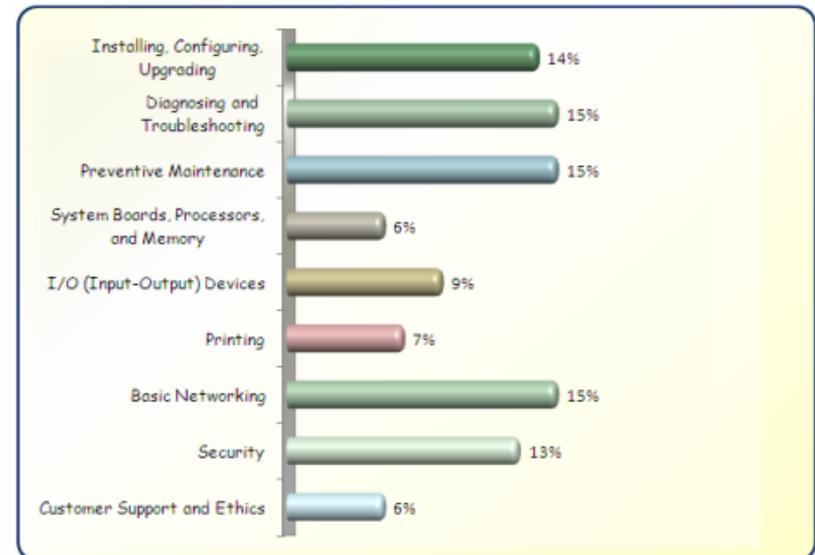


Written Assessment:

Administration Time: 3 hours

Number of Questions: 155

Areas Covered:



Standard Reports...

Plus Norm AND Criterion Referenced Scores



500 N BRONSON
 BIG RAPIDS MI 49307
 231.796.4695
 nocti@nocti.org

Group Score Report

Site: Any Career Tech Center (J0000)
 Test Date: 05/04/2005

Level: Secondary
 Type: Post-test

Architectural Drafting - 3004 v01													
Written - Cognitive		Percentage	Ability Area	Score	Target	Percentile	Score	Target	Percentile	Score	Target	Percentile	
Job #	Job Description												
1	Preparing to Draw Basic Drawing/Dimensioning	90.0	3.0	64.4	25.3	33.3	29.4	22.2	46.7	0.0	0.0	28.6	18.1
2	Geometric Construction	98.1	28.0	33.9	30.0	66.7	85.6	33.6	82.4	80.0	66.7	28.6	32.4
3	Applied Mathematics	100.0	100.0	77.8	90.0	98.0	33.0	64.3	71.4	90.0	33.3	37.1	71.4
4	Drawing Techniques: Supplementary Views	82.8	100.0	38.3	33.3	66.7	85.6	37.3	38.2	66.7	66.7	42.9	37.1
5	Flanking	68.2	79.0	32.9	63.3	64.4	85.6	64.3	33.3	63.3	50.0	71.4	33.3
6	Architectural Drawing Types	90.0	3.0	64.4	25.3	33.3	29.4	22.2	46.7	0.0	0.0	28.6	18.1
7	Site Plans	98.1	28.0	33.9	30.0	66.7	85.6	33.6	82.4	80.0	66.7	28.6	32.4
8	Structural Drawings	100.0	100.0	77.8	90.0	98.0	33.0	64.3	71.4	90.0	33.3	37.1	71.4
9	Mechanical and Electrical Systems	82.8	100.0	38.3	33.3	66.7	85.6	37.3	38.2	66.7	66.7	42.9	37.1
10	Supplemental Drafting Activities	68.2	79.0	32.9	63.3	64.4	85.6	64.3	33.3	63.3	50.0	71.4	33.3
11	Specifications	82.8	100.0	38.3	33.3	66.7	85.6	37.3	38.2	66.7	66.7	42.9	37.1
TOTAL SCORE		84.2	78.9	81.2	63.3	64.4	85.6	64.3	33.3	63.3	50.0	71.4	64.3

Performance - Psychomotor													
Job #	Job Title	Percentage	Ability Area	Score	Target	Percentile	Score	Target	Percentile	Score	Target	Percentile	
1	Architectural Symbols and Abbreviations	100.0	100.0	77.8	90.0	98.0	33.0	64.3	71.4	90.0	33.3	37.1	71.4
2	Elevation	82.8	100.0	38.3	33.3	66.7	85.6	37.3	38.2	66.7	66.7	42.9	37.1
3	Kitchen and Bathroom Floor	68.2	79.0	32.9	63.3	64.4	85.6	64.3	33.3	63.3	50.0	71.4	33.3
4	Light Fixtures of 10' Wall	90.0	3.0	64.4	25.3	33.3	29.4	22.2	46.7	0.0	0.0	28.6	18.1
TOTAL SCORE		84.2	78.9	81.2	63.3	64.4	85.6	64.3	33.3	63.3	50.0	71.4	64.3



Measuring what matters!

Integrated Academics Reporting Tool



500 N BRONSON
BIG RAPIDS MI 49307
231.796.4695
nocti@nocti.org

Integrated Academics - Group Report

Site: Any Career Tech Center (XXXX)

Test Date: 05/04/2008

Standards Level: National

Level: Secondary

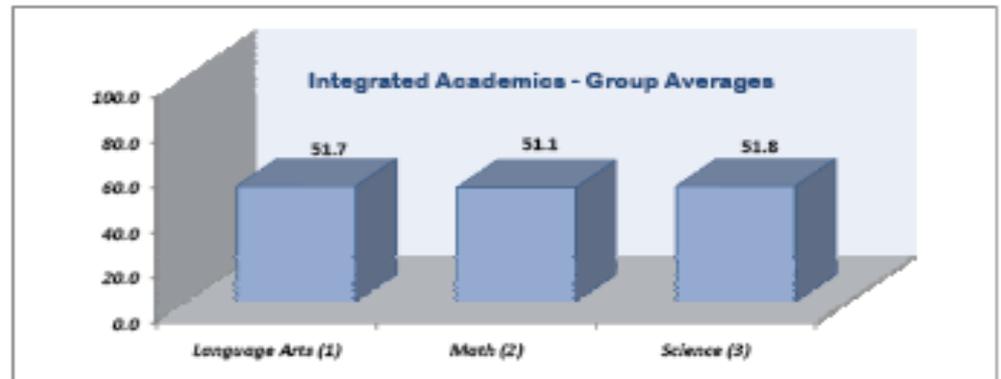
Type: Post-test

Carpentry - 3015 v01				
Participant Name	Total Test Score	Percentage of Items Answered Correctly		
		Language Arts (1)	Math (2)	Science (3)
Mickey Mouse	66.7	20.0	40.0	25.0
Don Duck	66.7	25.0	50.0	75.0
Vera Wang	80.0	40.0	25.0	80.0
Fagin Philbin	66.7	50.0	75.0	30.0
George Jones	46.7	25.0	80.0	45.0
Conway Twitty	71.4	75.0	30.0	60.0
Minnie Mouse	66.7	80.0	45.0	25.0
Betty Boop	80.0	30.0	60.0	75.0
Billy Bagel	77.5	85.2	47.0	79.0
Tim McGraw	46.7	60.0	80.0	30.0
Kenny Chesney	66.7	75.0	30.0	45.0
Group Averages	68.7	51.7	51.1	51.8

(1) NCTE - National Council of Teachers of English

(2) NCTM - National Council of Teachers of Mathematics

(3) NSES - National Science Education Standards



This Group Report shows the percentage of integrated academic items answered correctly, by academic discipline, and provides each test taker's total test score for reference. A group average for each discipline is also provided.

Measuring what matters!

Task Link Reporting

- Provides in-depth information on performance at task level
- Use to identify strengths and areas for improvement



Site Name
 Coordinator Name
 123 Any Road
 Nowhere, US 12345
 site email address

Task Level Report Multiple Choice Assessment *Items Correct by Participant*

Test Code: 2031 v01
 Test Title: Electrical Occupations
 Test Date: 05/11/2009

Level: Secondary
 Type: Post-test

Duty		Task Description	# Items Possible per Task	Average Correct by Group	RONDA MCDONALD	JOEY BUOY	TOM CRUZE	HERMAN MUNST	GEORGE STORM	S HERRY CHIP	PETER RABB
Safety	1	Apply shop safety rules and ergonomics	3	2.1	3	2	3	2	3	2	0
Safety	2	Describe protection procedures when working in confined spaces	3	1.6	2	2	1	2	1	2	1
Safety	3	Explain fire prevention guidelines and methods	3	2.3	2	3	3	2	3	2	1
Safety	4	Demonstrate lock-out/tag-out procedures	3	1.9	3	1	2	3	1	2	1
Safety	5	Describe procedures for responding to electrical hazards & shock emergencies	3	2.0	3	1	3	1	3	2	1
Safety	6	Explain the OSHA requirements of grounding on a job site	2	1.6	2	2	1	2	1	1	2
Safety	7	Demonstrate the proper use of ladders and scaffolding	3	2.3	2	3	3	2	3	2	1

Task Level Report
Performance Assessment
Points Earned by Participant

Test Code: 2031 v01

Test Title: Electrical Occupations

Test Date: 05/11/2009

Level: Secondary

Type: Post-test

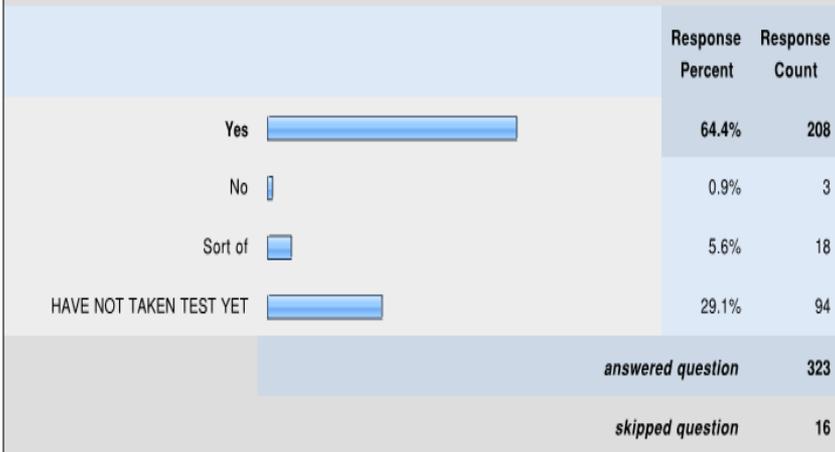
	Job		Criteria	Points Possible	Average Points Earned by Group	RONDA MCDONALD	JOEY BUOY	TOM CRUZE	HERMAN MUMST	GEORGE STORM	SHERRY CHIP	PETER RABB
2	Wire Lighting Control	13	Test Lighting Control	5	4.4	5	5	1	5	5	5	5
2	Wire Lighting Control	14	Time to Complete Job 2	5	5.0	5	5	5	5	5	5	5
3	Install Door Chimes	15	Selection of Tools	5	3.6	3	5	5	1	3	3	5
3	Install Door Chimes	16	Door Chime Installation	20	12.6	8	12	12	16	16	12	12
3	Install Door Chimes	17	Test Door Chimes	10	8.9	10	10	10	8	8	8	8
3	Install Door Chimes	18	Time to Complete Job 3	5	4.4	5	5	5	5	5	5	1

Student Factors Affecting Achievement

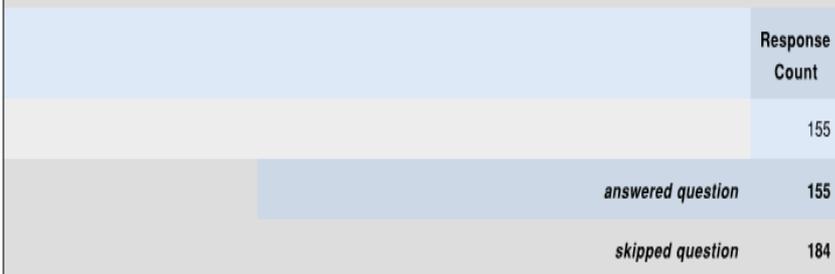
- Student motivation – survey data on effort
- Students academic/reading ability – graph
- Student's attendance
- Student's participation in CTSO

Survey Data from 2010

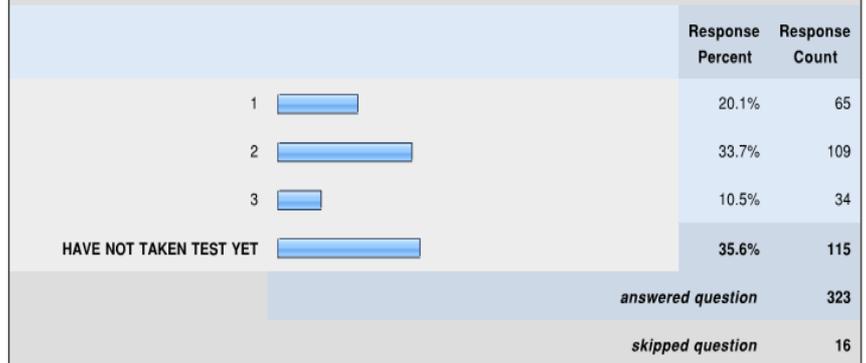
13. Did you put forth your best effort on the computerized exam?



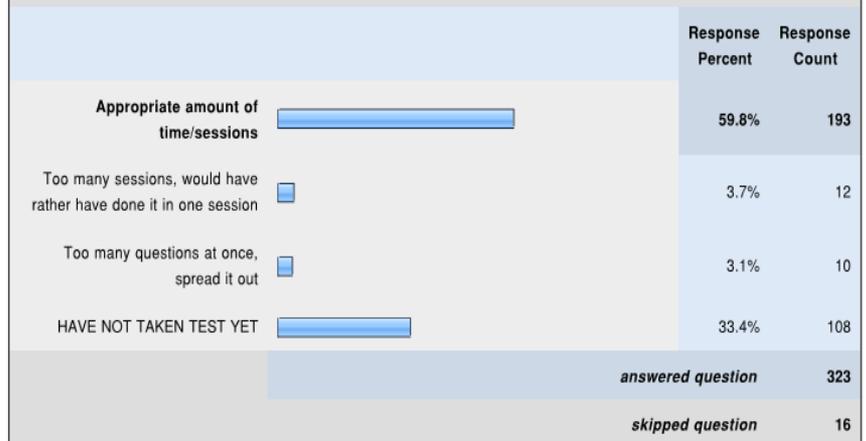
14. Based on how you answered the question above, why did you put forth the effort you did?



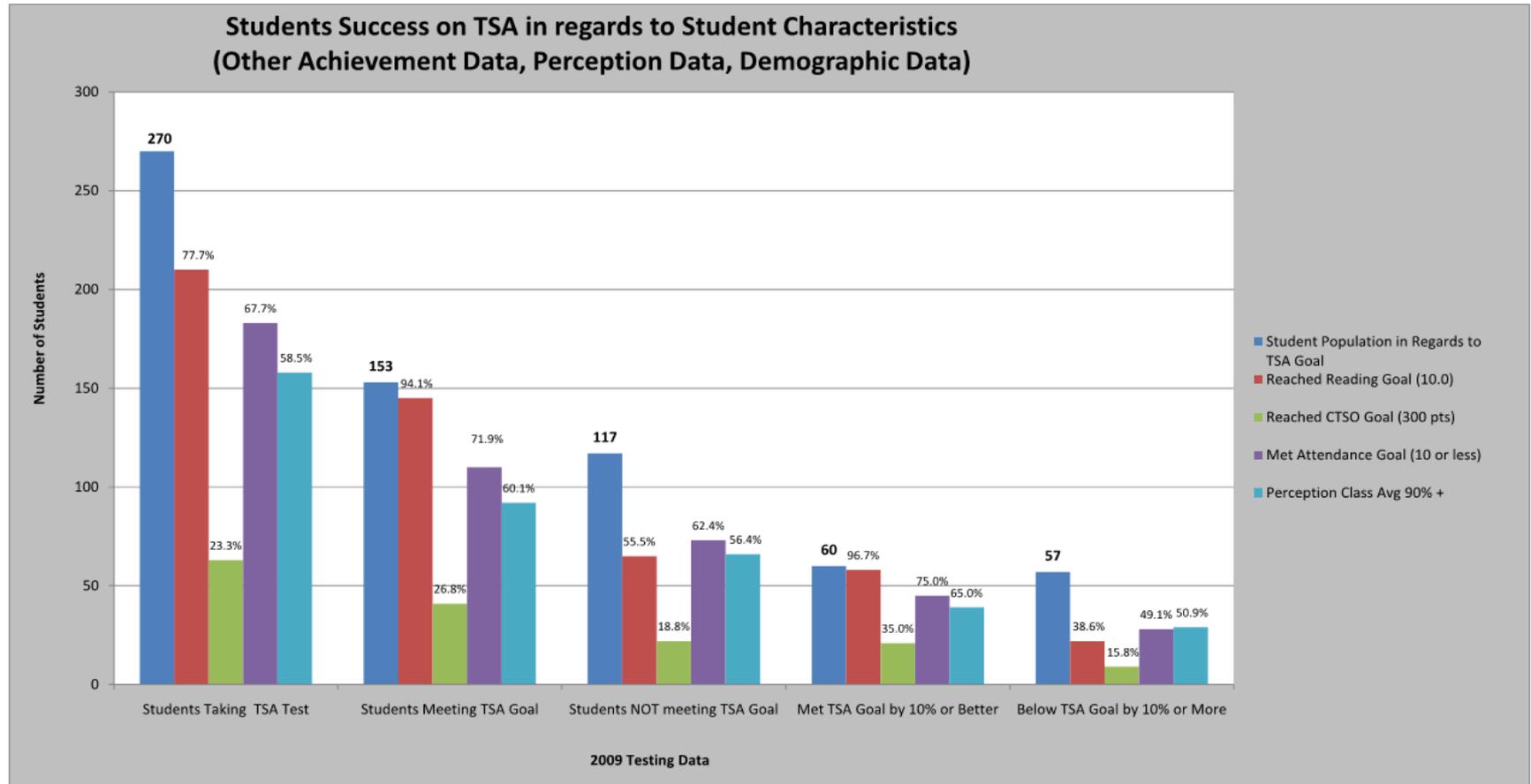
15. How many Test Sessions did you have?



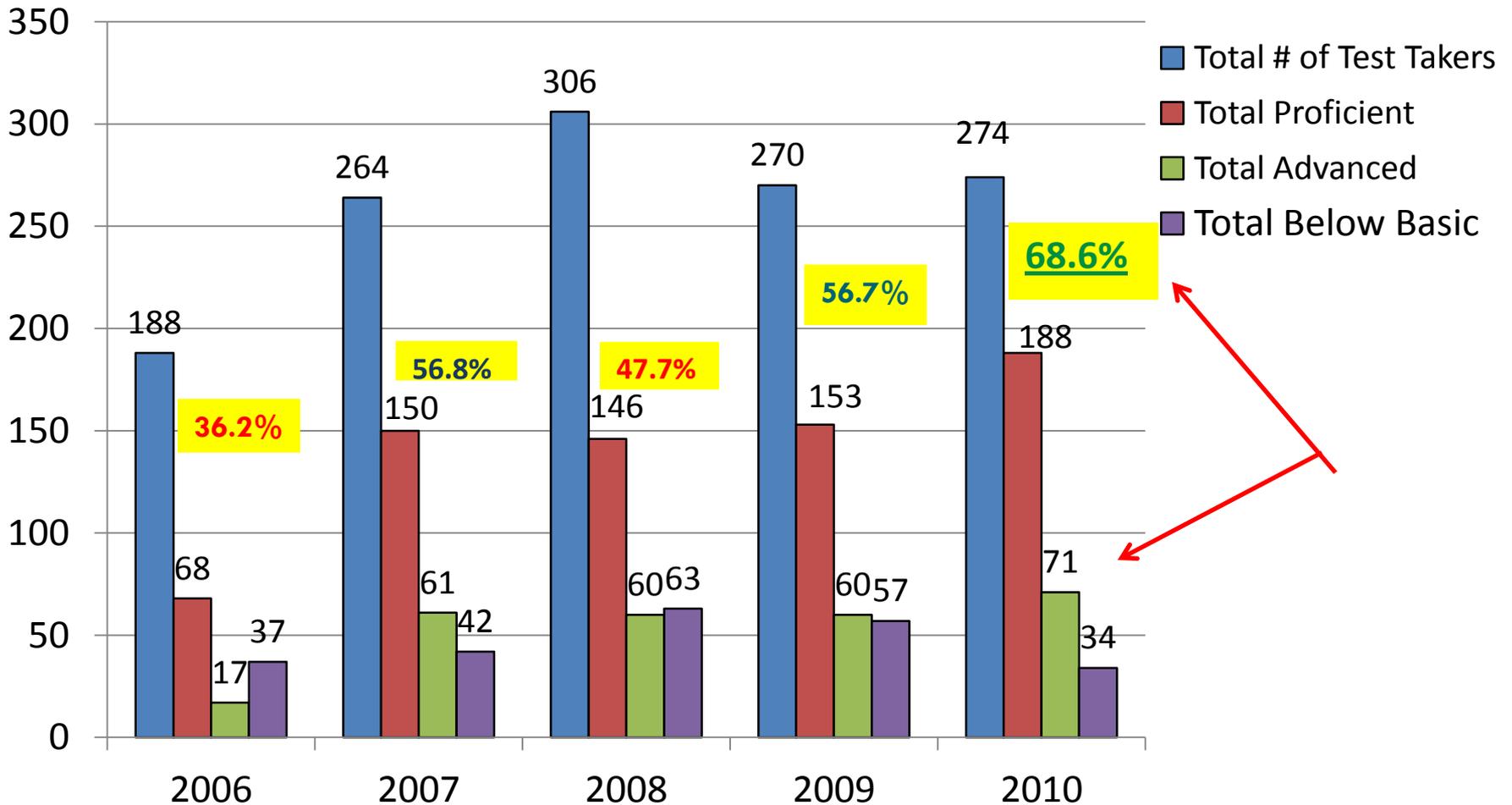
16. Was the number of testing session(s)...



Characteristics of Test Takers



CTC Five-Year TSA Data



Indexing The Scores

2010 Student TSA Index Scores by Program

	Programs	# of students scoring 10% or more above goal		# of students scoring at goal, but less than 10% above		# of students scoring below the goal, but no more than 10% points below		# of students scoring 10% or more below the goal		Total Test Takers	NOCTI Index Score
		#	T	#	T	#	T	#	T		
			(10)		(8.5)		(6.5)		(4.5)		
1	Program 1	4	40	16	136	5	32.5	1	4.5	26	81.92
2	Program 2	6	60	15	127.5	5	32.5	6	27	32	77.19
3	Program 3	3	30	13	110.5	5	32.5	2	9	23	79.13
4	Program 4	3	30	5	42.5	2	13	1	4.5	11	81.82
5	Program 5	15	150	11	93.5	4	26	2	9	32	87.03
6	Program 6	4	40	6	51	5	32.5	3	13.5	18	76.11
7	Program 7	5	50	4	34	3	19.5	0	0	12	86.25
8	Program 8	6	60	4	34	1	6.5	0	0	11	91.36
9	Program 9	0	0	8	68	5	32.5	7	31.5	20	66.00
10	Program 10	10	100	8	68	7	45.5	1	4.5	26	83.85
11	Program 11	1	10	2	17	1	6.5	1	4.5	5	76.00
12	Program 12	14	140	19	161.5	4	26	0	0	37	88.51
13	Program 13	0	0	3	25.5	1	6.5	0	0	4	80.00
14	Program 14	0	0	3	25.5	4	26	10	45	17	56.76
		71		117		52		34			
		25.9%		42.7%		19.0%		12.4%			
		68.6% At or Above Goal				31.4% Below Goal					
	TOTAL SCORES/AVERAGES	188				86				274	79.42

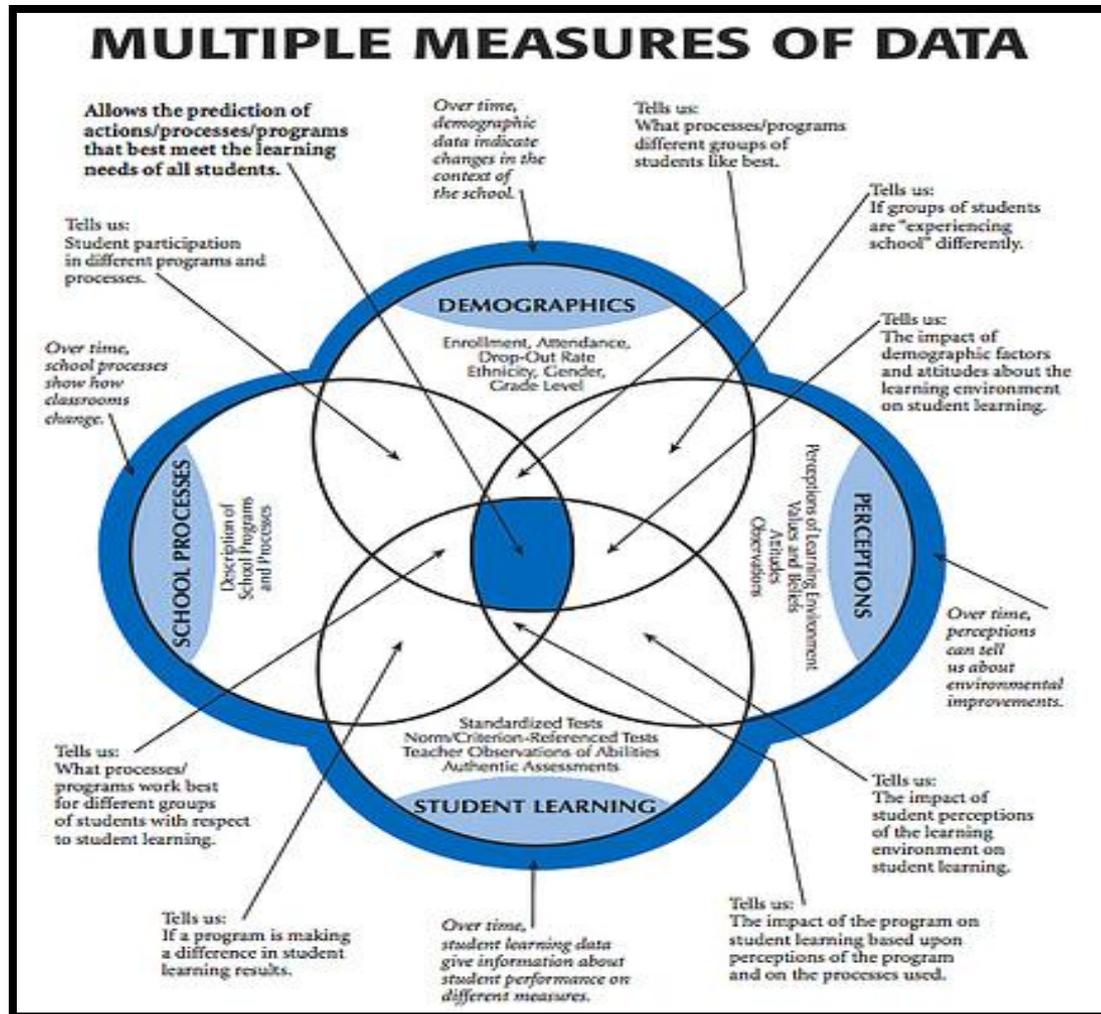
Exceeds Expectations = 87.0 - 100

Meets Expectations = 72.00 - 86.9

Belows expectations = 71.9 - 59.5

Not Acceptable = 59.4 - below

TSA Data – Only One Source



Questions ?

For more information:

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