



Scaling Illinois STEM CCR Statewide

Questions on Scaling (OCCRL)

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Panel Discussion

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Scaling Up Pathways To Results Conference

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Pop Quiz:

How to Scale Illinois STEM CCR Statewide?

“The Illinois College and Career Readiness”
Readiness Exam

Test Anxiety???

Cheat Sheet

(E) 13,000

(F) You

(G) ???



Cram Session: Why STEM CCR?

(Policy context)

Illinois CCR Enabling Legislation (2007)

“The General Assembly finds that ... Many students enter college unprepared for the academic rigors of college and require noncredit remedial courses to attain skills and knowledge needed for regular, credit course work” (emphasis added).

Complete College America (2009)

- Illinois Pledge: 60% by 2025
- +600,000 graduates

Race to the Top Illinois Grant (2011)

- Accelerate key education reforms
- Close persistent achievement gaps
- Increasing student achievement

(CCR program initiatives)



Illinois CCR Pilot Program (2008–2012)
Illinois State Funds (Math & Reading)



Illinois STEM CCR (2013–2015)
Illinois RttT Grant (Math)



More Cramming: What is STEM CCR?

STEM CCR

- CC-HS partnership and curriculum alignment (7 CC & 22 HS)
- Student diagnosis and recruitment
- Math intervention for low- and medium-need students (summer and school-year)
- Student support services to complement academic intervention (e.g., college and career counseling)

Harold Washington College, Chicago, IL
Kenwood Academy
St Rita HS
Marist HS
Ogden International HS
Ace Tech
Walter Peyton HS
South Shore International
Heartland Community College, Normal, IL
Normal West HS
Normal Community HS
Bloomington HS
Tri-Valley HS
Pontiac HS
Illinois Central College, East Peoria, IL
Richwood HS
East Peoria HS
Illinois Eastern Community College, Olney, IL
East Richland HS
Mt. Carmel HS
Newton HS
John Wood Community College, Quincy, IL
Western HS
Olive Harvey College, Chicago, IL
Corliss HS
Chicago Vocational
Wilbur Wright Community College, Chicago, IL
Lakeview HS
Taft HS



Q: Scaling Illinois STEM CCR Statewide?

Answer (A): The Whole State

Harold Washington College, Chicago, IL
Kenwood Academy
St Rita HS
Marist HS
Ogden International HS
Ace Tech
Walter Peyton HS
South Shore International
Heartland Community College, Normal, IL
Normal West HS
Normal Community HS
Bloomington HS
Tri-Valley HS
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Newton HS
John Wood Community College, Quincy, IL
Western HS
Olive Harvey College, Chicago, IL
Corliss HS
Chicago Vocational
Wilbur Wright Community College, Chicago, IL
Lakeview HS
Taft HS

7

Community Colleges

48

22

High Schools

700+



Answer (B): Race to the Top Districts



Harold Washington College, Chicago, IL
Kenwood Academy
St Rita HS
Marist HS
Ogden International HS
Ace Tech
Walter Peyton HS
South Shore International
Heartland Community College, Normal, IL
Normal West HS
Normal Community HS
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Corliss HS
Chicago Vocational
Wilbur Wright Community College, Chicago, IL
Lakeview HS
Taft HS



How to select sites?

- All?
- Some?
- Which ones?
- How to decide?



Addison SD 4
 Bensenville ESD 2
 Bloomington District 87
 Brooklyn Unit SD 188
 Calumet Public Dist 132
 Canton Union SD 66
 Carbon Cliff-Barstow 36
 Country Club Hills District 160
 CPS District 299
 East Richland CUSD 1
 East St Louis SD 189
 Eastland CUSD 308
 Freeport SD 145
 General George S Patton SD 133
 Illini Central SD 189
 Marion CUSD 2
 Matteson SD 162
 McLean CUSD 5
 Morrison CUSD 6
 Niles Township HSD 219
 Pembroke CCSD 259
 Peoria SD 150
 Prairie-Hills ESD 144
 Rantoul City District 137
 Rich Township HSD 227
 Sandoval CUSD 501
 Sterling CUSD 5
 Township HSD 211
 Unity Point SD 140
 Urbana SD 116
 Wabash CUSD 348
 West Richland CUSD 2
 Western CUSD 12
 Winnebago CUSD 323
 Zion ESD 6



Back to the Beginning

Illinois CCR Enabling Legislation (2007)

“The General Assembly finds that ... **Many** students enter college **unprepared** for the academic rigors of college and require noncredit remedial courses to attain skills and knowledge needed for regular, credit course work.”

Educational policy questions:

- How many is “**many**”?
- Who are they?
- Where are they?

We shall not cease from exploration, and the end of all our exploring will be to arrive where we started and know the place for the first time.

—T. S. Eliot, *Four Quartets*



“Many”: (C) Low and Medium Need Students within STEM CCR schools

Current Grade Level	#	%
Junior (fall or spr.)	59	17
Junior (rising)	9	9
Senior (fall or <u>How many?</u>)	39	39
Senior (rising)	21	6
High School Graduate	96	28
Total	341	99

Race/Ethnicity	#	%
American Indian/Alaskan Nat.	2	0.5
Black/African American	94	23
Asian	7	1.7
Hispanic or Latino	74	28.5
White	177	43.3
2 or more races	7	1.7
Total*	287	98.7

Harold Washington College, Chicago, IL	
Kenwood Academy	
St Rita HS	
Marist HS	
Ogden International HS	
Ace Tech	
Walter Peyton HS	
South Shore International	
Heartland Community College, Normal, IL	
Normal West HS	
Normal Community HS	
Bloomington	
Tri-Valley HS	<u>Where?</u>
Pontiac HS	
Illinois Central College, East Peoria, IL	
Richwood HS	
East Peoria HS	
Illinois Eastern Community College, Olney, IL	
East Richland HS	
Mt. Carmel HS	
Newton HS	
John Wood Community College, Quincy, IL	
Western HS	
Olive Harvey College, Chicago, IL	
Corliss HS	
Chicago Vocational	
Wilbur Wright Community College, Chicago, IL	
Lakeview HS	
Taft HS	

Question Remains: Who, where, how many, statewide?



(Un)Readiness: A Statewide View

Act Readiness Benchmarks

ACT Research and Policy

Act College Readiness Benchmarks

Math

Science

English

Reading

Math: College Algebra Ready

ACT Test: **22**

ACT Compass: 52

=> B or better (50% chance)

=> C or better (75% chance)

Other Benchmarks

Science (23)

Reading (22)

English (18)

Source: *What Are the ACT College Readiness Benchmarks?* (2013, September) www.act.org/research



Math Performance

ACT Benchmark: U.S./Illinois*

Nationwide (2014): 1.85 million
(57% of graduating students)

- Average score: 20.9
- Change (2010 to 2014): 21.0 => 20.9
- Benchmark success (22+) : 43%

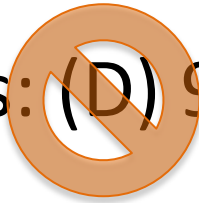
Illinois (2014): **158,000** (100% of
graduating students)

- Average Score: **20.7**
- Change (2010 to 2014): **0.0**
- Benchmark success (22+):
 - 65,000 ready (41%)
 - **93,000** not ready (**59%**)

*Source for data and graphics: ACT Research and Policy www.act.org/research



The “Many” in Illinois: (D) 93,000

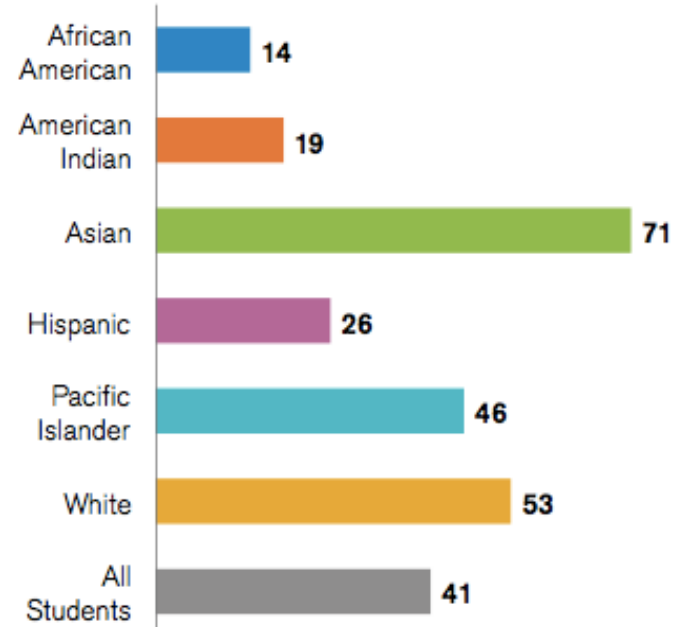


Average Scores

% Readiness

Race/Ethnicity	Mathematics
All Students	20.7
Black/African American	17.2
American Indian/Alaska Native	17.8
White	22.3
Hispanic/Latino	18.8
Asian	25.2
Native Hawaiian/Other Pac. Isl.	21.0
Two or more races	21.1
Prefer not/No Response	19.7

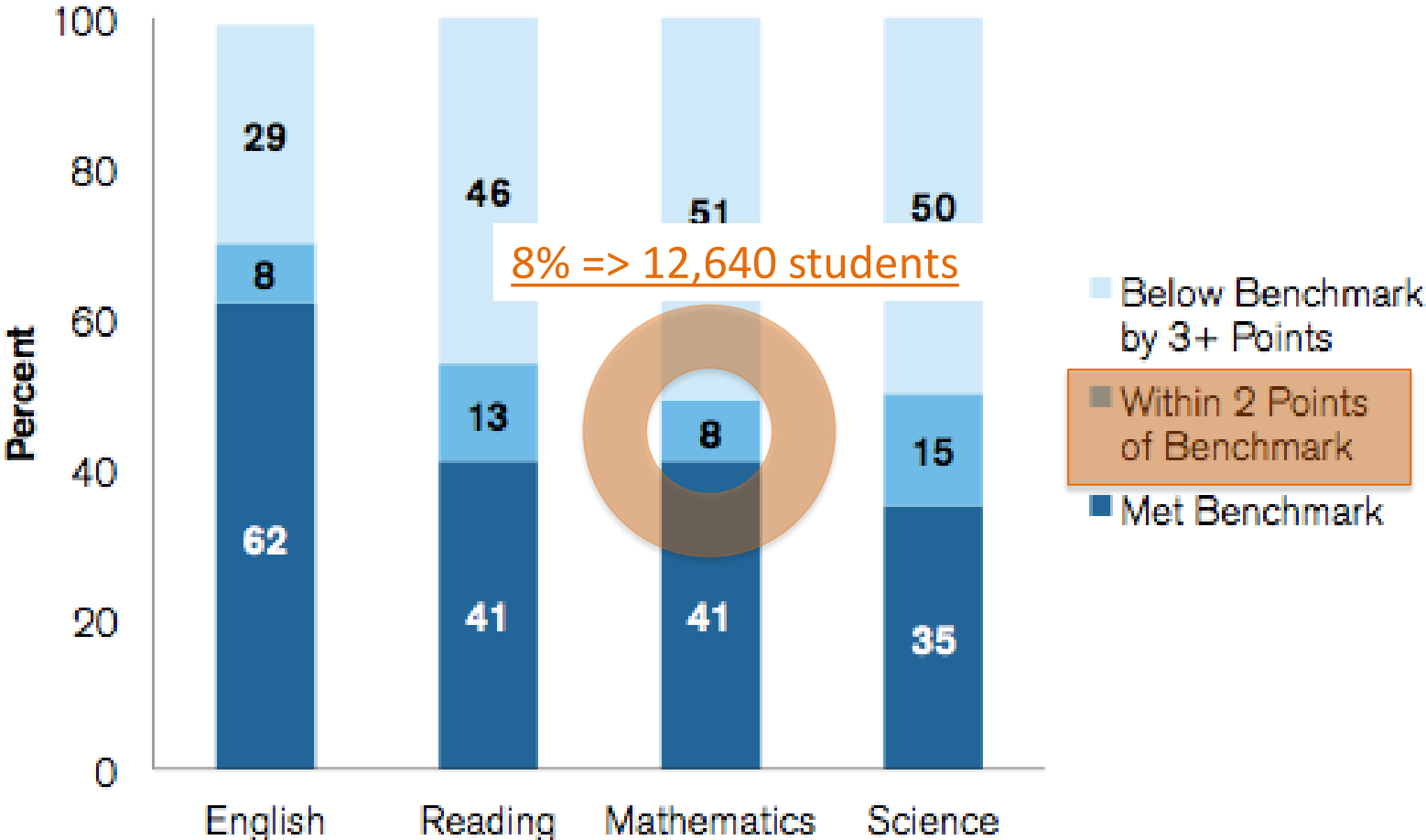
Mathematics



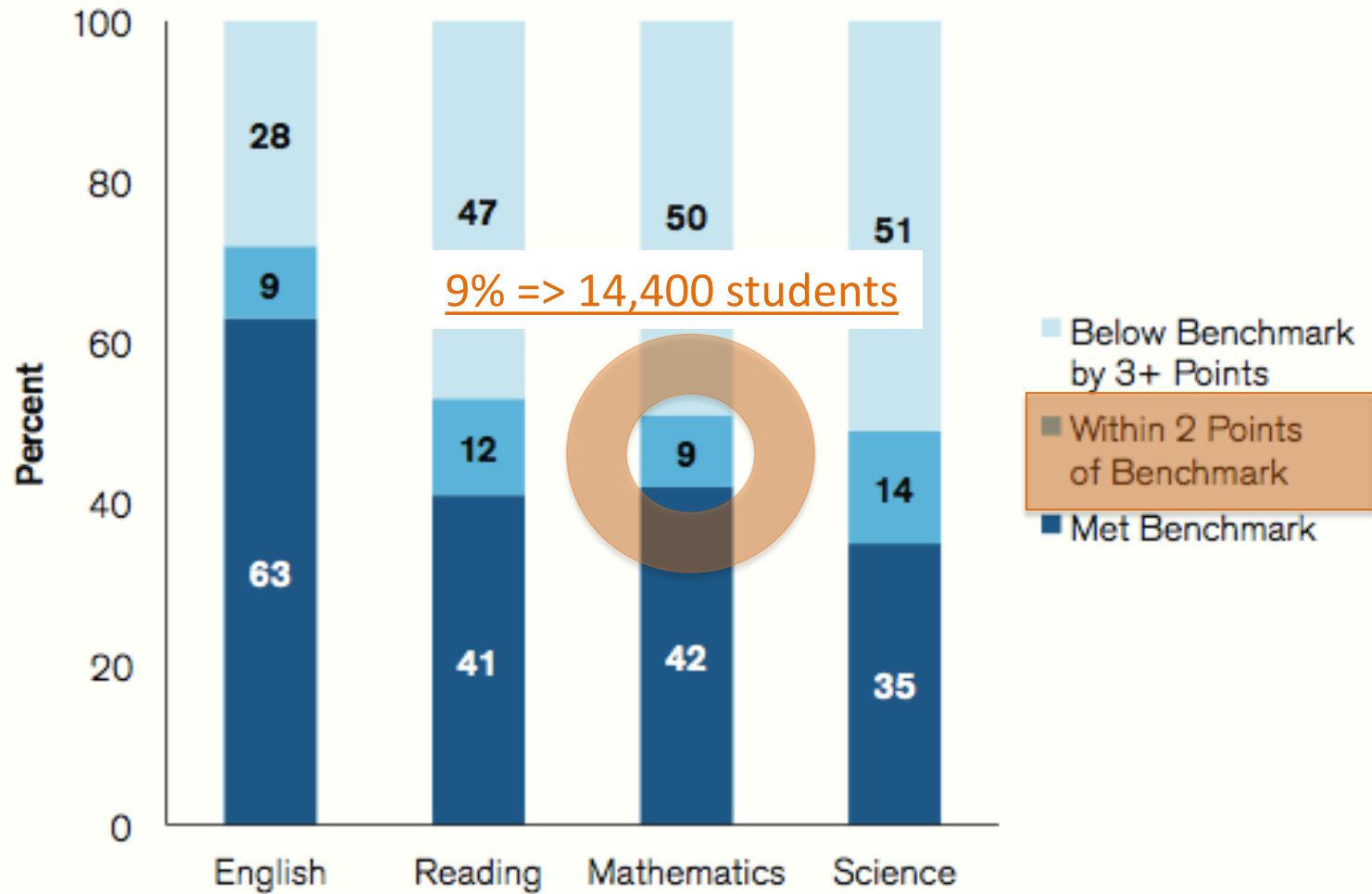
Problem: Includes every unready student (low, medium, and high need), everywhere statewide...



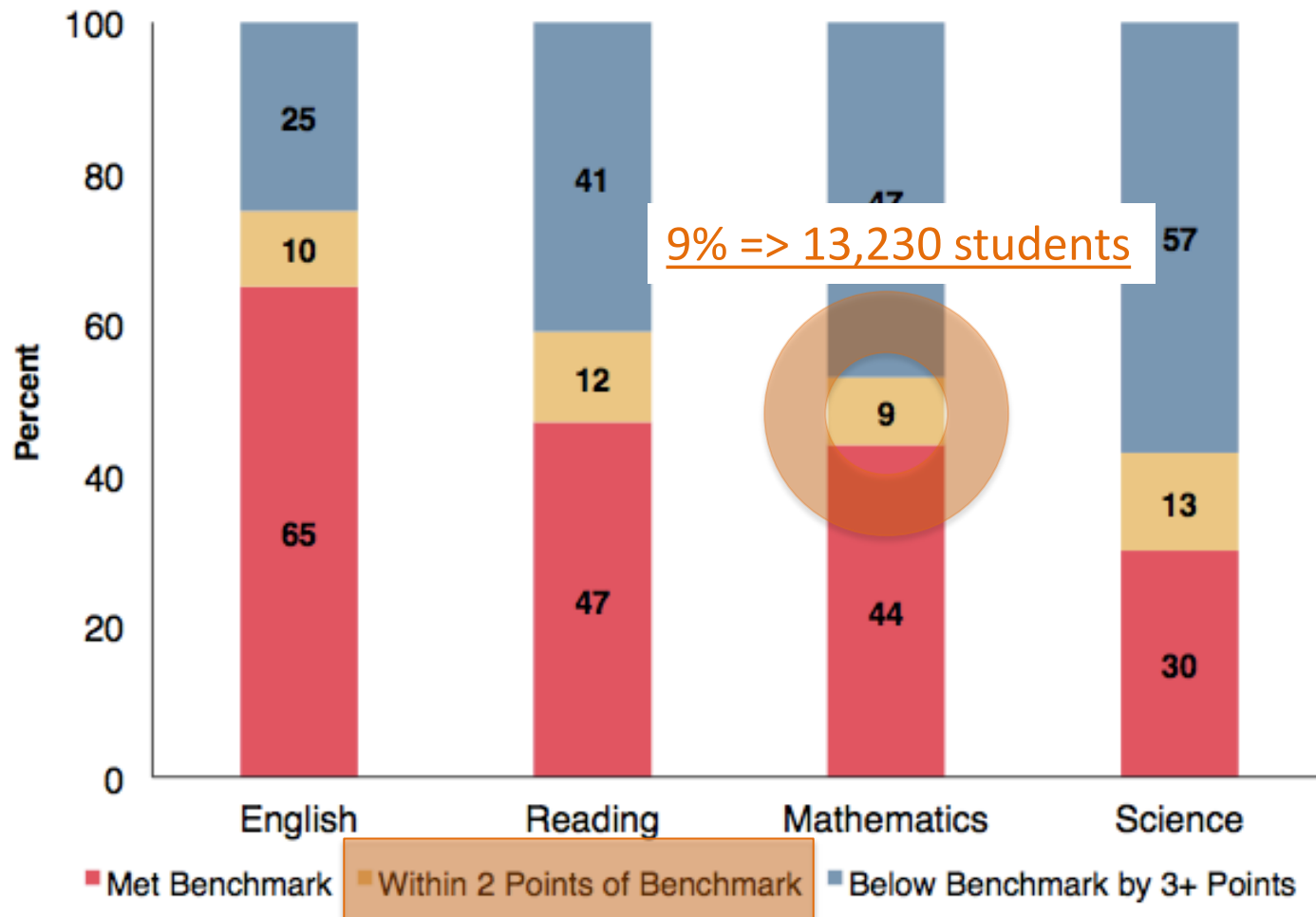
Percent of 2014 ACT-Tested High School Graduates by ACT College Readiness Benchmark Attainment and Subject



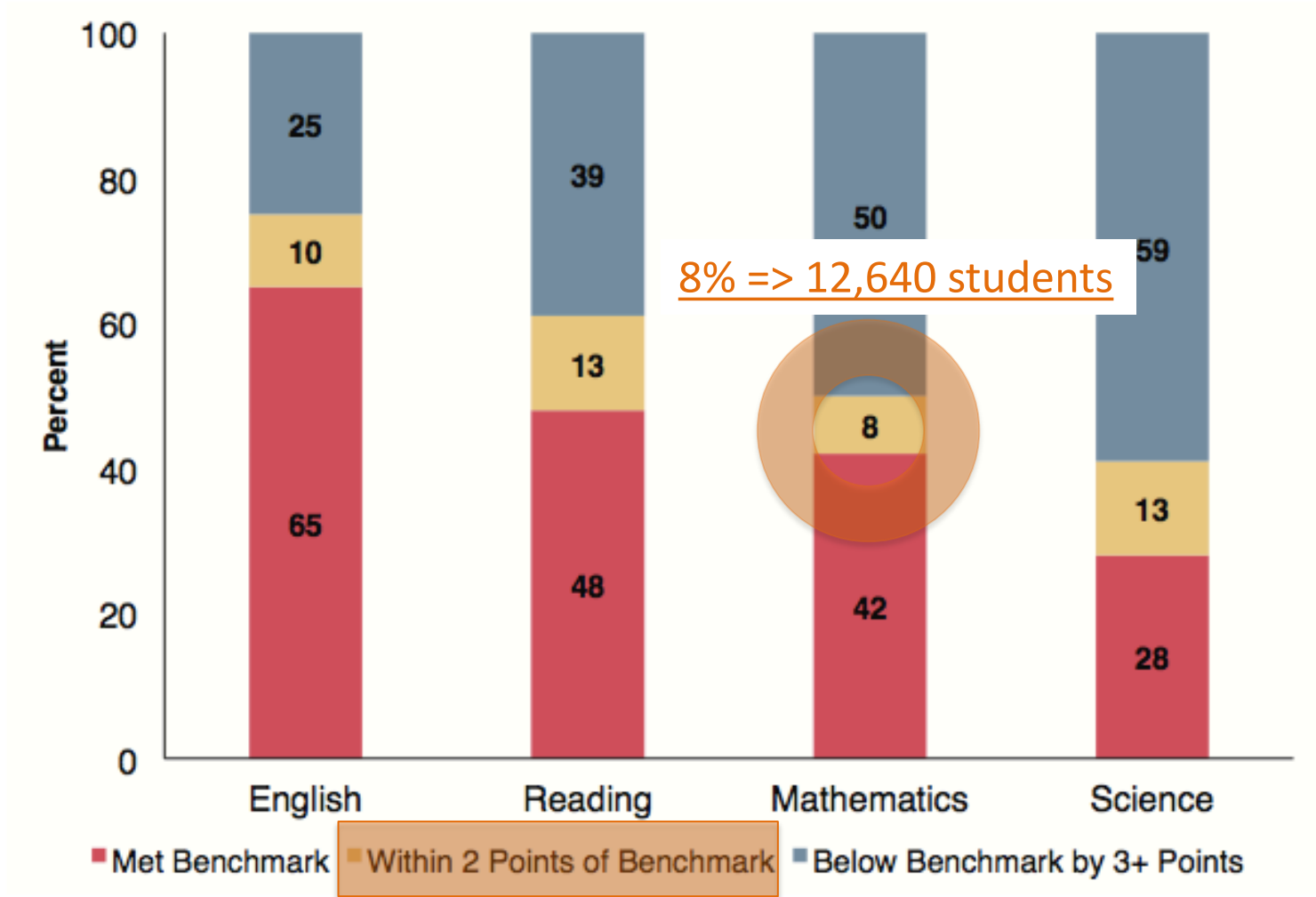
Percent of 2013 ACT-Tested High School Graduates by Benchmark Attainment and Subject



Percent of 2012 ACT-Tested High School Graduates by Benchmark Attainment and Subject



Percent of 2011 ACT-Tested High School Graduates by Benchmark Attainment and Subject



For STEM CCR: How Many is “Many”?

Low and Medium Need: Statewide

<u>Benchmark</u>	<u>2014</u>		<u>2013</u>		<u>2012</u>		<u>2011</u>	
22+ (Ready)	41%	64,780.00	41%	65,600.00	44%	64,680.00	42%	60,690.00
20-21	8%	12,640.00	9%	14,400.00	9%	13,230.00	8%	11,560.00
19 below	51%	80,580.00	50%	80,000.00	47%	69,090.00	50%	72,250.00
Total	100%	158,000.00	100%	160,000.00	100%	147,000.00	100%	144,500.00

Average
12,957.50
 (8.5%)

As a question of STEM CCR educational policy:

The “Many” = **8%** of Illinois students each year (low/med. need)

Answer (E): The “Many” = **13,000** students each year

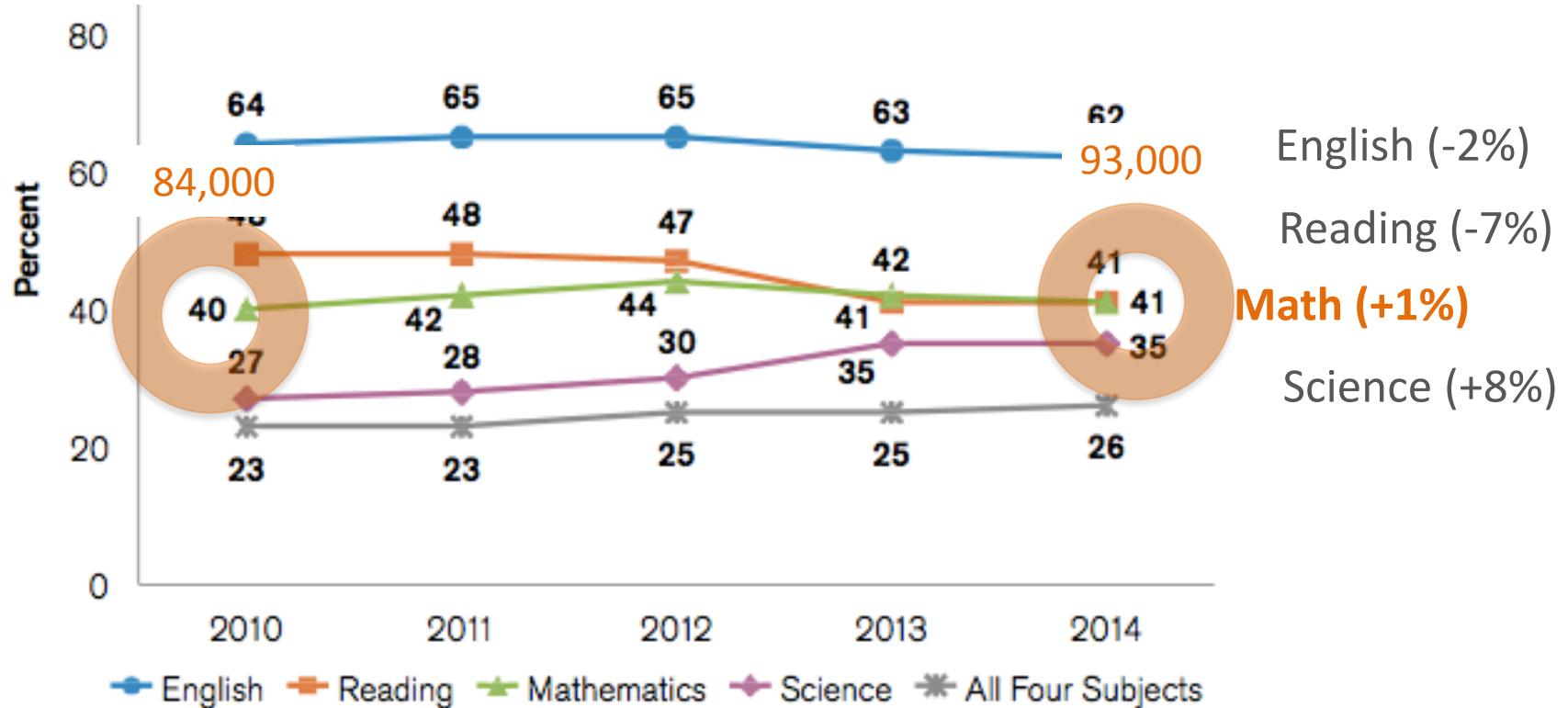
What would an 8% increase mean, nationally?



ACT Math Benchmark Illinois 5-Year Performance

Percent of 2010–2014 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks**

What would an 8% math increase mean?



Illinois vs. Other States

ACT-tested graduating students: 100% (2014)

Rank	State	% tested	# tested	% Ready
<i>new</i>	Illinois (+8%)	100%	158,000	49%
1	Illinois	100%	158,000	41%
2	North Dakota	100%	7,227	41%
3	Colorado	100%	56,510	39%
4	Montana	100%	9,611	39%
5	Utah	100%	35,074	39%
6	Michigan	100%	119,900	35%
7	Wyoming	100%	6,098	34%
8	North Carolina	100%	97,443	33%
9	Kentucky	100%	48,845	31%
10	Tennessee	100%	69,505	30%
11	Louisiana	100%	49,178	27%
12	Mississippi	100%	28,481	21%

Soaring success rate!



Illinois vs. Other States

ACT-tested graduating students: 75%+ (2014)

Rank	State	% tested	# tested	% Ready
1	Minnesota	76%	45,305	61%
2	South Dakota	78%	6,724	52%
3	Kansas	75%	23,924	50%
<i>new</i>	Illinois (+8%)	100%	158,000	49%
4	Nebraska	86%	17,768	45%
5	Missouri	76%	48,865	45%
6	Illinois	100%	158,000	41%
7	Arkansas	93%	26,821	35%
8	Oklahoma	75%	28,682	35%
9	Florida	81%	129,676	33%
10	Alabama	80%	37,985	31%
11	Hawaii	90%	11,797	27%

Big step up,
especially given
the scale...



Illinois vs. Other States

Large graduating students populations (2014)

Rank	State	ACT		
		% tested	# tested	% Ready
1	California	29%	113,732	57%
2	New York	27%	54,496	67%
<i>new</i>	Illinois (+8%)	100%	158,000	49%
3	Texas	40%	116,547	47%
4	Illinois	100%	158,000	41%

Solid improvement,
given scale and
success rate...



To Design and Scale STEM CCR

Something is missing...

Answer: (F) **You!**

- Your STEM CCR experience
- Your educational expertise
- Your commitment to student success

Community College Partners

Instructors
Coordinators
Deans
Chief academic officers
Presidents



High School Partners

Teachers
Department chairs
Counselors
Principals

Panel Question: How would you
(re)design STEM CCR
Statewide?



Unanswered Questions: Who and where are the “many”?

Who are the low/med. need students?

- Race/ethnicity
- Income level

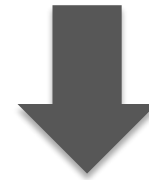
Where are they?

- High schools
- School districts
- Community college districts

How to align with:

Answer (B): Race to the Top Districts

Answer: (G) ???
(We don't know...)



ACT data:

- + student scores
- + demographics (who)
- + high schools (where)



HAROLD WASHINGTON COLLEGE

M² APS

Math Movement for Academic and
Professional Success

Kim Bowens

Project Coordinator



CITY COLLEGES of CHICAGO

Harold Washington

Education that Works

PROGRAM OVERVIEW

- Summer Intervention on HWC Campus
 - Summer 2013 4 weeks 7 students
 - Summer 2014 5 weeks 9 students
- College and Career Readiness
- Mentoring Program with students and college administrators
- Fall and Spring Intervention at the high school 42 students



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Harold Washington

Education that Works

M² APS

Design and Implementation

High School Partnerships

- Dual Credit Partner Schools
 - Daniel Hale Williams
 - Kenwood High School
- Dual Enrollment Feeder Schools
- CPS Strategic Partnerships

Recruitment Strategies

- Dual Credit Schools we focused on students who placed in Math 99 during Dual Credit COMPASS testing.
- Dual Enrollment and Strategic Partnerships identified students who place into Math 99 on COMPASS.



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Education that Works

M² APS

Design and Implementation

Student Services

- Orientation, Campus Tour, Photo ID, Advisor Workshop, Financial Aid Workshop, Transfer and College Essay Workshop, Interest Assessment, Resume, Cover Letter and Thank You Letter Prep, Interviewing Skills, Mock Interviews, Study Skills, Test Taking Strategies, Learning Styles, Branding, Social Media and Daily Reflection.

Mentoring Program

- Mentoring Program with students and college administrators
- Matched Students and Administrators by career interest
- Mentoring sessions focused on supporting student in becoming college and/or career ready.



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Education that Works

M² APS

Design and Implementation

Curriculum Alignment

- HWC and Kenwood High School
- 3 HWC Math Faculty and 6 Math Teachers at Kenwood
- Established monthly meeting through June and currently aligning HS and college course to course alignment.

Math Intervention

- Math Instruction in Summer Intervention 2.5-3 hours a day 4 days a week
- Included COMPASS pre and post test
- Abbreviated Math 99 Intermediate Algebra with Geometry curriculum created and taught by a HWC Math Faculty



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Education that Works

The Big Picture

Success

- One tested at college level immediately following intervention, 2 have transitioned to HWC as incoming freshman, 3 are currently enrolled in Dual Credit and or Dual Enrollment (Summer 2013)
- Two tested at college level immediately following intervention and enrolled in college level math in Fall, 3 are enrolled in non math Dual Credit/Dual Enrollment (Summer 2014)

Challenges

- Competing Programs such as Summer jobs, Summer School, vacation travel, school trips
- Program scheduling needs to work with high school student scheduling
- Implementing College and Career Readiness at HS
- Collaboration between high school and college instructor is key
- Streamlining data collection through counselor



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Education that Works

Contact Information

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Harold Washington

Education that Works

STEM



College & Career Readiness

Science - Technology - Engineering - Mathematics



Illinois Eastern Community Colleges

Frontier Community College

Lincoln Trail College

Olney Central College

Wabash Valley College

Dr. Jervaise McDaniel
Associate Dean of Outreach

Katie Fehrenbacher
STEM CCR Grant Coordinator
TRIO Talent Search Advisor

Leslie Shan
STEM CCR Grant Coordinator

Intervention History



Semester	Number of Students	Classes Offered	Locations
Summer 2013	13	Intermediate Algebra Beginning Algebra	Olney Central College
Fall 2013	25	Intermediate Algebra Remedial English	East Richland High School
Spring 2014	31	Beginning Algebra	East Richland High School
Summer 2014	30	Beginning Algebra Intermediate Algebra	Frontier Community College Lawrenceville High School Lincoln Trail College Olney Central College
Fall 2014	47	Beginning Algebra Intermediate Algebra Remedial English	East Richland High School
Spring 2015	13	Remedial English	East Richland High School

Strategies for Scaling



- **Collaboration**

- Within the institution
- Within the K-12 community

- **Flexibility**

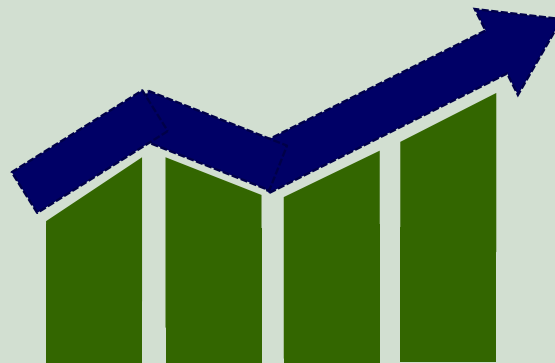
- School schedules
- Student availability

- **Tangible Outcomes**

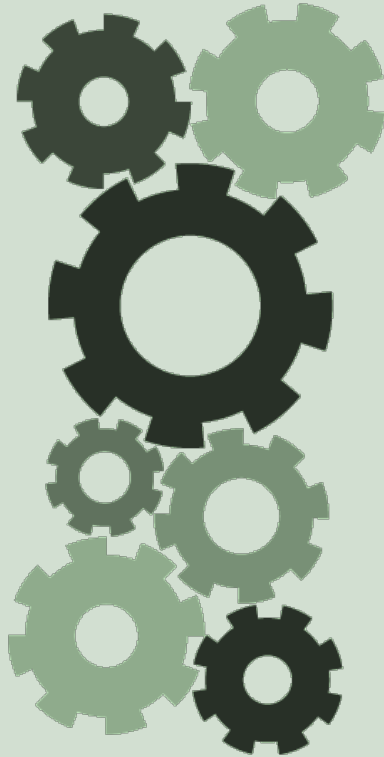
- Intervention completion is equivalent to college remedial requirement

- **Creativity**

- Innovative team members
- Understanding community culture



IECC: Scaling Up



- **Additional English classes**
- **Offer reading classes**
- **Expand school year interventions**
- **Manufacturing Career Fair**
- **Partner with TRIO Upward Bound**

Contact Information

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Research and Leadership