Annotated Agenda

No.	Slides	Data Book	Item	Est. Length	Time*	Presenter
			Registration	0:30	8:30 AM	
			Panelists complete demographics questionnaire and NDA			
1	A1-2		Welcome and introductions	0:20	9:00 AM	Wayne/ Valorie
2	A3		Key organizations			
3	A4		Key staff			
4	A5		Panelists			
5	A6		Purpose of the meeting			
6	A7		Morning schedule			
7	A8		General guidelines			
8	A9		NE introduction & background	0:30	9:20 AM	Valorie
	NDE slides		NeSA Purpose and Achievement levels - where we are now, where we were			
9	A10-14		Types of standards, Smarter Balanced, PARCC, NAEP, NeSA	0:05	9:50 AM	Wayne
10			NE and NAEP Percent at each level	0:05	9:55 AM	Joann
	A15-A18	1	NE state test grade 8/10 2016/2017			
		1	NE previous grade 11 test 2015/2016			
	A19-A21	2	NAEP Grade 8 NE			
		2	NAEP Grade 12 National			
11	A22-23		The ACT and goals of the standard setting	0:05	10:00 AM	Jeff
12	A24-28		Why College Readiness?	0:05	10:05 AM	Joann
13	A29-30		NAEP to state comparisons	0:05	10:10 AM	Joann
14	A31-35		ACT for Course Placement - NE and NAGB	0:05	10:15 AM	Jeff
15	A36-47		Benchmarks - context, assumptions, history, institutions	0:30	10:20 AM	Wayne
			BREAK	0:15	10:50 AM	
16	A49-52		Probabilities of success	0:10	11:05 AM	Joann
17	A53-75	3	ACT Data Samples and differences between	0:20	11:15 AM	Joann
		4	2017 NE Juniors State Testing			
		4	2015, 2016 NE Junior year testing			
		4	2015, 2016 Census state testing			
		4	2015, 2016 National junior year testing			
		4	2015, 2016 NE Graduate cohort			
		4	2015, 2016 Census state graduate cohorts			
		4	2015, 2016 National graduate cohort			
		4	Growth between Junior and Senior year			
18	A76-79		Probability of success - probabilities, NE graduates, census states, national	0:10	11:35 AM	Joann
19	A80-88		Minimally *On Track* student/Identifying Borderline Achievement	0:10	11:45 AM	Wayne

* Times are approximate.

No.	Slides	Data Book	Item	Est. Length	Time*	Presenter
20	A89		Discussion (whole room)	0:20	11:55 AM	Panel
21	A90-94		Round 1 *On Track* Training/Rating	0:10	12:15 PM	Wayne
			LUNCH	1:00	12:25 PM	
22	A95		Review afternoon schedule	0:05	1:25 PM	Jeff
23	A96-98	6	Review Round 1 overall results	0:10	1:30 PM	Jeff
24	A99		Side by side comparisons (NeSA, NAEP, ACT Benchmarks)	0:05	1:40 PM	Jeff
25	A100		Discussion (whole room)	0:20	1:45 PM	Panel
			BREAK	0:15	2:05 PM	
26	B1-2		Review Round 1 content-specific results	0:10	2:20 PM	Jeff
27			Review other evidence	0:20	2:30 PM	Jeff
	B3-6		Table and number line charts for comparison information: NeSA, NAEP, college placement			
	B7-10	1	NE state test grade 8/10 2016/2017			
		1	NE previous grade 11 test 2015/2016			
	B11-13	2	NAEP Grade 8 NE			
		2	NAEP Grade 12 National			
	B14-16	7	Impact of adjusting up or down a point.	0:20	2:50 PM	Joann
	B17-19	8	Years of Coursework			
	B20-21		Highest course taken			
	B22-24	9	College enrollment and course placement, including:			
			NAGB study on cutscores: Math score of 19 and Reading score of 18 for placement into credit-bearing college courses			
			Placement in NE colleges			
	B25-27	10	Estimated college retention and degree completion rates			
28	B28		Discussion (within table)	0:20	3:10 PM	Panel
29	B29-31		Round 2 *On Track* Rating	0:10	3:30 PM	
			Adjourn		3:40 PM	

* Times are approximate.

No.	Slides	Data Book	Item	Est. Length	Time*	Presenter
			DAY 2			
30	C1-3		Review schedule and guidelines	0:05	9:00 AM	Wayne
31	C4		Debrief/discuss Day 1 (whole room)	0:20	9:05 AM	Wayne
32	C5-12	3	Review data sources (data repeat)	0:10	9:25 AM	Joann
33	C13-16		Review Round 2 results for *On Track* cut score	0:20	9:35 AM	Jeff
			Success probabilities--include ACT Benchmarks			
	C17-19		Number line charts for comparison information: NeSA, NAEP, college placement			
	C20		Side by side comparisons (NeSA, NAEP, ACT Benchmarks)			
	C21		ACT cut scores adopted by other states			
34	C22		Discussion (whole room)	0:20	9:55 AM	Panel
35	C23-36		Discuss meaning of *Approaching* and *Exceeding* cut scores	0:20	10:15 AM	Wayne
36	C37		Discussion (within table)	0:20	10:35 AM	Panel
			BREAK	0:15	10:55 AM	
37	C39		Discussion (within table)	0:20	11:10 AM	Panel
38	C40-46		Round 3 *Approaching* and *Exceeding* cut score ratings	0:15	11:30 AM	Jeff
			LUNCH	1:00	11:45 AM	
39	D1-5		Review Round 3 results for all subject groups and cut scores for context	0:20	12:45 PM	Jeff
	D6-8	9	College enrollment rates			
	D9	10	Degree completion rates			
	D10		Probabilities of Success and Impact			
40	D11		Discussion and next steps (whole room)	0:30	1:05 PM	Panel
	D12		**BREAK**	0:15	1:35 PM	
41	D13-14		Review impact data	0:10	1:50 PM	Jeff
42	D15		Discussion (whole room)	0:20	2:00 PM	Panel
43	D16-19		Final ratings: All 3 cuts	0:15	2:20 PM	
			Break & Evaluation Form	0:15	2:35 PM	
44	E1-7		Report final results	0:15	2:50 PM	Wayne
45			ELA Performance Level Number and Names	0:30	3:05 PM	NDE
			Adjourn		3:35 PM	
46			ACT & NDE staff debrief; summarize process and results		3:00 PM - 4:00 PM	ACT/NDE

* Times are approximate.

List of Panelists

Math Panel

First Name	Last Name	Position
Allan	Donsig	Mathematics-Post secondary
Lisa	Fricke	State Board
Kevin	Gross	Assessment Specialist
Erin	Hamilton	Math Teacher
Gale	Hamilton	NDE
Darin	Kelberlau	Central Office DAC
Terri	Martin	Central Office DAC
Dustin	Mitchell	Principal
Deb	Romanek	NDE Mathematics
Terri	Schuster	NDE ELL
Scott	Wagner	Math Teacher

ELA Panel

First Name	Last Name	Position
Noelle	Baker	School Counselor
Janelle	Coady	ELA Teacher
Tom	Coviello	Principal
Brooke	David	NDE ELL
Pam	Frangedakis	ELA Teacher
Don	Loeske	NDE School Accreditation
Debbie	Minter	English- Post Secondary
Marissa	Payzant	NDE English Language Arts
Julee	Sauer	Educational Service Unit
John	Swartz	Central Office Administration
Rachel	Wise	State Board

Science Panel

First Name	Last Name	Position
Greg	Adams	Two-Year/Tech Post Secondary
Cory	Epler	NDE Teaching and Learning
Melissa	Hansen	School Counselor
Robin	Henrichs	Science Teacher
Sharon	Katt	NDE Teacher Certification
Julie	Larsen	Science Teacher
Dawn	Mazzie	Central Office Assessment
Kim	Snyder	NDE Accreditation and School Improvement
Thomas	Szlanda	Principal
Janet	Zahm	Central Office administrator

Background Questionnaire

Question	1	2	3	4	5	6
1. What is your gender?	Female	Male	Prefer not to respond			
	20	12	0			
	63%	38%				
2. What is your ethnicity?	Hispanic or Latino	Not Hispanic or Latino	Prefer not to respond			
	0	32	0			
	0%	100%	0%			
3. What is your race?	American Indian or Alaskan Native	Asian	Black or African American	Native Hawaiian or Other Pac Islander	White	Prefer not to respond
	0	0	1	0	31	0
	0%	0%	3%	0%	97%	0%
4. Which of the following best describes you?	Principal/ Administrator	District Curriculum/ Assessment Coordinator	Counselor	Classroom Teacher	Higher Ed Faculty	Other / NDE
	5	6	2	7	3	9
	16%	19%	6%	22%	9%	28%
4a. Which grade levels do you currently teach?	9	10	11	12		
	4	3	7	6		
	57%	43%	100%	86%		
4b. Do you teach special populations of students?	Developmental	ELL	Special Education	Gifted and Talented		
	0	3	2	3		
	0%	43%	29%	43%		
5. How many years have you worked in education?	Less than 1 year	1-5 years	6-10 years	11-15 years	16-20 years	20+ years
	0	0	1	4	5	17
	0%	0%	4%	15%	19%	63%
6. How many years have you worked in Nebraska?	Less than 1 year	1-5 years	6-10 years	11-15 years	16-20 years	20+ years
	0	0	6	2	4	15
	0%	0%	22%	7%	15%	56%
7. How many years have you been in your current position?	Less than 1 year	1-5 years	6-10 years	11-15 years	16-20 years	20+ years
	3	9	10	1	3	1
	11%	33%	37%	4%	11%	4%
8. Indicate the highest degree you hold.	Associate degree	Bachelor's degree	Master's degree	Professional degree	Doctoral degree	
	0	0	15	0	11	0
	0%	0%	58%	0%	42%	0%

Process Evaluation Questionnaire

	Question	5	4	3	2	1	Mean Score	SD	N
1.	How adequate were the advance communications you received for preparing you to fulfill your role in this meeting?	Extremely adequate 6	Very adequate 8	Moderately adequate 14	Slightly adequate 3	Not at all adequate 0	3.55	0.93	31
2.	How well did you understand the purpose of this meeting?	Extremely well 6	Very well 19	Moderately well 6	Slightly well 0	Not at all well 0	4.00	0.63	31
3.	How clear were the instructions on what you were to do during each round?	Extremely clear 5	Very clear 11	Moderately clear 12	Slightly clear 2	Not at All clear 1	3.55	0.96	31
4.	How well did you understand the tasks you were to accomplish during each round?	Extremely well 8	Very well 11	Moderately well 10	Slightly well 1	Not at all well 1	3.77	0.99	31
5.	How well did you understand the difference between borderline performance and typical performance within an achievement level?	Extremely well 5	Very well 17	Moderately well 8	Slightly well 1	Not at all well 0	3.84	0.73	31
6.	How comfortable were you using the concept of performance at the lower borderline of Approaching?	Extremely comfortable 5	Very comfortable 14	Moderately comfortable 10	Slightly comfortable 2	Not at all comfortable 0	3.71	0.82	31
7.	How comfortable were you using the concept of performance at the lower borderline of On Track?	Extremely comfortable 5	Very comfortable 15	Moderately comfortable 9	Slightly comfortable 2	Not at all comfortable 0	3.74	0.82	31
8.	How comfortable were you using the concept of performance at the lower borderline of Exceeding?	Extremely comfortable 5	Very comfortable 19	Moderately comfortable 6	Slightly comfortable 1	Not at all comfortable 0	3.90	0.70	31
9.	How confident were you in the cut score recommendations you provided?	Extremely confident 3	Very confident 17	Moderately confident 9	Slightly confident 2	Not at all confident 0	3.68	0.75	31
10.	How well did you understand the median cut scores?	Extremely well 10	Very well 11	Moderately well 7	Slightly well 3	Not at all well 0	3.90	0.98	31
11.	How well did you understand the concept of using a first-year credit-bearing college course to help set cut scores?	Extremely well 14	Very well 13	Moderately well 3	Slightly well 1	Not at all well 0	4.29	0.78	31
12.	How well did you understand probabilities of success?	Extremely well 9	Very well 19	Moderately well 1	Slightly well 2	Not at all well 0	4.13	0.76	31
13.	How well did you understand the difference between probability of success and percent at or above?	Extremely well 10	Very well 19	Moderately well 2	Slightly well 1	Not at all well 0	4.19	0.70	32

	Question	5	4	3	2	1	Mean Score	SD	N
14.	How comfortable were you using the impact data provided to evaluate the reasonableness of the cut scores?	Extremely comfortable 9	Very comfortable 10	Moderately comfortable 11	Slightly comfortable 1	Not at all comfortable 0	3.87	0.88	31
15.	How would you describe the effectiveness of the performance level setting method?	Extremely effective 4	Very effective 13	Moderately effective 11	Slightly effective 2	Not at all effective 1	3.55	0.93	31
16.	How did you feel about the amount of time allotted for explanation and discussion during Round 1 (On Track)?	Far Too Long 2	1	About Right 16	11	Far Too Short 1	2.74	0.86	31
17.	How did you feel about the amount of time allotted for explanation and discussion during Round 2 (On Track)?	Far Too Long 0	1	About Right 24	5	Far Too Short 1	2.81	0.54	31
18.	How did you feel about the amount of time allotted for explanation and discussion during Round 3 (Approaching and Exceeding)?	Far Too Long 0	1	About Right 25	4	Far Too Short 0	2.90	0.40	30
19.	To what extent was your input valued and considered by others in your group?	Extremely valued 7	Very valued 17	Moderately valued 5	Slightly valued 2	Not at all valued 0	3.94	0.81	31
20.	Did you feel pressured by others in your group to make your cut score recommendations agree with theirs?	Extremely pressured 0	Very pressured 0	Moderately pressured 3	Slightly pressured 3	Not at all pressured 25	1.29	0.64	31
21.	Did you feel pressured by staff to make cut score recommendations higher or lower?	Extremely pressured 0	Very pressured 3	Moderately pressured 4	Slightly pressured 7	Not at all pressured 17	1.77	1.02	31
22.	Did you feel pressured by staff to keep your cut score recommendations the same?	Extremely pressured 0	Very pressured 1	Moderately pressured 0	Slightly pressured 7	Not at all pressured 23	1.32	0.65	31
23.	How well did this standard setting process provide you an opportunity to use your best judgment to recommend cut scores?	Extremely well 3	Very well 11	Moderately well 13	Slightly well 4	Not at all well 0	3.42	0.85	31
24.	How defensible do you feel are the cut scores produced by this standard setting process?	Extremely defensible 3	Very defensible 16	Moderately defensible 8	Slightly defensible 4	Not at all defensible 0	3.58	0.85	31
25.	How reasonable do you feel will the cut scores produced by this standard setting be considered?	Extremely reasonable 2	Very reasonable 14	Moderately reasonable 10	Slightly reasonable 4	Not at all reasonable 0	3.47	0.82	30

Mathematics Achievement Level	Percent At or Above				
	Grade 8		Grade 11		
	2015	2016	2015	2016	2017
Exceeds	22%	21%	26%	26%	?
Meets/ Exceeds	68%	68%	62%	62%	?
Below	32%	32%	39%	38%	?

Math Achievement Level	Grade 8		Grade 12
	NE	National public	National public
Advanced	8%	8%	3%
Proficient	38%	32%	25%
Basic	78%	70%	62%
Below Basic	23%	30%	38%

	2015	2016	2017
1 NE Juniors	Junior yr testing	Junior yr testing	**State testing**
2 Census Testing States Juniors	State testing	State testing	X
3 National Juniors	Junior yr testing	Junior yr testing	X
4 NE Grad Cohort	Grad cohort	Grad cohort	X
5 Census Testing States Grad Cohort	Grad cohort	Grad cohort	X
6 National Grad Cohort	Grad cohort	Grad cohort	X

Student Characteristics		NE Juniors Census 2017	NE Juniors 2016	Census State Juniors 2016	National Juniors 2016	NE Juniors 2015	NE Grads 2016	NE Grads 2015
N	Count	21,711	16,419	384,406	1,739,885	15,870	18,598	18,347
Participation Rate	Percent	99%	71%	99%	46%	69%	88%	88%
Took Writing		99%	10%	99%	62%	10%	10%	10%
Tested 11th Grade or Earlier		100%	100%	100%	100%	100%	34%	32%
Tested 12th Grade or Later		0%	0%	0%	0%	0%	66%	68%
State and District Testing		99%	39%	100%	56%	38%	19%	19%
White		68%	75%	57%	57%	76%	73%	74%
Female		49%	53%	50%	52%	53%	53%	52%
Met ACT English Benchmark		50%	67%	47%	62%	67%	68%	69%
Met ACT Reading Benchmark		34%	50%	33%	46%	48%	48%	49%
Met ACT Math Benchmark		31%	44%	28%	41%	46%	43%	44%
Met ACT Science Benchmark		30%	41%	26%	38%	40%	40%	42%
Met ACT ELA Benchmark		41%	67%	35%	54%	74%	74%	78%
ACT English	Mean	18.4	20.7	17.8	20.2	20.7	20.9	21.1
ACT Reading		19.5	21.8	19.2	21.2	21.6	21.8	21.9
ACT Math		19.4	21.0	18.9	20.8	21.1	20.8	21.0
ACT Science		19.5	21.5	19.3	21.0	21.4	21.5	21.6
ACT ELA		18.4	22.2	17.6	20.2	23.2	23.8	24.2
ACT English + Reading		19.2	21.5	18.7	21.0	21.4	21.6	21.7
ACT Writing		6.3	7.1	5.8	6.6	7.4	7.5	7.6
If took writing	Count	21,424	1,583	379,561	1,077,320	1,595	1,848	1,881
ACT English	Mean	18.5	23.3	17.8	20.8	23.9	24.9	24.9
ACT Reading		19.6	24.1	19.3	21.8	24.4	25.4	25.5
ACT Math		19.5	22.5	19.0	21.5	23.0	23.5	23.6
ACT Science		19.6	22.8	19.4	21.5	23.2	24.2	24.2
ACT ELA		18.4	22.2	17.6	20.2	23.2	23.8	24.2
ACT English + Reading		19.3	23.9	18.8	21.6	24.4	25.4	25.4
If did not take writing	Count	287	14,836	4,845	662,565	14,275	16,750	16,466
ACT English	Mean	11.1	20.4	11.8	19.2	20.3	20.5	20.6
ACT Reading		12.8	21.6	13.5	20.3	21.3	21.5	21.5
ACT Math		15.0	20.9	15.1	19.6	20.8	20.5	20.7
ACT Science		13.3	21.4	14.5	20.1	21.2	21.2	21.3
ACT English + Reading		12.2	21.2	12.9	20.0	21.1	21.2	21.3

Student Characteristics		NE Juniors Census 2017	Census States Juniors 2015	Census States Grads 2016	Census States Grads 2015	National Juniors 2015	National Grads 2016	National Grads 2015
N	Count	21,711	686,137	749,885	466,236	1,737,752	2,090,342	1,924,436
Participation Rate	Percent	99%	99%	99%	99%	46%	64%	59%
Took Writing		99%	99%	81%	83%	68%	61%	58%
Tested 11th Grade or Earlier		100%	100%	72%	73%	100%	51%	45%
Tested 12th Grade or Later		0%	0%	28%	27%	0%	49%	55%
State and District Testing		99%	100%	63%	65%	59%	34%	27%
White		68%	59%	60%	57%	59%	56%	57%
Female		49%	50%	50%	50%	52%	53%	53%
Met ACT English Benchmark		50%	52%	56%	57%	61%	61%	64%
Met ACT Reading Benchmark		34%	33%	38%	38%	43%	44%	46%
Met ACT Math Benchmark		31%	32%	35%	35%	41%	41%	42%
Met ACT Science Benchmark		30%	28%	31%	32%	36%	36%	38%
Met ACT ELA Benchmark		41%	40%	40%	43%	52%	52%	58%
ACT English	Mean	18.4	18.5	19.2	19.2	19.9	20.1	20.4
ACT Reading		19.5	19.6	20.3	20.2	21.0	21.3	21.4
ACT Math		19.4	19.4	19.8	19.9	20.6	20.6	20.8
ACT Science		19.5	19.5	20.0	20.0	20.6	20.8	20.9
ACT ELA		18.4	18.2	18.3	18.6	19.9	20.1	20.8
ACT English + Reading		19.2	19.3	20.0	19.9	20.7	21.0	21.1
ACT Writing		6.3	6.0	6.0	6.3	6.5	6.6	6.9
If took writing	Count	21,424	682,669	610,100	388,094	1,180,660	1,274,091	1,108,908
ACT English	Mean	18.5	18.5	18.7	18.8	20.3	20.5	21.0
ACT Reading		19.6	19.6	19.9	19.8	21.3	21.7	22.0
ACT Math		19.5	19.4	19.5	19.7	21.0	21.1	21.5
ACT Science		19.6	19.5	19.7	19.7	21.0	21.1	21.4
ACT ELA		18.4	18.2	18.3	18.6	19.9	20.1	20.8
ACT English + Reading		19.3	19.3	19.6	19.6	21.0	21.3	21.8
If did not take writing	Count	287	3,468	139,785	78,142	557,092	816,251	815,528
ACT English	Mean	11.1	12.4	21.4	21.3	19.2	19.5	19.5
ACT Reading		12.8	14.5	22.0	21.7	20.3	20.7	20.6
ACT Math		15.0	15.4	21.1	21.0	19.7	19.8	19.9
ACT Science		13.3	14.2	21.6	21.3	20.0	20.2	20.3
ACT English + Reading		12.2	13.7	22.0	21.7	20.0	20.3	20.3

Percentage of Students At or Above Each Success Probability
ACT Subject: Mathematics
College Course: Algebra

Probability of Success			Percentage At/Above			
A prob	B or higher prob	C or higher prob	NE Juniors Census 2017	NE Juniors 2016	Census State Juniors 2016	National Juniors 2016
0.04	0.20	0.48	84	93	83	89
0.05	0.22	0.51	78	89	75	84
0.06	0.24	0.53	70	83	67	77
0.07	0.26	0.55	62	78	58	71
0.07	0.28	0.57	56	73	54	67
0.08	0.30	0.59	51	68	49	62
0.09	0.32	0.60	48	64	45	59
0.10	0.34	0.62	46	60	41	55
0.11	0.36	0.64	43	57	38	53
0.12	0.38	0.65	40	55	36	50
0.13	0.40	0.67	38	53	34	49
0.15	0.42	0.68	37	51	33	47
0.16	0.44	0.69	36	50	32	46
0.17	0.46	0.71	34	48	30	44
0.19	0.48	0.72	32	46	29	43
0.20	0.50	0.73	31	44	27	41
0.22	0.52	0.74	30	42	26	40
0.24	0.54	0.76	28	40	25	38
0.25	0.56	0.77	27	38	24	36
0.27	0.58	0.78	25	35	22	34
0.29	0.60	0.79	23	33	20	32
0.32	0.62	0.80	21	30	18	30
0.34	0.64	0.81	18	27	16	27
0.36	0.66	0.82	17	24	14	25
0.39	0.68	0.83	15	22	12	23
0.42	0.70	0.84	13	19	11	21
0.45	0.72	0.85	11	16	9	18
0.48	0.74	0.86	9	14	7	16
0.51	0.76	0.87	8	11	6	14
0.54	0.78	0.88	7	9	5	12
0.58	0.80	0.89	5	7	4	10
0.62	0.82	0.90	4	6	3	8
0.66	0.84	0.91	3	4	2	7
0.70	0.86	0.92	2	3	2	5
0.74	0.88	0.93	2	3	1	4
0.79	0.90	0.94	1	2	1	3
N-count	70,461		21,711	16,419	384,406	1,739,885

Percentage of Students At or Above Each Success Probability
ACT Subject: Mathematics
College Course: Algebra

	Probability of Success			Percentage At/Above			
ACT Score	A prob	B or higher prob	C or higher prob	NE Juniors Census 2017	NE Juniors 2016	Census State Juniors 2016	National Juniors 2016
15	0.04	0.20	0.48	84	93	83	89
16	0.05	0.22	0.51	78	89	75	84
16	0.06	0.24	0.53	70	83	67	77
17	0.07	0.26	0.55	62	78	58	71
18	0.07	0.28	0.57	56	73	54	67
18	0.08	0.30	0.59	51	68	49	62
18	0.09	0.32	0.60	48	64	45	59
19	0.10	0.34	0.62	46	60	41	55
19	0.11	0.36	0.64	43	57	38	53
20	0.12	0.38	0.65	40	55	36	50
20	0.13	0.40	0.67	38	53	34	49
21	0.15	0.42	0.68	37	51	33	47
21	0.16	0.44	0.69	36	50	32	46
21	0.17	0.46	0.71	34	48	30	44
22	0.19	0.48	0.72	32	46	29	43
22	0.20	0.50	0.73	31	44	27	41
23	0.22	0.52	0.74	30	42	26	40
23	0.24	0.54	0.76	28	40	25	38
23	0.25	0.56	0.77	27	38	24	36
24	0.27	0.58	0.78	25	35	22	34
24	0.29	0.60	0.79	23	33	20	32
25	0.32	0.62	0.80	21	30	18	30
25	0.34	0.64	0.81	18	27	16	27
25	0.36	0.66	0.82	17	24	14	25
26	0.39	0.68	0.83	15	22	12	23
26	0.42	0.70	0.84	13	19	11	21
27	0.45	0.72	0.85	11	16	9	18
27	0.48	0.74	0.86	9	14	7	16
28	0.51	0.76	0.87	8	11	6	14
28	0.54	0.78	0.88	7	9	5	12
29	0.58	0.80	0.89	5	7	4	10
30	0.62	0.82	0.90	4	6	3	8
30	0.66	0.84	0.91	3	4	2	7
31	0.70	0.86	0.92	2	3	2	5
32	0.74	0.88	0.93	2	3	1	4
33	0.79	0.90	0.94	1	2	1	3
N-count	70,461			21,711	16,419	384,406	1,739,885

Percentage of Students At or Above Each ACT Score
ACT Subject: Mathematics
College Course: Algebra

ACT Score	Probability of Success			Percentage At/Above			
	A prob	B or higher prob	C or higher prob	NE Juniors Census 2017	NE Juniors 2016	State Juniors 2016	National Juniors 2016
12	0.02	0.11	0.35	99	100	99	100
13	0.02	0.13	0.39	99	99	98	99
14	0.03	0.16	0.43	97	98	94	97
15	0.04	0.19	0.46	88	95	87	92
16	0.05	0.22	0.51	77	89	74	83
17	0.07	0.26	0.56	62	78	59	71
18	0.09	0.30	0.60	51	68	49	62
19	0.11	0.35	0.63	45	59	40	54
20	0.13	0.40	0.66	39	53	35	49
21	0.16	0.46	0.70	36	49	32	46
22	0.20	0.51	0.73	31	44	28	41
23	0.23	0.55	0.75	28	40	25	38
24	0.29	0.59	0.78	24	34	21	33
25	0.34	0.64	0.80	18	26	16	27
26	0.39	0.69	0.83	14	21	12	22
27	0.45	0.73	0.85	10	15	8	17
28	0.51	0.77	0.87	8	10	6	13
29	0.58	0.80	0.89	5	7	4	9
30	0.64	0.83	0.90	3	5	2	7
31	0.70	0.86	0.91	3	3	2	5
32	0.74	0.88	0.92	2	2	1	4
33	0.78	0.90	0.94	1	2	1	3
34	0.83	0.92	0.95	1	1	1	2
35	0.86	0.93	0.95	0	1	0	1
36	0.89	0.94	0.96	0	0	0	0
N-count	70,461			21,711	16,419	384,406	1,739,885

Percentage of Students At/Above ACT Score within Years of Coursework
ACT Subject: Mathematics
High School Mathematics Courses

ACT Score	NE Juniors Census			NE Juniors			Census States Juniors			National Juniors		
	2017			2016			2016			2016		
	2+	3+	4+	2+	3+	4+	2+	3+	4+	2+	3+	4+
12	100	100	100	100	100	100	100	100	100	100	100	100
13	99	99	100	100	100	100	99	99	99	99	99	99
14	98	98	99	99	99	99	96	97	98	98	98	98
15	91	92	95	96	96	98	91	92	94	94	95	96
16	82	83	89	91	91	94	80	81	86	88	88	91
17	68	70	78	82	81	87	65	67	72	77	77	81
18	57	59	68	72	71	80	55	57	63	68	68	73
19	51	52	61	63	63	72	45	47	53	60	60	66
20	44	45	54	57	56	67	40	41	47	54	55	60
21	41	42	51	53	52	63	37	38	44	51	52	57
22	35	36	44	48	47	57	32	33	39	46	47	52
23	32	33	41	43	43	53	29	30	36	42	43	49
24	27	28	35	37	36	47	24	26	30	37	38	43
25	21	21	27	29	29	38	18	19	23	30	31	36
26	16	17	22	23	23	30	14	15	18	25	26	30
27	11	12	16	16	16	23	9	10	12	19	20	23
28	9	9	12	11	11	16	7	8	9	14	15	18
29	5	6	7	8	8	12	5	5	6	10	11	13
30	4	4	5	5	5	8	3	3	4	8	8	10
31	3	3	4	4	4	6	2	2	3	6	6	8
32	2	2	3	3	3	4	2	2	2	5	5	6
33	1	1	2	2	2	3	1	1	1	3	3	4
34	1	1	1	1	1	2	1	1	1	2	2	3
35	0	1	1	1	1	1	0	0	0	1	1	2
36	0	0	0	0	0	0	0	0	0	0	0	1
N-count	14,449	13,448	9,308	13,860	10,763	5,748	250,576	225,812	171,405	1,276,566	1,104,343	740,817

College Enrollment at Each ACT Score
ACT Subject: Mathematics

ACT Score	NE Grad		National Grad	Census Grad
	2016	2015	2016	2016
12	37	28	25	18
13	37	39	29	22
14	43	42	31	24
15	49	48	38	32
16	64	58	50	43
17	68	69	59	51
18	74	75	66	59
19	76	75	69	62
20	78	75	70	64
21	77	78	72	65
22	79	81	74	68
23	80	82	76	71
24	84	84	79	74
25	83	82	80	76
26	85	85	81	78
27	87	89	83	81
28	89	87	84	81
29	83	87	84	82
30	87	88	84	81
31	88	88	84	82
32	85	92	84	82
33	93	88	84	81
34	86	83	83	80
35	85	85	82	80
36	74	80	81	79
N-count	18,598	18,347	2,090,342	749,885
Overall Enrollment Rate	73	73	64	56

Long Term College Outcomes from 2003 Study
National Samples
ACT Subject: Mathematics

ACT Score	Returned to any college year 2: 2-year students	Returned to any college year 2: 4-year students	Complete Bachelor's Degree in 6 years - 4-year students	Complete Associate's or Bachelor's Degree in 6 years
12	65	78	35	22
13	67	80	37	24
14	68	81	40	26
15	70	83	42	28
16	71	84	45	31
17	73	86	48	33
18	74	87	50	36
19	75	88	53	38
20	77	89	56	41
21	78	90	59	44
22	79	91	61	46
23	80	92	64	49
24	81	92	66	52
25	82	93	69	54
26	83	94	71	57
27	84	94	73	60
28	85	95	75	62
29	86	95	77	65
30	87	96	79	67
31	88	96	81	70
32	88	96	83	72
33	89	97	84	74
34	90	97	86	76
35	90	97	87	78
36	91	98	88	80

Average High School Subject Area GPA at Each ACT Score
ACT Subject: Mathematics

ACT Score	NE Juniors Census 2017	NE Juniors 2016	Census State Juniors 2016	National Juniors 2016
12	1.90	2.07	2.10	2.21
13	1.93	2.29	2.15	2.29
14	1.97	2.21	2.24	2.34
15	2.13	2.39	2.32	2.44
16	2.40	2.61	2.54	2.66
17	2.65	2.78	2.75	2.88
18	2.85	2.97	2.90	3.02
19	2.95	3.04	3.02	3.14
20	3.01	3.16	3.10	3.21
21	3.04	3.18	3.17	3.26
22	3.19	3.27	3.21	3.34
23	3.24	3.37	3.29	3.39
24	3.38	3.44	3.38	3.47
25	3.44	3.52	3.48	3.54
26	3.57	3.63	3.57	3.61
27	3.57	3.71	3.65	3.68
28	3.66	3.74	3.70	3.73
29	3.71	3.79	3.77	3.77
30	3.73	3.81	3.80	3.80
31	3.82	3.87	3.83	3.82
32	3.81	3.92	3.86	3.85
33	3.85	3.93	3.87	3.87
34	3.85	3.93	3.92	3.90
35	3.83	3.95	3.94	3.92
36	3.96	4.00	3.97	3.95
N-count	21,711	16,419	384,406	1,739,829

Mathematics Courses

Algebra 1
Algebra 2
Geometry
Trigonometry
Beginning Calculus
Other Advanced Math
Computer Math/Computer Science

Reading Achievement Level	Percent At or Above				
	Grade 8		Grade 11		
	2015	2016	2015	2016	2017
Exceeds	36%	34%	28%	28%	?
Meets/ Exceeds	79%	82%	69%	72%	?
Below	21%	19%	31%	28%	?

Writing Achievement Level	Percent At or Above				
	Grade 8		Grade 11		
	2015	2016	2015	2016	2017
Exceeds	30%	26%	31%	28%	?
Meets/ Exceeds	72%	70%	76%	71%	?
Below	29%	30%	24%	29%	?

Reading Achievement Level	Grade 8		Grade 12
	NE	National public	National public
Advanced	3%	3%	6%
Proficient	38%	32%	37%
Basic	82%	74%	72%
Below Basic	19%	25%	28%

	2015	2016	2017
1 NE Juniors	Junior yr testing	Junior yr testing	**State testing**
2 Census Testing States Juniors	State testing	State testing	X
3 National Juniors	Junior yr testing	Junior yr testing	X
4 NE Grad Cohort	Grad cohort	Grad cohort	X
5 Census Testing States Grad Cohort	Grad cohort	Grad cohort	X
6 National Grad Cohort	Grad cohort	Grad cohort	X

Student Characteristics		NE Juniors Census 2017	NE Juniors 2016	Census State Juniors 2016	National Juniors 2016	NE Juniors 2015	NE Grads 2016	NE Grads 2015
N	Count	21,711	16,419	384,406	1,739,885	15,870	18,598	18,347
Participation Rate	Percent	99%	71%	99%	46%	69%	88%	88%
Took Writing		99%	10%	99%	62%	10%	10%	10%
Tested 11th Grade or Earlier		100%	100%	100%	100%	100%	34%	32%
Tested 12th Grade or Later		0%	0%	0%	0%	0%	66%	68%
State and District Testing		99%	39%	100%	56%	38%	19%	19%
White		68%	75%	57%	57%	76%	73%	74%
Female		49%	53%	50%	52%	53%	53%	52%
Met ACT English Benchmark		50%	67%	47%	62%	67%	68%	69%
Met ACT Reading Benchmark		34%	50%	33%	46%	48%	48%	49%
Met ACT Math Benchmark		31%	44%	28%	41%	46%	43%	44%
Met ACT Science Benchmark		30%	41%	26%	38%	40%	40%	42%
Met ACT ELA Benchmark		41%	67%	35%	54%	74%	74%	78%
ACT English	Mean	18.4	20.7	17.8	20.2	20.7	20.9	21.1
ACT Reading		19.5	21.8	19.2	21.2	21.6	21.8	21.9
ACT Math		19.4	21.0	18.9	20.8	21.1	20.8	21.0
ACT Science		19.5	21.5	19.3	21.0	21.4	21.5	21.6
ACT ELA		18.4	22.2	17.6	20.2	23.2	23.8	24.2
ACT English + Reading		19.2	21.5	18.7	21.0	21.4	21.6	21.7
ACT Writing		6.3	7.1	5.8	6.6	7.4	7.5	7.6
If took writing	Count	21,424	1,583	379,561	1,077,320	1,595	1,848	1,881
ACT English	Mean	18.5	23.3	17.8	20.8	23.9	24.9	24.9
ACT Reading		19.6	24.1	19.3	21.8	24.4	25.4	25.5
ACT Math		19.5	22.5	19.0	21.5	23.0	23.5	23.6
ACT Science		19.6	22.8	19.4	21.5	23.2	24.2	24.2
ACT ELA		18.4	22.2	17.6	20.2	23.2	23.8	24.2
ACT English + Reading		19.3	23.9	18.8	21.6	24.4	25.4	25.4
If did not take writing	Count	287	14,836	4,845	662,565	14,275	16,750	16,466
ACT English	Mean	11.1	20.4	11.8	19.2	20.3	20.5	20.6
ACT Reading		12.8	21.6	13.5	20.3	21.3	21.5	21.5
ACT Math		15.0	20.9	15.1	19.6	20.8	20.5	20.7
ACT Science		13.3	21.4	14.5	20.1	21.2	21.2	21.3
ACT English + Reading		12.2	21.2	12.9	20.0	21.1	21.2	21.3

Student Characteristics		NE Juniors Census 2017	Census States Juniors 2015	Census States Grads 2016	Census States Grads 2015	National Juniors 2015	National Grads 2016	National Grads 2015
N	Count	21,711	686,137	749,885	466,236	1,737,752	2,090,342	1,924,436
Participation Rate	Percent	99%	99%	99%	99%	46%	64%	59%
Took Writing		99%	99%	81%	83%	68%	61%	58%
Tested 11th Grade or Earlier		100%	100%	72%	73%	100%	51%	45%
Tested 12th Grade or Later		0%	0%	28%	27%	0%	49%	55%
State and District Testing		99%	100%	63%	65%	59%	34%	27%
White		68%	59%	60%	57%	59%	56%	57%
Female		49%	50%	50%	50%	52%	53%	53%
Met ACT English Benchmark		50%	52%	56%	57%	61%	61%	64%
Met ACT Reading Benchmark		34%	33%	38%	38%	43%	44%	46%
Met ACT Math Benchmark		31%	32%	35%	35%	41%	41%	42%
Met ACT Science Benchmark		30%	28%	31%	32%	36%	36%	38%
Met ACT ELA Benchmark		41%	40%	40%	43%	52%	52%	58%
ACT English	Mean	18.4	18.5	19.2	19.2	19.9	20.1	20.4
ACT Reading		19.5	19.6	20.3	20.2	21.0	21.3	21.4
ACT Math		19.4	19.4	19.8	19.9	20.6	20.6	20.8
ACT Science		19.5	19.5	20.0	20.0	20.6	20.8	20.9
ACT ELA		18.4	18.2	18.3	18.6	19.9	20.1	20.8
ACT English + Reading		19.2	19.3	20.0	19.9	20.7	21.0	21.1
ACT Writing		6.3	6.0	6.0	6.3	6.5	6.6	6.9
If took writing	Count	21,424	682,669	610,100	388,094	1,180,660	1,274,091	1,108,908
ACT English	Mean	18.5	18.5	18.7	18.8	20.3	20.5	21.0
ACT Reading		19.6	19.6	19.9	19.8	21.3	21.7	22.0
ACT Math		19.5	19.4	19.5	19.7	21.0	21.1	21.5
ACT Science		19.6	19.5	19.7	19.7	21.0	21.1	21.4
ACT ELA		18.4	18.2	18.3	18.6	19.9	20.1	20.8
ACT English + Reading		19.3	19.3	19.6	19.6	21.0	21.3	21.8
If did not take writing	Count	287	3,468	139,785	78,142	557,092	816,251	815,528
ACT English	Mean	11.1	12.4	21.4	21.3	19.2	19.5	19.5
ACT Reading		12.8	14.5	22.0	21.7	20.3	20.7	20.6
ACT Math		15.0	15.4	21.1	21.0	19.7	19.8	19.9
ACT Science		13.3	14.2	21.6	21.3	20.0	20.2	20.3
ACT English + Reading		12.2	13.7	22.0	21.7	20.0	20.3	20.3

Percentage of Students At or Above Each Success Probability
ACT Subject: ELA
College Course: English Composition I and Social Sciences

Probability of Success			Percentage At/Above			
A prob	B or higher prob	C or higher prob	NE Juniors Census 2017	NE Juniors 2016	Census State Juniors 2016	National Juniors 2016
0.04	0.20	0.51	92	99	89	94
0.04	0.22	0.54	89	98	85	92
0.04	0.24	0.56	86	96	81	90
0.05	0.26	0.58	83	95	77	87
0.06	0.28	0.60	80	94	73	85
0.06	0.30	0.62	76	92	69	82
0.07	0.32	0.64	73	90	65	80
0.07	0.34	0.65	69	88	62	77
0.08	0.36	0.67	65	86	58	74
0.09	0.38	0.69	62	83	55	72
0.09	0.40	0.70	58	81	51	69
0.10	0.42	0.71	55	78	48	66
0.11	0.44	0.73	51	76	45	63
0.12	0.46	0.74	48	73	42	60
0.13	0.48	0.75	45	70	39	57
0.14	0.50	0.77	41	67	36	54
0.15	0.52	0.78	38	65	33	51
0.16	0.54	0.79	35	62	30	48
0.17	0.56	0.80	32	59	27	45
0.18	0.58	0.81	29	56	25	42
0.19	0.60	0.82	26	53	22	39
0.21	0.62	0.83	23	49	20	36
0.22	0.64	0.84	20	46	18	33
0.24	0.66	0.85	18	42	16	30
0.26	0.68	0.86	16	39	14	27
0.28	0.70	0.87	13	36	12	25
0.30	0.72	0.88	12	32	10	22
0.32	0.74	0.88	10	28	9	19
0.35	0.76	0.89	8	25	7	16
0.37	0.78	0.90	7	21	6	14
0.40	0.80	0.91	5	17	4	11
0.44	0.82	0.92	4	13	3	9
0.47	0.84	0.93	3	9	2	6
0.51	0.86	0.93	2	6	1	4
0.56	0.88	0.94	1	3	1	2
0.61	0.90	0.95	0	1	0	1
N-count	198,275		21,424	1,583	379,561	1,077,321

Percentage of Students At or Above Each Success Probability
ACT Subject: ELA
College Course: English Composition I and Social Sciences

	Probability of Success			Percentage At/Above			
ACT Score	A prob	B or higher prob	C or higher prob	NE Juniors Census 2017	NE Juniors 2016	Census State Juniors 2016	National Juniors 2016
11	0.04	0.20	0.51	92	99	89	94
12	0.04	0.22	0.54	89	98	85	92
13	0.04	0.24	0.56	86	96	81	90
13	0.05	0.26	0.58	83	95	77	87
14	0.06	0.28	0.60	80	94	73	85
15	0.06	0.30	0.62	76	92	69	82
15	0.07	0.32	0.64	73	90	65	80
16	0.07	0.34	0.65	69	88	62	77
16	0.08	0.36	0.67	65	86	58	74
17	0.09	0.38	0.69	62	83	55	72
17	0.09	0.40	0.70	58	81	51	69
18	0.10	0.42	0.71	55	78	48	66
18	0.11	0.44	0.73	51	76	45	63
19	0.12	0.46	0.74	48	73	42	60
19	0.13	0.48	0.75	45	70	39	57
20	0.14	0.50	0.77	41	67	36	54
20	0.15	0.52	0.78	38	65	33	51
21	0.16	0.54	0.79	35	62	30	48
21	0.17	0.56	0.80	32	59	27	45
22	0.18	0.58	0.81	29	56	25	42
22	0.19	0.60	0.82	26	53	22	39
23	0.21	0.62	0.83	23	49	20	36
23	0.22	0.64	0.84	20	46	18	33
24	0.24	0.66	0.85	18	42	16	30
25	0.26	0.68	0.86	16	39	14	27
25	0.28	0.70	0.87	13	36	12	25
26	0.30	0.72	0.88	12	32	10	22
26	0.32	0.74	0.88	10	28	9	19
27	0.35	0.76	0.89	8	25	7	16
28	0.37	0.78	0.90	7	21	6	14
28	0.40	0.80	0.91	5	17	4	11
29	0.44	0.82	0.92	4	13	3	9
30	0.47	0.84	0.93	3	9	2	6
31	0.51	0.86	0.93	2	6	1	4
32	0.56	0.88	0.94	1	3	1	2
33	0.61	0.90	0.95	0	1	0	1
N-count	198,275			21,424	1,583	379,561	1,077,321

Percentage of Students At or Above Each ACT Score
ACT Subject: ELA
College Course: English Composition I and Social Sciences

	Probability of Success			Percentage At/Above			
ACT Score	A prob	B or higher prob	C or higher prob	NE Juniors Census 2017	NE Juniors 2016	Census State Juniors 2016	National Juniors 2016
12	0.06	0.23	0.51	90	98	86	93
13	0.07	0.25	0.54	86	96	80	89
14	0.08	0.28	0.58	80	94	74	85
15	0.09	0.31	0.61	74	91	67	81
16	0.11	0.35	0.65	68	87	61	76
17	0.12	0.39	0.68	61	83	54	71
18	0.14	0.43	0.71	54	78	47	66
19	0.16	0.47	0.73	47	73	41	60
20	0.19	0.51	0.76	41	67	35	54
21	0.22	0.55	0.78	34	62	29	48
22	0.25	0.58	0.80	28	55	24	42
23	0.29	0.62	0.82	23	49	20	36
24	0.32	0.66	0.84	18	42	16	30
25	0.36	0.70	0.86	14	37	12	25
26	0.40	0.73	0.87	11	30	9	21
27	0.45	0.77	0.89	8	25	7	16
28	0.49	0.79	0.90	6	19	5	13
29	0.53	0.82	0.91	4	14	4	9
30	0.58	0.84	0.92	3	9	2	6
31	0.62	0.86	0.93	2	6	1	4
32	0.65	0.88	0.94	1	3	1	2
33	0.69	0.89	0.95	0	1	0	1
34	0.72	0.91	0.95	0	1	0	0
35	0.76	0.92	0.96	0	0	0	0
36	0.78	0.93	0.96	0	0	0	0
N-count	198,275			21,424	1,583	379,561	1,077,321

Percentage of Students At/Above ACT Score within Years of Coursework
ACT Subject: ELA
High School Social Studies Courses

ACT Score	NE Juniors Census			NE Juniors			Census States Juniors			National Juniors		
	2017			2016			2016			2016		
	2+	3+	4+	2+	3+	4+	2+	3+	4+	2+	3+	4+
12	94	94	95	99	99	100	91	92	93	96	96	97
13	90	91	93	98	98	99	86	87	90	93	93	95
14	86	87	89	96	96	98	80	82	85	90	90	92
15	80	82	85	94	94	97	74	76	80	86	87	89
16	74	75	79	90	91	94	67	70	74	82	82	85
17	67	69	73	87	88	92	61	63	68	77	78	81
18	60	62	66	83	84	90	54	56	61	71	72	76
19	53	54	59	78	78	86	47	49	54	66	67	71
20	46	47	51	72	72	83	40	42	48	59	61	65
21	39	40	44	67	66	78	34	36	41	53	54	59
22	32	33	38	60	59	73	28	30	35	46	48	52
23	26	27	31	53	53	67	23	24	29	40	41	46
24	21	21	25	46	45	60	18	20	23	34	35	40
25	16	17	20	40	39	54	14	15	19	28	29	34
26	12	13	16	33	33	46	11	12	15	23	24	28
27	9	10	12	27	27	39	8	9	11	18	19	23
28	7	7	9	21	20	32	6	7	8	14	15	18
29	5	5	7	16	15	23	4	5	6	10	11	13
30	3	4	5	11	10	16	3	3	4	7	8	9
31	2	2	3	7	7	10	2	2	2	4	5	6
32	1	1	2	4	3	5	1	1	1	2	3	3
33	0	1	1	1	1	2	0	0	1	1	1	2
34	0	0	0	0	0	0	0	0	0	0	0	1
35	0	0	0	0	0	0	0	0	0	0	0	0
36	0	0	0	0	0	0	0	0	0	0	0	0
N-count	14,177	12,712	6,319	1,296	854	326	245,054	215,456	127,979	773,606	991,174	491,953

College Enrollment at Each ACT Score
ACT Subject: ELA

ACT Score	NE Grad		National Grad	Census Grad
	2016	2015	2016	2016
12	59	64	33	25
13	63	52	38	30
14	50	52	44	34
15	67	68	49	39
16	57	64	54	44
17	65	68	59	48
18	61	63	63	53
19	79	72	67	57
20	67	73	71	61
21	76	74	74	65
22	73	78	76	68
23	68	81	78	71
24	77	78	80	73
25	74	81	82	76
26	84	80	82	77
27	73	87	84	79
28	84	89	84	80
29	83	90	84	81
30	87	79	84	81
31	91	97	84	82
32	82	87	84	83
33	81	79	82	81
34	77	90	81	77
35	82	100	80	78
36	100		77	73
N-count	1,848	1,881	1,274,091	610,100
Overall Enrollment Rate	73	73	64	56

Long Term College Outcomes from 2003 Study
National Samples
ACT Subject: ELA

ACT Score	Returned to any college year 2: 2-year students		Returned to any college year 2: 4-year students		Complete Bachelor's Degree in 6 years - 4-year students		Complete Associate's or Bachelor's Degree in 6 years	
	English	Reading	English	Reading	English	Reading	English	Reading
12	68	69	82	83	40	44	27	27
13	69	70	83	84	42	45	28	28
14	70	71	84	85	45	47	30	30
15	71	71	85	85	47	48	32	31
16	72	72	86	86	50	50	34	32
17	73	73	87	86	52	51	36	34
18	74	73	88	87	54	52	38	35
19	75	74	89	88	57	54	40	36
20	76	74	90	88	59	55	43	38
21	77	75	90	89	62	57	45	39
22	78	75	91	89	64	58	47	41
23	79	76	92	90	66	60	49	42
24	79	76	92	90	69	61	51	44
25	80	77	93	90	71	63	54	45
26	81	78	93	91	73	64	56	47
27	82	78	94	91	75	65	58	48
28	82	79	94	92	76	67	60	50
29	83	79	95	92	78	68	62	51
30	84	80	95	92	80	69	65	52
31	85	80	95	93	81	71	67	54
32	85	81	96	93	83	72	69	55
33	86	81	96	93	84	73	70	57
34	86	81	96	94	86	74	72	58
35	87	82	97	94	87	75	74	60
36	88	82	97	94	88	76	76	61

Average High School Subject Area GPA at Each ACT Score
ACT Subject: ELA

ACT Score	NE Juniors Census 2017	NE Juniors 2016	Census State Juniors 2016	National Juniors 2016
12	2.27	3.20	2.59	2.67
13	2.37	2.96	2.70	2.79
14	2.55	3.09	2.80	2.88
15	2.69	3.19	2.90	2.98
16	2.83	3.23	3.01	3.09
17	2.97	3.27	3.10	3.18
18	3.08	3.31	3.20	3.27
19	3.22	3.44	3.28	3.35
20	3.36	3.52	3.37	3.43
21	3.40	3.45	3.44	3.49
22	3.51	3.56	3.51	3.55
23	3.55	3.55	3.56	3.60
24	3.61	3.59	3.62	3.65
25	3.63	3.72	3.66	3.69
26	3.71	3.81	3.71	3.73
27	3.74	3.81	3.74	3.76
28	3.75	3.81	3.77	3.79
29	3.79	3.84	3.82	3.82
30	3.84	3.87	3.85	3.86
31	3.87	3.95	3.86	3.88
32	3.86	3.89	3.90	3.90
33	3.92	4.00	3.90	3.92
34	3.91	4.00	3.94	3.94
35	4.00	4.00	3.96	3.95
36	4.00	4.00	3.92	3.97
N-count	21,711	16,419	384,406	1,739,885

English Courses

English Composition 1

Social Sciences Courses

U.S. History
World History
Other History
American Government
Economics
Geography
Psychology

Science Achievement Level	Percent At or Above				
	Grade 8		Grade 11		
	2015	2016	2015	2016	2017
Exceeds	23%	20%	17%	13%	?
Meets/ Exceeds	70%	68%	74%	74%	?
Below	30%	32%	27%	26%	?

Science Achievement Level	Grade 8		Grade 12
	NE	National public	National public
Advanced	2%	2%	2%
Proficient	41%	33%	22%
Basic	76%	67%	60%
Below Basic	25%	33%	40%

	2015	2016	2017
1 NE Juniors	Junior yr testing	Junior yr testing	**State testing**
2 Census Testing States Juniors	State testing	State testing	X
3 National Juniors	Junior yr testing	Junior yr testing	X
4 NE Grad Cohort	Grad cohort	Grad cohort	X
5 Census Testing States Grad Cohort	Grad cohort	Grad cohort	X
6 National Grad Cohort	Grad cohort	Grad cohort	X

Student Characteristics		NE Juniors Census 2017	NE Juniors 2016	Census State Juniors 2016	National Juniors 2016	NE Juniors 2015	NE Grads 2016	NE Grads 2015
N	Count	21,711	16,419	384,406	1,739,885	15,870	18,598	18,347
Participation Rate	Percent	99%	71%	99%	46%	69%	88%	88%
Took Writing		99%	10%	99%	62%	10%	10%	10%
Tested 11th Grade or Earlier		100%	100%	100%	100%	100%	34%	32%
Tested 12th Grade or Later		0%	0%	0%	0%	0%	66%	68%
State and District Testing		99%	39%	100%	56%	38%	19%	19%
White		68%	75%	57%	57%	76%	73%	74%
Female		49%	53%	50%	52%	53%	53%	52%
Met ACT English Benchmark		50%	67%	47%	62%	67%	68%	69%
Met ACT Reading Benchmark		34%	50%	33%	46%	48%	48%	49%
Met ACT Math Benchmark		31%	44%	28%	41%	46%	43%	44%
Met ACT Science Benchmark		30%	41%	26%	38%	40%	40%	42%
Met ACT ELA Benchmark		41%	67%	35%	54%	74%	74%	78%
ACT English	Mean	18.4	20.7	17.8	20.2	20.7	20.9	21.1
ACT Reading		19.5	21.8	19.2	21.2	21.6	21.8	21.9
ACT Math		19.4	21.0	18.9	20.8	21.1	20.8	21.0
ACT Science		19.5	21.5	19.3	21.0	21.4	21.5	21.6
ACT ELA		18.4	22.2	17.6	20.2	23.2	23.8	24.2
ACT English + Reading		19.2	21.5	18.7	21.0	21.4	21.6	21.7
ACT Writing		6.3	7.1	5.8	6.6	7.4	7.5	7.6
If took writing	Count	21,424	1,583	379,561	1,077,320	1,595	1,848	1,881
ACT English	Mean	18.5	23.3	17.8	20.8	23.9	24.9	24.9
ACT Reading		19.6	24.1	19.3	21.8	24.4	25.4	25.5
ACT Math		19.5	22.5	19.0	21.5	23.0	23.5	23.6
ACT Science		19.6	22.8	19.4	21.5	23.2	24.2	24.2
ACT ELA		18.4	22.2	17.6	20.2	23.2	23.8	24.2
ACT English + Reading		19.3	23.9	18.8	21.6	24.4	25.4	25.4
If did not take writing	Count	287	14,836	4,845	662,565	14,275	16,750	16,466
ACT English	Mean	11.1	20.4	11.8	19.2	20.3	20.5	20.6
ACT Reading		12.8	21.6	13.5	20.3	21.3	21.5	21.5
ACT Math		15.0	20.9	15.1	19.6	20.8	20.5	20.7
ACT Science		13.3	21.4	14.5	20.1	21.2	21.2	21.3
ACT English + Reading		12.2	21.2	12.9	20.0	21.1	21.2	21.3

Student Characteristics		NE Juniors Census 2017	Census States Juniors 2015	Census States Grads 2016	Census States Grads 2015	National Juniors 2015	National Grads 2016	National Grads 2015
N	Count	21,711	686,137	749,885	466,236	1,737,752	2,090,342	1,924,436
Participation Rate	Percent	99%	99%	99%	99%	46%	64%	59%
Took Writing		99%	99%	81%	83%	68%	61%	58%
Tested 11th Grade or Earlier		100%	100%	72%	73%	100%	51%	45%
Tested 12th Grade or Later		0%	0%	28%	27%	0%	49%	55%
State and District Testing		99%	100%	63%	65%	59%	34%	27%
White		68%	59%	60%	57%	59%	56%	57%
Female		49%	50%	50%	50%	52%	53%	53%
Met ACT English Benchmark		50%	52%	56%	57%	61%	61%	64%
Met ACT Reading Benchmark		34%	33%	38%	38%	43%	44%	46%
Met ACT Math Benchmark		31%	32%	35%	35%	41%	41%	42%
Met ACT Science Benchmark		30%	28%	31%	32%	36%	36%	38%
Met ACT ELA Benchmark		41%	40%	40%	43%	52%	52%	58%
ACT English	Mean	18.4	18.5	19.2	19.2	19.9	20.1	20.4
ACT Reading		19.5	19.6	20.3	20.2	21.0	21.3	21.4
ACT Math		19.4	19.4	19.8	19.9	20.6	20.6	20.8
ACT Science		19.5	19.5	20.0	20.0	20.6	20.8	20.9
ACT ELA		18.4	18.2	18.3	18.6	19.9	20.1	20.8
ACT English + Reading		19.2	19.3	20.0	19.9	20.7	21.0	21.1
ACT Writing		6.3	6.0	6.0	6.3	6.5	6.6	6.9
If took writing	Count	21,424	682,669	610,100	388,094	1,180,660	1,274,091	1,108,908
ACT English	Mean	18.5	18.5	18.7	18.8	20.3	20.5	21.0
ACT Reading		19.6	19.6	19.9	19.8	21.3	21.7	22.0
ACT Math		19.5	19.4	19.5	19.7	21.0	21.1	21.5
ACT Science		19.6	19.5	19.7	19.7	21.0	21.1	21.4
ACT ELA		18.4	18.2	18.3	18.6	19.9	20.1	20.8
ACT English + Reading		19.3	19.3	19.6	19.6	21.0	21.3	21.8
If did not take writing	Count	287	3,468	139,785	78,142	557,092	816,251	815,528
ACT English	Mean	11.1	12.4	21.4	21.3	19.2	19.5	19.5
ACT Reading		12.8	14.5	22.0	21.7	20.3	20.7	20.6
ACT Math		15.0	15.4	21.1	21.0	19.7	19.8	19.9
ACT Science		13.3	14.2	21.6	21.3	20.0	20.2	20.3
ACT English + Reading		12.2	13.7	22.0	21.7	20.0	20.3	20.3

Percentage of Students At or Above Each Success Probability
ACT Subject: Science
College Course: Biology

Probability of Success			Percentage At/Above			
A prob	B or higher prob	C or higher prob	NE Juniors Census 2017	NE Juniors 2016	Census State Juniors 2016	National Juniors 2016
0.04	0.20	0.52	74	89	76	83
0.05	0.22	0.54	77	77	79	80
0.06	0.24	0.57	73	75	76	76
0.06	0.26	0.59	68	72	74	73
0.07	0.28	0.61	65	69	71	70
0.08	0.30	0.63	62	66	68	67
0.09	0.32	0.65	58	62	65	64
0.10	0.34	0.66	53	57	61	61
0.11	0.36	0.68	50	52	58	58
0.12	0.38	0.70	48	47	55	54
0.13	0.40	0.71	45	43	51	51
0.14	0.42	0.73	41	41	48	48
0.15	0.44	0.74	37	38	44	46
0.16	0.46	0.75	33	36	41	43
0.17	0.48	0.76	30	34	38	40
0.19	0.50	0.78	27	31	35	37
0.20	0.52	0.79	25	28	33	34
0.22	0.54	0.80	23	24	30	31
0.23	0.56	0.81	20	21	28	28
0.25	0.58	0.82	17	18	25	25
0.27	0.60	0.83	14	15	22	22
0.29	0.62	0.84	12	14	19	20
0.31	0.64	0.85	10	12	16	17
0.33	0.66	0.86	9	10	15	16
0.35	0.68	0.87	8	8	13	14
0.38	0.70	0.88	7	7	12	13
0.41	0.72	0.89	6	6	10	11
0.43	0.74	0.90	5	5	9	10
0.46	0.76	0.90	4	4	8	9
0.50	0.78	0.91	3	4	7	8
0.53	0.80	0.92	3	3	6	7
0.57	0.82	0.93	2	3	5	6
0.61	0.84	0.94	2	3	4	5
0.65	0.86	0.94	2	2	3	4
0.70	0.88	0.95	1	1	2	4
0.74	0.90	0.96	1	1	1	2
N-count	41,651		21,711	16,419	384,406	1,739,885

Percentage of Students At or Above Each Success Probability
ACT Subject: Science
College Course: Biology

	Probability of Success			Percentage At/Above			
ACT Score	A prob	B or higher prob	C or higher prob	NE Juniors Census 2017	NE Juniors 2016	Census State Juniors 2016	National Juniors 2016
16	0.04	0.20	0.52	74	89	76	83
17	0.05	0.22	0.54	69	86	70	80
17	0.06	0.24	0.57	66	83	66	76
18	0.06	0.26	0.59	64	80	61	73
18	0.07	0.28	0.61	60	77	58	70
19	0.08	0.30	0.63	56	74	55	67
19	0.09	0.32	0.65	52	71	52	64
20	0.10	0.34	0.66	48	68	48	61
20	0.11	0.36	0.68	46	64	45	58
21	0.12	0.38	0.70	44	60	41	54
21	0.13	0.40	0.71	41	56	38	51
22	0.14	0.42	0.73	38	54	36	48
22	0.15	0.44	0.74	35	51	33	46
22	0.16	0.46	0.75	33	48	30	43
23	0.17	0.48	0.76	31	44	28	40
23	0.19	0.50	0.78	29	40	25	37
24	0.20	0.52	0.79	26	36	23	34
24	0.22	0.54	0.80	23	33	20	31
24	0.23	0.56	0.81	21	29	17	28
25	0.25	0.58	0.82	18	26	15	25
25	0.27	0.60	0.83	16	22	13	22
26	0.29	0.62	0.84	13	20	11	20
26	0.31	0.64	0.85	11	17	9	17
26	0.33	0.66	0.86	10	15	8	16
27	0.35	0.68	0.87	9	14	8	14
27	0.38	0.70	0.88	8	12	6	13
28	0.41	0.72	0.89	7	11	5	11
28	0.43	0.74	0.90	6	9	4	10
29	0.46	0.76	0.90	6	8	4	9
29	0.50	0.78	0.91	5	7	3	8
30	0.53	0.80	0.92	4	6	3	7
31	0.57	0.82	0.93	3	5	3	6
31	0.61	0.84	0.94	3	4	2	5
32	0.65	0.86	0.94	2	3	2	4
33	0.70	0.88	0.95	2	3	1	4
34	0.74	0.90	0.96	1	2	1	2
N-count	41,651			21,711	16,419	384,406	1,739,885

Percentage of Students At or Above Each ACT Score
ACT Subject: Science
College Course: Biology

ACT Score	Probability of Success			Percentage At/Above			
	A prob	B or higher prob	C or higher prob	NE Juniors Census 2017	NE Juniors 2016	Census State Juniors 2016	National Juniors 2016
12	0.02	0.09	0.34	94	99	95	97
13	0.02	0.11	0.38	91	97	93	96
14	0.03	0.14	0.42	86	95	88	92
15	0.03	0.16	0.47	83	93	83	89
16	0.04	0.19	0.52	76	90	78	85
17	0.05	0.23	0.57	68	85	69	79
18	0.06	0.27	0.61	64	80	61	73
19	0.08	0.31	0.65	55	73	55	66
20	0.10	0.36	0.68	47	67	47	60
21	0.12	0.41	0.71	42	57	39	52
22	0.14	0.46	0.75	34	51	32	45
23	0.18	0.51	0.79	30	41	26	38
24	0.21	0.55	0.81	23	32	19	30
25	0.25	0.60	0.84	16	23	14	23
26	0.30	0.64	0.86	11	17	9	17
27	0.36	0.69	0.88	9	13	7	14
28	0.41	0.73	0.89	7	10	5	11
29	0.47	0.77	0.91	5	8	4	9
30	0.53	0.80	0.92	4	6	3	7
31	0.59	0.83	0.93	3	5	3	6
32	0.65	0.86	0.95	3	3	2	4
33	0.70	0.88	0.95	2	3	1	4
34	0.75	0.90	0.96	1	2	1	2
35	0.79	0.92	0.97	1	1	1	1
36	0.83	0.93	0.97	0	0	0	1
N-count	41,651			21,711	16,419	384,406	1,739,885

Percentage of Students At/Above ACT Score within Years of Coursework
ACT Subject: Science
High School Science Courses

ACT Score	NE Juniors Census			NE Juniors			Census States Juniors			National Juniors		
	2017			2016			2016			2016		
	2+	3+	4+	2+	3+	4+	2+	3+	4+	2+	3+	4+
12	96	96	98	99	99	100	97	97	98	98	98	99
13	94	95	97	98	98	99	96	96	97	97	97	98
14	91	91	95	97	97	98	92	92	95	95	95	97
15	88	89	93	95	95	97	88	89	92	92	93	95
16	82	84	89	92	92	95	83	85	89	89	90	93
17	75	77	84	88	88	93	76	77	84	84	85	89
18	71	73	81	84	84	89	68	70	77	79	80	85
19	62	64	74	77	77	84	62	64	72	73	74	81
20	53	55	66	71	70	79	54	56	65	66	67	75
21	48	50	61	61	61	71	46	48	57	58	59	68
22	40	41	52	55	55	65	38	40	49	51	53	62
23	35	36	47	45	45	56	31	33	41	43	44	53
24	26	28	37	35	36	47	23	25	32	34	36	45
25	19	20	28	26	26	36	16	18	24	26	27	35
26	13	14	20	19	20	28	11	12	17	20	21	28
27	10	11	16	15	15	23	9	10	14	16	17	23
28	8	9	13	11	12	18	6	6	9	13	13	18
29	6	7	10	8	9	14	4	5	7	10	11	15
30	5	5	8	7	7	12	4	4	6	8	9	13
31	3	3	5	5	6	10	3	4	5	7	7	10
32	3	3	5	4	4	7	2	3	4	5	5	8
33	2	2	3	3	3	6	2	2	3	4	5	7
34	1	1	2	2	2	4	1	1	2	3	3	5
35	1	1	2	1	1	2	1	1	1	2	2	3
36	0	0	1	0	1	1	0	0	1	1	1	1
N-count	14,085	12,628	6,245	13,502	9,862	4,078	236,380	205,185	112,869	1,229,993	999,896	505,704

College Enrollment at Each ACT Score
ACT Subject: Science

ACT Score	NE Grad		National Grad	Census Grad
	2016	2015	2016	2016
12	38	36	30	23
13	45	43	34	26
14	48	49	38	30
15	50	49	43	34
16	58	61	51	42
17	60	61	53	45
18	64	66	55	47
19	69	67	62	54
20	77	75	67	61
21	74	78	69	63
22	79	79	73	67
23	81	81	77	72
24	83	82	77	73
25	84	84	80	76
26	84	85	81	78
27	87	86	81	78
28	85	87	83	80
29	87	86	84	80
30	88	90	82	79
31	88	89	83	81
32	84	90	84	81
33	90	85	84	82
34	86	85	83	82
35	89	87	83	81
36	84	82	82	80
N-count	18,598	18,347	2,090,342	749,885
Overall Enrollment Rate	73	73	64	56

Long Term College Outcomes from 2003 Study
National Samples
ACT Subject: Science

ACT Score	Returned to any college year 2: 2-year students	Returned to any college year 2: 4-year students	Complete Bachelor's Degree in 6 years - 4-year students	Complete Associate's or Bachelor's Degree in 6 years
12	67	79	39	22
13	68	80	42	24
14	69	81	44	25
15	70	83	47	27
16	72	84	49	29
17	73	85	52	31
18	74	86	54	33
19	75	87	57	35
20	76	88	59	37
21	77	88	62	39
22	78	89	64	41
23	79	90	66	43
24	80	91	68	46
25	81	91	70	48
26	82	92	73	50
27	83	93	74	52
28	84	93	76	54
29	85	94	78	57
30	85	94	80	59
31	86	94	81	61
32	87	95	83	63
33	88	95	84	65
34	88	96	85	67
35	89	96	87	69
36	89	96	88	71

Average High School Subject Area GPA at Each ACT Score
ACT Subject: Science

ACT Score	NE Juniors Census	NE Juniors	Census State Juniors	National Juniors
	2017	2016	2016	2016
12	2.17	2.60	2.43	2.61
13	2.10	2.55	2.50	2.59
14	2.29	2.52	2.55	2.66
15	2.38	2.65	2.61	2.72
16	2.52	2.80	2.70	2.81
17	2.63	2.81	2.80	2.87
18	2.79	3.00	2.86	3.01
19	2.95	3.10	2.98	3.08
20	3.02	3.14	3.09	3.19
21	3.15	3.29	3.18	3.28
22	3.23	3.31	3.27	3.36
23	3.32	3.42	3.38	3.45
24	3.44	3.51	3.47	3.53
25	3.55	3.58	3.57	3.60
26	3.60	3.62	3.62	3.65
27	3.63	3.69	3.67	3.68
28	3.75	3.71	3.70	3.72
29	3.68	3.73	3.71	3.73
30	3.77	3.82	3.74	3.78
31	3.61	3.84	3.77	3.78
32	3.84	3.73	3.77	3.78
33	3.81	3.84	3.80	3.82
34	3.81	3.90	3.83	3.84
35	3.90	3.90	3.87	3.86
36	3.86	3.95	3.91	3.90
N-count	21,711	16,419	384,406	1,739,885

Science Courses

General Science
Biology
Chemistry
Physics

ACT Standard Setting Committee

July 10 and 11, 2017

Welcome!

- Introductions

Standard Setting = Cut Scores

- How many items does a student need to answer correctly?
- NeSA
  - Exceeds= 135-200 Scale Score
  - Meets= 85-134 Scale Score
  - Below= 0-84 Scale Score

Standard Setting Summer 2017

- ACT
  - English Language Arts- Grade 11
  - Mathematics- Grade 11
  - Science- Grade 11
- NeSA-English Language Arts-Grades 3-8 and Alternate ELA 3-8 and 11

Project Background

- In April 2016, the Legislature of Nebraska 104th session passed Section 79-760.03 of the Legislative Bill 930
  - "No later than 2017-18 school year the State Department of Education shall administer a standard college admission test, selected by the State Board education, to students in the eleventh grade attending a public school in the state in lieu of the assessment for the one grade in high school as required under section
- ACT was selected based on their response to a state-issued RFP
- ACT was administered in Nebraska in spring 2017

Iterative Process

- ACT Standard Setting Advisory Committee—Grappled with the information early on and made recommendations—did not set standards

ACT Standard Setting Advisory Recommendations

- Use a standard setting process based on empirical evidence—college readiness benchmarks
- Assure opportunity to learn
- Complete an independent alignment- Nebraska State Standards
- Prepare for Impact- Careful Communication

Since the ACT Advisory Committee….

- Commissioner and State Board of Education reviewed report from Advisory Committee
- Assessment and Accountability Advisory reviewed report from ACT Advisory Committee
- NDE met with ACT to review committee recommendations for setting standards and identify appropriate methodology
- ACT presented a proposed methodology for setting standards
- Technical Advisory Committee reviewed standard setting methodology
- Alignment study conducted evaluating match of ACT content to NE standards
- ACT Pre-Standard Setting Committee Meeting occured

Iterative Process

- ACT Pre-Standard Setting Committee
  - ✓Number of Levels of Achievement
  - ✓Nomenclature of Levels

Pre-ACT Standard Setting

- Make recommendations for
  - ✓Number of Levels of Achievement
  - ✓Nomenclature of levels

Level	Name
Level 4	Exceeds
Level 3	On Track
Level 2	Approaching
Level 1	Developing

You Are Here

- ACT Standard Setting Committee (July 10 and 11)
  - Participate in a process around standard setting in order to make recommendations

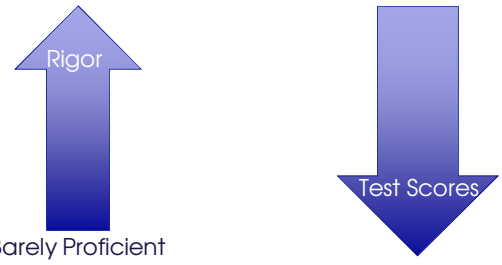
Next

- August final determinations
  - Number of Levels
  - Names
  - Cut Scores

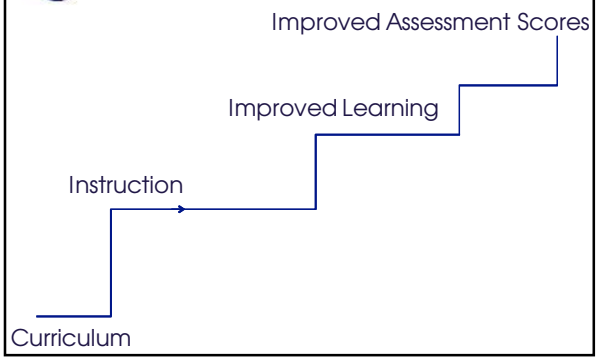
Increased Rigor

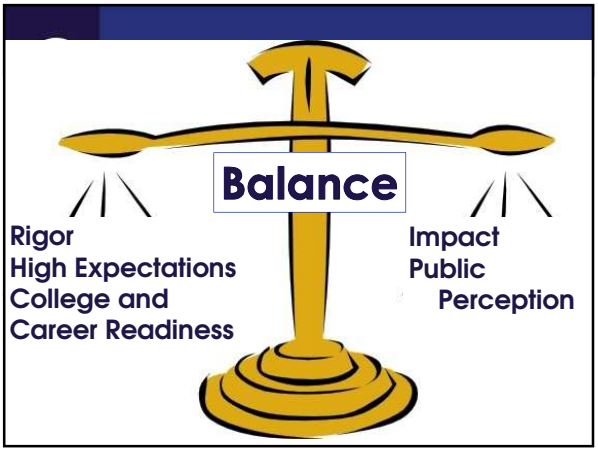
- College and Career Readiness
- Communications- Rigor

College and Career Ready



Barely Proficient





After ACT Standard Setting

<u>Draft Recommendation</u>

Overarching Performance Level Descriptors for NeSA-ELA

After ACT Standard Setting

- **Developing** learners ***do not yet demonstrate proficiency*** in the knowledge and skills necessary at this grade level, as specified in the assessed Nebraska College- and Career-Ready Standards. These results provide evidence that the student *may need additional support* for academic success at the next grade level.
- **Established** learners ***demonstrate proficiency*** in the knowledge and skills necessary at this grade level, as specified in the assessed Nebraska College- and Career-Ready Standards. These results provide evidence that the student *will likely be ready* for academic success at the next grade level.
- **Distinguished** learners ***demonstrate advanced proficiency*** in the knowledge and skills necessary at this grade level, as specified in the assessed Nebraska College- and Career-Ready Standards. These results provide evidence that the student *will likely be ready* for academic success at the next grade level.

Questions?

NEBRASKA STANDARD SETTING

JULY 10–11, 2017 • LINCOLN, NE

WELCOME & INTRODUCTIONS

VALORIE FOY, NDE

WAYNE CAMARA, ACT

KEY ORGANIZATIONS

ACT

NEBRASKA DEPARTMENT OF EDUCATION

KEY STAFF

- ACT
  - Joann Moore– ELA Facilitator
  - Wayne Camara – Mathematics Facilitator
  - Jeffrey Steedle – Science Facilitator
  - Teri Fisher – Logistics
- State Department of Education
  - Valorie Foy
  - Jeremy Heneger
  - John Moon
- Observers
  - Bill Auty
  - Susan Davis-Becker
- Standard Setting Office: Olive Branch

PANELISTS

- Panelists include a mix of teachers, administrators, support staff, and higher education faculty
- Panelists were selected for representation across school and district, secondary and post-secondary, and a variety of expertise including content, administration, state Board of Education, and population.
- Brief panelist introductions

PURPOSE OF THE MEETING

- To recommend 3 cut scores defining four performance levels on the ACT ELA, Mathematics, and Science assessments
  - Exceeding
    - ← Exceeding Cut Score
  - On Track
    - ← On Track Cut Score
  - Approaching
    - ← Approaching Cut Score
  - Developing

SCHEDULE FOR THIS MORNING

- **Review**
  - College Readiness Descriptions
  - ACT College Readiness Benchmarks
  - Probability of Success
- **Identify Borderline Achievement**
- **Receive Instructions for Setting Cut Scores**
- **Set Round 1 *On Track* Cut Scores for College Readiness**

7

GENERAL GUIDELINES

1. **Be on time for all sessions!**
2. **Secure materials (printed on colored paper) should *never* leave the room.**
3. **Make note of your ID number; make certain the material you receive has *your* ID number on it.**
4. **Please hold questions until the end of each section, unless they are critical to the presentation or the associated activity.**
5. **Place your materials in your table group box at the end of each day for staff to collect. Place things that should be discarded in the center of the table.**
6. **If you finish a task before others, sit quietly until everyone has completed the task.**

8

NEBRASKA INTRODUCTION & BACKGROUND

VALORIE FOY, DIRECTOR OF ASSESSMENT, NEBRASKA DEPARTMENT OF EDUCATION

TYPES OF STANDARDS

Content Standards: **Content standards define the knowledge, concepts, and skills that students should acquire at each grade level.**

Performance Standards: **Performance standards specify how much understanding of content students need at each performance level (e.g., basic, proficient, advanced), relative to the content standards.**

In an empirical standard-setting process, we use data to describe outcomes for students in various score ranges.

10

SMARTER BALANCED STANDARDS AND PLDS

Because the CCSS are grounded in expectations for college and career readiness, the Smarter Balanced assessments are being deliberately designed to measure each student's progress toward meeting those expectations.

College Content-Ready Level

Students who perform at the College Content-Ready level demonstrate skills necessary for introductory courses in a variety of disciplines. They also demonstrate subject-area knowledge and skills associated with readiness for entry-level, transferable, credit-bearing courses.

11

PARCC STANDARDS AND PLDS

Because the PARCC assessments are aligned with the new, more rigorous Common Core State Standards, they ensure that every child is on a path to college and career readiness…

College- and Career-Ready Determination – Level 4

Students will have demonstrated the academic knowledge, skills, and practices necessary to enter directly into and succeed in entry-level, credit-bearing courses in those content areas in programs leading to a credential or degree from two- and four-year public institutions of higher education.

Students who earn a CCRD by performing at Level 4 and enroll in required subject area and technical courses requiring college-level subject matter skills have approximately a 0.75 probability of earning college credit by attaining at least a grade of C or its equivalent in those courses.

12

NAEP ASSESSMENTS

…the National Assessment of Educational Progress (NAEP) is the only nationally representative, continuing assessment of what America's students know and can do in various subject areas. NAEP provides a comprehensive measure of students' learning at critical junctures in their school experience…NAEP has two major goals: to reflect current educational and assessment practices and to measure change reliably over time.

Proficient Level

This level denotes solid academic performance for each grade assessed. Students reaching this level have demonstrated competency over challenging subject matter, including subject matter knowledge, application of such knowledge to real world situations, and analytical skills appropriate to the subject matter.

13

NEBRASKA STANDARDS AND NESA PLDS

Nebraska's content area standards reflect the knowledge and skills students are expected to learn in a given content area, articulate a trajectory for knowledge acquisition across all grade levels, provide guidance to teachers as they develop learning experiences, and allow teachers to highlight students' progress towards learning goals.

Math – Meets the Standards

Overall student performance in mathematics reflects *satisfactory* performance on the standards and *sufficient* understanding of the content at eleventh grade. A student scoring at the Meets the Standards level *generally* draws on a broad range of mathematical knowledge and utilizes a variety of mathematics skills and strategies to solve real-world mathematical problems.

14

NESA GRADES 8 AND 11 MATH ACHIEVEMENT:

Mathematics Achievement Level	Percent At or Above				
	Grade 8		Grade 11		
	2015	2016	2015	2016	2017
Exceeds	22%	21%	26%	26%	?
Meets/ Exceeds	68%	68%	62%	62%	?
Below	32%	32%	39%	38%	?

15

NESA GRADES 8 AND 11 READING ACHIEVEMENT:

Reading Achievement Level	Percent At or Above				
	Grade 8		Grade 11		
	2015	2016	2015	2016	2017
Exceeds	36%	34%	28%	28%	?
Meets/ Exceeds	79%	82%	69%	72%	?
Below	21%	19%	31%	28%	?

16

NESA GRADES 8 AND 11 WRITING ACHIEVEMENT:

Writing Achievement Level	Percent At or Above				
	Grade 8		Grade 11		
	2015	2016	2015	2016	2017
Exceeds	30%	26%	31%	28%	?
Meets/ Exceeds	72%	70%	76%	71%	?
Below	29%	30%	24%	29%	?

17

NESA GRADES 8 AND 11 SCIENCE ACHIEVEMENT:

Science Achievement Level	Percent At or Above				
	Grade 8		Grade 11		
	2015	2016	2015	2016	2017
Exceeds	23%	20%	17%	13%	?
Meets/ Exceeds	70%	68%	74%	74%	?
Below	30%	32%	27%	26%	?

18

2015 GRADES 8 AND 12 NAEP MATH ACHIEVEMENT LEVELS: PERCENT AT OR ABOVE

Math Achievement Level	Grade 8		Grade 12
	NE	National public	National public
Advanced	8%	8%	3%
Proficient	38%	32%	25%
Basic	78%	70%	62%
Below Basic	23%	30%	38%

19

2015 GRADES 8 AND 12 NAEP READING ACHIEVEMENT LEVELS: PERCENT AT OR ABOVE

Reading Achievement Level	Grade 8		Grade 12
	NE	National public	National public
Advanced	3%	3%	6%
Proficient	38%	32%	37%
Basic	82%	74%	72%
Below Basic	19%	25%	28%

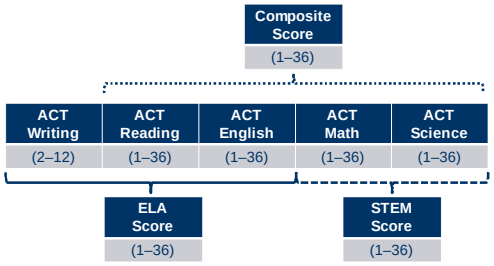
20

2015 GRADES 8 AND 12 NAEP SCIENCE ACHIEVEMENT LEVELS: PERCENT AT OR ABOVE

Science Achievement Level	Grade 8		Grade 12
	NE	National public	National public
Advanced	2%	2%	2%
Proficient	41%	33%	22%
Basic	76%	67%	60%
Below Basic	25%	33%	40%

21

THE ACT



Note: Behind the scenes, the ACT Writing score is transformed to a 1–36 scale before being averaged with Reading and English. That score is never reported.

22

GOALS OF STANDARD SETTING

The goal of this meeting is to recommend three sets of performance standards:

1. English Language Arts — ACT English | ACT Reading | ACT Writing

2. Mathematics — ACT Math

3. Science — ACT Science

23

WHY COLLEGE READINESS?

- 69% of recent high school graduates enrolled in college
- Median earnings of 25–34 year olds who
  - Completed HS: $30,500
  - Attained an associate's degree: $36,900
  - Attained bachelor's degree: $50,000
  - Attained a master's or higher: $60,000

NCES Condition of Education 2017: https://nces.ed.gov/pubs2017/2017144.pdf

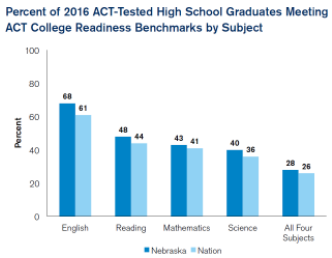
24

WHY COLLEGE READINESS?

- Nationally, 64% of ACT-tested 2016 high school graduates enrolled in college.
- In Nebraska, 73% of ACT-tested 2016 high school graduates enrolled in college.

WHY COLLEGE READINESS?

- Only about 1 in 4 first-year college students are college ready



[1]ACT, Inc. (2016). The Condition of College and Career Readiness 2016: Nebraska Key Findings.
[2]The National Center for Public Policy and Higher Education and the Southern Regional Education Board. Beyond the Rhetoric: Improving College Readiness Through Coherent State Policy. (2010).

WHY COLLEGE READINESS?

- Remedial Coursework in College:
  - It results in debt without college credit.
  - 25% of students at 4-year colleges and 61% of students at 2-year colleges take remedial coursework.
  - Students who take remedial coursework are less likely to complete a degree.
    - Remedial Coursework: 30–57%
    - No Remedial Coursework: 69%

https://nces.ed.gov/pubs2004/2004077.pdf

WHY COLLEGE READINESS?

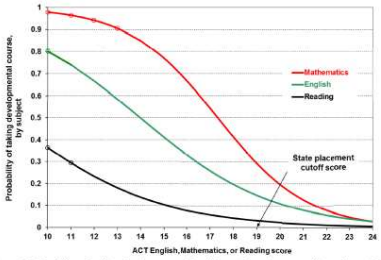
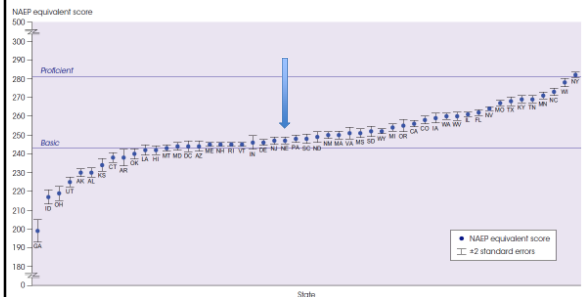


Figure 1. Probability of taking developmental English, mathematics, or reading, given ACT Test score.

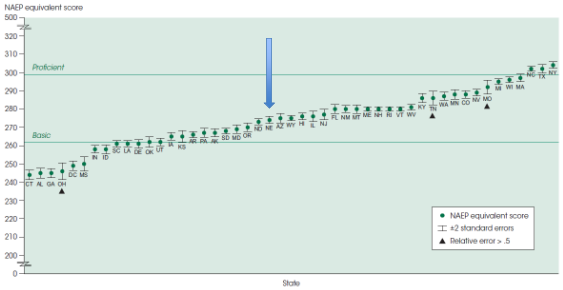
Noble, J., & Sawyer, R. (2013). A study of the effectiveness of developmental course for improving success in college.

Figure 4. NAEP scale equivalents of state grade 8 reading standards for proficient performance, by state: 2013



https://nces.ed.gov/nationsreportcard/studies/statemapping/

Figure 5. NAEP scale equivalents of state grade 8 mathematics standards for proficient performance, by state: 2013



https://nces.ed.gov/nationsreportcard/studies/statemapping/

ACT COURSE PLACEMENT SCORES

- Some postsecondary institutions in Nebraska use ACT scores for course placement.
- ACT Math is used more commonly than ACT English or Reading.
- In Math, College Algebra placement scores were close to the ACT College Readiness Benchmark (22), but lower scores (17–19) could place a student into credit-bearing courses.
- In English, placement scores for credit-bearing courses were close to the ACT College Readiness Benchmark (18).

31

ACT COURSE PLACEMENT SCORES

On behalf of NAGB and NAEP, Fields & Parsad (2012) surveyed the use of assessment cut scores used for placement into credit-bearing reading and math courses.

Test	Institutions Using for Placement	Median Cut Score	25th Percentile	75th Percentile
ACT Math	23%	**19**	17	20
ACT Reading	16%	**18**	17	19

32

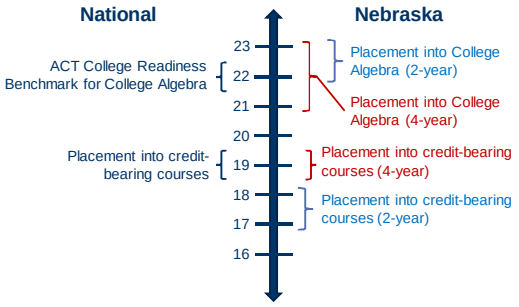
ACT COURSE PLACEMENT SCORES IN NEBRASKA

Type	Name	ACT Math	ACT English and Reading
2-year	Central CC, Southeast CC (3 campuses each, Associate degree only)	17–18 for 100-level math 22–23 for College Algebra	18 on ACT English 14 on ACT Reading
4-year	College of Saint Mary (Bachelor's degree only)	19 (or pass a placement test)	21 on ACT English for automatic exemption 18–20, recommend taking placement test
4-year	Wayne State College (Bachelor's & Master's)	19 for minimum gen. ed. requirement course 21 for College Algebra	
4-year	University of Nebraska at Omaha (Bachelor's, Master's, & Ph.D.)	19 for Intermediate Algebra 23 for College Algebra	

Note: This is a sample of Nebraska's 8 CCs and 23 4-year institutions.

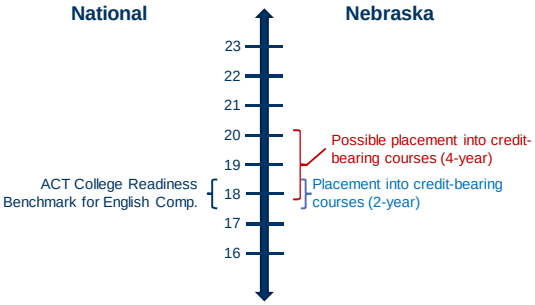
33

ACT MATH COURSE PLACEMENT SCORES



34

ACT ENGLISH COURSE PLACEMENT SCORES



35

ACT COLLEGE READINESS BENCHMARKS

ACT BENCHMARKS

Primary

The ACT College Readiness Benchmarks are the ACT College Readiness Assessment scores associated with a 50% chance of earning a B or higher grade in typical, first-year, credit-bearing college courses.

Secondary

The Benchmarks also correspond to an approximate 75% chance of earning a C or higher grade in these courses.

37

BENCHMARKS LINK ACT SUBJECT AREA TEST SCORES TO COMMON FIRST-YEAR COURSES

ACT Subject-Area Test	College Course
English	English Composition
Mathematics	College Algebra
Reading	Social Science
Science	Biology
ELA	English Composition & Social Science

Social Science courses: Courses available to a first-year student that typically require a significant amount of reading (American History, Other History, Psychology, Sociology, Political Science, Economics).

38

STUDENTS IN BENCHMARK DEVELOPMENT SAMPLES

Compared to ACT-tested students nationally who enrolled in college, those in the course samples were

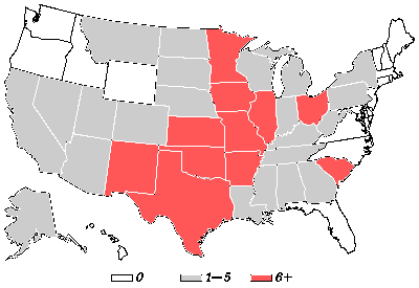
- More likely to be female.
- Less likely to be 11th graders (20–24% vs 50%)
- Less likely to be Hispanic or African American and more likely to be White.
- Less likely to have extreme ACT Composite scores.
- Less likely to have lower HS GPAs.

Fewer students in the samples enrolled at more selective institutions, and more students enrolled at less selective institutions.

Samples were adjusted statistically to make them representative of the national population of ACT-tested college going students.

39

BENCHMARK DEVELOPMENT INSTITUTIONS BY STATE



40

INSTITUTIONS IN BENCHMARK DEVELOPMENT SAMPLES

Characteristic	ELA	Math	Science
N (Institutions)	233	125	90
N (Students)	198,275	70,461	41,651
Type			
2-year	40%	42%	44%
Less selective 4-year	53%	48%	46%
More selective 4-year	7%	10%	10%
Control			
Public	88%	92%	87%
Private	12%	8%	13%

41

BENCHMARK DEVELOPMENT SUCCESS RATES BY COURSE

College Course Type	Percentage of Course Grades					Success Criteria	
	A	B	C	D	F	≥B	≥C
English Comp / Social Science	20%	32%	25%	9%	14%	52%	77%
College Algebra	24%	25%	23%	11%	18%	49%	72%
Biology	20%	27%	26%	12%	16%	47%	73%

42

WHY B OR HIGHER? (WHAT'S WRONG WITH A GRADE OF C?)

- This criterion seems to reproduce the current grading distribution fairly well.
- Policy implications of putting a student with a 50% chance of earning less than a C grade into a class.
- Stability of models is affected by courses/institutions where grades below C are uncommon.

43

ACT COLLEGE READINESS BENCHMARKS

College Course	ACT Subject-Area Test	The ACT Benchmark
English Composition & Social Science	ELA (English, Reading,& Writing)	20
College Algebra	Mathematics	22
Biology	Science	23

44

TYPICAL STUDENT, TYPICAL COLLEGE

The score value for a 50% chance of a B grade varies from college to college, depending on course rigor and grading standards. In general, the values do not vary considerably.

Subject	1st Quartile	Median	3rd Quartile
ELA	18	20	22
Mathematics	21	22	24
Science	22	23	25

45

TYPICAL STUDENT, TYPICAL COLLEGE

There is little variability in the ACT score associated with a 50% chance of earning a B or higher across institution types.

Subject	2 Year	4 Year, Less Selective	4 Year, More Selective
English	18	17	17
Mathematics	23	22	22
Reading	22	23	21
Science	23	23	24

46

ACT BENCHMARKS FOR MEETS/COLLEGE READY?

Advantages

- ACT score reports show College Readiness levels, and scores will be reported in terms of ACT's benchmarks.
- Continuity across NE and ACT reports, across states, and trend data.
- Facilitates comparisons across state lines.

Disadvantages

- Panelists are given no input in cut score.
- Cut score impact may be significantly different than in the past or in gr. 3–8.
- Reduces the opportunity to smooth or reconcile impact across grades.
- ACT resets benchmarks every 5–7 years.
- Reflects national impact, not just NE.

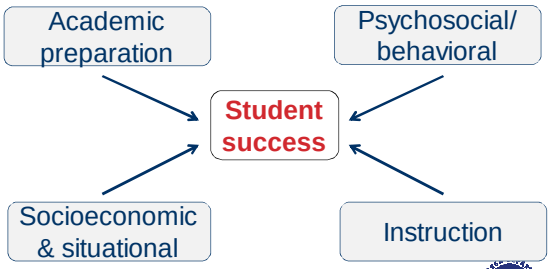
47

MID-MORNING BREAK

PROBABILITY OF SUCCESS

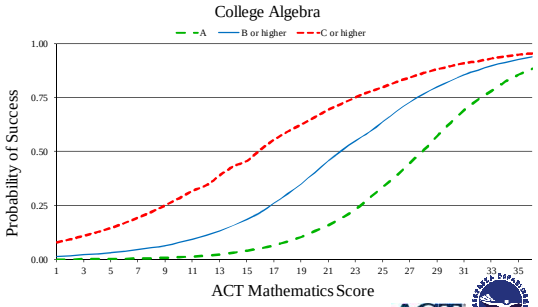
WHY USE PROBABILITIES?

Components of College Student Success



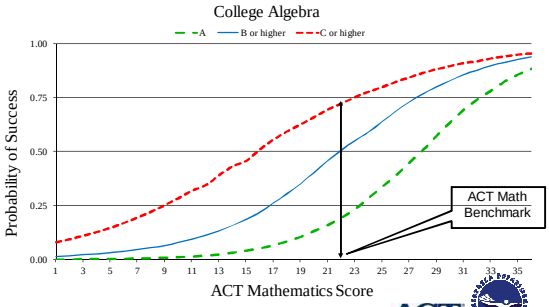
50

SUCCESS PROBABILITIES



51

SUCCESS PROBABILITIES



52

Data Sources

	2015	2016	2017
1 NE Juniors	Junior testing	Junior testing	State testing
2 Census Testing States Juniors	State testing	State testing	X
3 National Juniors	Junior testing	Junior testing	X
4 NE Grad Cohort	Grad. cohort	Grad. cohort	X
5 Census Testing States Grad Cohort	Grad. cohort	Grad. cohort	X
6 National Grad Cohort	Grad. cohort	Grad. cohort	X

- Differences between samples (demographics, achievement)
- Year-to-year fluctuations

53

DATA SOURCES

NE Juniors Statewide, 2017

- **In-school census testing in 11th grade**

Census-tested states, 2015 and 2016

- **In-school census testing in 11th grade**
- **Excluded states that do not administer Writing (required for ELA score). 13 states in 2015, and 10 states in 2016.**

NE and National Juniors, 2015 and 2016

- **34% of NE 2016 graduates tested during junior year**
- **51% of national 2016 graduates tested during junior year**

54

DATA SOURCES

ACT-Tested Graduating Classes of 2015 and 2016 (Grad. Cohort)

- All ACT-Tested high school graduates
- Each student's most recent scores
- About 66% of NE 2016 graduates tested in 12th grade (retesters), compared to about 49% of graduates nationally

ACT-Tested Graduating Classes of 2015 and 2016 from States Administering the ACT Statewide

- Census tested as juniors in 2014, graduated in 2015
- 8 states census tested in 2014 and took Writing
- Each student's most recent scores
- 27–28% retested in 12th grade

55

NE STATE TESTING 2017

The following slides summarize the Nebraska in-school census testing in 11th grade in spring of 2017

56

NE STATE TESTING 2017

Descriptives	
Count	21,711
Male	51%
Female	49%
Took Writing	99%

Race/Ethnicity	
Black/African American	6%
American Indian/Alaska Native	1%
White	68%
Hispanic/Latino	17%
Asian	2%
Native Hawaiian/Other Pacific Islander	0%
Two or more races	4%

57

NE STATE TESTING 2017 ACT SCORES

	Mean	1st Quartile	Median	3rd Quartile	% Met ACT Benchmark
English	18.4	14	17	23	50%
Reading	19.5	15	19	23	34%
Math	19.4	16	18	23	31%
Science	19.5	16	19	23	30%
ELA	18.4	14	18	22	41%
Writing	6.3	5	6	8	--

58

NE JUNIORS 2015 – 2017

The following slides compare performance from the Nebraska in-school census testing in 11th grade in spring 2017 to Nebraska students who tested as juniors in 2015 and 2016 prior to statewide adoption.

When comparing 2017 junior testing to 2015 and 2016, it is important to consider

- differences in demographics,
- differences in the percentage of students taking the writing test, and
- the average achievement levels of students who tested before and after statewide adoption.

The Writing test is required to obtain an ELA score.

59

NE JUNIORS 2015 – 2017

	2017	2016	2015
Count	21,711	16,419	15,870
ACT Participation Rate	99%	71%	69%
Took Writing	99%	10%	10%
Male	51%	47%	47%
Female	49%	53%	53%

60

NE JUNIORS 2015 – 2017

Race/Ethnicity	2017	2016	2015
Black/African American	6%	3%	3%
American Indian/Alaska Native	1%	1%	1%
White	68%	75%	76%
Hispanic/Latino	17%	12%	11%
Asian	2%	3%	3%
Native Hawaiian/Other Pacific Islander	0%	0%	0%
Two or more races	4%	3%	3%

61

NE JUNIORS 2015 – 2017

	Mean Scores			% Met ACT Benchmark		
	2017	2016	2015	2017	2016	2015
English	18.4	20.7	20.7	50%	67%	67%
Reading	19.5	21.8	21.6	34%	50%	48%
Math	19.4	21.0	21.1	31%	44%	46%
Science	19.5	21.5	21.4	30%	41%	40%
ELA	18.4	22.2	23.2	41%	67%	74%
Writing	6.3	7.1	7.4	--	--	--

62

MEAN SCORES BY WHETHER TOOK WRITING TEST NE JUNIORS 2015 – 2017

	Took Writing			Did Not Take Writing		
	2017 (99%)	2016 (10%)	2015 (10%)	2017 (N=287)	2016	2015
English	18.5	23.3	23.9	11.1	20.4	20.3
Reading	19.6	24.1	24.4	12.8	21.6	21.3
Math	19.5	22.5	23.0	15.0	20.9	20.8
Science	19.6	22.8	23.2	13.3	21.4	21.2
English + Reading	19.3	23.9	24.4	12.2	21.2	21.1
Writing	6.3	7.1	7.4	--	--	--

63

NE JUNIORS 2015 – 2017: ACT AND NESA

% Meets/Exceeds NeSA		
NeSA Grade 11	2016	2015
Reading	69%	72%
Writing	76%	71%
Math	62%	62%
Science	74%	74%

% Met ACT Benchmark			
ACT	2017	2016	2015
Reading	34%	50%	48%
ELA	41%	67%	74%
Math	31%	44%	46%
Science	30%	41%	40%

64

SCORE CHANGES ON THE ACT

Based on the ACT-Tested Graduating Class of 2016:

- **Students who retake the ACT generally increase their scores (57% of students).**
- **For students with an initial score of 13–29, retesting increases scores by 1 point on average.**
- **The lower the initial ACT score, the more likely retesting will results in a score increase.**
- **On average, scores increase 0.20 points per additional month of instruction.**

Camara & Allen (2017). Does testing date impact student scores on the ACT? http://www.act.org/content/dam/act/unsecured/documents/R1643-test-date-impact-on-act-scores-2017-06.pdf

65

2015 JUNIORS AND 2016 GRADUATES

	Mean Scores				% Met ACT Benchmark			
	Nebraska		Nation		Nebraska		Nation	
	2015 Juniors	2016 Grads	2015 Juniors	2016 Grads	2015 Juniors	2016 Grads	2015 Juniors	2016 Grads
English	20.7	20.9	19.9	20.1	67%	68%	61%	61%
Reading	21.6	21.8	21.0	21.3	48%	48%	43%	44%
Math	21.1	20.8	20.6	20.6	46%	43%	41%	41%
Science	21.4	21.5	20.6	20.8	40%	40%	36%	36%
ELA	23.2	23.8	19.9	20.1	74%	74%	52%	52%
Writing	7.4	7.5	6.5	6.6	--	--	--	--

66

ACT SCORES AND COURSEWORK

- **Scores differ most when comparing students with more and less rigorous academic backgrounds.**
  - 4 or more years of science – mean ACT science 22.8
  - 3 years of science – mean ACT science 20.6
  - 2 years of science – mean ACT science 20.1
- **Similar differences found in math for both number of years and highest courses (calculus, pre-calculus vs. algebra).**
- **Research shows ACT scores improve with retesting more for students who earn higher grades and take more rigorous high school courses.**

67

NE JUNIORS AND NE GRAD COHORTS 2015 – 2017

The following slides compare the Nebraska in-school census testing in 11th grade in spring of 2017 to the Nebraska ACT-tested graduating classes of 2015 and 2016.

Recall that the graduating cohorts are based on:

- **Each student's most recent scores**
- **About 66% of NE 2016 graduates retested in 12th grade**

When making comparisons, it is important to consider

- **differences to demographics,**
- **differences in the percentage of students taking the writing test, and**
- **the average achievement levels of students who tested before and after statewide adoption.**

68

NE JUNIORS AND NE GRAD COHORTS 2015 – 2017

	2017 Juniors	2016 Graduates	2015 Graduates
Count	21,711	18,598	18,347
ACT Participation Rate	99%	88%	88%
Percent Juniors	100%	34%	32%
Took Writing	99%	10%	10%
Male	51%	47%	48%
Female	49%	53%	52%

69

NE JUNIORS AND NE GRAD COHORTS 2015 – 2017

Race/Ethnicity	2017 Juniors	2016 Graduates	2015 Graduates
Black/African American	6%	4%	4%
American Indian/Alaska Native	1%	1%	1%
White	68%	73%	74%
Hispanic/Latino	17%	13%	12%
Asian	2%	3%	3%
Native Hawaiian/Other Pacific Islander	0%	0%	0%
Two or more races	4%	4%	4%

70

NE JUNIORS AND NE GRAD COHORTS 2015 – 2017

	Mean Scores			% Met ACT Benchmark		
	2017 Juniors	2016 Grads	2015 Grads	2017 Juniors	2016 Grads	2015 Grads
English	18.4	20.9	21.1	50%	68%	69%
Reading	19.5	21.8	21.9	34%	48%	49%
Math	19.4	20.8	21.0	31%	43%	44%
Science	19.5	21.5	21.6	30%	40%	42%
ELA	18.4	23.8	24.2	41%	74%	78%
Writing	6.3	7.5	7.6	--	--	--

71

NE JUNIORS AND OTHER CENSUS STATE JRS 2015 – 2017

2016

- 11th grade census testing in 20 states
- 10 states administered the Writing test statewide

2015

- 11th grade census testing in 19 states
- 13 states administered the Writing test statewide

The following slides compare NE state testing in 2017 to states that administered the ACT plus Writing statewide.

72

NE JUNIORS AND OTHER CENSUS STATE JRS 2015 – 2017

	NE 2017	Census 2016	Census 2015
Count	21,711	384,406	686,137
ACT Participation Rate	99%	99%	99%
Took Writing	99%	99%	99%
Male	51%	50%	50%
Female	49%	50%	50%

73

NE JUNIORS AND OTHER CENSUS STATE JRS 2015 – 2017

Race/Ethnicity	NE 2017	Census 2016	Census 2015
Black/African American	6%	17%	15%
American Indian/Alaska Native	1%	1%	1%
White	68%	57%	59%
Hispanic/Latino	17%	12%	12%
Asian	2%	3%	4%
Native Hawaiian/Other Pacific Islander	0%	1%	0%
Two or more races	4%	5%	5%

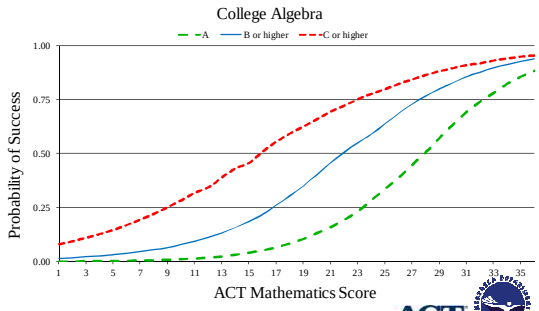
74

NE JUNIORS AND OTHER CENSUS STATE JRS 2015 – 2017

	Mean Scores			% Met ACT Benchmark		
	NE 2017	Census 2016	Census 2015	NE 2017	Census 2016	Census 2015
English	18.4	17.8	18.5	50%	47%	52%
Reading	19.5	19.2	19.6	34%	33%	33%
Math	19.4	18.9	19.4	31%	28%	32%
Science	19.5	19.3	19.5	30%	26%	28%
ELA	18.4	17.6	18.2	41%	35%	40%
Writing	6.3	5.8	6.0	--	--	--

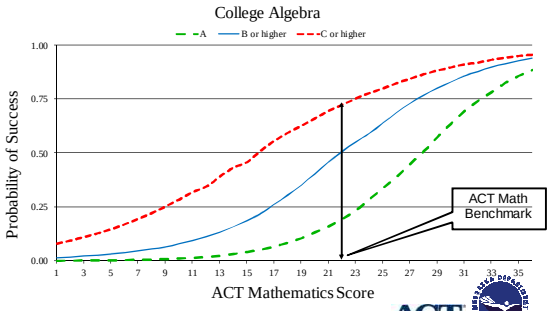
75

SUCCESS PROBABILITIES



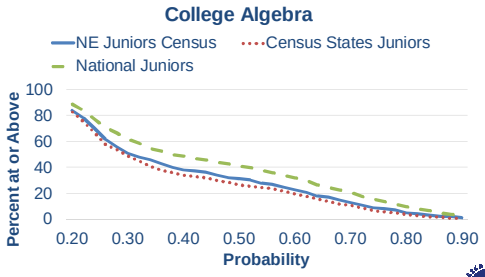
76

SUCCESS PROBABILITIES



77

PROBABILITIES VS. PERCENT AT OR ABOVE



78

SUCCESS PROBABILITIES

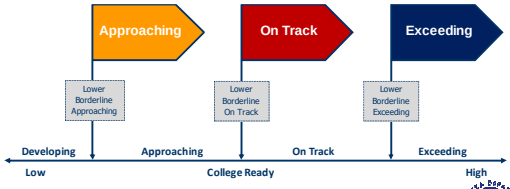
Probability of First-Year Course Grade			Percentage At or Above			
A	B or higher	C or higher	NE Juniors 2017	NE Juniors 2016	Census Juniors 2016	National Juniors 2016
Mathematics						
0.19	0.48	0.72	32	46	29	43
0.20	0.50	0.73	31	44	27	41
0.22	0.52	0.74	30	42	26	40
ELA						
0.13	0.48	0.75	45	70	39	57
0.14	0.50	0.77	41	67	36	54
0.15	0.52	0.78	38	65	33	51
Science						
0.17	0.48	0.76	31	44	28	40
0.19	0.50	0.78	29	40	25	37
0.20	0.52	0.79	26	36	23	34

79

IDENTIFYING BORDERLINE ACHIEVEMENT

ESTABLISHING CUT SCORES FOR FOUR LEVELS OF ACHIEVEMENT

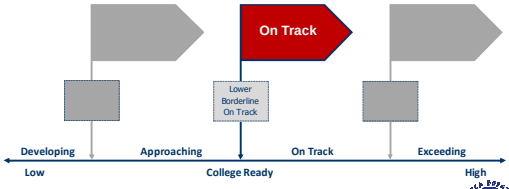
To divide the achievement scale into *Developing*, *Approaching*, *On Track*, and *Exceeding*, we will focus on the lower borderline of each achievement level.



81

ON TRACK ACHIEVEMENT LEVEL

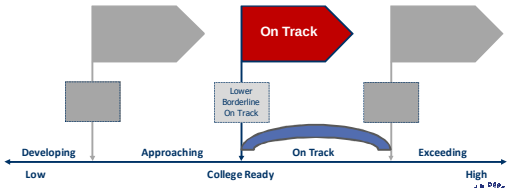
First, we will focus on the lower borderline of the *On Track* achievement level.



82

ON TRACK ACHIEVEMENT LEVEL

First, we will focus on the lower borderline of the *On Track* achievement level.



83

EMPIRICALLY-BASED PROFICIENCY LEVEL DESCRIPTORS

- Set cut scores corresponding to relevant empirical data or outcomes.
- ACT Benchmarks are based on established relationships between test scores and actual first-year college course outcomes.
- Probabilities of succeeding in first-year college courses.
- Does not necessarily reflect specific knowledge and skills in a particular subject area.

84

EMPIRICALLY-BASED PROFICIENCY LEVEL DESCRIPTORS

Other relevant data may be considered in setting the college-ready level, such as

- **Percentage of students college ready on ACT**
- **Percentage of students proficient on NAEP**
- **Percentage of students enrolling in 2-year or 4-year colleges**
- **Other**

85

EMPIRICALLY-BASED PROFICIENCY LEVEL DESCRIPTORS

Example of an empirically-based PLD for college readiness:

Students performing at this level meet academic expectations for the knowledge, skills, and practices assessed at grade 11. They are very likely to engage successfully (0.75 probability of earning a grade of C or higher) in entry-level, credit-bearing courses in the corresponding content area or in technical courses requiring college-level skills. Students performing at this level are exempt from having to take and pass placement tests in two- and four-year public institutions of higher education designed to determine whether they are academically prepared for such courses without need for remediation.

86

EMPIRICALLY-BASED PROFICIENCY LEVEL DESCRIPTORS

NE college ready Proficiency Level Descriptor:

Students performing at an *On Track* level are

???

87

WHAT DOES IT MEAN TO BE MINIMALLY *ON TRACK*?

- **What should the *minimally qualified* student know and be able to do at the *On Track* achievement level?**
  - What's the chance that student will get a B?
  - What's the chance that student will get a C?
  - What does that student know?
- **Important to keep *minimally qualified* in mind:**
  - Not the same as the average or typical student.
  - Of students who get a B grade in a first-year college course, what does the weakest student know?
  - Of students who get a C grade in a first-year college course, what does the weakest student know?

88

DISCUSSION

INSTRUCTIONS FOR SETTING ROUND 1 CUT SCORES

ROUND 1 *ON TRACK* LEVEL RATING FORM*

Probability of Success			Percentage At/Above			
A prob	B or higher prob	C or higher prob	NE Juniors Census 2017	NE Juniors 2016	Census States Juniors 2016	National Juniors 2016
0.13	0.40	0.67	38	53	34	49
0.15	0.42	0.68	37	51	33	47
0.16	0.44	0.69	36	50	32	46
0.17	0.46	0.71	34	48	30	44
0.19	0.48	0.72	32	46	29	43
0.20	0.50	0.73	31	44	27	41
0.22	0.52	0.74	30	42	26	40
0.24	0.54	0.76	28	40	25	38
0.25	0.56	0.77	27	38	24	36
0.27	0.58	0.78	25	35	22	34
0.29	0.60	0.79	23	33	20	32

* This is an excerpt of the math rating form. The ELA and science forms will have slightly different probabilities and percentages.

91

SETTING AN *ON TRACK* ACHIEVEMENT LEVEL

Task:

- Think about a minimally *On Track* student in your subject area.
- Think about their likelihood of success in first-year, entry-level, college course in your subject area (College Algebra, English Composition or Social Science course, or College Biology).
- Highlight the one row on the rating sheet that best reflects what you see as their probability of achieving an A, B, or C grade.

92

ROUND 1 *ON TRACK* LEVEL RATING FORM*

Probability of Success			Percentage At/Above			
A prob	B or higher prob	C or higher prob	NE Juniors Census 2017	NE Juniors 2016	Census States Juniors 2016	National Juniors 2016
0.13	0.40	0.67	38	53	34	49
0.15	0.42	0.68	37	51	33	47
0.16	0.44	0.69	36	50	32	46
0.17	0.46	0.71	34	48	30	44
0.19	0.48	0.72	32	46	29	43
0.20	0.50	0.73	31	44	27	41
0.22	0.52	0.74	30	42	26	40
0.24	0.54	0.76	28	40	25	38
0.25	0.56	0.77	27	38	24	36
0.27	0.58	0.78	25	35	22	34
0.29	0.60	0.79	23	33	20	32

* This is an excerpt of the math rating form. The ELA and science forms will have slightly different probabilities and percentages.

93

ROUND 1 RATING AND LUNCH BREAK

- Highlight the one row on the rating sheet that best reflects what you see as their probability of achieving an A, B, or C grade.
- Ratings should reflect your individual judgment.
- When finished, hand in the rating sheet to your facilitator and break for lunch.
- Return to this room for the afternoon session in one hour.

94

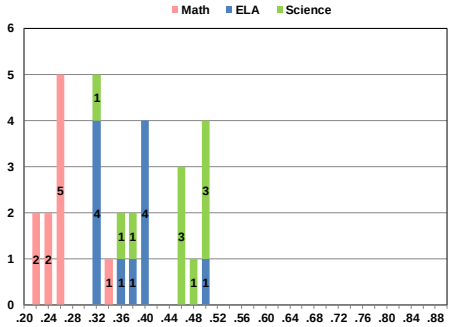
SCHEDULE FOR THIS AFTERNOON

- Review Overall Round 1 Results
- Review and Discuss Subject-Specific Round 1 Results
- Review Other Evidence
- Set Round 2 *On Track* Cut Scores

95

ROUND 1 RESULTS

ROUND 1 SUCCESS PROBABILITIES



97

ROUND 1 SUCCESS PROBABILITIES

		Probability			Percentage At or Above			
	ACT Score	A	B or higher	C or higher	NE Juniors Census 2017	NE Juniors 2016	Census States Juniors 2016	National Juniors 2016
		Mathematics						
Round 1	17	0.07	0.26	0.55	62	78	58	71
		ELA						
Round 1	17	0.09	0.38	0.69	62	83	55	72
		Science						
Round 1	22	0.16	0.46	0.75	33	48	30	43

98

SIDE BY SIDE COMPARISONS

	MATH	ELA (Rdg)	SCIENCE
NESA 2016	62%	72%	74%
NAEP NE 8th grade	38%	38%	41%
NAEP US 8th grade	32%	32%	33%
NAEP US 12th grade	25%	37%	22%
ACT BH. NE Jrs. Spr. 17	32%	41%	30%
ACT BH. NE Grad 2016	43%	74% (ELA) 48%	40%
ACT BH. US Grad 2016	41%	52% (ELA) 44%	36%
MEDIAN REC.	62%	62%	33%

99

DISCUSSION

- How did your initial rating compare with those of others in your subject area? Is there consensus within your subject area?
- How did ratings in your subject area compare with those in the other subject areas? Is there consensus across subject areas?
- What factors led you to choose a particular probability row?

100

BREAK

Standard Setting will recommence in 15 Minutes

101

ADDITIONAL EVIDENCE

DAY 1 AFTERNOON SESSION

ROUND 1 SUCCESS PROBABILITIES

		Probability			Percentage At or Above			
	ACT Score	A	B or higher	C or higher	NE Juniors Census 2017	NE Juniors 2016	Census States Juniors 2016	National Juniors 2016
		Mathematics						
Round 1	17	0.07	0.26	0.55	62	78	58	71
		ELA						
Round 1	17	0.09	0.38	0.69	62	83	55	72
		Science						
Round 1	22	0.16	0.46	0.75	33	48	30	43

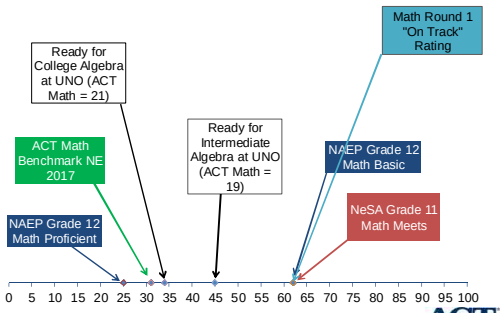
2

SIDE BY SIDE COMPARISONS

	MATH	ELA (Rdg)	SCIENCE
NESA 2016	62%	72%	74%
NAEP NE 8th grade	38%	38%	41%
NAEP US 8th grade	32%	32%	33%
NAEP US 12th grade	25%	37%	22%
ACT BH. NE Jrs. Spr. 17	32%	41%	30%
ACT BH. NE Grad 2016	43%	74% (ELA) 48%	40%
ACT BH. US Grad 2016	41%	52% (ELA) 44%	36%
MEDIAN REC.	62%	62%	33%

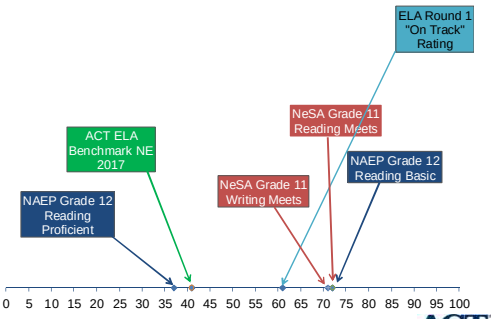
3

MATH COMPARISONS – PERCENT AT OR ABOVE



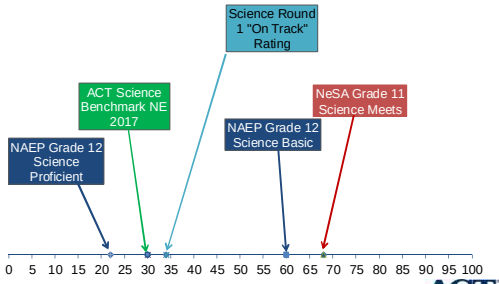
4

ELA COMPARISONS – PERCENT AT OR ABOVE



5

SCIENCE COMPARISONS – PERCENT AT OR ABOVE



6

NESA GRADES 8 AND 11 MATH ACHIEVEMENT:

Mathematics Achievement Level	Percent At or Above				
	Grade 8		Grade 11		
	2015	2016	2015	2016	2017
Exceeds	22%	21%	26%	26%	?
Meets/ Exceeds	68%	68%	62%	62%	?
Below	32%	32%	39%	38%	?

7

NESA GRADES 8 AND 11 READING ACHIEVEMENT:

Reading Achievement Level	Percent At or Above				
	Grade 8		Grade 11		
	2015	2016	2015	2016	2017
Exceeds	36%	34%	28%	28%	?
Meets/ Exceeds	79%	82%	69%	72%	?
Below	21%	19%	31%	28%	?

8

NESA GRADES 8 AND 11 WRITING ACHIEVEMENT:

Writing Achievement Level	Percent At or Above				
	Grade 8		Grade 11		
	2015	2016	2015	2016	2017
Exceeds	30%	26%	31%	28%	?
Meets/ Exceeds	72%	70%	76%	71%	?
Below	29%	30%	24%	29%	?

9

NESA GRADES 8 AND 11 SCIENCE ACHIEVEMENT:

Science Achievement Level	Percent At or Above				
	Grade 8		Grade 11		
	2015	2016	2015	2016	2017
Exceeds	23%	20%	17%	13%	?
Meets/ Exceeds	70%	68%	74%	74%	?
Below	30%	32%	27%	26%	?

10

2015 GRADES 8 AND 12 NAEP MATH ACHIEVEMENT LEVELS: PERCENT AT OR ABOVE

Math Achievement Level	Grade 8		Grade 12
	NE	National public	National public
Advanced	8%	8%	3%
Proficient	38%	32%	25%
Basic	78%	70%	62%
Below Basic	23%	30%	38%

11

2015 GRADES 8 AND 12 NAEP READING ACHIEVEMENT LEVELS: PERCENT AT OR ABOVE

Reading Achievement Level	Grade 8		Grade 12
	NE	National public	National public
Advanced	3%	3%	6%
Proficient	38%	32%	37%
Basic	82%	74%	72%
Below Basic	19%	25%	28%

12

2015 GRADES 8 AND 12 NAEP SCIENCE ACHIEVEMENT LEVELS: PERCENT AT OR ABOVE

Science Achievement Level	Grade 8		Grade 12
	NE	National public	National public
Advanced	2%	2%	2%
Proficient	41%	33%	22%
Basic	76%	67%	60%
Below Basic	25%	33%	40%

13

IMPACT OF ADJUSTING THE CUT SCORE - MATH

ACT Math Score		Percentage At or Above			
		NE Juniors Census	NE Juniors	Census States Juniors	National Juniors
Round 1 =	17	2017	2016	2016	2016
If adjust down 2 points	15	88	95	87	92
If adjust down 1 point	16	77	89	74	83
Round 1 results	17	62	78	59	71
If adjust up 1 point	18	51	68	49	62
If adjust up 2 points	19	45	59	40	54

14

IMPACT OF ADJUSTING THE CUT SCORE - ELA

ACT ELA Score		Percentage At or Above			
		NE Juniors Census	NE Juniors	Census States Juniors	National Juniors
Round 1 =	17	2017	2016	2016	2016
If adjust down 2 points	15	74	91	67	81
If adjust down 1 point	16	68	87	61	76
Round 1 results	17	61	83	54	71
If adjust up 1 point	18	54	78	47	66
If adjust up 2 points	19	47	73	41	60

15

IMPACT OF ADJUSTING THE CUT SCORE - SCIENCE

ACT Science Score		Percentage At or Above			
		NE Juniors Census	NE Juniors	Census States Juniors	National Juniors
Round 1 =	22	2017	2016	2016	2016
If adjust down 2 points	20	47	67	47	60
If adjust down 1 point	21	42	57	39	52
Round 1 results	22	34	51	32	45
If adjust up 1 point	23	30	41	26	38
If adjust up 2 points	24	23	32	19	30

16

OTHER FACTORS ASSOCIATED WITH MATH ACHIEVEMENT

ACT Math Score=	17	Percentage At or Above			
		NE Juniors Census	NE Juniors	Census States Juniors	National Juniors
		2017	2016	2016	2016
2 or more years of HS Math coursework		68	82	65	77
3 or more years of HS Math coursework		70	81	67	77
4 or more years of HS Math coursework		78	87	72	81

17

OTHER FACTORS ASSOCIATED WITH ELA ACHIEVEMENT

ACT ELA Score=	17	Percentage At or Above			
		NE Juniors Census	NE Juniors	Census States Juniors	National Juniors
		2017	2013	2013	2013
2 or more years of HS Social Studies coursework		67	87	61	77
3 or more years of HS Social Studies coursework		69	88	63	78
4 or more years of HS Social Studies coursework		73	92	68	81

18

OTHER FACTORS ASSOCIATED WITH SCIENCE ACHIEVEMENT

ACT Science Score= 22	Percentage At or Above			
	NE Juniors Census 2017	NE Juniors 2016	Census States Juniors 2016	National Juniors 2016
2 or more years of HS Science coursework	40	55	38	51
3 or more years of HS Science coursework	41	55	40	53
4 or more years of HS Science coursework	52	65	49	62

19

OTHER FACTORS ASSOCIATED WITH MATH ACHIEVEMENT

Percentage of Students by Highest Course Taken				
	NE Juniors Census 2017	NE Juniors 2016	Census States Juniors 2016	National Juniors 2016
Algebra 1	2	1	1	1
Algebra 2/Geometry	27	16	30	17
Trigonometry	50	53	52	50
Other Advanced Math	22	30	17	33
Calculus	2	1	1	1

20

OTHER FACTORS ASSOCIATED WITH SCIENCE ACHIEVEMENT

Percentage of Students by Highest Course Taken				
	NE Juniors Census 2017	NE Juniors 2016	Census States Juniors 2016	National Juniors 2016
General Science	2	1	1	1
Biology	27	16	30	17
Chemistry	50	53	52	50
Physics	22	30	17	33

21

COLLEGE ENROLLMENT AND PLACEMENT RATES: MATH

ACT Math Score		Percent Enrolled			
		NE Grad 2016	NE Grad 2015	National Grad 2016	Census Grad 2016
Enrolled in college	17	68	69	59	51

ACT Math Score		Percentage At or Above			
		NE Juniors Census 2017	NE Juniors 2016	Census States Juniors 2016	National Juniors 2016
Ready for College Algebra at UNO	23	28	40	25	38
Ready for Intermediate Algebra at UNO	19	45	59	40	54
Ready for college-level math courses*	19	45	59	40	54

*Based on typical math placement cut scores reported by 2- and 4-year institutions nationally.

COLLEGE ENROLLMENT RATES: ELA

ACT ELA Score		Percent Enrolled			
		NE Grad 2016	NE Grad 2015	National Grad 2016	Census Grad 2016
Enrolled in college	17	65	68	59	48

23

COLLEGE ENROLLMENT RATES: SCIENCE

ACT Science Score		Percent Enrolled			
		NE Grad 2016	NE Grad 2015	National Grad 2016	Census Grad 2016
Enrolled in college	22	79	79	73	67

24

COLLEGE SUCCESS RATES BASED ON 2003 NATIONAL STUDY - MATH

ACT Math Score = 17	Percentage At or Above
Returned to any college year 2: 2-year students	73
Returned to any college year 2: 4-year students	86
Completed Bachelor's Degree in 6 years: 4-year students	48
Completed Associate's or Bachelor's Degree in 6 years	33

25

COLLEGE SUCCESS RATES BASED ON 2003 NATIONAL STUDY - ELA

ACT English Score = 17	Percentage At or Above	
ACT Reading Score = 17	English	Reading
Returned to any college year 2: 2-year students	73	73
Returned to any college year 2: 4-year students	87	86
Completed Bachelor's Degree in 6 years: 4-year students	52	51
Completed Associate's or Bachelor's Degree in 6 years	36	34

26

COLLEGE SUCCESS RATES BASED ON 2003 NATIONAL STUDY - SCIENCE

ACT Science Score = 22	Percentage At or Above
Returned to any college year 2: 2-year students	78
Returned to any college year 2: 4-year students	89
Completed Bachelor's Degree in 6 years: 4-year students	64
Completed Associate's or Bachelor's Degree in 6 years	41

27

DISCUSSION

- How did your initial rating compare with those of others in your subject area?
- How did ratings in your subject area compare with those in the other subject areas?
- How does the additional impact information provided influence your initial rating of the *On Track* cut score?
- Which information is the most important in making your choice of *On Track* cut score?

28

INSTRUCTIONS FOR SETTING ROUND 2 CUT SCORES

ROUND 2 *ON TRACK* LEVEL RATING FORM

	Probability of Success			Percentage At/Above			
ACT Score	A prob	B or higher prob	C or higher prob	NE Juniors Census 2017	NE Juniors 2016	Census States Juniors 2016	National Juniors 2016
12	0.02	0.11	0.35	99	100	99	100
13	0.02	0.13	0.39	99	99	98	99
14	0.03	0.16	0.43	97	98	94	97
15	0.04	0.19	0.46	88	95	87	92
16	0.05	0.22	0.51	77	89	74	83
17	0.07	0.26	0.56	62	78	59	71
18	0.09	0.30	0.60	51	68	49	62
19	0.11	0.35	0.63	45	59	40	54
20	0.13	0.40	0.66	39	53	35	49
21	0.16	0.46	0.70	36	49	32	46
22	0.20	0.51	0.73	31	44	28	41
23	0.23	0.55	0.75	28	40	25	38
24	0.29	0.59	0.78	24	34	21	33

30

SETTING AN *ON TRACK* ACHIEVEMENT LEVEL

Task:

- Think about a minimally *on track* student in your subject area.
- Think about their likely success in their first-year, entry-level, college course in your subject area (College Algebra, English Composition or Social Science course, or College Biology).
- Highlight the one row on the rating sheet that best reflects what you see as their probability of achieving an A, B, or C grade.
- When finished, hand in the rating sheet to your facilitator and adjourn.
- Return to room at 8:30 am.

31

NEBRASKA STANDARD SETTING

JULY 10–11, 2017 • LINCOLN, NE

SCHEDULE FOR TODAY

- Debrief/Discuss Day 1
- Review *On Track* Cut Score Results
- Revisit Success Probabilities and Impact Evidence
- Discuss what it means to be *Approaching* and *Exceeding*
- Round 3 *Approaching* and *Exceeding* Ratings
- Lunch break
- Discuss *Approaching* and *Exceeding* Results
- Final Ratings of *Approaching*, *On Track*, and *Exceeding*

2

GENERAL GUIDELINES

1. Be on time for all sessions!
2. Secure materials (printed on colored paper) should *never* leave the room.
3. Make note of your ID number; make certain the material you receive has *your* ID number on it.
4. Place your materials in your table group box at the end of each day for staff to collect. Place things that should be discarded in the center of the table.
5. If you finish a task before others, sit quietly until everyone has completed the task.
6. Please hold questions until the end of each section, unless they are critical to the presentation or the associated activity.

3

DEBRIEF/DISCUSS DAY 1

REVIEW DAY 1 RESULTS: *ON TRACK* CUT SCORE

Data Sources

	2015	2016	2017
1 NE Juniors	Junior testing	Junior testing	State testing
2 Census Testing States Juniors	State testing	State testing	X
3 National Juniors	Junior testing	Junior testing	X
4 NE Grad Cohort	Grad cohort	Grad cohort	X
5 Census Testing States Grad Cohort	Grad cohort	Grad cohort	X
6 National Grad Cohort	Grad cohort	Grad cohort	X

- Differences between samples (demographics, achievement)
- Year-to-year fluctuations

6

DATA SOURCES

NE Juniors Statewide, 2017

- In-school census testing in 11th grade

Census-tested states, 2015 and 2016

- In-school census testing in 11th grade
- Excluded states that do not administer Writing (required for ELA score). 13 states in 2015, and 10 states in 2016.

NE and National Juniors, 2015 and 2016

- 34% of NE 2016 graduates tested during junior year
- 51% of national 2016 graduates tested during junior year

7

DATA SOURCES

ACT-Tested Graduating Classes of 2015 and 2016 (Grad. Cohort)

- All ACT-Tested high school graduates
- Each student's most recent scores
- About 66% of NE 2016 graduates tested in 12th grade (retesters), compared to about 49% of graduates nationally

ACT-Tested Graduating Classes of 2015 and 2016 from States Administering the ACT Statewide

- Census tested as juniors in 2014, graduated in 2015
- 8 states census tested in 2014 and took Writing
- Each student's most recent scores
- 27–28% retested in 12th grade

8

NE JUNIORS 2015 – 2017

	2017	2016	2015
Count	21,711	16,419	15,870
ACT Participation Rate	99%	71%	69%
Took Writing	99%	10%	10%
Male	51%	47%	47%
Female	49%	53%	53%

9

NE JUNIORS 2015 – 2017

	Mean Scores			% Met ACT Benchmark		
	2017	2016	2015	2017	2016	2015
English	18.4	20.7	20.7	50%	67%	67%
Reading	19.5	21.8	21.6	34%	50%	48%
Math	19.4	21.0	21.1	31%	44%	46%
Science	19.5	21.5	21.4	30%	41%	40%
ELA	18.4	22.2	23.2	41%	67%	74%
Writing	6.3	7.1	7.4	--	--	--

10

NE JUNIORS 2015 – 2017: ACT AND NESA

% Meets/Exceeds NeSA		
NeSA Grade 11	2016	2015
Reading	69%	72%
Writing	76%	71%
Math	62%	62%
Science	74%	74%

% Met ACT Benchmark			
ACT	2017	2016	2015
Reading	34%	50%	48%
ELA	41%	67%	74%
Math	31%	44%	46%
Science	30%	41%	40%

11

2015 JUNIORS AND 2016 GRADUATES: JR-SR GROWTH

	Mean Scores				% Met ACT Benchmark			
	Nebraska		Census States		Nebraska		Census States	
	2015 Juniors	2016 Grads	2015 Juniors	2016 Grads	2015 Juniors	2016 Grads	2015 Juniors	2016 Grads
% 12th Gr.	0%	66%	0%	28%				
English	20.7	20.9	18.5	19.2	67%	68%	52%	56%
Reading	21.6	21.8	19.6	20.3	48%	48%	33%	38%
Math	21.1	20.8	19.4	19.8	46%	43%	32%	35%
Science	21.4	21.5	19.5	20.0	40%	40%	28%	31%
ELA	23.2	23.8	18.2	18.3	74%	74%	40%	40%
Writing	7.4	7.5	6.0	6.0	--	--	--	--

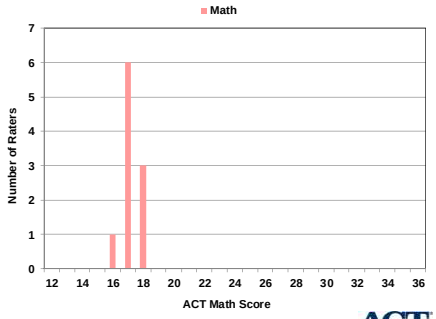
12

ON TRACK LEVEL IMPACT

		Probability			Percentage At or Above			
	ACT Score	A	B or higher	C or higher	NE Juniors Census 2017	NE Juniors 2016	Census States Juniors 2016	National Juniors 2016
		Mathematics						
Round 1	17	0.07	0.26	0.55	62	78	58	71
Round 2	17	0.07	0.26	0.56	62	78	59	71
ACTB	22	0.20	0.51	0.73	31	44	28	41
		ELA						
Round 1	17	0.09	0.38	0.69	62	83	55	72
Round 2	18	0.14	0.43	0.71	54	78	47	66
ACTB	20	0.19	0.51	0.76	41	67	35	54
		Science						
Round 1	22	0.16	0.46	0.75	33	48	30	43
Round 2	21	0.12	0.41	0.71	42	57	39	52
ACTB	23	0.18	0.51	0.79	30	41	26	38

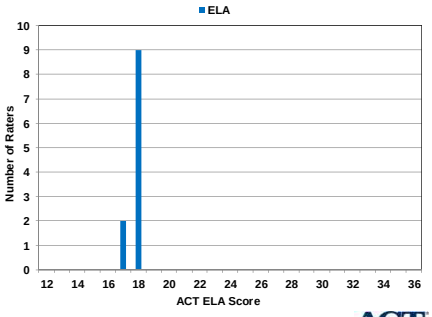
13

ROUND 2 *ON TRACK* RATINGS: MATH



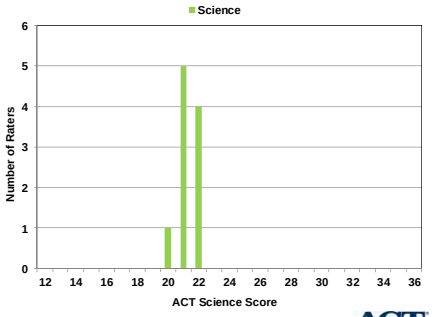
14

ROUND 2 *ON TRACK* RATINGS: ELA



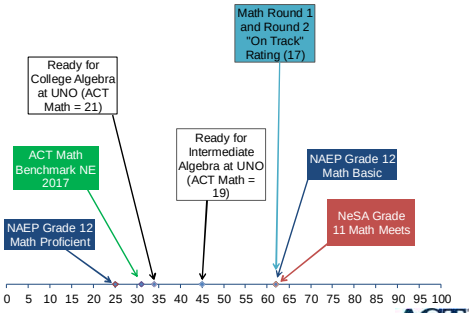
15

ROUND 2 *ON TRACK* RATINGS: SCIENCE



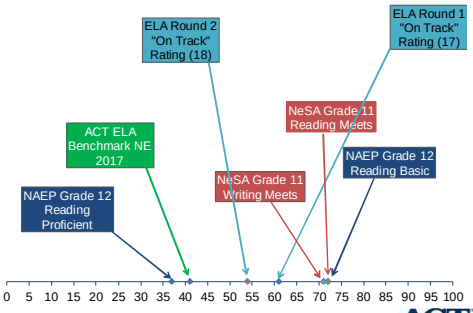
16

MATH *ON TRACK* LEVEL – COMPARISON INFORMATION



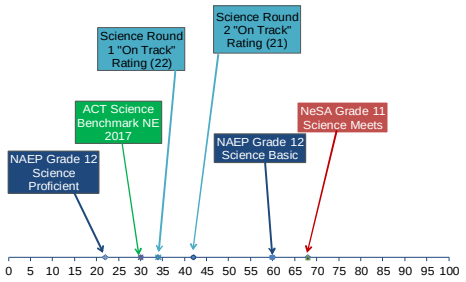
17

ELA *ON TRACK* LEVEL – COMPARISON INFORMATION



18

SCIENCE *ON TRACK* LEVEL – COMPARISON INFORMATION



19

SIDE BY SIDE COMPARISONS

	MATH	ELA (Reading)	SCIENCE
NESA 2016	62%	72%	74%
NAEP NE 8th grade	38%	38%	41%
NAEP US 8th grade	32%	32%	33%
NAEP US 12th grade	25%	37%	22%
ACT Benchmark NE Juniors 2017	32% (22)	41% (20)	30% (23)
Round 2 "On Track"	62% (17)	54% (18)	42% (21)
R2 P(C or higher)	0.559	0.706	0.713
R2 P(B or higher)	0.262	0.427	0.408

20

OTHER STATES' CUT SCORES

	Kentucky	Wisconsin*	South Carolina*	Wyoming	Nebraska Round 2
English	18	18	18	--	--
Reading	20	22	22	23	--
Math	19	22	22	21	17
Science	19	23	23	23	21
ELA	--	--	--	--	18

* Adopted the ACT Benchmarks.

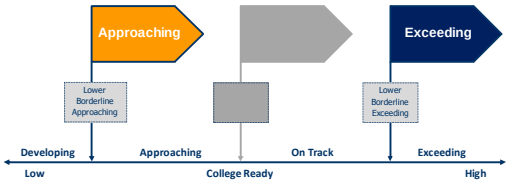
21

DISCUSSION

WHAT DOES IT MEAN TO BE *APPROACHING* OR *EXCEEDING*?

ESTABLISHING CUT SCORES FOR FOUR LEVELS OF ACHIEVEMENT

To divide the achievement scale into *Developing*, *Approaching*, *On Track*, and *Exceeding*, we will focus on the lower borderline of each achievement level.



24

APPROACHING AND EXCEEDING LEVEL DESCRIPTORS

NAEP *Basic* Achievement Level:

This level denotes partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade.

NAEP *Advanced* Achievement Level:

This level signifies superior performance beyond proficient.

25

APPROACHING AND EXCEEDING LEVEL DESCRIPTORS

SBAC *Level 2 (Basic)* Achievement Level:

Student demonstrates partial understanding of and ability to apply the knowledge and skills needed for success in college and careers, as specified in the Common Core State Standards.

SBAC *Level 3 (Proficient)* Achievement Level:

The Level 3 student demonstrates adequate understanding of and ability to apply the knowledge and skills needed for success in college and careers, as specified in the Common Core State Standards.

SBAC *Level 4 (Advanced)* Achievement Level:

Student demonstrates thorough understanding of and ability to apply the knowledge and skills needed for success in college and careers, as specified in the Common Core State Standards.

26

APPROACHING AND EXCEEDING LEVEL DESCRIPTORS

Level 2 – Students performing at this level demonstrate a partial command of the knowledge, skills, and practices embodied by the Common Core State Standards assessed at their grade level.

Level 3 – Students performing at this level demonstrate a moderate command of the knowledge, skills, and practices embodied by the Common Core State Standards assessed at their grade level.

Level 4 – Students performing at this level demonstrate a strong command of the knowledge, skills, and practices embodied by the Common Core State Standards assessed at their grade level.

Level 5 – Students performing at this level demonstrate a distinguished command of the knowledge, skills, and practices embodied by the Common Core State Standards assessed at their grade level.

27

APPROACHING AND EXCEEDING LEVEL DESCRIPTORS

NE college ready *Approaching* Level Descriptor:

Students performing at an *Approaching* level are

???

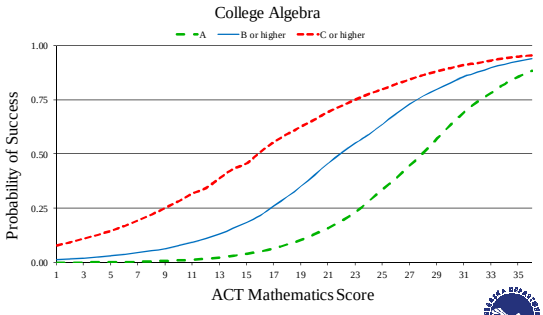
NE college ready *Exceeding* Level Descriptor:

Students performing at an *Exceeding* level are

???

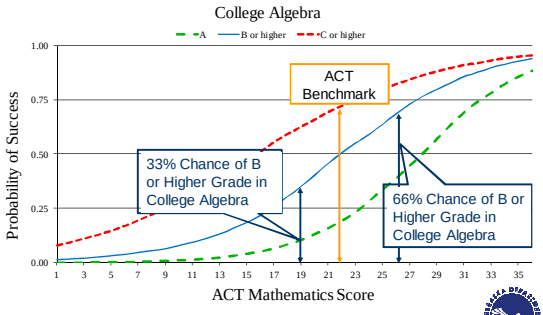
28

SUCCESS PROBABILITIES



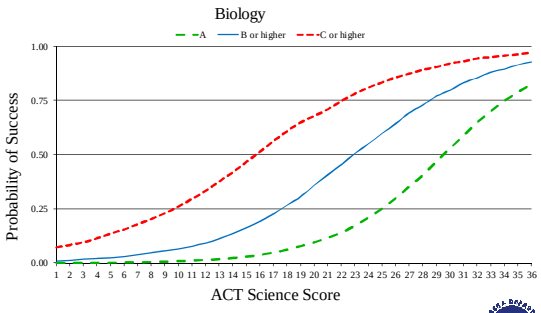
29

SUCCESS PROBABILITIES



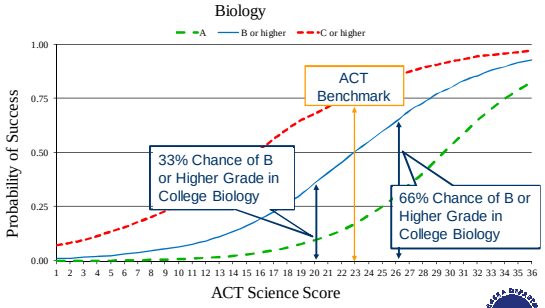
30

SUCCESS PROBABILITIES



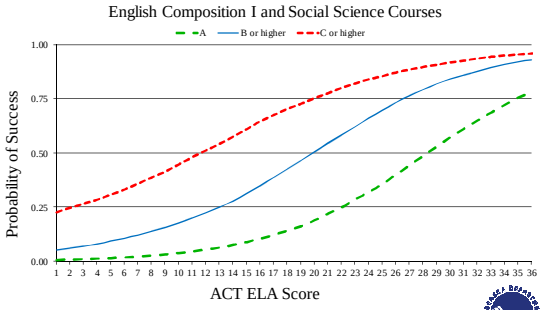
31

SUCCESS PROBABILITIES



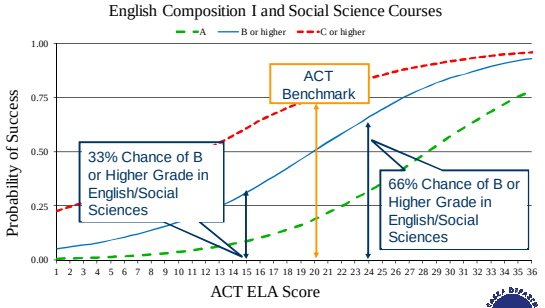
32

SUCCESS PROBABILITIES



33

SUCCESS PROBABILITIES



34

WHAT DOES IT MEAN TO BE MINIMALLY APPROACHING?

- **What should a minimally Approaching student know and be able to do?**
  - What's the chance that student will get a B?
  - What's the chance that student will get a C?
  - What does that student know?
  - Of students who get a B grade in a first-year college course,
    - Would you find a minimally ***Approaching*** student among them?
  - Of students who get a C grade in a first-year college course,
    - What would a minimally ***Approaching*** student know? Where would that minimally ***Approaching*** student rank among them?
  - What differentiates a minimally ***Approaching*** student from a ***Developing*** student? At which score?

35

WHAT DOES IT MEAN TO BE MINIMALLY EXCEEDING?

- **What should a minimally *Exceeding* student know and be able to do?**
  - What's the chance that a minimally ***Exceeding*** student will get an A? a B? a C?
  - What does that student know?
  - Of students who get an A grade in a first-year college course,
    - What would a minimally ***Exceeding*** student know? Where would a minimally ***Exceeding*** student rank among them?
  - Of students who get a B grade in a first-year college course,
    - What would a minimally ***Exceeding*** student know? Where would a minimally ***Exceeding*** student rank among them?
  - Of students who get a C grade in a first-year college course,
    - What would a minimally ***Exceeding*** student know? Where would a minimally ***Exceeding*** student rank among them?
  - What differentiates a minimally ***Exceeding*** student from an ***On Track*** student? At which score?

36

DISCUSSION

37

BREAK

Standard Setting will recommence in 15 Minutes

38

DISCUSSION

39

INSTRUCTIONS FOR SETTING ROUND 3 CUT SCORES

APPROACHING AND *EXCEEDING* LEVEL DESCRIPTORS

Nebraska college ready *Approaching* Level Descriptor:

Students performing at an *Approaching* level are

???

Nebraska college ready *Exceeding* Level Descriptor:

Students performing at an *Exceeding* level are

???

41

WHAT DOES IT MEAN TO BE MINIMALLY APPROACHING?

- **What should a student know and be able to do at the *Approaching* achievement level?**
  - What's the chance that student will get a B?
  - What's the chance that student will get a C?
  - What does that student know?
  - Of students who get a B grade in a first-year college course,
    - Would you find an ***Approaching*** student among them?
  - Of students who get a C grade in a first-year college course,
    - What would a minimally ***Approaching*** student know? Where would that minimally ***Approaching*** student rank among them?
  - What differentiates an ***Approaching*** student from an ***On Track*** or ***Developing*** student? At which score?

42

WHAT DOES IT MEAN TO BE MINIMALLY EXCEEDING?

- **What should a student know and be able to do at the *Exceeding* achievement level?**
  - What's the chance that an ***Exceeding*** student will get an A? a B? a C?
  - What does that student know?
  - Of students who get an A grade in a first-year college course,
    - What would an ***Exceeding*** student know? Where would an ***Exceeding*** student rank among them?
  - Of students who get a B grade in a first-year college course,
    - What would an ***Exceeding*** student know? Where would an ***Exceeding*** student rank among them?
  - Of students who get a C grade in a first-year college course,
    - What would an ***Exceeding*** student know? Where would an ***Exceeding*** student rank among them?
  - What differentiates an ***Exceeding*** student from an ***On Track*** student? At which score?

43

ROUND 3 APPROACHING AND EXCEEDING LEVEL RATING FORM

	Probability of Success			Percentage At/Above			
ACT Score	A prob	B or higher prob	C or higher prob	NE Juniors Census 2017	NE Juniors 2016	Census States Juniors 2016	National Juniors 2016
12	0.02	0.11	0.35	99	100	99	100
13	0.02	0.13	0.39	99	99	98	99
14	0.03	0.16	0.43	97	98	94	97
15	0.04	0.19	0.46	88	95	87	92
16	0.05	0.22	0.51	77	89	74	83
17	0.07	0.26	0.56	62	78	59	71
18	0.09	0.30	0.60	51	68	49	62
19	0.11	0.35	0.63	45	59	40	54
20	0.13	0.40	0.66	39	53	35	49
21	0.16	0.46	0.70	36	49	32	46
22	0.20	0.51	0.73	31	44	28	41
23	0.23	0.55	0.75	28	40	25	38
24	0.29	0.59	0.78	24	34	21	33

44

SETTING APPROACHING AND EXCEEDING ACHIEVEMENT LEVELS

Task:

- **Think about a minimally *Approaching* and a minimally *Exceeding* student in your subject area.**
- **Think about their likely success in their first-year, entry-level college course in your subject area (College Algebra, Social Science course, or College Biology).**
- **Highlight the one row for *Approaching* and the one row for *Exceeding* on the rating sheet that best reflect what you see as their probabilities of achieving and A, B, or C grade.**

45

ROUND 3 RATING AND LUNCH BREAK

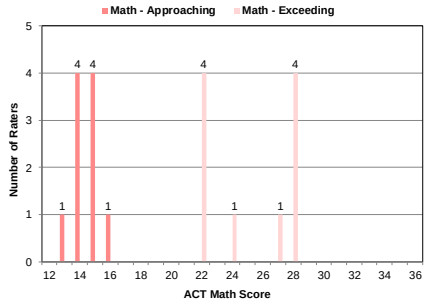
- **Highlight the one row for *Approaching* and the one row for *Exceeding* on the rating sheet that best reflect what you see as their probabilities of achieving and A, B, or C grade**
- **Ratings should reflect your individual judgment.**
- **When finished, hand in the rating sheet to the facilitators and break for lunch.**
- **Return for afternoon session in one hour.**

46

ROUND 3 RESULTS

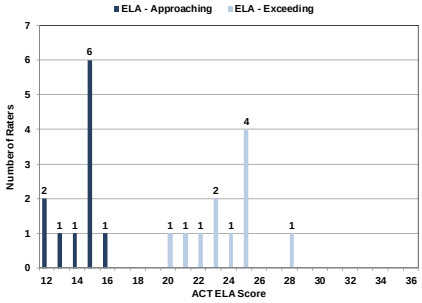
DAY 2 AFTERNOON SESSION

MATH RATINGS FOR APPROACHING, ON TRACK, & EXCEEDING



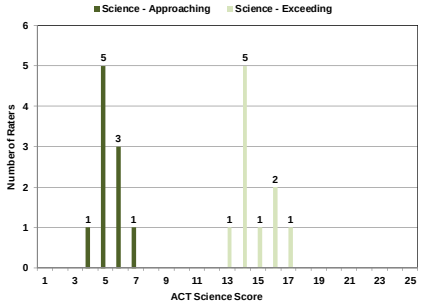
2

ELA RATINGS FOR APPROACHING, ON TRACK, & EXCEEDING



3

SCIENCE RATINGS FOR APPROACHING, ON TRACK, & EXCEEDING



4

ACHIEVEMENT LEVEL IMPACT

		Probability			Percentage At or Above			
	ACT Score	A	B or higher	C or higher	NE Juniors Census 2017	NE Juniors 2016	Census States Juniors 2016	National Juniors 2016
		Mathematics						
Exceeding	27	0.45	0.73	0.85	10	15	8	17
On Track	17	0.07	0.26	0.56	62	78	59	71
Approaching	15	0.04	0.19	0.46	88	95	87	92
		ELA						
Exceeding	24	0.32	0.66	0.84	18	42	16	30
On Track	18	0.14	0.43	0.71	54	78	47	66
Approaching	15	0.09	0.31	0.61	74	91	67	81
		Science						
Exceeding	25	0.25	0.60	0.84	16	23	14	23
On Track	21	0.12	0.41	0.71	42	57	39	52
Approaching	16	0.04	0.19	0.52	76	90	78	85

5

COLLEGE ENROLLMENT RATES - MATH

ACT Math Score=		Percent Enrolled			
		NE Grad 2016	NE Grad 2015	National Grad 2016	Census Grad 2016
Exceeding	27	87	89	83	81
On Track	17	68	69	59	51
Approaching	15	49	48	38	32

6

COLLEGE ENROLLMENT RATES - ELA

ACT ELA Score=		Percent Enrolled			
		NE Grad 2016	NE Grad 2015	National Grad 2016	Census Grad 2016
Exceeding	24	77	78	80	73
On Track	18	61	63	63	53
Approaching	15	67	68	49	39

7

COLLEGE ENROLLMENT RATES - SCIENCE

ACT Science Score=		Percent Enrolled			
		NE Grad 2016	NE Grad 2015	National Grad 2016	Census Grad 2016
Exceeding	25	84	84	80	76
On Track	21	74	78	69	63
Approaching	16	58	61	51	42

8

ESTIMATED COLLEGE DEGREE COMPLETION RATES

Completed Associate's or Bachelor's Degree in 6 Years			
		ACT Score =	Percentage At or Above
Math	Exceeding	27	60
	On Track	17	33
	Approaching	15	28
ELA	Exceeding	24	44
	On Track	18	35
	Approaching	15	31
Science	Exceeding	25	48
	On Track	21	39
	Approaching	16	29

9

ACHIEVEMENT LEVEL IMPACT

		Probability			Percentage At or Above			
	ACT Score	A	B or higher	C or higher	NE Juniors Census 2017	NE Juniors 2016	Census States Juniors 2016	National Juniors 2016
		Mathematics						
Exceeding	27	0.45	0.73	0.85	10	15	8	17
On Track	17	0.07	0.26	0.56	62	78	59	71
Approaching	15	0.04	0.19	0.46	88	95	87	92
		ELA						
Exceeding	24	0.32	0.66	0.84	18	42	16	30
On Track	18	0.14	0.43	0.71	54	78	47	66
Approaching	15	0.09	0.31	0.61	74	91	67	81
		Science						
Exceeding	25	0.25	0.60	0.84	16	23	14	23
On Track	21	0.12	0.41	0.71	42	57	39	52
Approaching	16	0.04	0.19	0.52	76	90	78	85

10

DISCUSSION

- How did your ratings compare with those of the others in your subject area?
- How did ratings in your subject area compare with ratings of the other subject areas?
- How does the additional impact information provided influence your ratings of the three cut scores?
- Which information is the most important in making your choice of cut scores?

11

BREAK

Standard Setting will recommence in 15 Minutes

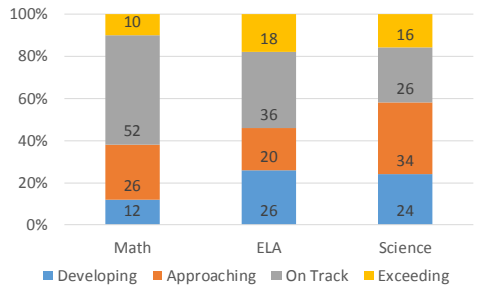
12

ACHIEVEMENT LEVEL IMPACT

	Developing	Approaching	On Track	Exceeding
Math	12%	15 26%	17 52%	27 10%
ELA	26%	15 20%	18 36%	24 18%
Science	24%	16 34%	21 26%	25 16%

13

ACHIEVEMENT LEVEL IMPACT



14

DISCUSSION

- How did your ratings compare with those of the others in your subject area?
- How did ratings in your subject area compare with ratings of the other subject areas?
- How does the additional impact information provided influence your ratings of the three cut scores?
- Which information is the most important in making your choice of cut scores?

15

NEXT STEPS

- We will shortly complete the final round of ratings, followed by an evaluation, during which time we will tally the final recommended cut scores.
- After briefly reporting the final recommendations we will conclude the standard setting.
- After this meeting, ACT will deliver a report and recommendations to the Nebraska Commissioner of Education.
- The final cut scores will be determined in August.
- THANK YOU for participating!

16

INSTRUCTIONS FOR SETTING FINAL CUT SCORES

FINAL ROUND RATING FORM*

	Probability of Success			Percentage At/Above			
ACT Score	A prob	B or higher prob	C or higher prob	NE Juniors Census 2017	NE Juniors 2016	Census States Juniors 2016	National Juniors 2016
12	0.02	0.11	0.35	99	100	99	100
13	0.02	0.13	0.39	99	99	98	99
14	0.03	0.16	0.43	97	98	94	97
15	0.04	0.19	0.46	88	95	87	92
16	0.05	0.22	0.51	77	89	74	83
17	0.07	0.26	0.56	62	78	59	71
18	0.09	0.30	0.60	51	68	49	62
19	0.11	0.35	0.63	45	59	40	54
20	0.13	0.40	0.66	39	53	35	49
21	0.16	0.46	0.70	36	49	32	46
22	0.20	0.51	0.73	31	44	28	41
23	0.23	0.55	0.75	28	40	25	38
24	0.29	0.59	0.78	24	34	21	33

* This is the math rating form. The ELA and science forms will have slightly different probabilities and percentages.

18

SETTING *APPROACHING*, *ON TRACK*, AND *EXCEEDING* ACHIEVEMENT LEVELS

Task:

- Think about minimally *Approaching*, minimally *On Track*, and minimally *Exceeding* students in your subject area.
- Think about their likely success in their first-year, entry-level college course in your subject area (College Algebra, English and Social Science courses, or College Biology).
- Highlight the one row for *Approaching*, one row for *On Track*, and one row for *Exceeding* on the rating sheet that best reflect what you see as their probabilities of achieving an A, B, or C grade.
- When finished, hand in the rating sheet to the facilitators and complete the evaluation form.

19

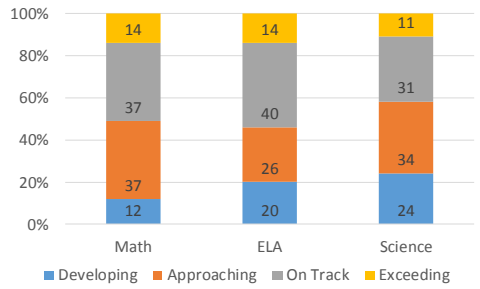
NEBRASKA STANDARD SETTING RESULTS

FINAL ROUND OF RESULTS

		Probability			Percentage At or Above			
	ACT Score	A	B or higher	C or higher	NE Juniors Census 2017	NE Juniors 2016	Census States Juniors 2016	National Juniors 2016
		Mathematics						
Exceeding	26	0.39	0.69	0.83	14	21	12	22
On Track	18	0.09	0.30	0.60	51	68	49	62
Approaching	15	0.04	0.19	0.46	88	95	87	92
		ELA						
Exceeding	25	0.36	0.70	0.86	14	37	12	25
On Track	18	0.14	0.43	0.71	54	78	47	66
Approaching	14	0.08	0.28	0.58	80	94	74	85
		Science						
Exceeding	26	0.30	0.64	0.86	11	17	9	17
On Track	21	0.12	0.41	0.71	42	57	39	52
Approaching	16	0.04	0.19	0.52	76	90	78	85

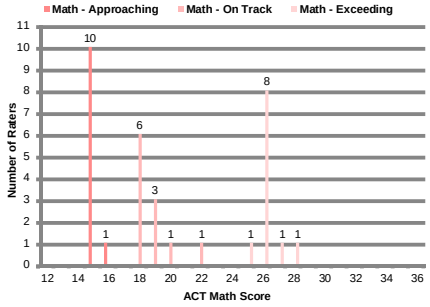
2

ACHIEVEMENT LEVEL IMPACT



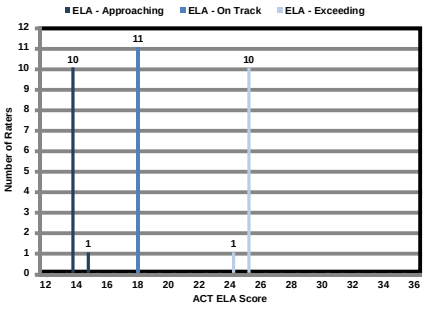
3

FINAL RATINGS



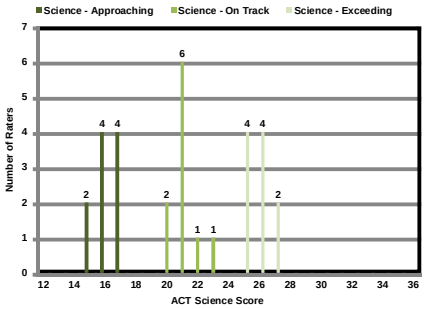
4

FINAL RATINGS



5

FINAL RATINGS



6

NEXT STEPS

- After this meeting, ACT will deliver a report and recommendations to the Nebraska Commissioner of Education.
- The final cut scores will be determined in August.
- THANK YOU for participating!

7