Research UPDATE from the NCRGE

Del Siegle, NCRGE Director

NATIONAL CENTER FOR RESEARCH ON GIFTED EDUCATION

www.ncrge.uconn.edu

the PROBLEM

For more than a quarter century, the field of gifted education has wrestled with two separate, but related issues:

1) a widespread failure to identify and serve underrepresented populations and

2) limited data documenting "what works" in gifted education.

NATIONAL CENTER FOR
RESEARCH ON GIFTED EDUCATION

the **GOAL**

...to increase our understanding of

1. Identification policies and procedures
2. Instructional approaches
3. Program curricula and content
4. Predictors of success

NATIONAL CENTER FOR
RESEARCH ON GIFTED EDUCATION

the **PLAN**

Year 1

- **Analyze State District Gifted Education Plans**
- **Survey All Districts and Schools about Gifted Identification and Service Policies and Practices in CO, FL, and NC**
- **Analyze 3rd, 4th, and 5th Grade Student Reading and Mathematics Achievement for Current 7th Grade Students**
- **Identify Schools that Successfully Include and Serve Under-Represented Populations with Gifted Services**

Year 2

- **Conduct Case Studies of 24 Schools (8 in each of three states) to Determine Which Practices and Services are Most Effective**

Year 3

- **Develop a Randomized Controlled Trial to Test Findings from Case Studies**

133 Variables for 293 State District Gifted Plans

193,810 7th-Grade Students' Math and Reading Achievement in Grades 3, 4, and 5

2 Comprehensive Literature Reviews

331 District Survey Responses

1580 School Survey Responses

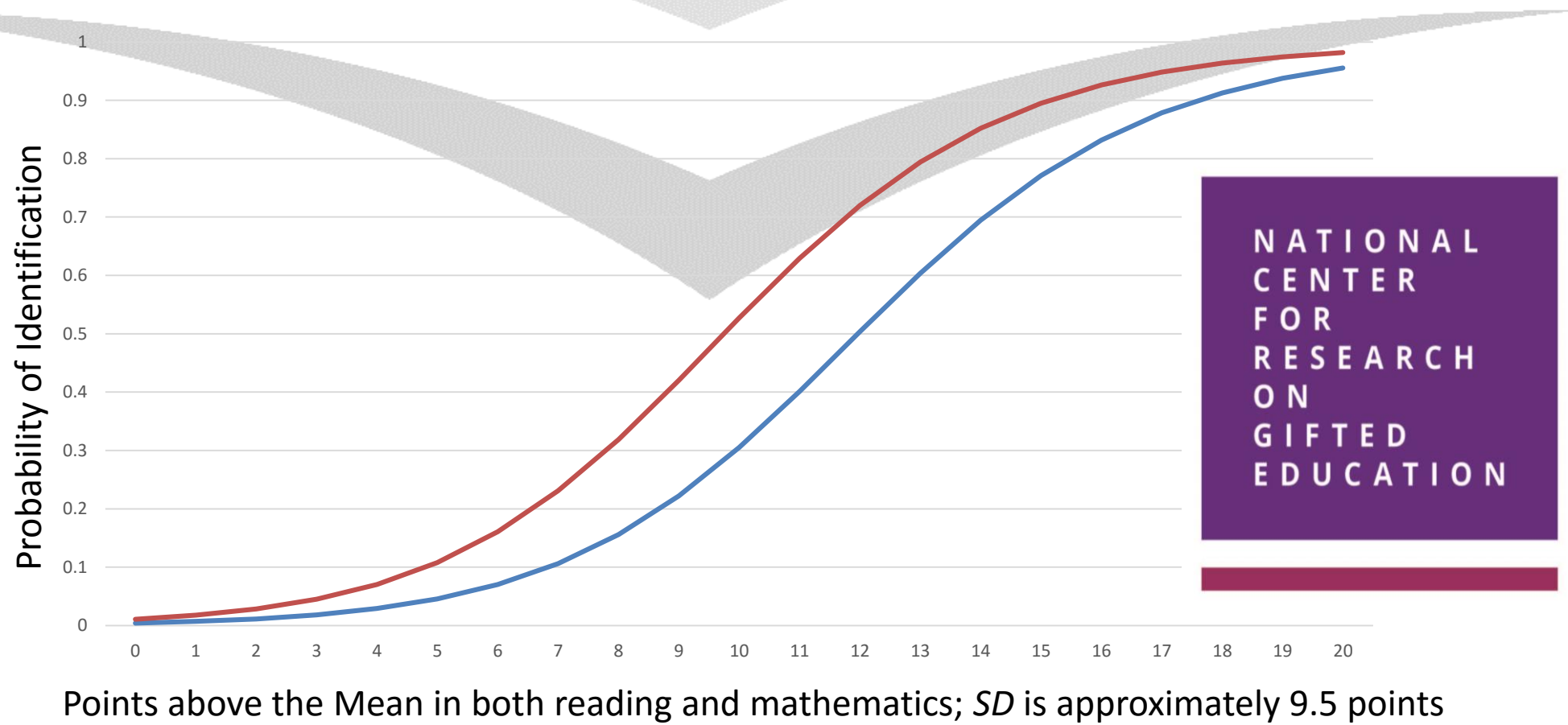# How BAD is the U̲nder representation

of Underserved Populations in Gifted Education?

Predicted probability of being identified as gifted in grade 4 for students from different demographic groups

	Logit	%
Reference	-1.88	13.23
Non-under/FRL	-3.13	4.18
Non-under/EL	-2.58	7.06
Non-under/FRL/EL	-3.83	2.13
UNDER	- 2.93	5.05
UNDER/FRL	-4.10	1.63
UNDER/EL	-3.63	2.58
UNDER/FRL/EL	-4.79	0.82

NATIONAL CENTER FOR RESEARCH ON GIFTED EDUCATION

Probability of identification as gifted in grade 4 for reference students and students who are EL, FRL, and UNDER after controlling for Reading and Math scores and school SES and school percentage of gifted students

Points above the Mean in both reading and mathematics; *SD* is approximately 9.5 points

Fraction by Score Strata and FRL

Identified by 5th Grade

Gifted
Not

Combined Math and Reading Score Above the Mean

10-15 Ref | 10-15 FRL | 15-20 Ref | 15-20 FRL | 20-25 Ref | 20-25 FRL | 25-30 Ref | 25-30 FRL | 30+ Ref | 30+ FRL

Identified by 5th Grade

Fraction by Score Strata and Under

Gifted
Not

Combined Math and Reading Score Above the Mean

10-15 non
10-15 und
15-20 non
15-20 und
20-25 non
20-25 und
25-30 non
25-30 und
30+ non
30+ und
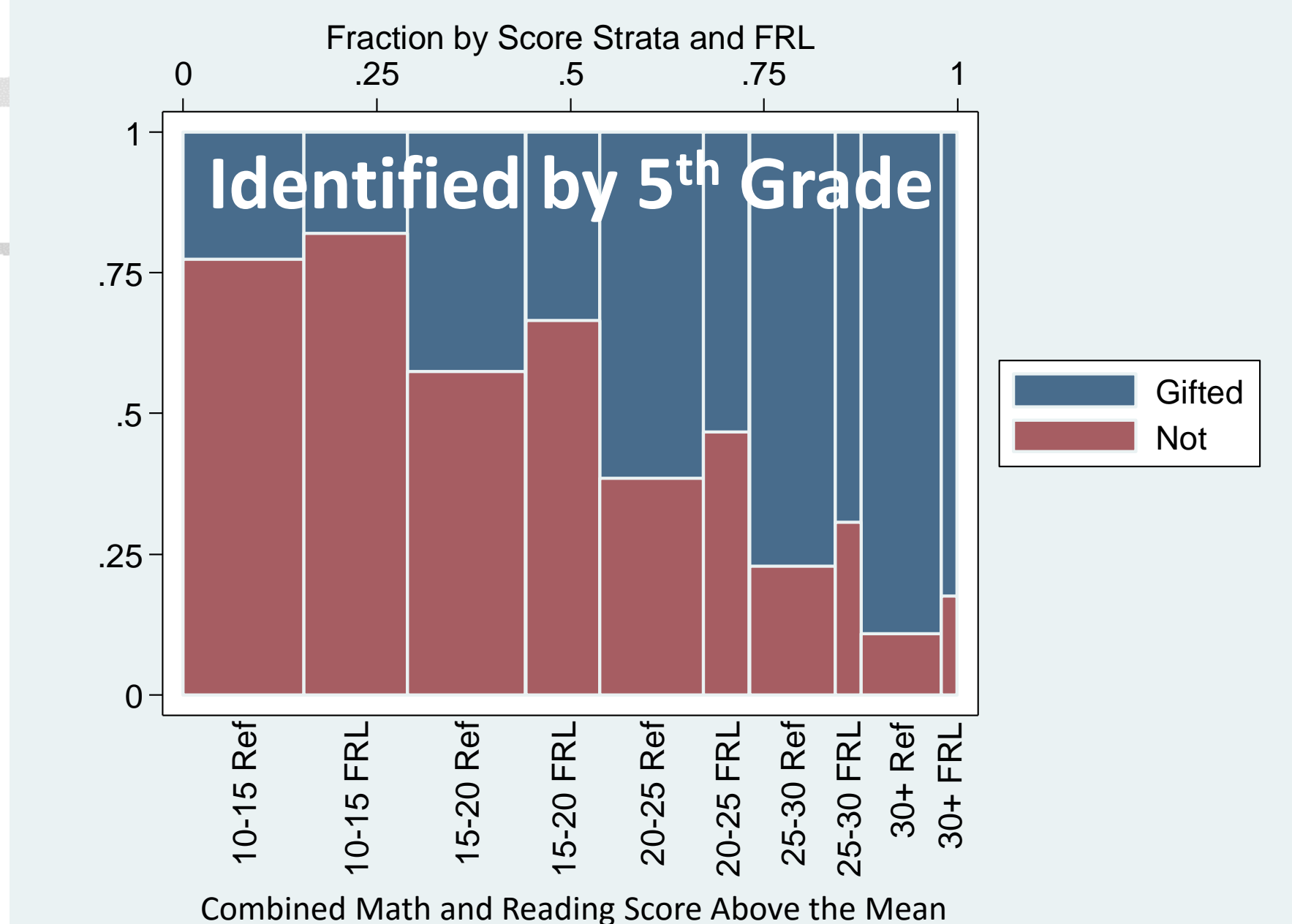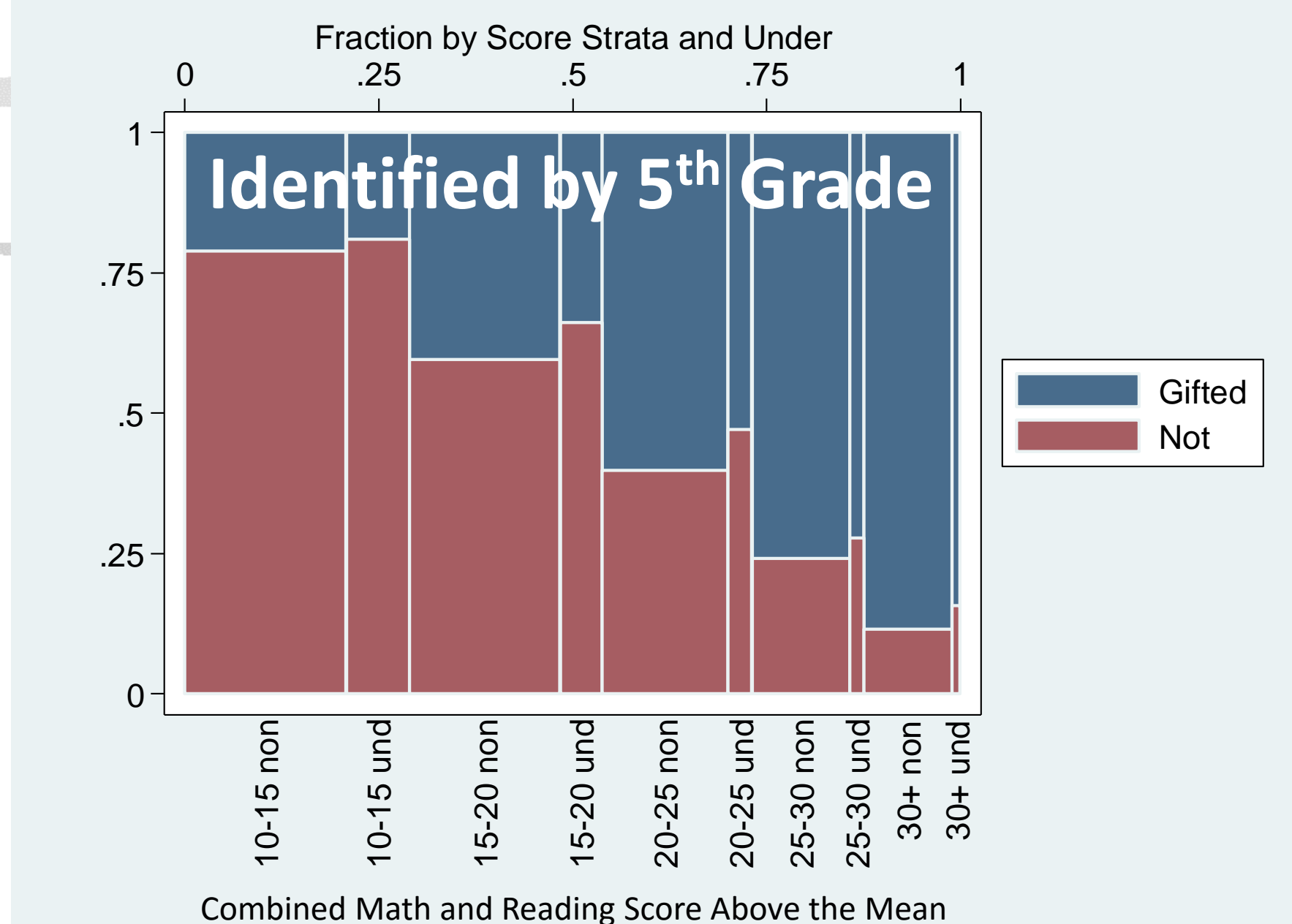
What is the relationship between the **% of free and reduced lunch students in a school** and the **% of students identified as gifted?**
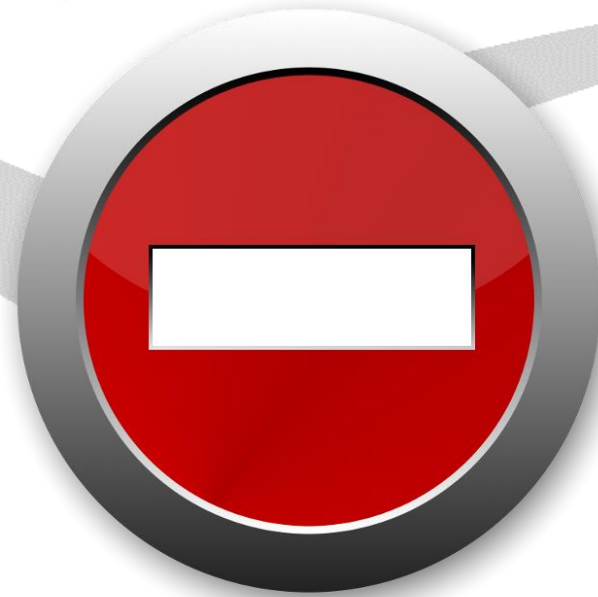
61

The percentage of students in the school with free and reduced lunch predicts 20% of the residual within district variance (after controlling for reading and math scores) in the percentage of students identified as gifted and talented.
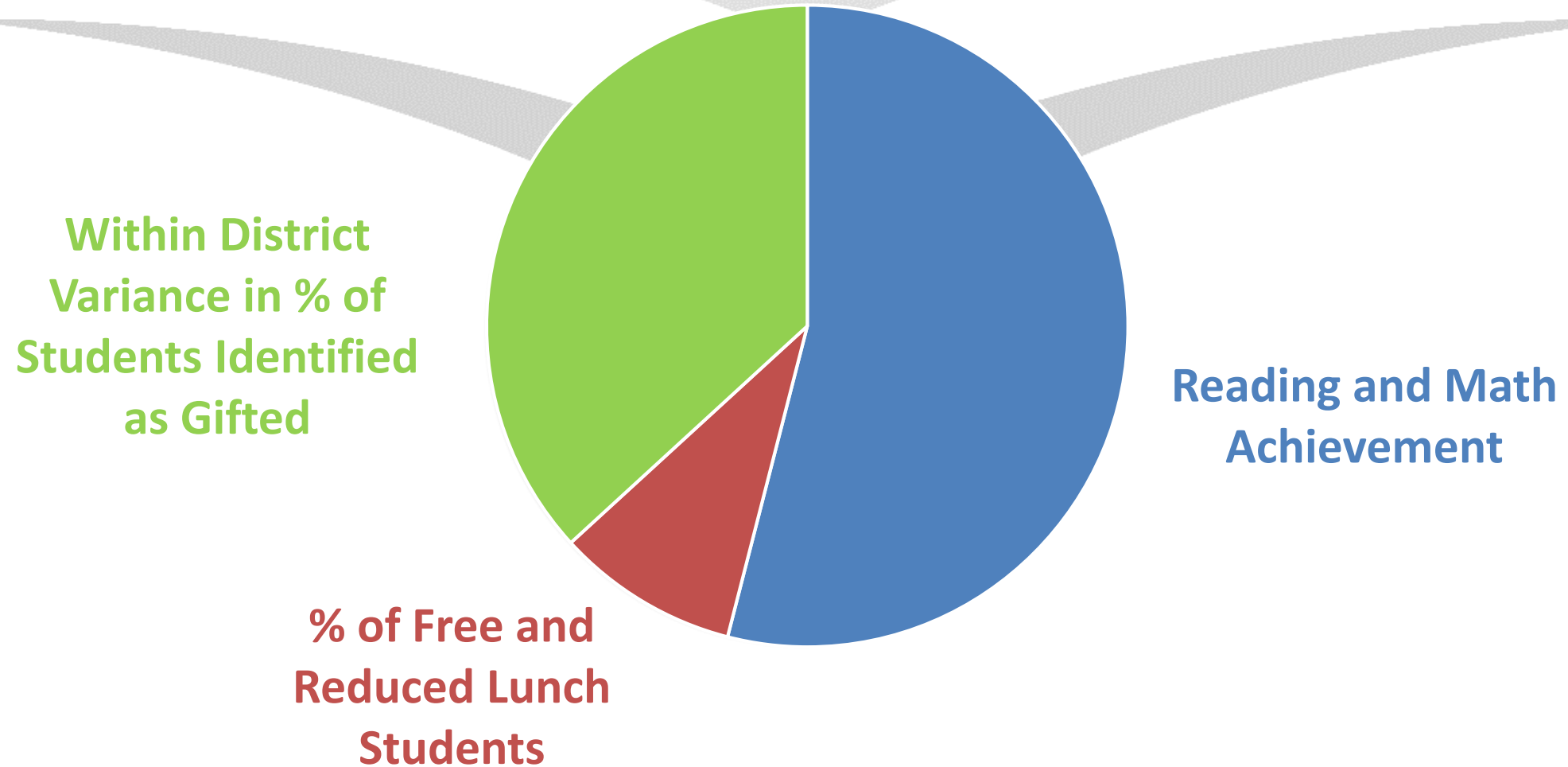
Within District Variance in % of Students Identified as Gifted

% of Free and Reduced Lunch Students

Reading and Math Achievement

District Plans: Coding Scheme Sections

Section A: Preparation

Section B: Pre-Identification

Section C: Identification

Section D: District Coordinator & Other Staff

Section E: Evaluation

Section F: Intervention

Section G: Service Delivery

NATIONAL CENTER FOR RESEARCH ON GIFTED EDUCATION

www.ncrge.uconn.edu

District Plans – Inter-rater Agreement
293 Plans: 133 Variables Each

- **State 1**: 57 districts with 16 BOCES (with 2-21 sub-districts); *178 district plans*
  - 14% selected for group ratings
  - 91.9% average inter-rater agreement

- **State 2**: *115 district plans*
  - 13% selected for group ratings
  - 87.8% average inter-rater agreement

Screening & Identification Mentioned in the Plan

State 1	Assessments	State 2
70.8%	Intelligence	92.2%
47.2%	Non-verbal Intelligence	69.6%
68.0%	Achievement	97.4%
47.2%	Teacher rating scales	69.3%
59.6%	Teacher nominations	80.9%
56.7%	Parent nominations	73.0%
38.2%	Self-nominations	36.5%

District Survey Results Support District Plan Analysis

Cognitive Ability Tests	94.3%
Teacher Nomination/Referral	93.4%
Achievement Tests	91.8%
Parent Nomination/Referral	84.9%
Teacher Ratings	77.0%
Student Work Samples	65.9%
Observation Tools	61.2%
Non-Verbal Assessment	57.7%
Performance-Based Assessment	47.0%
Self-Nomination	36.5%
Creativity Test Score	27.4%
Dynamic Assessment	4.4%

identification

First identify in...
Kind. - .9%
1st – 2.8%
2nd – 27.8%
3rd – 53.6%
4th – 12.0%
5th – 1.6%
None of the above – 1.3%

Identified at what..
Global – 41%
Reading/LA – 69.1%
Mathematics – 66.6%
Other – 44.2%

33% Use Matrix
59.8% Have Specific Cut Score
46 % Modify the Identification for
Underserved Populations
33.9% Native Lang.
50.3% Non-Verbal Test
62% More Flexible Score
23.9% Different Weighting of Criteria
49.4% Different Criteria or Cutoff

19.3% Use Universal Screening
Group Cognitive – 77.7%
Non-verbal – 37.5%
Achievement – 22.3%
Teacher Rating Scale – 11.7%

Screening & Identification

- **Tests matter**
  - Provide main data sources
  - IQ and achievement tests used most frequently
- **Identification occurs in 3rd grade**

Reading & Math Curricular and Instructional Approaches Mentioned in District Plans

State 1			State 2	
36.5% Math	**31.5%** Reading	**More in-depth or breadth of grade level content**	**74.8%** Math	**75.7%** Reading
48.3% Math	**47.8%** Reading	**Faster pace (acceleration, above grade level)**	**88.7%** Math	**89.6%** Reading
39.3% Math	**39.3%** Reading	**Pre-assessment (informal or formal)**	**61.7%** Math	**61.7%** Reading

- **30.4% of schools do not accelerate**
- **36.0% of schools subject accelerate**
- **25.9% of schools whole grade accelerate**

- **71.6% of schools use pullout**
- **52.1% of schools use cluster grouping**
- **43.8% of schools use homogenous grouping**
- **32% of schools use push-in**

- **28.9% schools offer gifted reading/LA but 28.7% of them don't have specific reading/LA curriculum**
- **28.4% schools offer gifted mathematics but 24.2% of them don't have specific gifted math curriculum**
- **93.7% of districts do not have a designed math curriculum for gifted**
- **90.2% of districts do not have a designated reading/LA curriculum for gifted**

N A T I O N A L
C E N T E R
F O R
R E S E A R C H
O N
G I F T E D
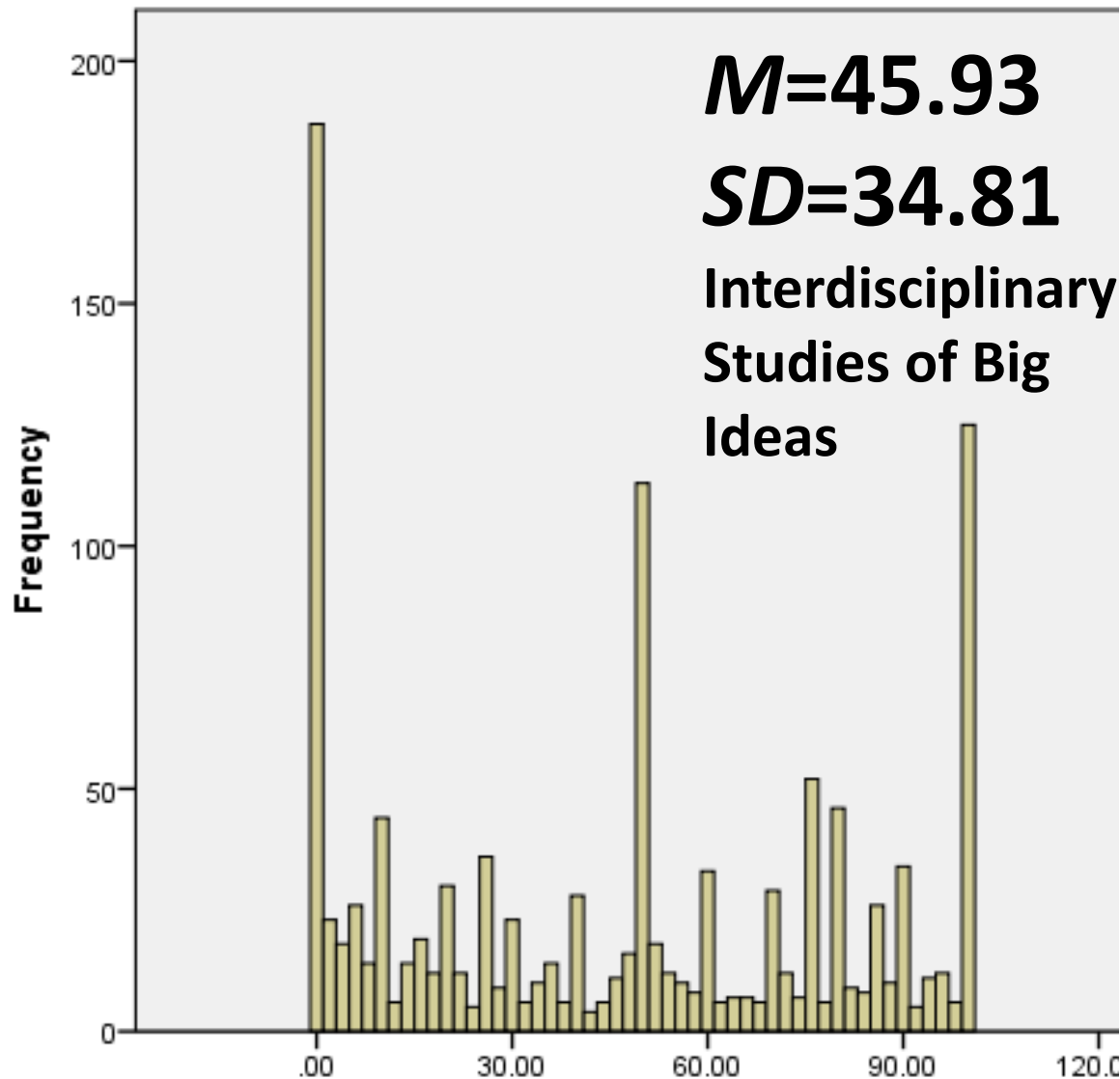E D U C A T I O N

M=41.91
SD=36.67
Acceleration in Mathematics
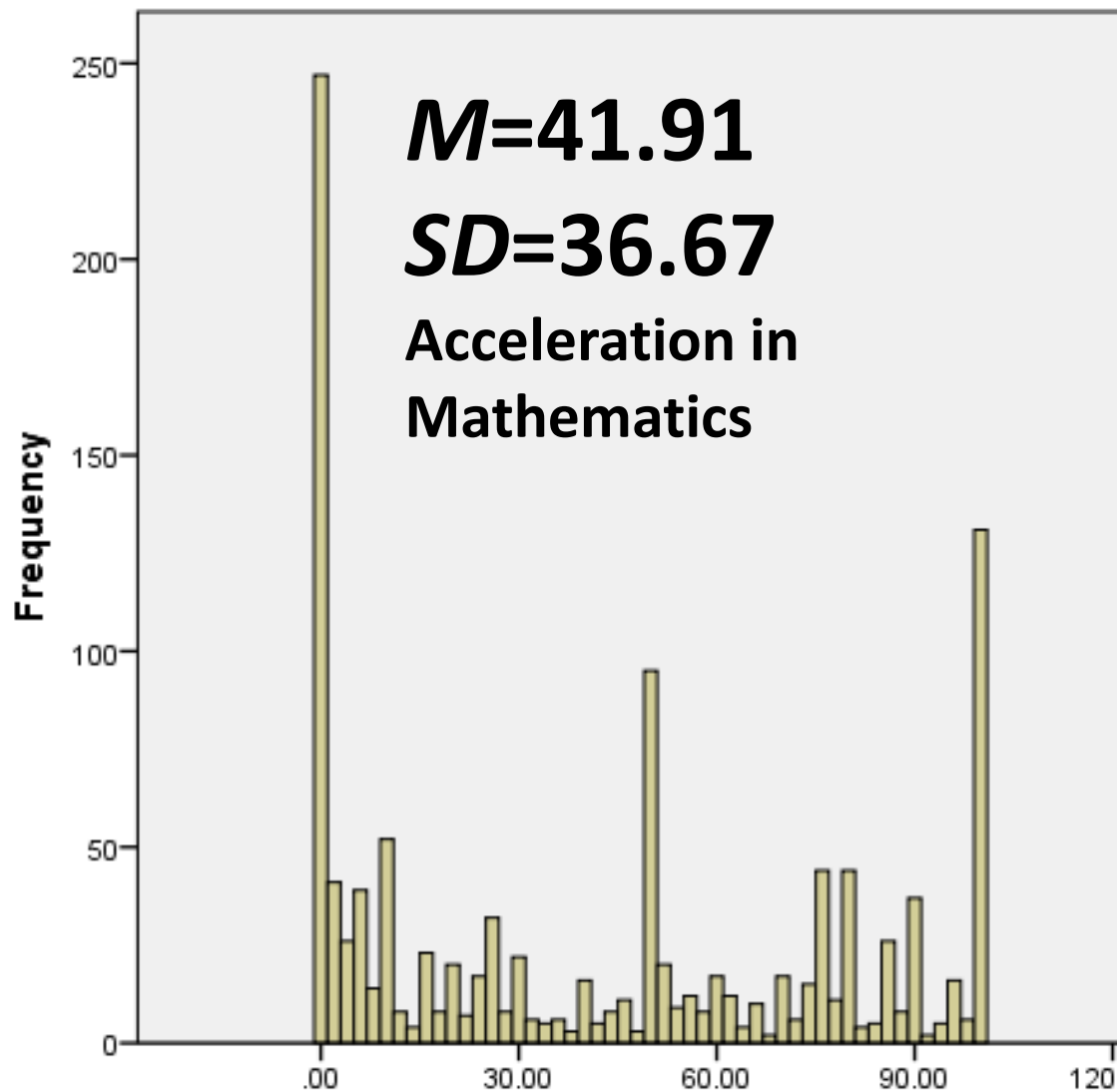
17. Using the slider, indicate the degree to which the gifted programming at your school focuses...-Acceleration in mathematics
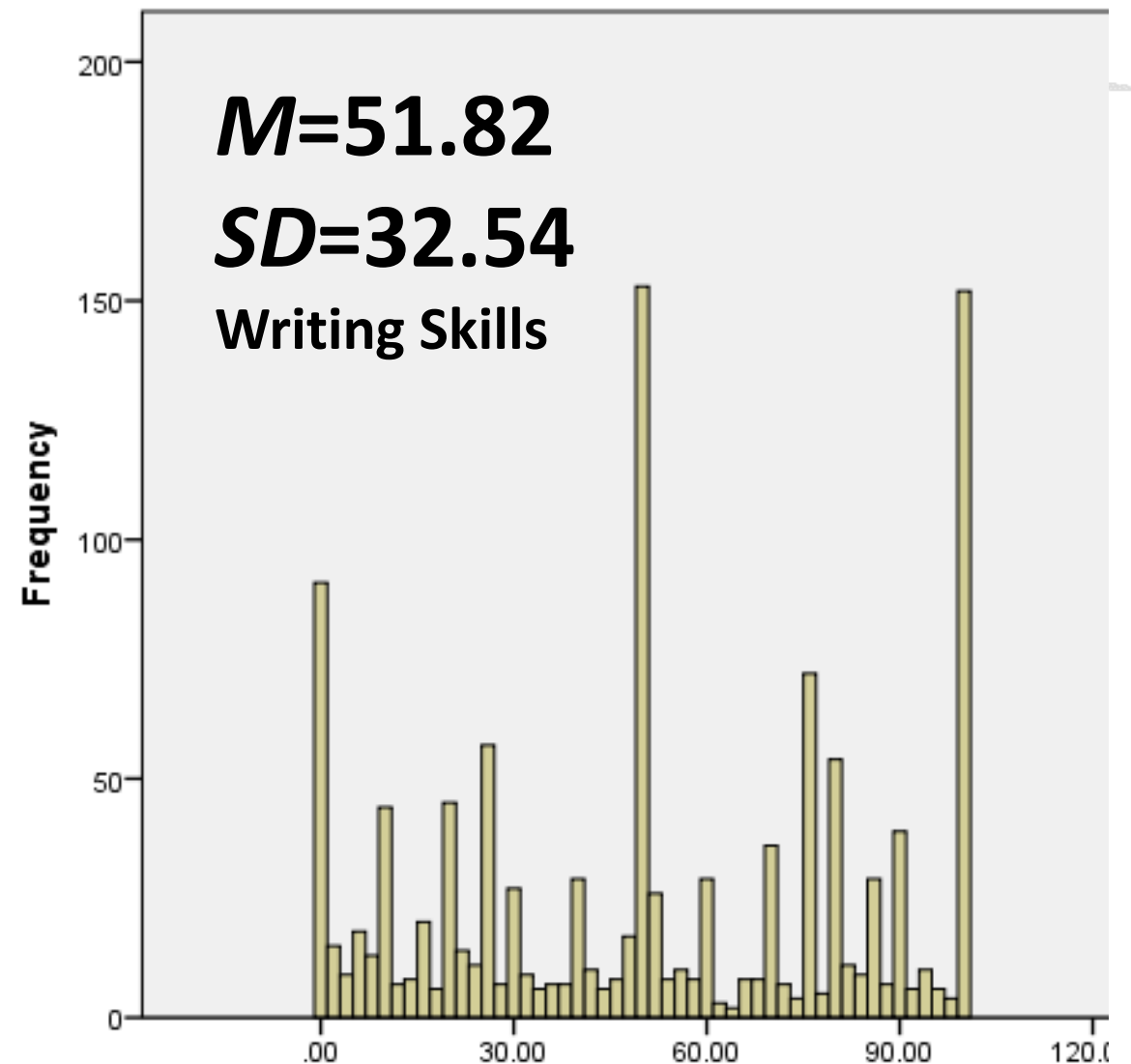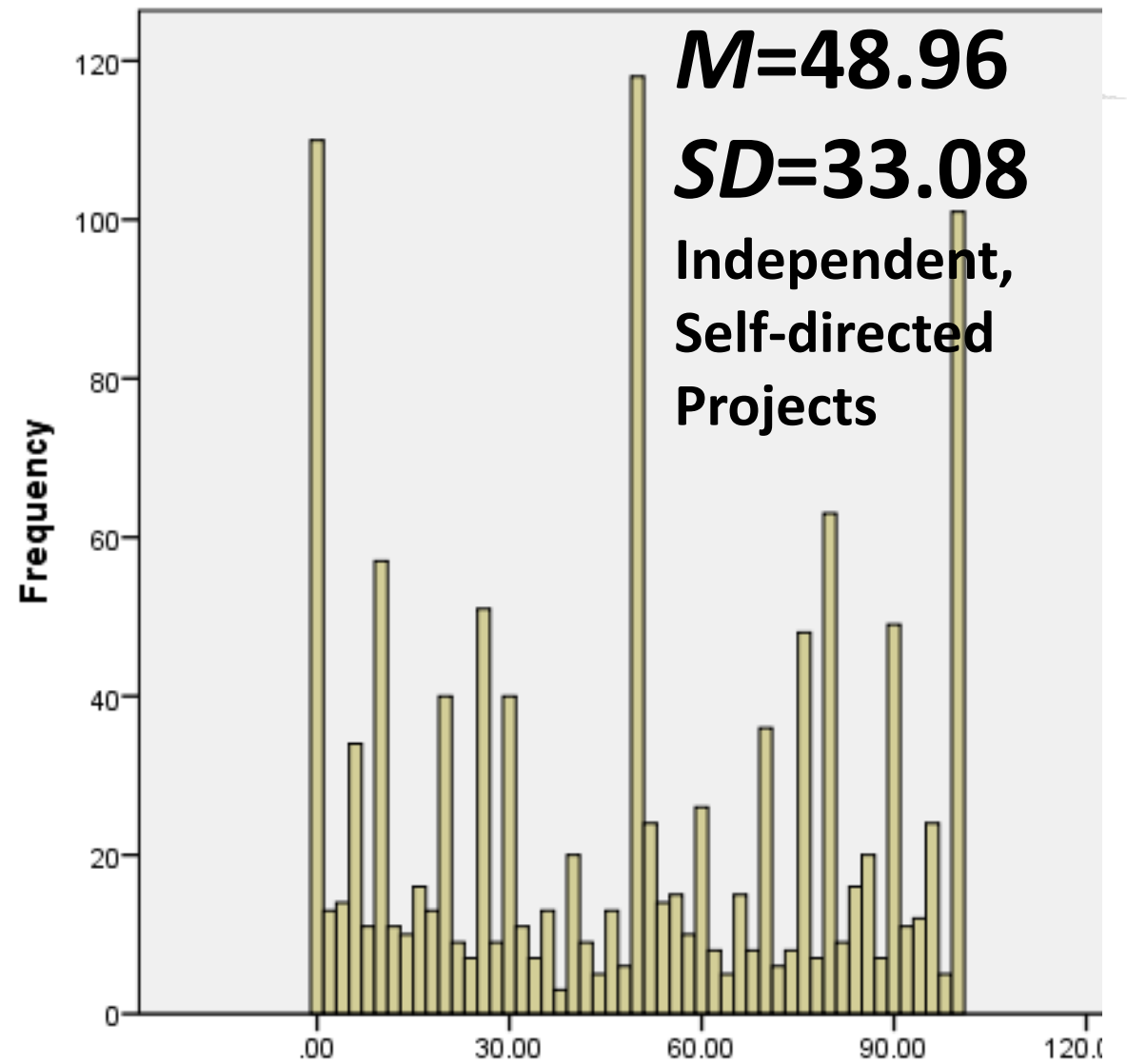
M=51.82
SD=32.54
Writing Skills

17. Using the slider, indicate the degree to which the gifted programming at your school focuses...-Writing skills

M=45.93
SD=34.81
Interdisciplinary Studies of Big Ideas

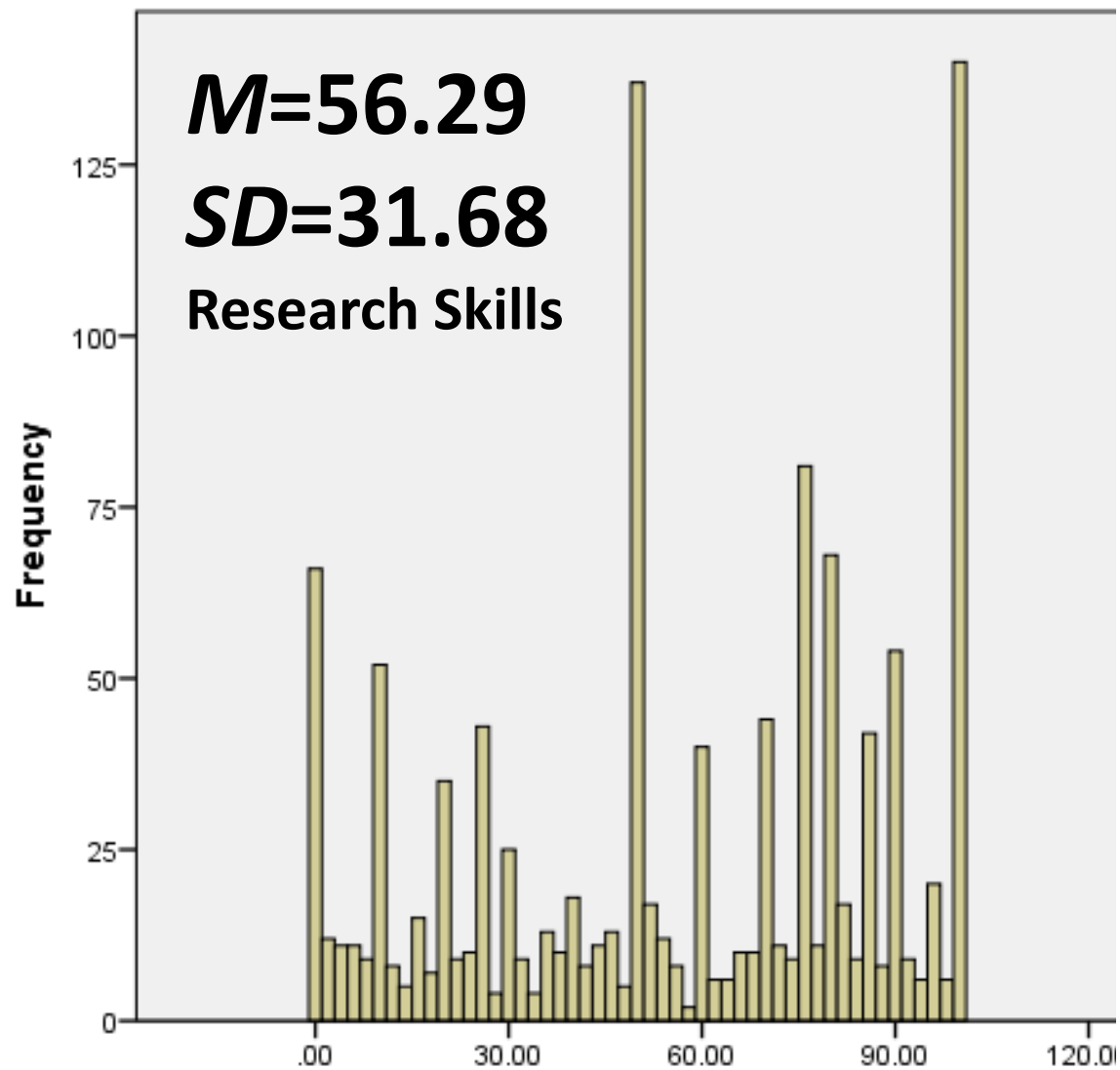**M=48.96**
SD=33.08
Independent, Self-directed Projects

17. Using the slider, indicate the degree to which the gifted programming at your school focuses...-Interdisciplinary studies of big ideas
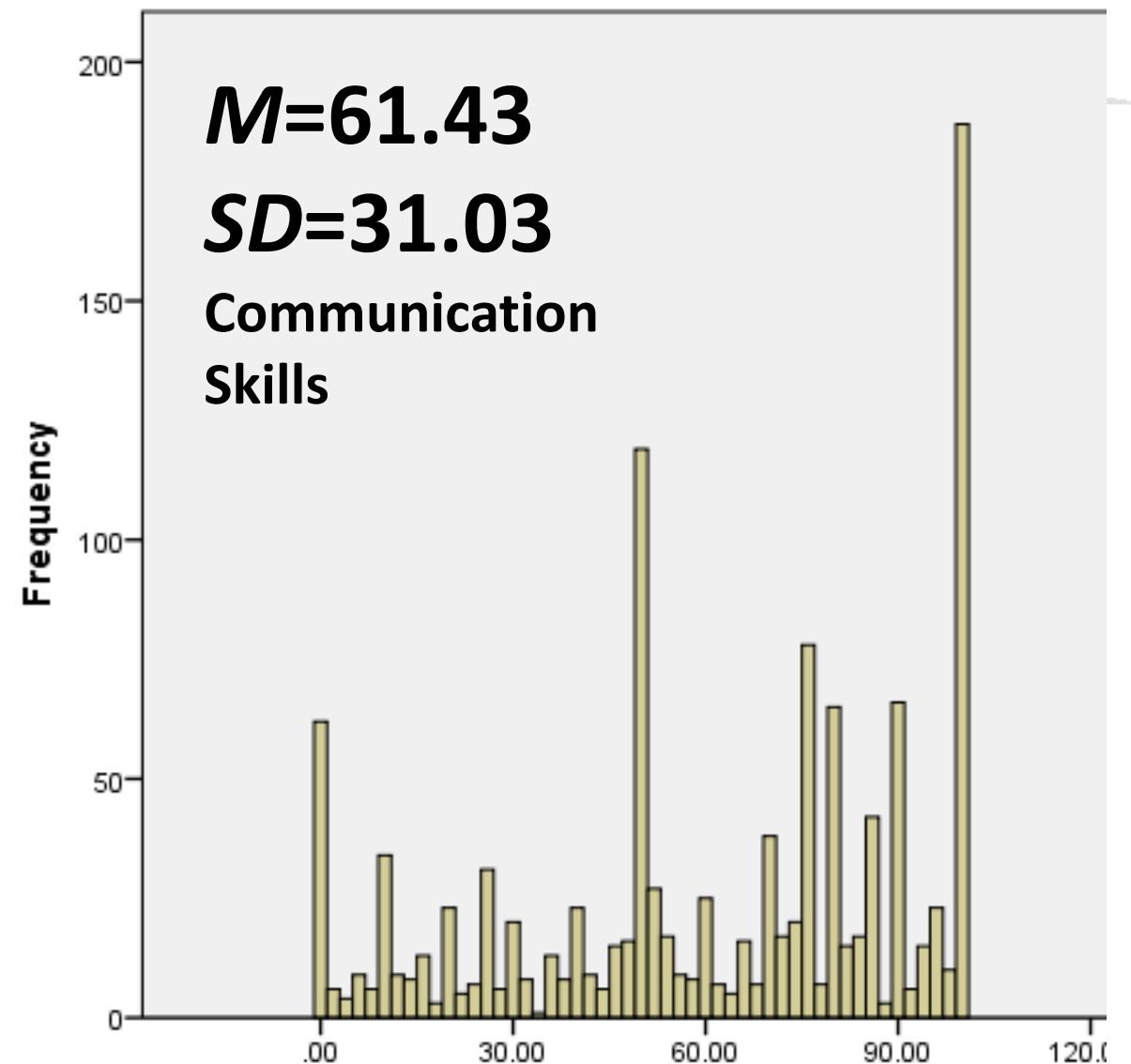
17. Using the slider, indicate the degree to which the gifted programming at your school focuses...-Independent, self-directed projects

The National Center for Research on Gifted Education (NCRGE – http://ncrge.uconn.edu) is funded by the Institute of Education Sciences, U.S. Department of Education PR/Award # R305C140018
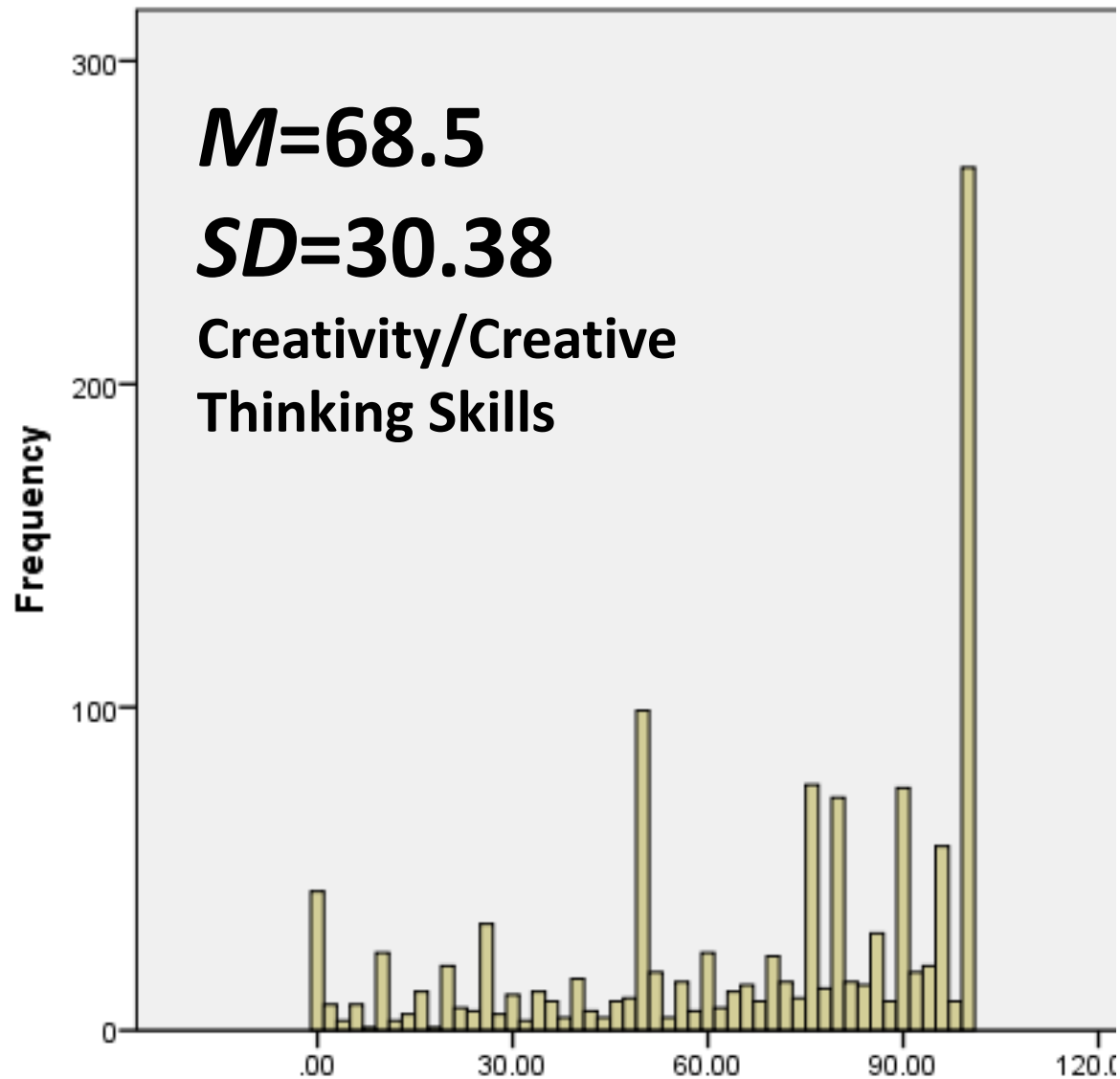
M=68.5
SD=30.38
Creativity/Creative Thinking Skills

M=76.27
SD=27.90
Critical Thinking Skills

17. Using the slider, indicate the degree to which the gifted programming at your school focuses...-Creativity/creative thinking skills
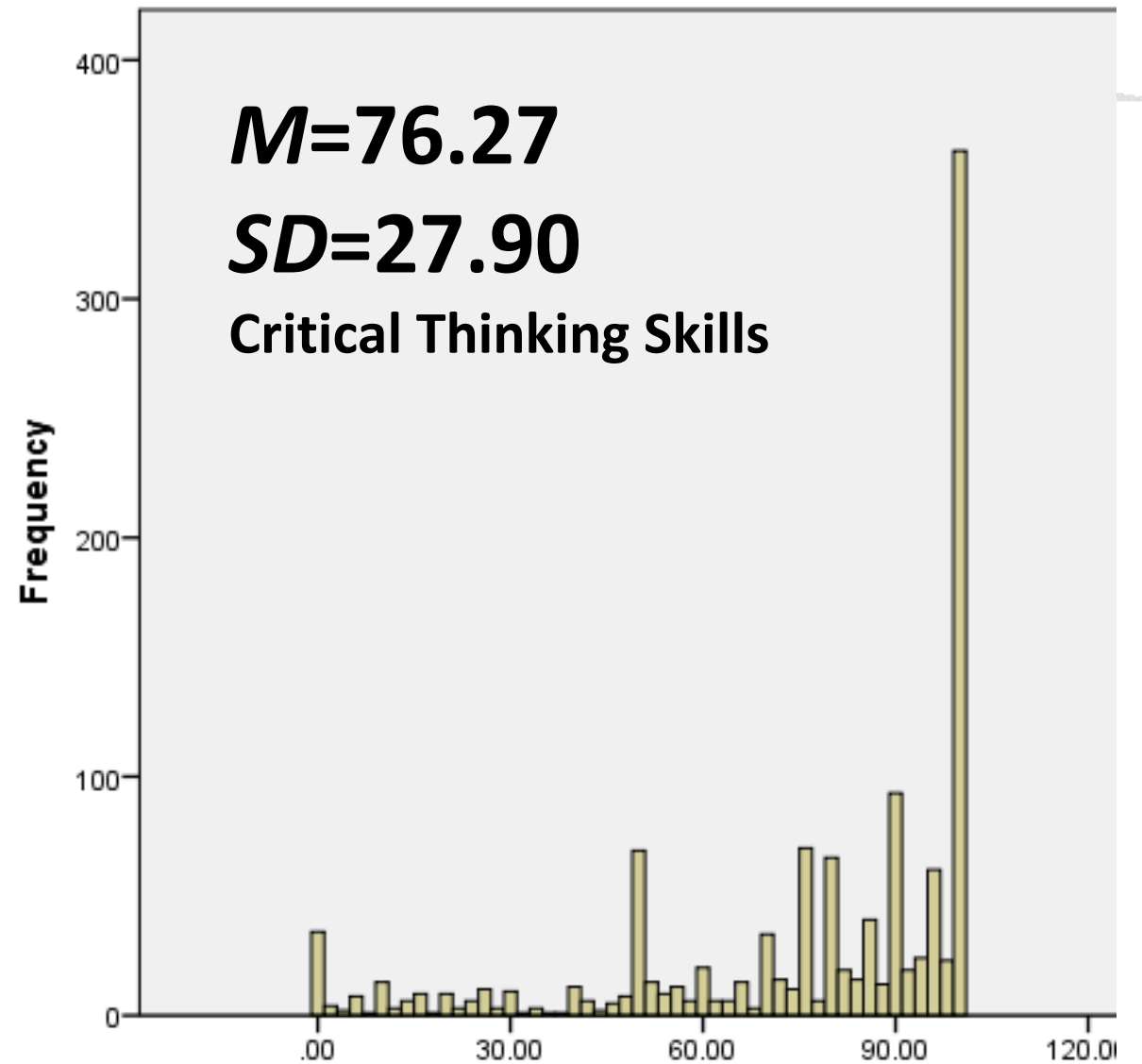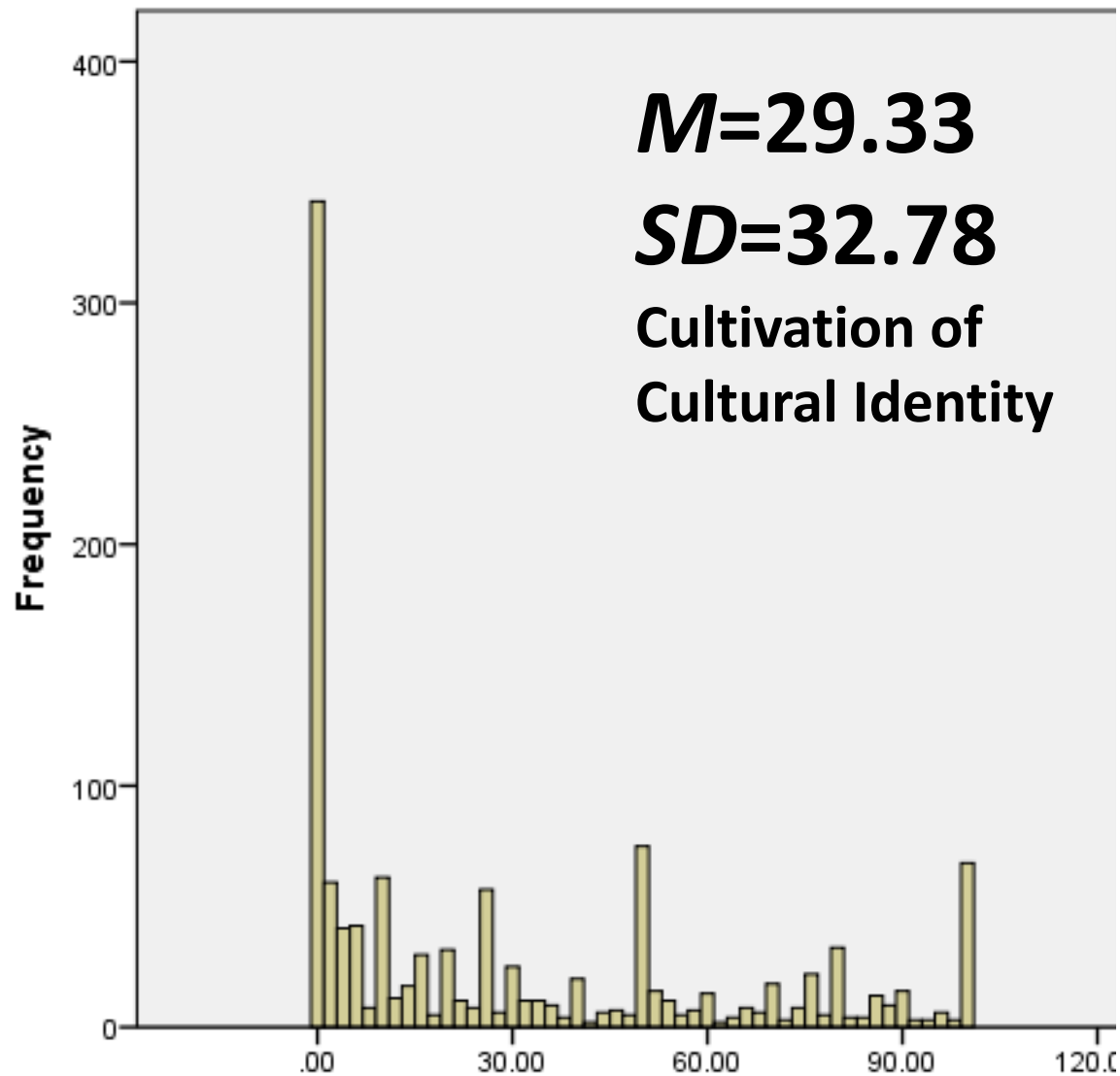
17. Using the slider, indicate the degree to which the gifted programming at your school focuses...-Critical thinking skills (e.g., problem solving, decision making)
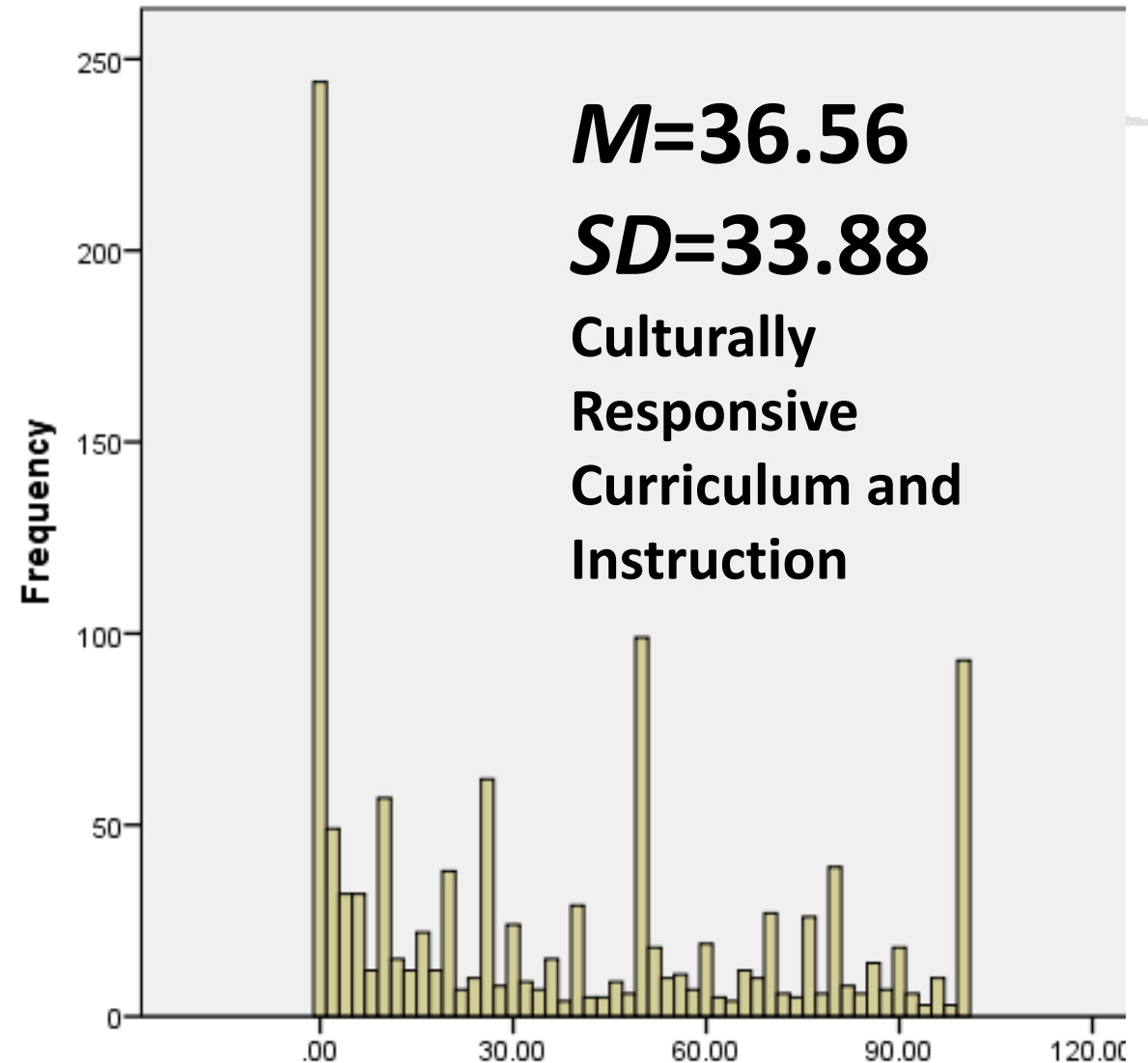
Pullout for Creativity and Critical Thinking Rule the Day

M=29.33
SD=32.78
Cultivation of Cultural Identity

17. Using the slider, indicate the degree to which the gifted programming at your school focuses...-The cultivation of cultural identity

M=36.56
SD=33.88
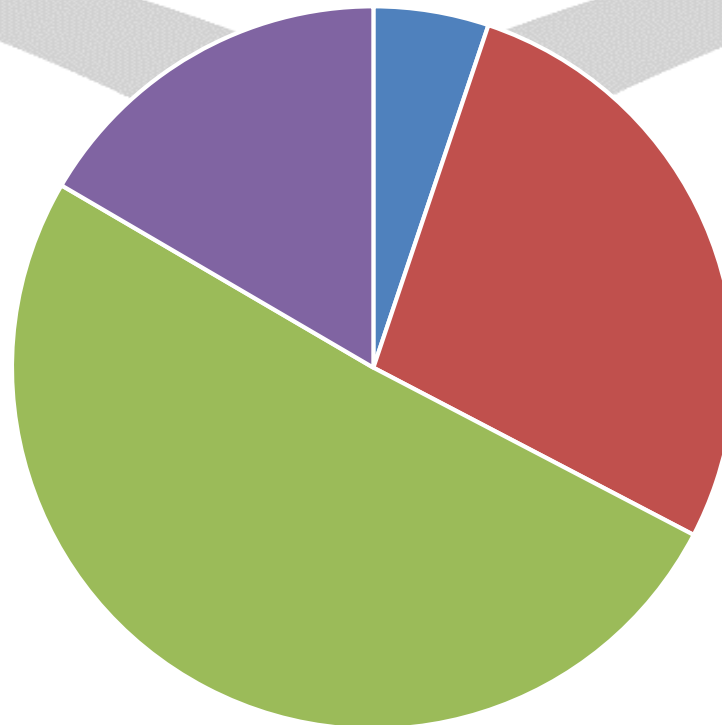**Culturally Responsive Curriculum and Instruction**

17. Using the slider, indicate the degree to which the gifted programming at your school focuses...-Culturally responsive curriculum and instruction
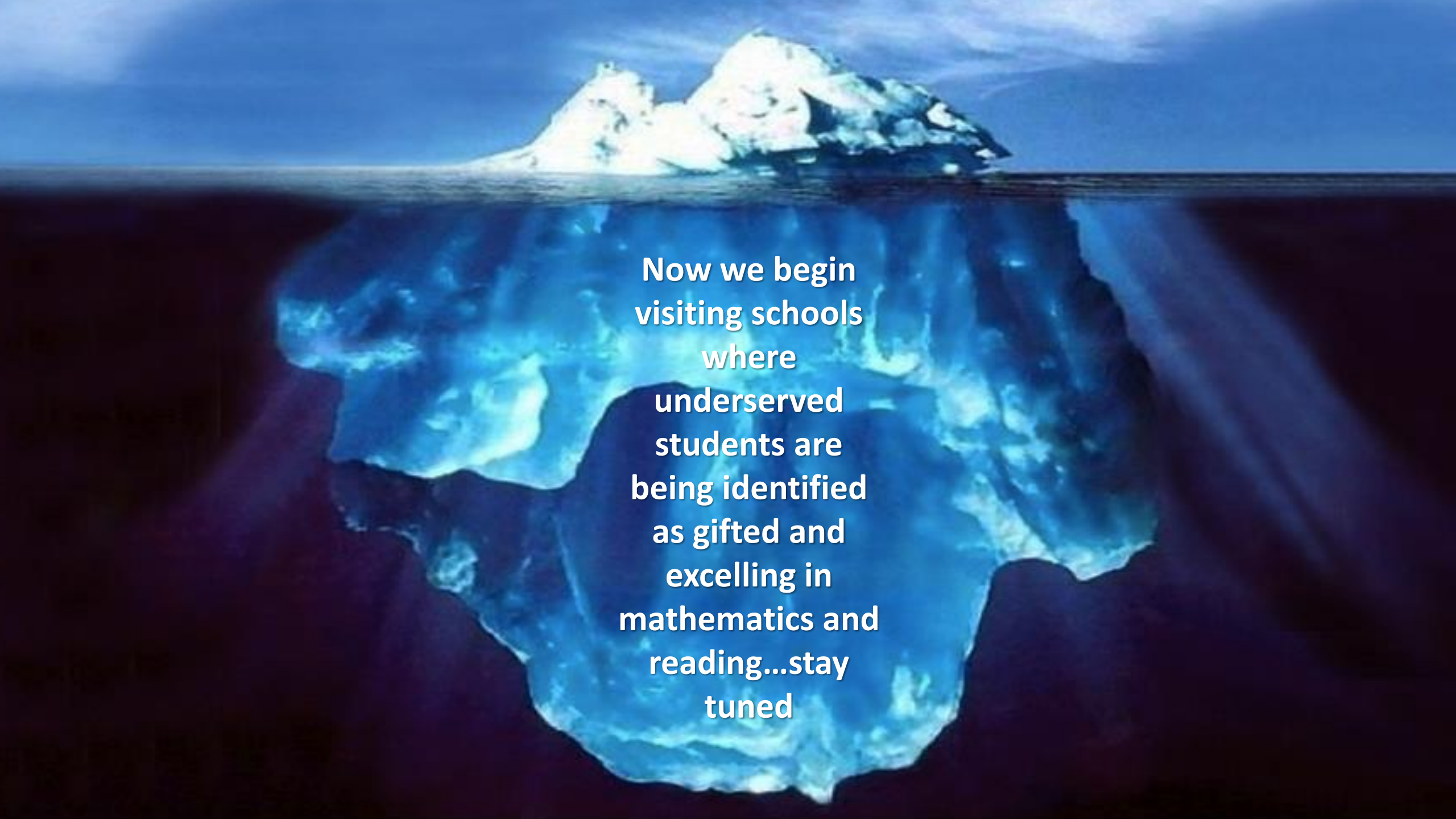
Change is Possible

How much autonomy do your school's teachers of the gifted have in choosing the content to deliver?

Very Little – 5.1%

Some – 27.2%

A Lot – 50.2%

Complete 16.4%

■ Very Little ■ Some ■ A Lot ■ Complete

The National Center for Research on Gifted Education (NCRGE – http://ncrge.uconn.edu) is funded by the Institute of Education Sciences, U.S. Department of Education PR/Award # R305C140018

Now we begin visiting schools where underserved students are being identified as gifted and excelling in mathematics and reading...stay tuned

NCRGE
Research Group

UCONN

University of Connecticut:

Dr. Del Siegle, Director

Dr. E. Jean Gubbins, Associate Director

Dr. D. Betsy McCoach

Dr. Rashea Hamilton

Dr. Rachel Chung

Dr. Joseph Renzulli

Dr. Christopher Rhoads

Dr. Bianca Montrosse-Moorhead

UNIVERSITY *of* VIRGINIA

Dr. Carolyn M. Callahan

Berkeley
UNIVERSITY OF CALIFORNIA

Dr. Frank Worrell

Florida State
UNIVERSITY

Dr. Yaacov Petscher

Visit our website
http://ncrge.uconn.edu