

**Who Am I?**

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**We have a story to tell**

- What story can we tell with the APR indicators?
- And how will our story make a difference for students with disabilities?

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**Numbers Tell The Story**

- We have to and want to improve educational outcomes for students with disabilities.
- Numbers will tell the story on how to do this.
- Numbers (math, statistics) allow us to systematically study a phenomenon and determine (or at least hypothesize about) reasonable courses of action.

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### Statistics

- You need a little statistical knowledge to understand the “Statistics” behind the numbers in your APR Report .
- Don't worry – the stats lesson is short!

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### Things to Watch Out For #1

- Small Numbers
- The smaller the number, the greater the margin of error.
- Small numbers have a big impact on overall results.

Results based on small numbers should not be publicly reported.

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### Small Numbers in Concrete Terms

# of Students	Percentage Points each student is worth	With 3 "outliers":	
		Percent Proficient	Average Score
5	20	40.0%	3.800
10	10	70.0%	5.900
20	5	85.0%	6.950
50	2	94.0%	7.580
100	1	97.0%	7.790
200	1/2	98.5%	7.895
500	2/10	99.4%	7.958
1000	1/10	99.7%	7.979

In this example, all but 3 of the students in each group scored a perfect score on a scale of 1-8; these 3 students scored a 1.

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### Things to Watch Out For #2

- % Proficient vs. Mean Achievement
  - % Satisfied vs. mean satisfaction, etc.
- Fluctuations in Percent Proficient are exaggerated compared to fluctuations in mean scores.
- Useful to know when making comparisons (over districts, over time, etc.)
- See Handout #1

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### Things to Watch Out For #3

- The "significance" of differences in percentages.
- Always consider the number of students on which the percentages are based.
  - Always go with the lower number
- Always consider the level of the percentage.
- See Handout #2

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### What Should You Do with the APR Data in order to tell the story?

- Get it!
- Analyze it!
- Disaggregate it!
- Compare it!
- Interpret it!

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**Get It!**

- NM District Profile Reports
  - [http://www.ped.state.nm.us/seo/district\\_data/index.htm](http://www.ped.state.nm.us/seo/district_data/index.htm)
- Child Count
- Survey Data (Parent, Post-secondary)
- Monitoring Data
- State Test Scores
- Records Data
- IEP Data

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**Analyze It!**

- "I've come loaded with statistics, for I've noticed that a man can't prove anything without statistics."  
-- Mark Twain

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**Analyze It!**

- The initial analysis has been done for you.
  - See District Profile Reports
- Mainly percentages of things.
  - (Nature of APR)

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**Disaggregate it!**

- “Everyone is kneaded out of the same dough but not baked in the same oven.”  
-- Yiddish Proverb
- “Disaggregation is not a problem-solving strategy. It is a problem-finding strategy.”  
-- Victoria L. Bernhardt

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**Disaggregate it!**

- “Drill down” by:
  - Gender
  - Race/ethnicity
  - Primary Disability
  - Environment Code
  - District
  - School
  - Grade
  - What else??

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**Compare it!**

- “When I hear somebody sigh, 'Life is hard,' I am always tempted to ask, 'Compared to what?'"  
-- Sydney Harris
- “When you are courting a nice girl, an hour seems like a second. When you sit on a red-hot cinder, a second seems like an hour. That's relativity.”  
-- Albert Einstein

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**Compare it!**

- A statistic in isolation is meaningless.
- Need a reference point. For example:
  - District rate to state rate
  - District rate to target rate
  - Boys to girls
  - Learning Disability to Speech/Language
  - District rate in 2006-07 to district rate in 2005-06
  - What else??

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**Interpret it!**

- "Good questions outrank easy answers."  
-- Samuelson
- "You can tell whether a man is clever by his answers. You can tell whether a man is wise by his questions."  
-- Mahfouz Naguib

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**Questions**

- The best way to interpret the indicator data is to start asking questions:
  - Examine your data
  - What questions do you have?
  - Can you answer these questions, and if not, what do you need to do in order to answer these questions?
- See Handout #3

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**What is the Story of the State Data**

- In 2006-07, State met the target on indicators:
  - 3b Participation Rate Reading and Math
  - 4a Suspension/Expulsion Rate
  - 8 Parent Involvement Rate
  - 9 Disprop. Rep R/E
  - 12 Preschool Transition Rate
- See Hand-out #4

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**What is the Story of the State Data**

- In 2006-07, State did not meet the target on indicators:

1 Graduation Rate	5c LRE Separate Settings
2 Drop-Out Rate	10 Disprop Rep. R/E Disability
3a AYP Reading/Math	11 Timely Evaluation Rate
3c Proficiency Rate Reading/Math	13 High School Transition Rate
5a LRE Regular Classroom	
5b LRE Separate Classroom	

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**What is the Story of the State Data**

- From Baseline to 2006-07, State improved on these indicators:

1 Graduation Rate	5b LRE Separate Classroom
3a AYP Reading	8 Parent Involvement
3c Participation Rate Reading/Math	9 Disprop Rep. R/E
3c Proficiency Rate Reading/Math	10 Disprop Rep. R/E Disability
4a Suspension/Expulsion Rate	12 Preschool Transition Rate
5a LRE Regular Classroom	13 High School Transition Rate

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### What is the Story of the State Data

- From Baseline to 2006-07, State regressed on indicators:
  - 2 Drop-out Rate
  - 3a AYP Math
  - 5c LRE Separate Settings
  - 11 Timely Evaluations

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### What is the Story of the State Data

- For 2007-08, data on indicators 4, 8, 11, 12 is currently available.
- State met target on indicators:
  - 4a Suspension/Expulsion
  - 11 timely evaluation
  - 12 Preschool Transition Rate
- State did not meet target on indicator 8 Parent Involvement (but new sampling methodology)

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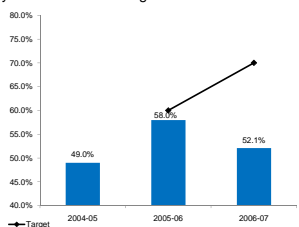
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### 1: Graduation Rate

Percent of youth with IEPs who graduate – State Results



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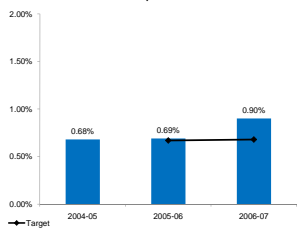
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## 2: Dropout Rate

Percent of youth with IEPs who drop-out – State Results



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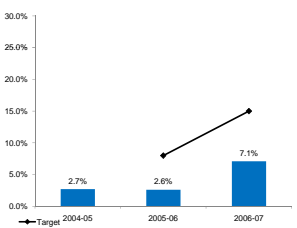
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## 3a: AYP - Reading

Percent of LEAs that meet AYP for disability subgroup – State Results



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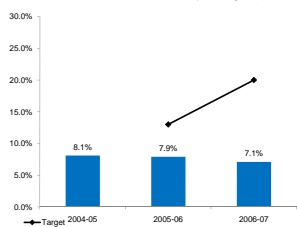
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## 3a: AYP - Math

Percent of LEAs that meet AYP for disability subgroup – State Results



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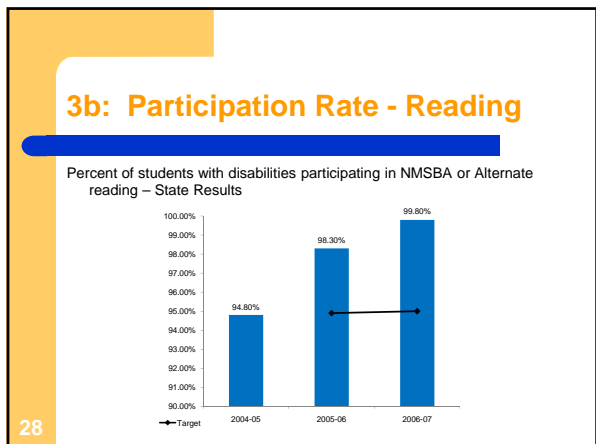
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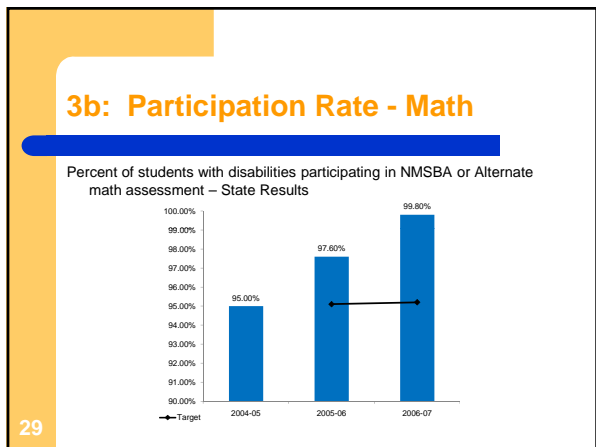
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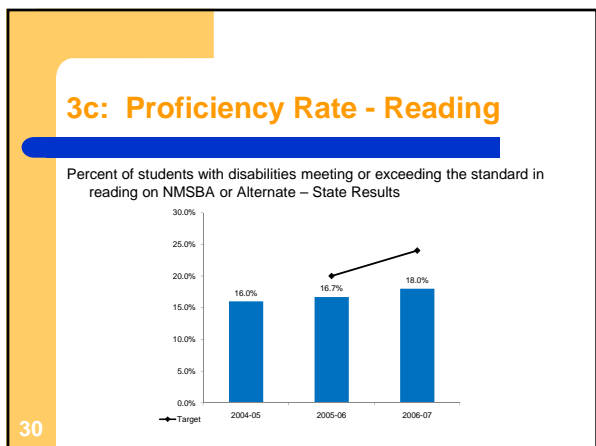
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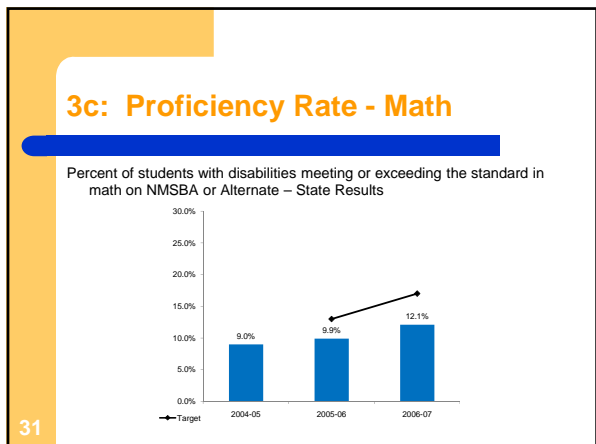
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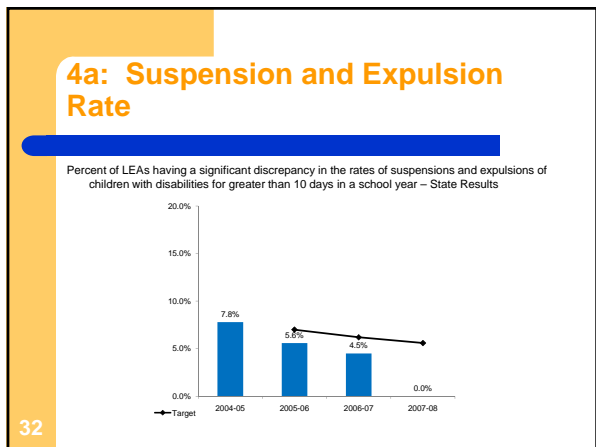
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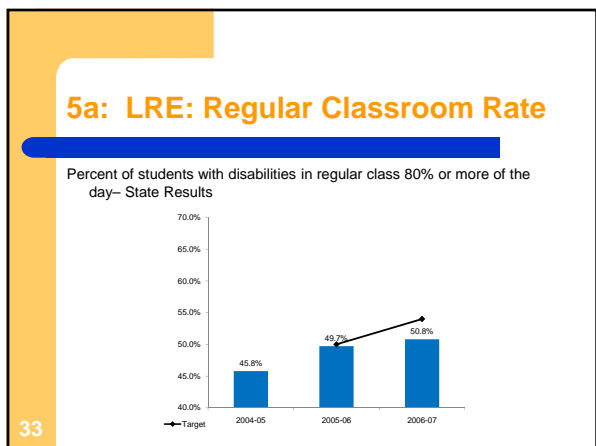
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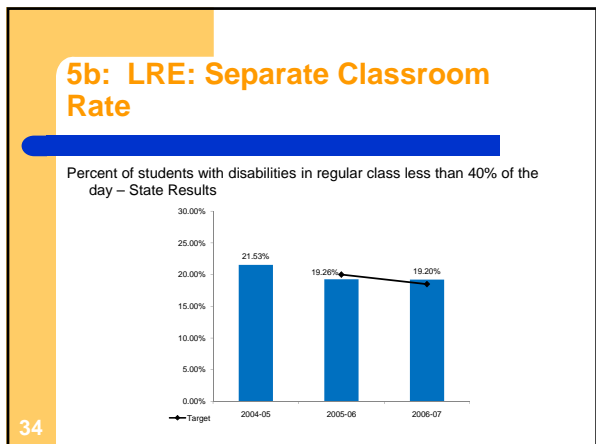
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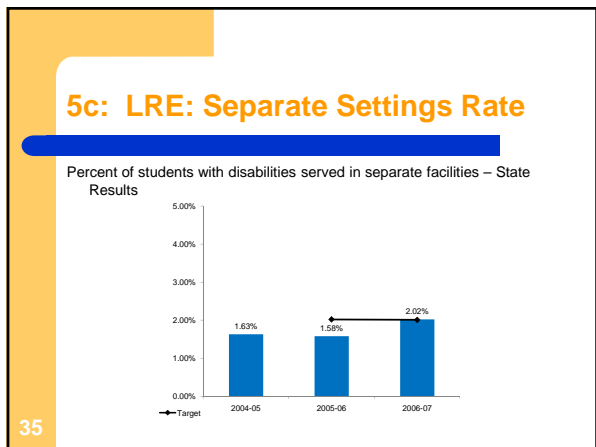
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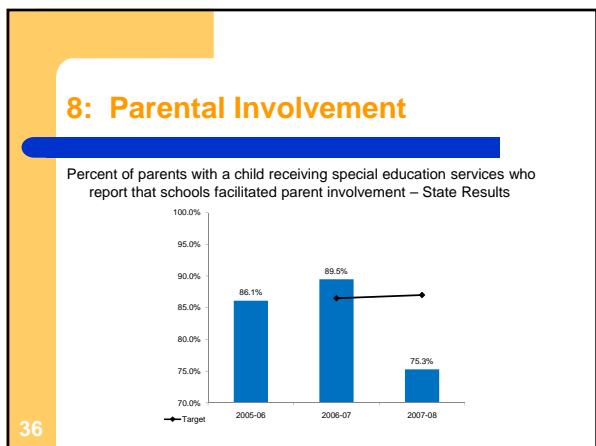
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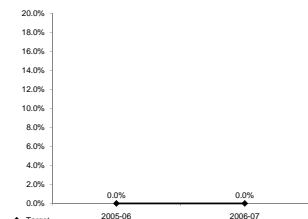
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### 9: Racial/Ethnic Disproportionate Representation

Percent of districts with disproportionate representation of racial and ethnic groups in special education that is the result of inappropriate identification – State Results



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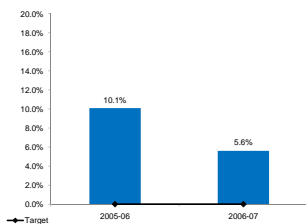
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### 10: Racial/Ethnic Disproportionate Representation by Disability

Percent of districts with disproportionate representation of racial and ethnic groups in specific disability categories that is the result of inappropriate identification – State Results



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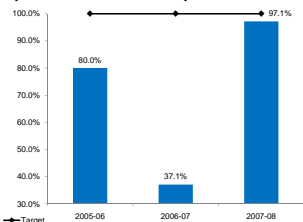
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### 11: Timely Evaluation Rate

Percent of children with parental consent to evaluate, who were evaluated and eligibility determined within 60 days – State Results



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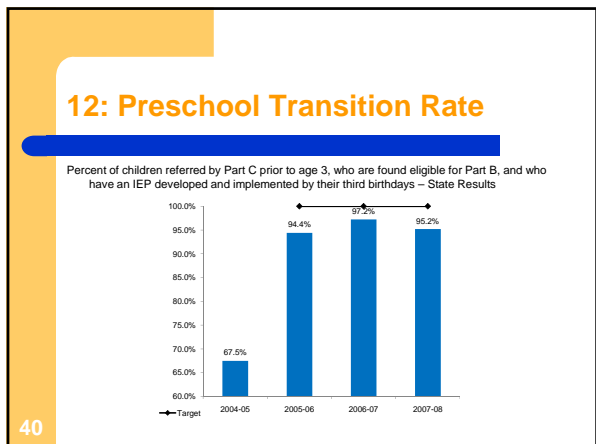
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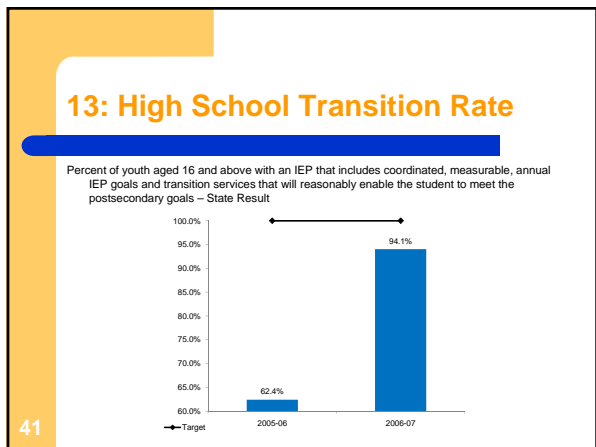
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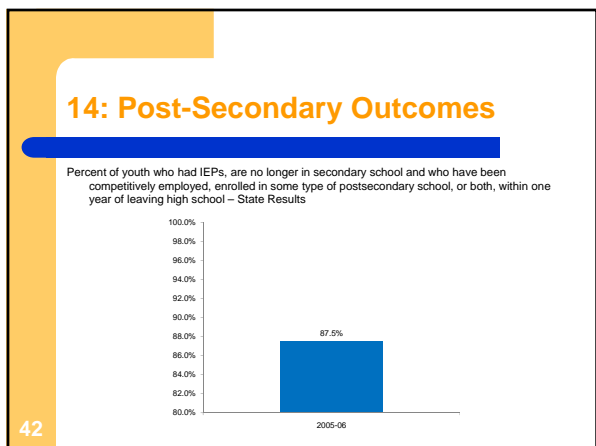
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**Examples – What is the Story with:**

- Proficiency Rate – See Handout #5
- LRE Regular Classroom Rate – See Handout #6
- LRE Separate Classroom Rate – See Handout #7
- Graduation Rate – See Handout #8
- Parent Survey – See Handout #9

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**Now What?**

- What are the activities that can potentially improve APR performance, and as such, outcomes for students with disabilities?

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**Ideas for Improvement Activities**

- Look at your state's APR and SPP  
<http://www.ped.state.nm.us/seo/index.htm>
- Look at the rrcnetwork's resources:  
<http://spp-apr-calendar.rrcnetwork.org/>

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# Handout #1

## Fluctuations in Percent Proficient are Exaggerated Compared to Fluctuations in Mean Scores

Example:

Scale Score can range from 381-781

Scores of 572 or above are "proficient"

Number of students = 75

Percent Proficient = 69%

Mean Score = 591.9

The mean scores of 4 students who scored between 572-575 are changed to 570.

Percent Proficient = 65%

Mean Score = 591.7

<u>Was</u>	<u>Now</u>
...	...
565	565
569	569
570	570
572	570
574	570
575	570
575	570
578	578
580	580
...	...

## Handout #1 Continued

### Fluctuations in Percent Proficient are Exaggerated Compared to Fluctuations in Mean Scores

#### **Example 2 with small numbers:**

Scale Score can range from 381-781

Scores of 572 or above are "proficient"

Number of students = 11

Percent Proficient = 64%

Mean Score = 571.1

The mean scores of 4 students who scored  
between 572-575 are changed to 570.

Percent Proficient = 27%

Mean Score = 569.6

<u>Was</u>	<u>Now</u>
543	543
565	565
569	569
570	570
572	570
574	570
575	570
575	570
578	578
580	580
581	581

## Handout #2

### Sampling Error Associated with a Given Sample Size<sup>1</sup>

Assuming:

- Proportional Variables
- 95% Level of Confidence
- Large Populations (10,000 +)
- Simple Random Selection of Sample

Sample Size	Sampling Error for Percentages of:		
	50%	75%	90%
10	31.0%	26.8%	18.6%
25	20.0%	17.0%	11.8%
35	17.0%	14.3%	9.9%
50	14.0%	12.0%	8.3%
75	11.0%	9.8%	6.8%
100	10.0%	8.4%	5.9%
200	7.0%	5.9%	4.1%
300	6.0%	4.8%	3.3%
400	5.0%	4.2%	2.9%
500	4.4%	3.7%	2.6%
600	4.0%	3.4%	2.3%
700	3.7%	3.1%	2.1%
800	3.5%	2.9%	2.0%
900	3.3%	2.7%	1.9%
1000	3.1%	2.6%	1.8%
1100	3.0%	2.4%	1.7%
1500	2.5%	2.0%	1.4%
2100	2.1%	1.7%	1.1%
2400	2.0%	1.5%	1.1%

Interpretive Example: With a sample size of 300, the margin of error will be  $\pm 6\%$ . As such, if 48% of the surveyed sample are satisfied with the reading program, then there is a 95% chance that the true percentage of the entire population of interest who are satisfied with the reading program lies somewhere between 42-54%.

You should recognize that these reported sampling errors are based only on sampling; they do not take into account nonsampling errors such as those due to poor questionnaire design, nonresponse bias, or inaccurate responses. As such, these sampling errors should be considered the minimum amount of error surrounding a reported percentage. For example, if you administer your survey to 300 adults, and get 200 surveys back, your margin of error is at least 7%; it may be higher if nonresponse bias or other errors are present.

# Handout #3

## Making Sense of Your Data

### Look at the Indicator Report and Report Card

#### 1. Determine if Your Rates Met the Targets

a. For what indicators did you meet the target?

b. Why do you think you met the targets on these indicators?

c. For what indicators did you not meet the target?

d. Why do you think you did not meet the targets on these indicators?

#### 2. Compare your rates with State Rates

a. For what indicators are you higher than the state rate?

b. Why do you think your rate is higher than the state's?

c. For what indicators are you lower than the state rate?

d. Why do you think your rate is lower than the state?

#### 3. Examine your results over time

a. On what indicators did you improve in 2006-07?

b. Why do you think you improved on these indicators?

c. On what indicators did you regress in 2006-07?

d. Why do you think you regressed on these indicators?

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4. What type of data drill-downs would you like to do?



**Summing It Up**

**5. Go Back and Review the Areas You Highlighted Above**

a. What are your strengths?



b. What are your potential areas of improvement?



c. On what indicators can you have the most immediate, positive impact?



**Immediate Action Steps**

What three things will you do when you return to your district to follow-up on these data?

1.

2.

3.

State Performance Plan (SPP)/Annual Performance Report (APR)  
New Mexico State Report Card for 2006-07

Handout #4

Indic. #	Indicator	Measurement	2004-05 Rate	2005-06 Rate	2006-07 Rate	2006-07 Target	Meet Target?	2006-07- Target
1	Graduation Rate	Percent of youth with IEPs graduating from high school with a regular diploma.	49.0%	58.0%	52.1%	70.0%	N	-17.9%
2	Drop Out Rate	Percent of youth with IEPs dropping out of high school.	0.68%	0.69%	0.90%	0.68%	N	-0.22%
3	Statewide Assessment	<i>Participation and performance of children with disabilities on statewide assessment (NMSBA or Alternate):</i>						
3A	State AYP Objectives	<i>Percent of districts meeting the State's AYP objectives for progress for disability subgroup:</i>						
		Reading	2.7%	2.6%	7.1%	15.0%	N	-7.9%
		Math	8.1%	7.9%	7.1%	20.0%	N	-12.9%
3B	Participation Rate	<i>Participation rate for children with IEPs:</i>						
		Reading	94.8%	98.3%	99.8%	95.0%	Y	4.8%
		Math	95.0%	97.6%	99.8%	95.2%	Y	4.6%
3C	Proficiency Rate	<i>Proficiency rate for children with IEPs:</i>						
		Reading	16.0%	16.7%	18.0%	24.0%	N	-6.0%
		Math	9.0%	9.9%	12.1%	17.0%	N	-4.9%
4A	Suspension/Expulsion Rate, Overall	Percent of districts with a significant discrepancy in the rates of suspensions/expulsions of children with disabilities for greater than 10 days in a school year.	7.8%	5.6%	4.5%	5.6%	Y	1.1%
5	LRE for Students	<i>Percent of children with IEPs aged 6 through 21 who are:</i>						
5A	Regular Classroom	In regular class 80% or more of the day.	45.8%	49.7%	50.8%	54.0%	N	-3.2%
5B	Separate Classroom	In regular class less than 40% of the day.	21.5%	19.3%	19.2%	18.5%	N	-0.7%
5C	Separate Facilities	Served in public or private separate schools, residential placements, or homebound or hospital placements.	1.6%	1.6%	2.0%	2.0%	N	0.0%
8	Parent Involvement	Percent of parents with a child receiving special education services who report that schools facilitated parent involvement as a means of improving services and results for children with disabilities.		86.1%	89.5%	86.5%	Y	3.0%
9	Disprop. R/E, Overall	Percent of districts with disproportionate representation of racial and ethnic groups in related services categories that is the <b>result of inappropriate identification.</b>		0.0%	0.0%	0.0%	Y	0.0%
10	Disprop. R/E, Disability Category	Percent of districts with disproportionate representation of racial and ethnic groups in specific disability categories that is the <b>result of inappropriate identification.</b>		10.1%	5.6%	0.0%	N	-5.6%
11	Evaluation in 60 Days	Percent of children with parental consent to evaluate, who were evaluated and eligibility determined within 60 days.		80.0%	37.1%	100.0%	N	-62.9%
12	Transition from Part C to Part B	Percent of children referred by Part C prior to age 3, who are found eligible for Part B, and who have an IEP developed and implemented by their third birthdays.	67.5%	94.4%	97.2%	100.0%	Y	-2.8%
13	Transition Planning on IEP by Age 16	Percent of youth aged 16 and above with an IEP that includes coordinated, measurable, annual IEP goals and transition services that will reasonably enable the student to meet the postsecondary goals.		62.4%	94.1%	100.0%	N	-5.9%
14	Post-secondary Outcomes	Percent of youth who had IEPs, are no longer in secondary school and who have been competitively employed, enrolled in some type of postsecondary school, or both, within one year of leaving high school.			87.5%	Target will be set 07-08		
20	GS: Timely and Accurate Data	Percent of state-reported data that are timely and accurate.			95.0%	100.0%	N	-5.0%

**3C Reading Proficiency Rate****Percent who scored proficient on Spring 2007 Reading test**

Percent scoring proficient			
Females	28.2%	Regular Classroom	32.6%
Males	25.2%	Resource Room	13.9%
		Separate Classrooms	34.7%
Asian Americans	20.5%	Separate Facilities	15.2%
African Americans	15.7%		
Hispanics	17.6%	Autism	41.9%
Native Americans	14.6%	Traumatic Brain Injury	22.9%
Whites	28.4%	Deaf-Blindness	17.6%
		Emotional Disability	24.7%
Kindergarten		Hard of Hearing	38.6%
Grade 1		Other Health Impaired	22.7%
Grade 2		Learning Disability	17.9%
Grade 3	29.7%	Mental Disability	51.2%
Grade 4	30.3%	Multiple Disabilities	49.1%
Grade 5	31.3%	Orthopedic Disability	48.1%
Grade 6	25.4%	Speech/Language Disability	39.2%
Grade 7	22.1%	Visual Impairment	45.2%
Grade 8	20.9%		
Grade 9		Took regular assessment	23.5%
Grade 10		Took alternate assessment	70.7%
Grade 11	20.9%		
Grade 12		<b>Overall</b>	<b>26.3%</b>

**5A LRE in Regular Classroom**

**Percent who are educated in the regular classroom**

Females	58.8%	Regular Classroom	100.0%
Males	56.6%	Resource Room	
		Separate Classrooms	
Asian Americans	69.3%	Separate Facilities	
African Americans	45.3%		
Hispanics	52.9%	Autism	26.9%
Native Americans	50.9%	Traumatic Brain Injury	27.4%
Whites	58.4%	Deaf-Blindness	43.5%
		Emotional Disability	32.1%
Kindergarten	85.6%	Hard of Hearing	69.4%
Grade 1	80.9%	Other Health Impaired	44.3%
Grade 2	72.1%	Learning Disability	53.0%
Grade 3	64.3%	Mental Disability	5.5%
Grade 4	57.2%	Multiple Disabilities	0.0%
Grade 5	53.8%	Orthopedic Disability	58.8%
Grade 6	50.8%	Speech/Language Disability	89.3%
Grade 7	47.0%	Visual Impairment	56.9%
Grade 8	47.9%		
Grade 9	45.3%	Took regular assessment	
Grade 10	43.7%	Took alternate assessment	
Grade 11	45.8%		
Grade 12	44.8%	<b>Overall</b>	<b>57.8%</b>

**5B LRE in Separate Classroom**

**Percent who are educated in separate classroom**

Females	8.2%	Regular Classroom	
Males	8.8%	Resource Room	
		Separate Classrooms	100.0%
		Separate Facilities	
Asian Americans	9.3%		
African Americans	16.8%		
Hispanics	9.1%	Autism	31.7%
Native Americans	8.7%	Traumatic Brain Injury	28.8%
Whites	8.4%	Deaf-Blindness	0.0%
		Emotional Disability	20.9%
Kindergarten	5.4%	Hard of Hearing	4.5%
Grade 1	5.5%	Other Health Impaired	13.0%
Grade 2	5.5%	Learning Disability	2.7%
Grade 3	7.2%	Mental Disability	50.7%
Grade 4	6.2%	Multiple Disabilities	70.0%
Grade 5	8.4%	Orthopedic Disability	11.3%
Grade 6	9.0%	Speech/Language Disability	1.0%
Grade 7	10.2%	Visual Impairment	13.8%
Grade 8	12.0%		
Grade 9	10.0%	Took regular assessment	
Grade 10	10.2%	Took alternate assessment	
Grade 11	10.0%		
Grade 12	14.0%		
		<b>Overall</b>	<b>8.8%</b>

**1 Graduation Rate  
Percent who Graduated**

Females	63.8%	Regular Classroom	67.1%
Males	58.5%	Resource Room	61.0%
		Separate Classrooms	34.9%
Asian Americans	80.0%	Separate Facilities	27.7%
African Americans	63.6%		
Hispanics	59.2%	Autism	50.0%
Native Americans	35.9%	Traumatic Brain Injury	66.7%
Whites	62.0%	Deaf-Blindness	
		Emotional Disability	45.5%
Kindergarten		Hard of Hearing	80.0%
Grade 1		Other Health Impaired	53.6%
Grade 2		Learning Disability	65.6%
Grade 3		Mental Disability	31.0%
Grade 4		Multiple Disabilities	
Grade 5		Orthopedic Disability	
Grade 6		Speech/Language Disability	81.3%
Grade 7		Visual Impairment	
Grade 8			
Grade 9		Took regular assessment	
Grade 10		Took alternate assessment	
Grade 11			
Grade 12		<b>Overall</b>	<b>60.1%</b>

**New Mexico  
Parent Survey 2007-2008  
Indicator 8**

- **State Response Rate**
  - 10.2% (914/8950)
  
- **Percent of Parents that Met Indicator**
  - 75.3%
  - The Parent Involvement Percentage ranged from 0 to 100% by district
  - This is defined as percent of respondents who agreed, strongly agreed, or very strongly agreed to this question: The school facilitated parent involvement as a means of improving services for my child(ren).
  - Last year, the percent who met the indicator was: 89.5%
  - What is the reason for the decrease?
    - Most likely due to changes in sampling methodology
    - This year a stratified random sample of parents from each district was chosen to complete the parent survey. Surveys were mailed to this group of parents. A representative group of parents responded to the survey.
  
- **Highest-Rated Items**
  - *Percent who agreed, strongly agreed, and very strongly agreed:*
    - I communicate to my child that it is important to do well in school – 98%
    - I engage in learning activities with my child at home – 94%
    - I let school staff know right away if I have a concern about my child – 93%
    - At the IEP meeting, we discussed accommodations and modifications that my child would need – 91%
    - I discuss my child's needs and progress with my child's teacher(s) – 90%
  
- **Lowest-Rated Items**
  - *Percent who agreed, strongly agreed, and very strongly agreed*
    - I was given information about organizations that offer support for parents of students with disabilities – 47%
    - My child's school provides information on agencies that can assist my child in the transition from school – 49%
    - My child's school explains what options parents have if they disagree with a decision of the school – 59%
    - I have been asked for my opinion about how well special education services are meeting my child's needs – 61%
    - At the IEP meeting, we discussed who my child would participate in statewide assessments – 67%
    - My child's school communicates regularly with me regarding my child's progress on IEP goals – 68%
    - The principal does everything possible to support appropriate education services in the school – 68%
  
- Responses varied by race/ethnicity and by PreK/K-12
  - Parents of black students were less positive than other parents. (However, only 13 parents of black students responded. No other consistently significant differences existed by race/ethnicity.
  - Parents of preschoolers tended to be more positive than parents of K-12 students.