

WERA HiCap SIG

Program Evaluation Issues

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Topics Covered

- Program evaluation basics
- HiCap evaluation requirements
- HiCap evaluation reporting to OSPI
- Topics to consider for further review
- Types of evaluation data
- Sample graphics

Why Conduct Evaluations

- Comply with legal or program requirements
- Provide accountability for results to stakeholders
- Improve program quality
- Support decision-making about resource use and distribution
- Promote programs and organizations

Types of Evaluations

Evaluations come in all different shapes and sizes.

The purpose of the evaluation determines the type and focus of the evaluation. Some are big, others are very limited in scope and complexity.

- ***Descriptive*** evaluations provide general information about a program (participants, activities, etc.).
- ***Process*** evaluations look at how a program is being implemented and identify ways in which improvement in the processes are necessary.
- ***Outcome*** evaluations measure the degree to which a program successfully achieves its intended results.
- Other types of evaluations include ***compliance***, ***cost/benefit***, ***policy analysis***, and ***alignment with best practices***.

Steps for Planning & Conducting Evaluations

- Understand the context and know the overall purpose of the program and evaluation.
- Understand the overall theory and strategy (explicit or implicit) of the program; consider developing a theory of change model.
- Work with stakeholders to define the evaluation question(s).
- For each question, identify the data needed and how/when you will collect and analyze the data.
- Collect the data and analyze the results.
- Answer the question(s) using the evidence collected, then review the results with key stakeholders.
- Report the results orally and in writing.
- Make program changes as needed based on the study results.

A User-Friendly Evaluation Model



Data Collection: Key Points

In your data collection strategy, determine:

- What resources are available? (time, money, expertise)
- What timing issues are important?
(when to collect data, how long will it take, report deadlines)
- What data do you need?
 - What are the “units of analysis” that drive data collection?
(student, class, teacher, grade, school, school type, district, subgroups)
 - Do you need data on inputs, processes, outputs, outcomes?
 - What types of quantitative/qualitative data are needed?
- How will you collect the data? Who will be involved?

Qualitative and Quantitative Data

Common misconceptions about data (the plural form of datum):

- ❑ Qualitative data cannot be expressed as a number.
 - ❑ Only quantitative data can be analyzed statistically.
 - ❑ Quantitative data are more trustworthy and accurate than qualitative data.
- All **quantitative** data can be expressed as a number, or quantified.
 - **Qualitative** data can also be expressed as a number.
 - **Qualitative** data are feelings, impressions, characterizations . . . the quality of the thing being measured.

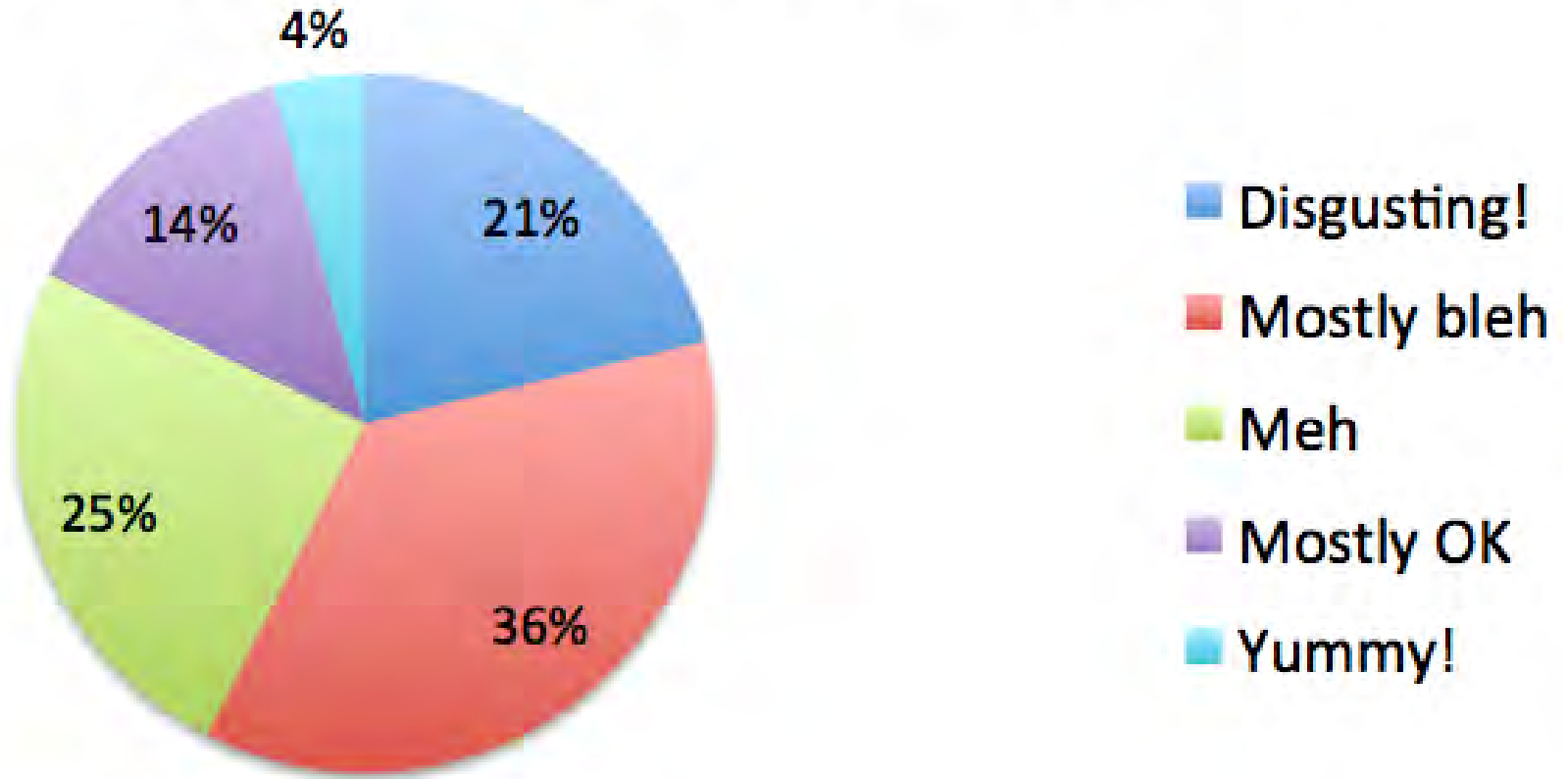
Anything can be expressed as a number (quantified), but doing it accurately takes work!



I love you more today than yesterday . . .

Qualitative?? Quantitative??

How Do You Feel About The School Lunch Program?



Data Collection: Key Points

- Collect data that help answer your question(s)
 - ❑ Types of data include opinions, observations, documents, pictures, numbers, statistical analysis, other studies.
 - ❑ The more evidence you have and the larger your sample (N), the greater confidence you have in the results.
- Build “sufficient” evidence to answer the questions
 - ❑ “Sufficient” depends on the audience and the stakes involved.
 - ❑ Don’t be exhaustive (less is more, stop when you have “enough”).
 - ❑ Use multiple measures when possible.
- Data collection methods have pros and cons
 - ❑ Surveys, focus groups, interviews (formal/informal), case studies, document review, observations on site, creating statistical data.
- Understand biases, use credible sources
(external evaluators provide independence and are usually less biased)

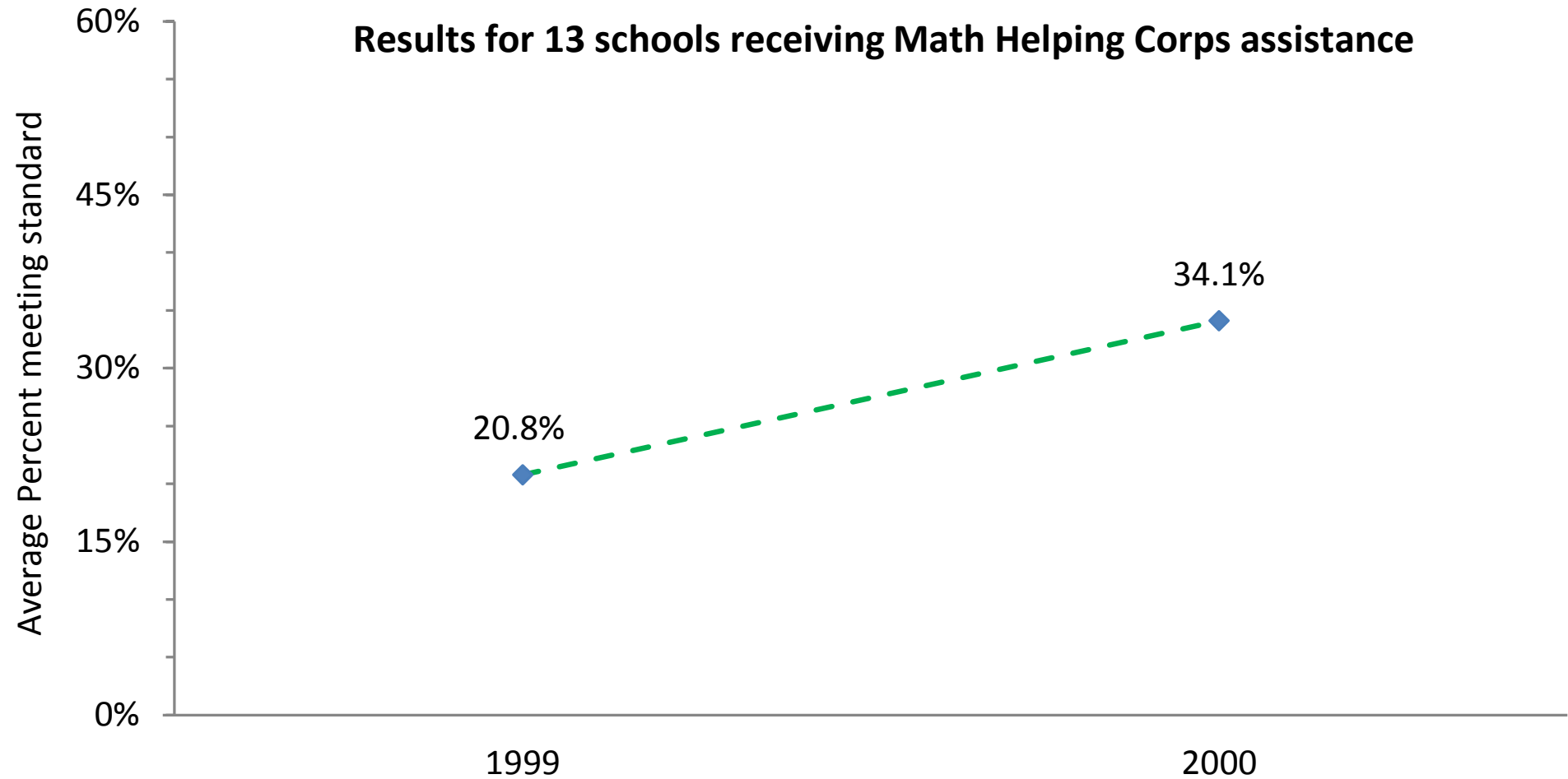


Data Collection: Key Points

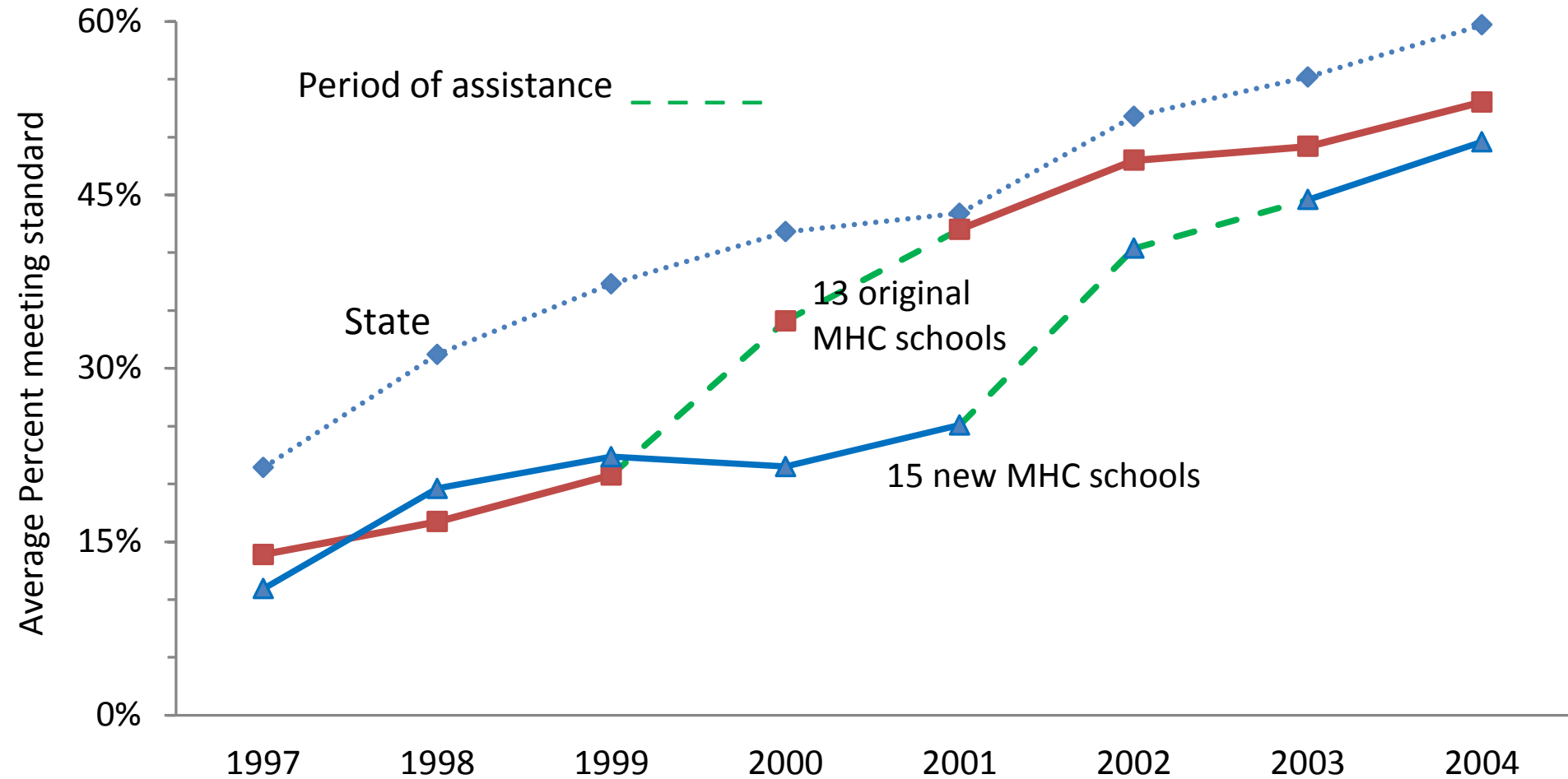
- To understand impact/change, collect data for more than two points in time.
 - If possible, use comparison groups and multiple points before/after the program time.
- Check data for quality, completeness, consistency; make time to clean up data and deal with anomalies.
- Collect data to seek the truth, not to reinforce your perspective (be objective and open-minded).
- Don't let "perfect" be the enemy of "good enough".
- Be flexible – things often don't go as planned.

Is this enough evidence to show the program is working?

Results for 13 schools receiving Math Helping Corps assistance

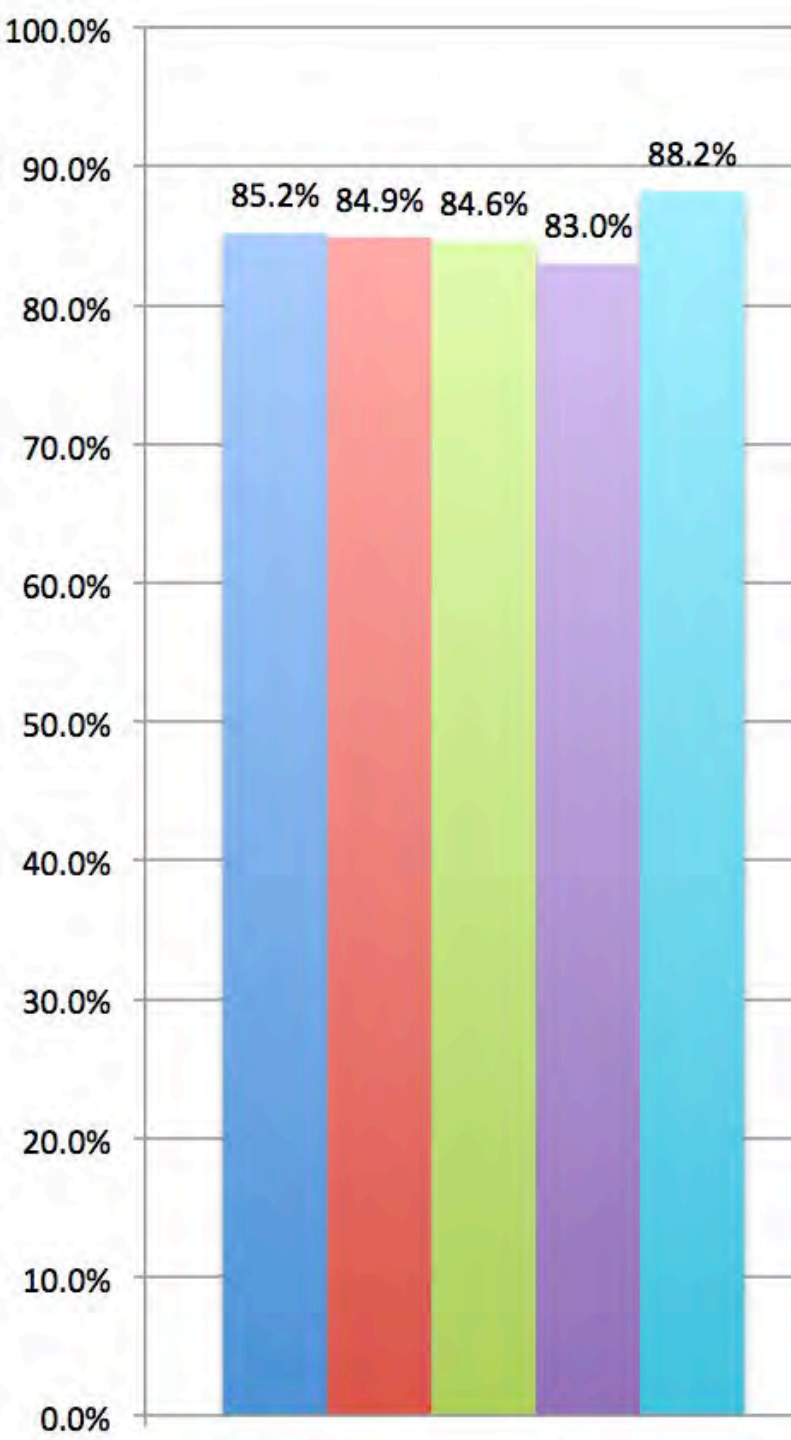


Use comparisons and longer timeframes to strengthen the evidence

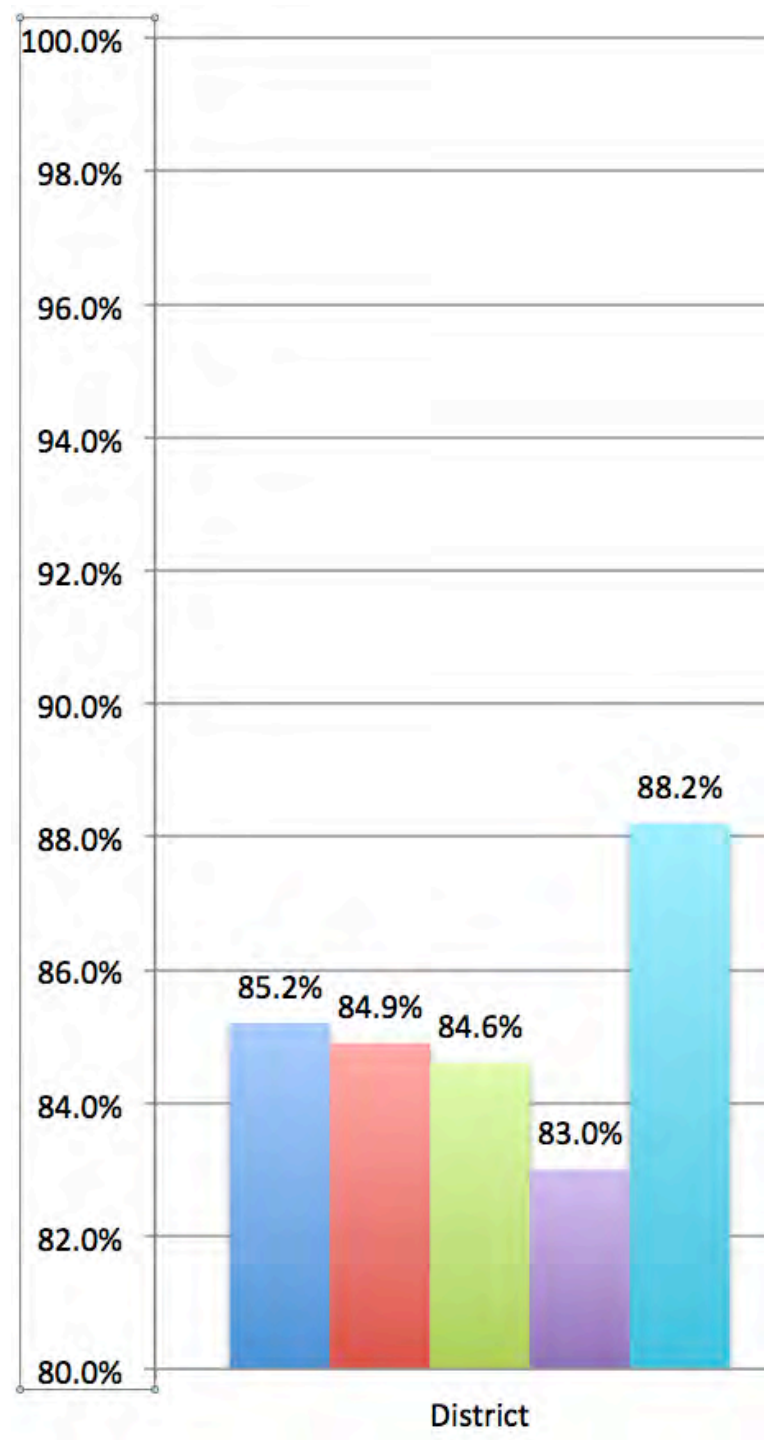


Data Analysis: Key Points

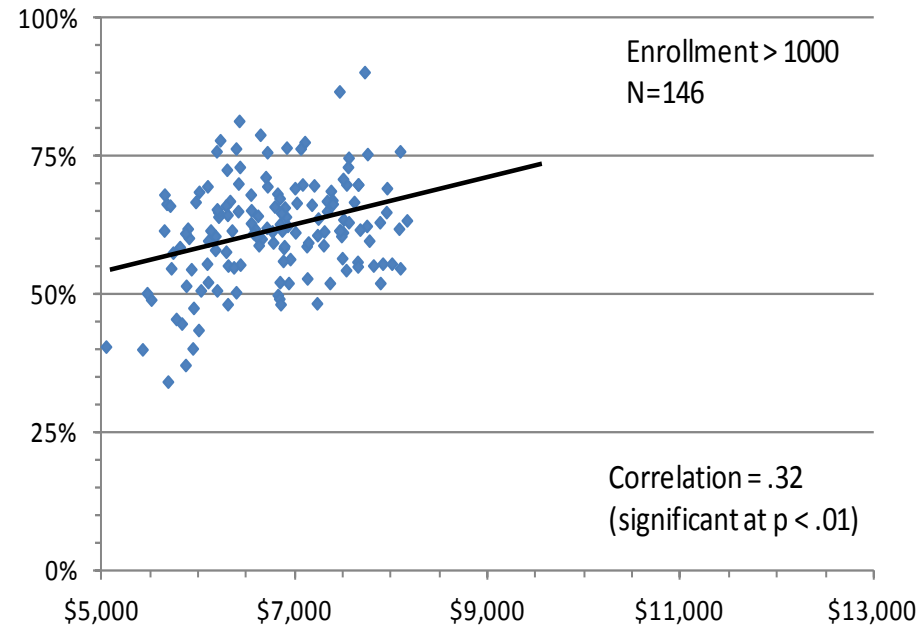
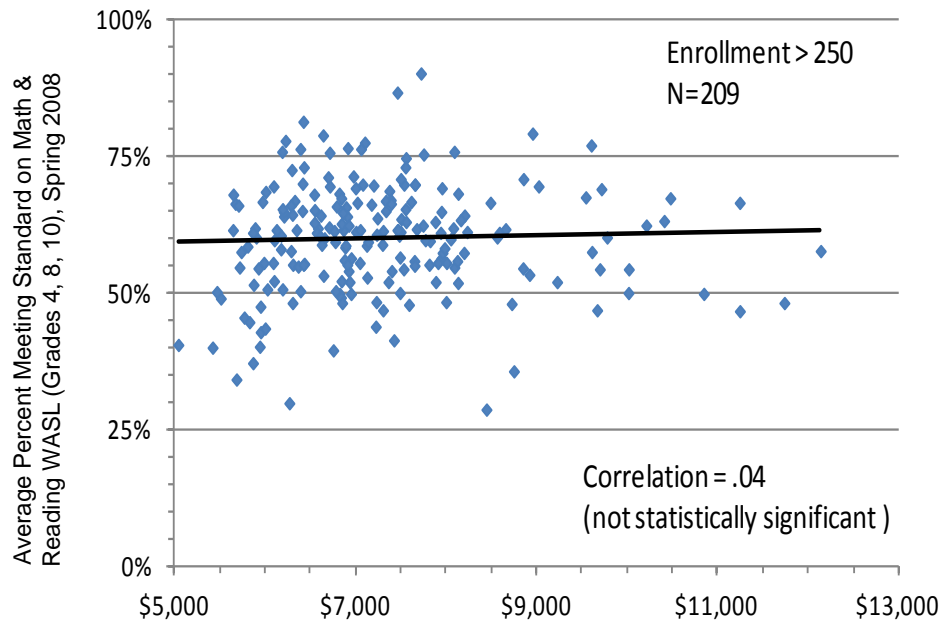
- Data can be analyzed and represented in many ways
- Data and statistics can “prove” almost anything
- Correlation doesn’t mean causation
- Statistical significance isn’t the same as practical significance
- Beware of outliers that distort the average (mean)
- Use graphs/charts to illustrate a point quickly
- Examine graph scales closely



Watch the Scales!



Outliers Affect the Results



Boser, U. (2011), *Return on Educational Investment: A District-by-District Evaluation of U.S. Educational Productivity*. Washington, DC: Center for American Progress.

Used to justify no additional funding for K-12 education (Senate Early Learning & K-12 Education Committee, January 16, 2013; editorial by Senator Litzow, *Seattle Times*, February 7, 2013)

Removing small districts with very high spending per student changes the results and conclusion.

Noteworthy Evaluation Quotes

- There are three kinds of lies - lies, damned lies and statistics. *Benjamin Disraeli* (quoted in Mark Twain's autobiography)
- Figures don't lie, but liars sometimes figure. *L. F. Copeland*
- There is always an easy solution to every human problem—neat, plausible, wrong. *H. L. Mencken*
- Statistics are like bikinis. What they reveal is suggestive, but what they conceal is vital. *Aaron Levenstein*
- Not everything that counts can be counted, and not everything that can be counted counts. *Albert Einstein*

Data Analysis: Key Points

- Many evaluations are complete with just reporting averages (mean or median).
- The overall mean may not reveal much, so break the data into subgroups to see what is really going on.
- Show how the data are distributed graphically.
(pictures are usually better than a table of numbers)
- Scatterplots show the full range of data but can be difficult to interpret.
 - A trend (regression) line helps but might confuse some people.

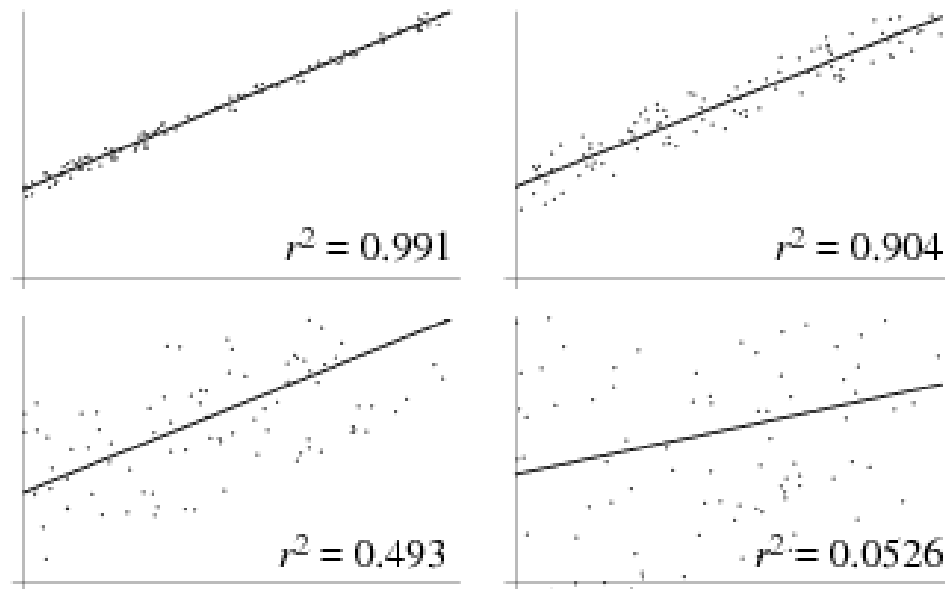
Correlations

- Show how two variables relate to each other
- Range from -1.00 to 1.00 (0.00 is no correlation)
- Are easy to do in Excel and statistical software
- Don't show a causal relationship
- May be meaningless

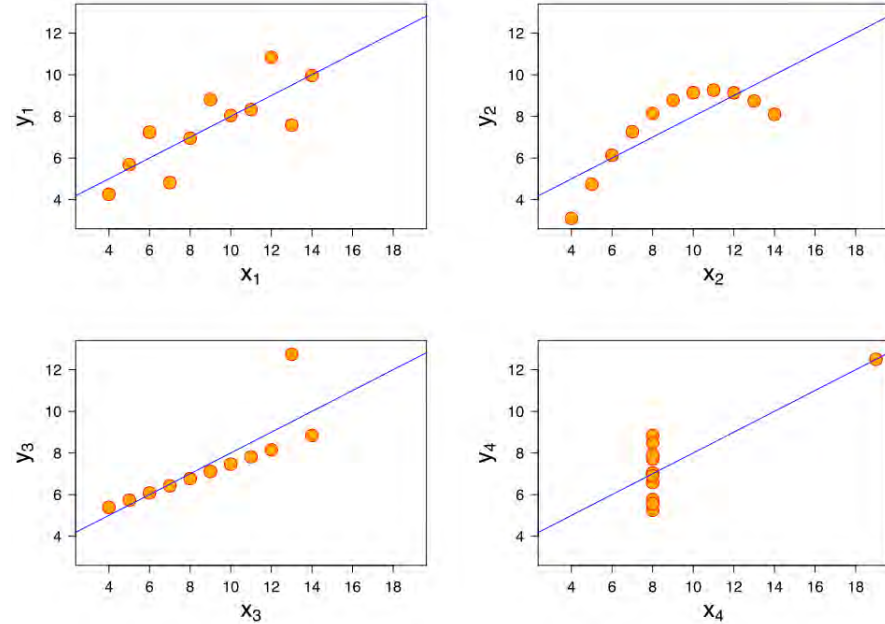
Analyzing **causal** relationships requires more sophisticated study designs and analysis methods.

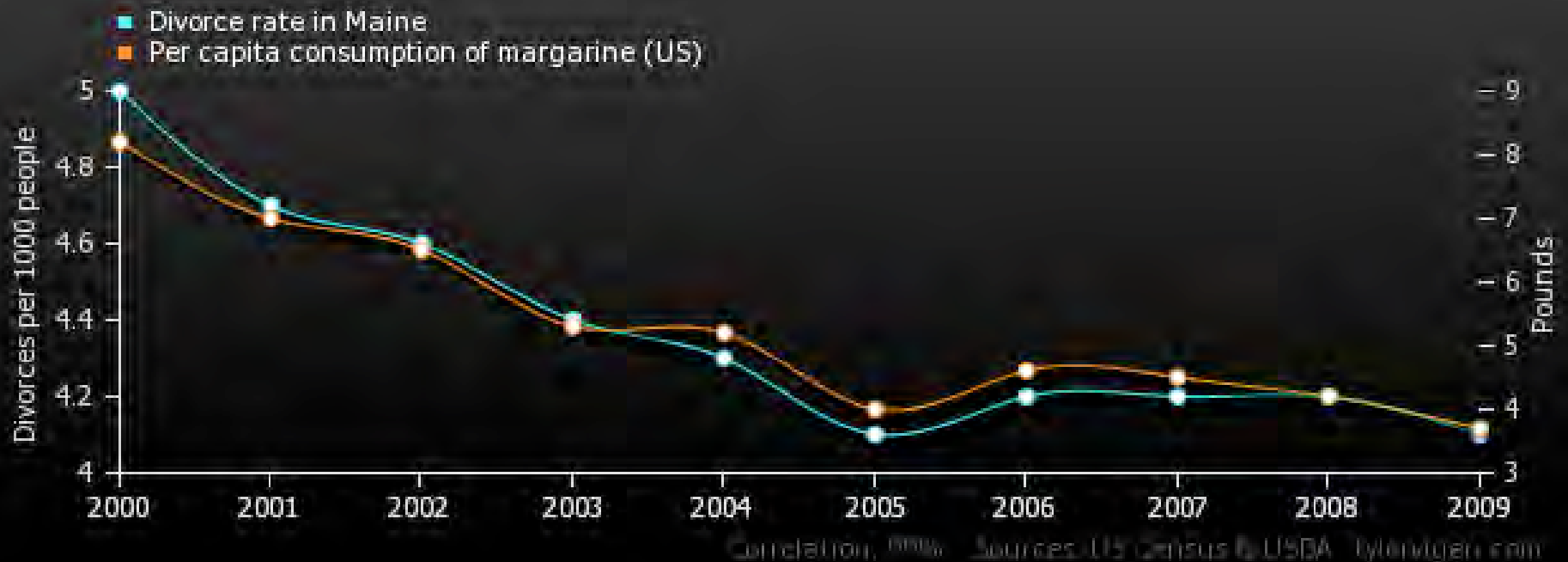
Correlations

- The same trend line may have different correlations due to the “spread” of the data points.



- The same correlation and trend can have different distributions, so look at the data graphically. ($r=.82$)





Correlation of .99 between divorce rate in Maine and per capita consumption of margarine in the US.

Data Source: US Census and USDA

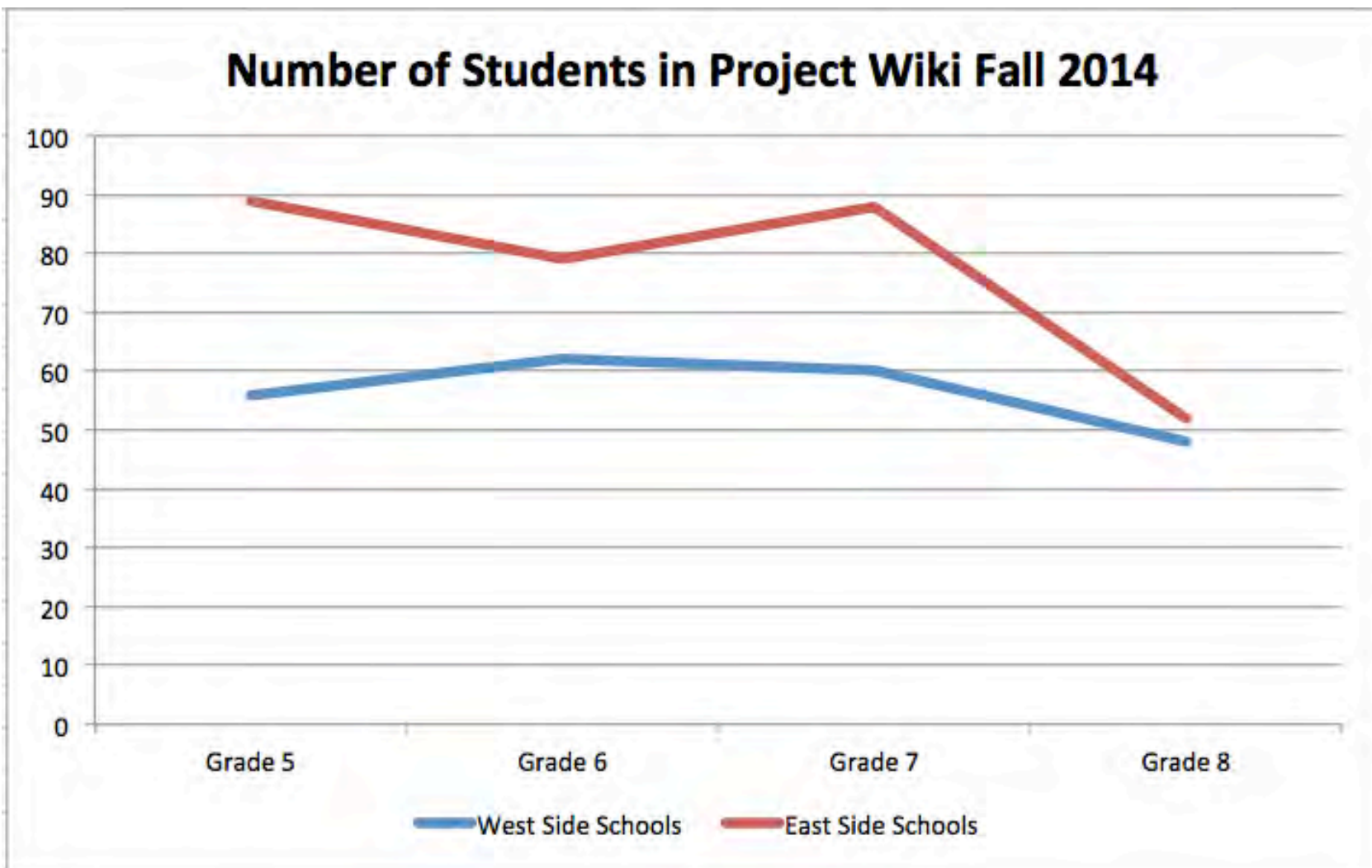
Analyze and Organize the Evidence

- Assemble all the evidence for each question.
 - See if any common themes emerge for each question.
 - Determine if impact is uneven based on certain variables (e.g., gender, age, grade, race/ethnicity, income level, fidelity of implementation, time, experience level).
- Answer each question and ensure the evidence is sufficient, accurate, relevant, and clear.
- Provide more evidence if results are unexpected, controversial, or negative.
- When applicable, show the impact of shortcomings and link recommendations to root causes.

Writing a Formal Report

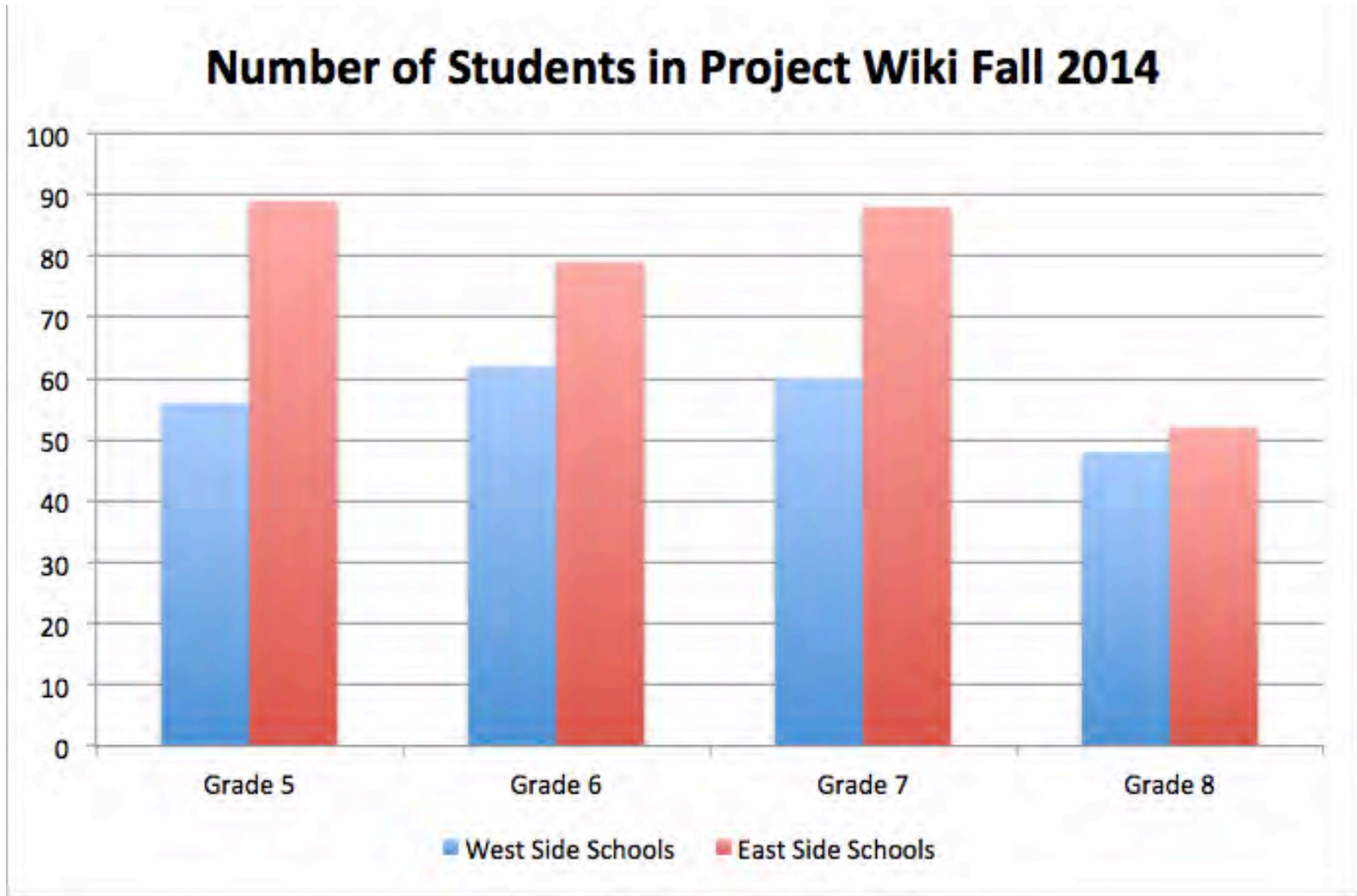
- Double-check your facts for accuracy.
- Draft the report and have others review a draft report for flow, completeness, tone.
- Use the right type of graphs to convey the main messages.
- Revise, polish, and “publish” the “report”.

NO!



Clearly differentiate linear and categorical relationships

Yes!



Clearly differentiate linear and categorical relationships

HiCap Evaluation Requirements

Chapter 392-170 WAC, Special Service Program – Highly Capable Students

030 Substance of annual school district plans.

The school district's annual plan shall contain the following:

(7) A description of how the highly capable program will be evaluated that includes information on how the district's highly capable program goals and student achievement outcomes will be measured.

090 End of year report.

Districts shall submit to (OSPI) at the close of each fiscal year an end of the year report on forms provided by (OSPI) which includes:

(5) Program evaluation data and, if needed, program changes that will be made based upon this information.

HiCap Annual Plan (1st Class Districts)

Page 6

Districts must provide a description of how the HCP will be evaluated. OSPI will review districts for program components.

Provide a written description of your district's ongoing program evaluation process. Include how you will conduct evaluation, how you will collect relevant evidence, and how you will document changes to the program based on your evaluation outcomes. Providing a timeline for program evaluation activities may be helpful in describing your evaluation process.

District HCP components are to be monitored at least once every five years. Districts are reviewed during the Consolidated Program Review monitoring. During the review, districts need to provide relevant data (evidence) reflecting program evaluation activities and documentation of changes made as a result of the evaluation process.



HiCap Annual Plan (1st Class Districts)

A. Effectiveness of the ID Process

Describe how the district will evaluate the effectiveness of the district's process to identify highly capable students. Explain what procedures are in place to reach out to students with diverse talents and from diverse backgrounds.... Program evaluation could examine/study the overall process as well as the individual parts.

B. Meeting Academic Needs of HCP Students

Describe the district's plan for evaluating and monitoring the success of the district in meeting the academic needs of the identified students. Include the assessment data and other indicators to be used in the evaluation process.

C. Program Expenditures

Describe the district's plan to evaluate expenditures and effective use of funds to enrich or expand opportunities for highly capable students.

(Note: 2nd Class districts complete a condensed version of this plan.)



HiCap End-of-Year Report (iGrants)

Page 6 – Program Evaluation & Professional Development

Program Evaluation Categories

1. The effective use of highly capable funds to address student academic achievement (growth and progress)
2. The effectiveness of the district's process to identify students
3. The success of the district in meeting the academic needs of the identified students
4. The success of students meeting goals set

- Complete the Program Evaluation Chart program evaluation activities conducted during SY 2013-14
- Use the **New** button to report “other” Data Elements

I

Changes to HCP based on Program Evaluation Activities

- Indicate if changes were made based for each of the four categories
- If changes were made, outline changes for each category

HiCap Online End-of-Year Report

Data Element	Category 1: Student Academic Achievement	Category 2: ID Process	Category 3: Meeting Academic Needs of Students	Category 4: Student Goal Attainment
State Assessments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
District Assessments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Classroom-Based Assessments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teacher Observation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teacher Survey	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parent Survey	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Student Survey	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Attendance	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Grades	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Performance Tasks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AP/IB/Cambridge AICE Test Scores	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Policy Review		<input type="checkbox"/>	<input type="checkbox"/>	
Procedure Review	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Program Goals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Student Goals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Specify the "Other" data collected and reviewed and indicate categories for which data is used for program evaluation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

HiCap Online End-of-Year Report

Changes to HCP to Improve Student Academic Achievement

Did the district make changes to the HCP for improved academic achievement of identified students based on program evaluation outcomes?
 that were/will be made to the program for improved academic achievement of identified students.

Changes to Identification Process

Did the district make changes to the HCP identification process based on program evaluation outcomes?
If yes, outline the changes that were/will be made to the HCP identification process.

Changes to the HCP for Meeting the Academic Needs of Identified Students

Did the district make changes to the HCP for meeting the academic needs of identified students based on program evaluation outcomes?
If yes, outline the changes that were/will be made to the program for meeting the academic needs of identified students.

HiCap Online End-of-Year Report

Professional Development Report (WAC 392-170-090)

If no district staff attended HCP/Gifted-specific professional development activities, check this box, and leave the table below blank.

Indicate number of staff attending Highly Capable Program/Gifted-specific professional development activities by category.

Categories	Special/HCP Teachers	General Ed. Staff	Administrators
AP			
CEC-ITAG Conference/Webinars			
Edufest			
ESD Training Sessions			
IB			
NAGC Conference/Webinars			
NWGCA Conference			
OSPI Webinars			
SENG Conference			
UW College of Education Gifted Education Trainings/Courses			
WAETAG Conference			
WU Center for Gifted Education Institutes/Courses			
Other (specify below)			

Specify Other:

Additional Questions Could Look at ...

1. Program model (self-contained, in-class, pull-out, grades where program occurs, program variations in all grades based on unique student needs)
2. Program content/curriculum
3. Identification/eligibility criteria (screening tool, multiple measures, cut scores, early grade identification, exit criteria and process, screening new students mid-year, scores accepted from other tests for transfer students)
4. Assessments used (purpose, validity, reliability, margin of error, types of data provided, how data will be used)
5. Eligibility results (number and percent identified, distribution among schools, subgroup equity)
6. Decision-making group
7. Internal communications (with schools, district staff, Board)
8. Parent notifications, permissions, and reports of results
9. Nomination and appeal processes

HiCap Evaluation Could Focus on ...

10. Professional development for HiCap and regular teachers (HiCap students, differentiating within classroom)
11. Parent education (student characteristics, programs, appeals)
12. Timeframes (assessment dates, appeal deadlines, decision deadlines)
13. Student growth (what to measure, targets, actual growth)
14. Financial issues (costs/benefits of assessments and program model, funding sources, adequacy of budget)
15. Locations of self-contained programs, space availability
16. Board policies
17. Annual reports to OSPI (accuracy and completeness of annual plan and results, Board approval, timelines, Level of compliance with state requirements)

HiCap Evaluation Could Focus on ...

19. Attainment of goals

How will you know if you met your goals?

- What indicators could be used?
- How will you measure the indicators?
- What are the baseline data and what SMART targets are set?

Example for regular classrooms

GOAL: Each student will meet or exceed state and district standards.

Indicator	Target (Specific, Measurable, Attainable, Relevant, Time-bound)	Baseline	2014-15	2015-16	2016-17	2017-18
Kindergarten students start school ready to learn.	10% reduction in the percentage of all kindergarten students who do not score at the benchmark level on the Fall DIBELS reading test from the previous year (composite score).	51%	56%	60%	64%	68%
Students finish 3rd grade reading at or above grade level.	10% reduction in the percentage of all 3rd graders not meeting the state standard on the reading MSP (compounded annually).	68%	71%	74%	76%	79%

Sample HiCap Evaluation Questions

- What is the distribution of HiCap students in each grade band based on gender, race/ethnicity, income level, and geography? In what ways could the eligibility criteria be changed to identify more students from under-represented subgroups and areas? What are the implications associated with these changes (e.g., classroom space, staffing, transportation, curriculum, PD, need for other assessments, costs)?
- What are teacher views about their level of preparedness to teach highly capable students? Is there a difference between regular education teachers and HiCap teachers? What needs to be done to better prepare all teachers so they are equipped to serve HiCap students in their classrooms?

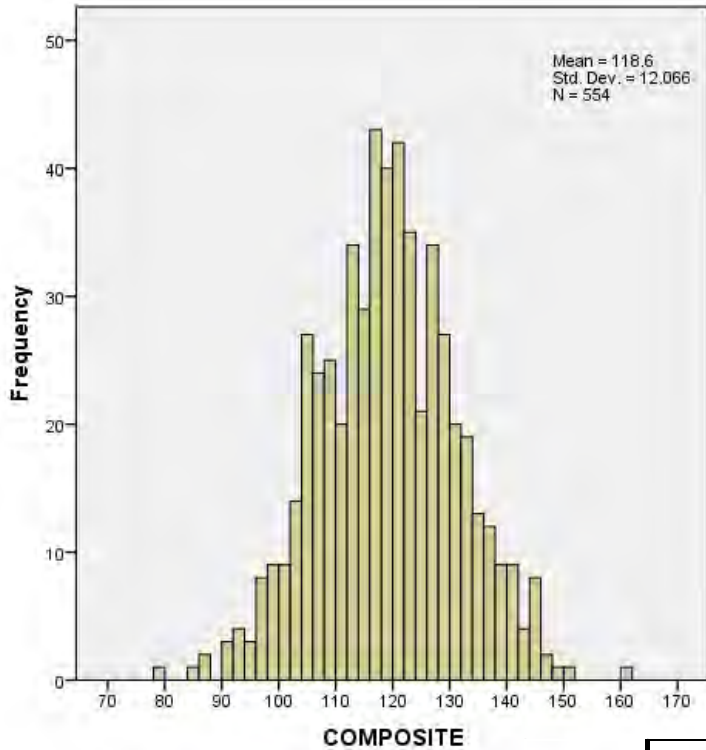
(Discuss other possible questions)

Types of HiCap Evaluation Data

- State and district assessment results disaggregated by gender, race/ethnicity, grade level, income status, program
- Changes in student achievement over time
- Feedback from teachers, parents, and students gathered through surveys, interviews, focus groups
- Observations by school and district staff and program administrators
- Comparison of current activities and documents with best practices and exemplars
- Targeted or comprehensive reviews by external experts

Examples of Reporting HiCap Data

Students Tested for HiCap Program, Fall 2014

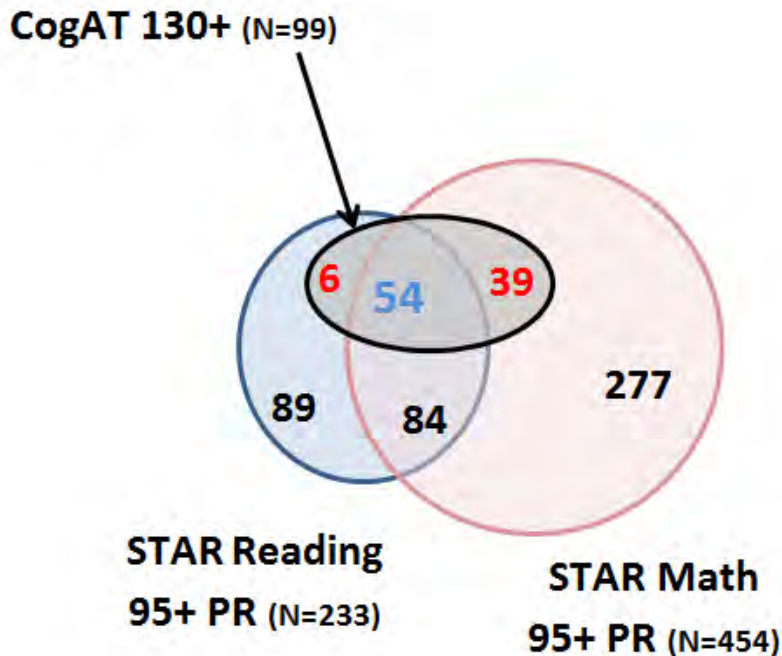


99 students met criteria
(130 on CogAT)

Grade	Tested			Percent Tested		Met 130			Percent Met 130		
	Total	Male	Female	Male	Female	Total	Male	Female	Total	Male	Female
Grade 1	65	39	26	60.0%	40.0%	21	10	11	32.3%	25.6%	42.3%
Grade 2	149	95	54	63.8%	36.2%	22	19	3	14.8%	20.0%	5.6%
Grade 3	94	50	44	53.2%	46.8%	15	9	6	16.0%	18.0%	13.6%
Grade 4	85	43	42	50.6%	49.4%	9	7	2	10.6%	16.3%	4.8%
Grade 5	146	73	73	50.0%	50.0%	27	16	11	18.5%	21.9%	15.1%
Grade 6	8	4	4	50.0%	50.0%	3	0	3	37.5%	0.0%	75.0%
Grade 7	4	2	2	50.0%	50.0%	1	1	0	25.0%	50.0%	0.0%
Grade 8	3		3	0.0%	100.0%	1		1	33.3%		33.3%
All	554	306	248	55.2%	44.8%	99	62	37	17.9%	20.3%	14.9%

Examples of Reporting HiCap Data

Elementary School Students Identified for Self-Contained HiCap Program, Fall 2014



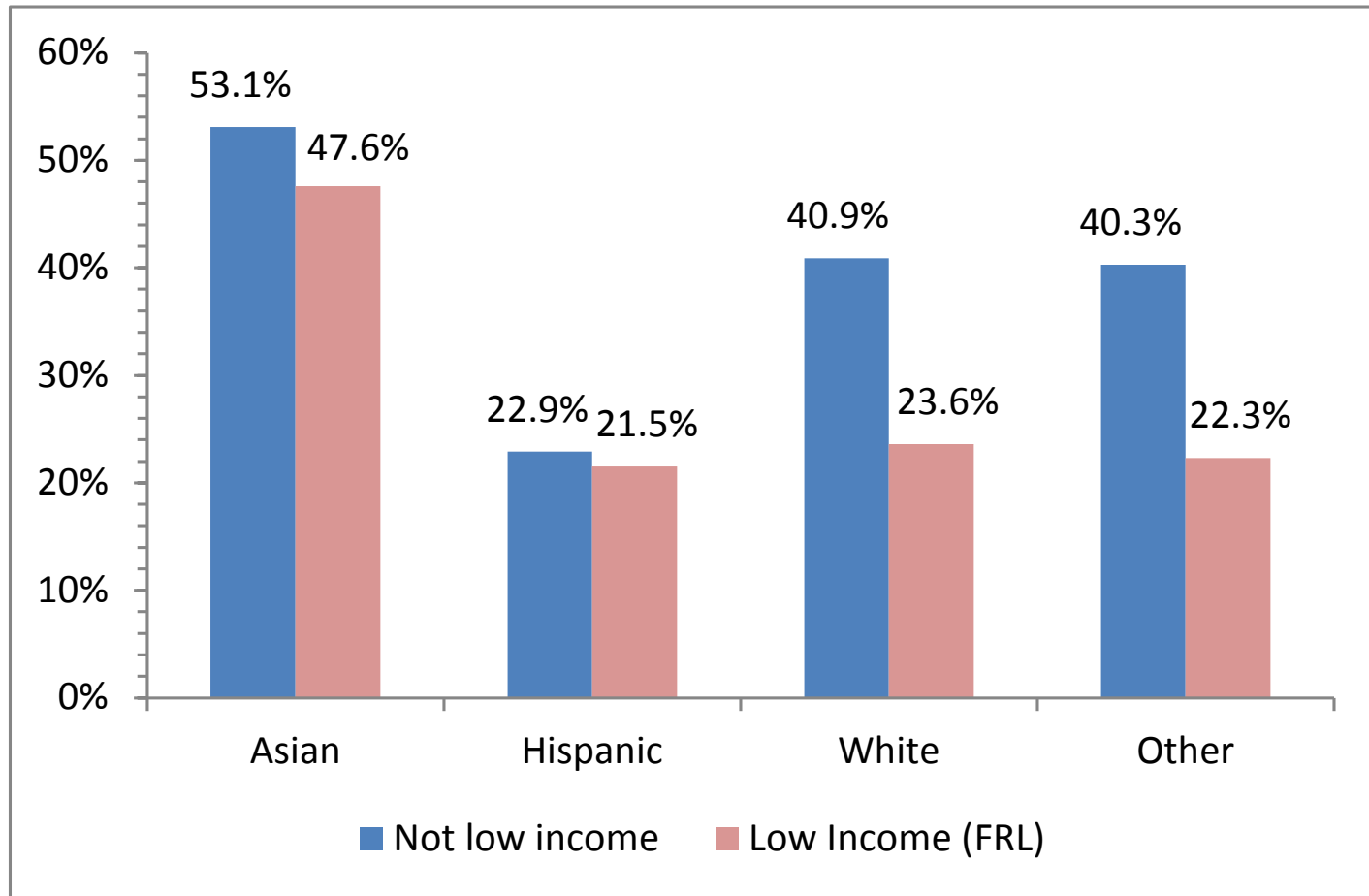
Number of Students with Two Eligible STAR Scores and 130 CogAT (Summit)

School	1*	2	3*	4*	5	6*	7*	8*	Total
	0	0	0	0	0				0
	1	2	1	0	0				4
	1	1	0	0	0				2
	3	7	3	2	4				19
	2	0	2	0	1				5
	0	0	0	0	0				0
	3	2	2	0	1				8
	4	2	2	2	1				11
	0	0	0	0	0				0
	4	1	0	0	0				5
	0	0	0	0	0				0
						0	0	0	0
						0	0	0	0
						0	0	0	0
						0	0	0	0
Total	18	15	10	4	7	0	0	0	54

* nominated students (32 in grades 1,3,4,6-8)

Examples of Reporting HiCap Data

High School Students Enrolled in at Least One Accelerated Class*



* Students enrolled in at least one AP or Honors class during the 2013-14 school year.
"Other" category includes American Indian, Black, Pacific Islanders, and more than one racial group.