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DATA ANALYSIS/INTERPRETATION
__Background Information Example__

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* **School and Class Context**
    √ Demographics
    √ Overview of previous achievement results
    √ Areas of needed program enhancement identified in the most recent School
       Improvement Plan

As per our discussion thread, we discussed results from a "mock school"— we used Langley Park Elementary School within Prince George's County. Using any or all the sources of data available (see list below), a summary of data analysis and interpretation of this school can be generated. For example, what population does it serve? (socio-economic/gender/ethnic/FARMS data). How did this school perform on last year's state technology inventory? Based on last year's performance scores and AYP what areas are of concern for this school? Any other demographics you can pull up (i.e., what's the neighborhood population? what age group? cost of living? Educational status? what activities and resources are available for this community).

From the http://mdk12.org/ website, I can visit several areas that discuss data related to this school. Although MSA data might not be available for schools that only go through second grade (MSA starts in 3rd grade), general demographics and AYP IS AVAILABLE FOR ALL SCHOOLS. For LP elementary, http://mdreportcard.org/school.asp?K=161719 discusses the MSA data, while http://mdk12.org/data/ayp_analyzing/tutorial/index.asp?K=161719 discusses AYP which relates to ALL student groups.
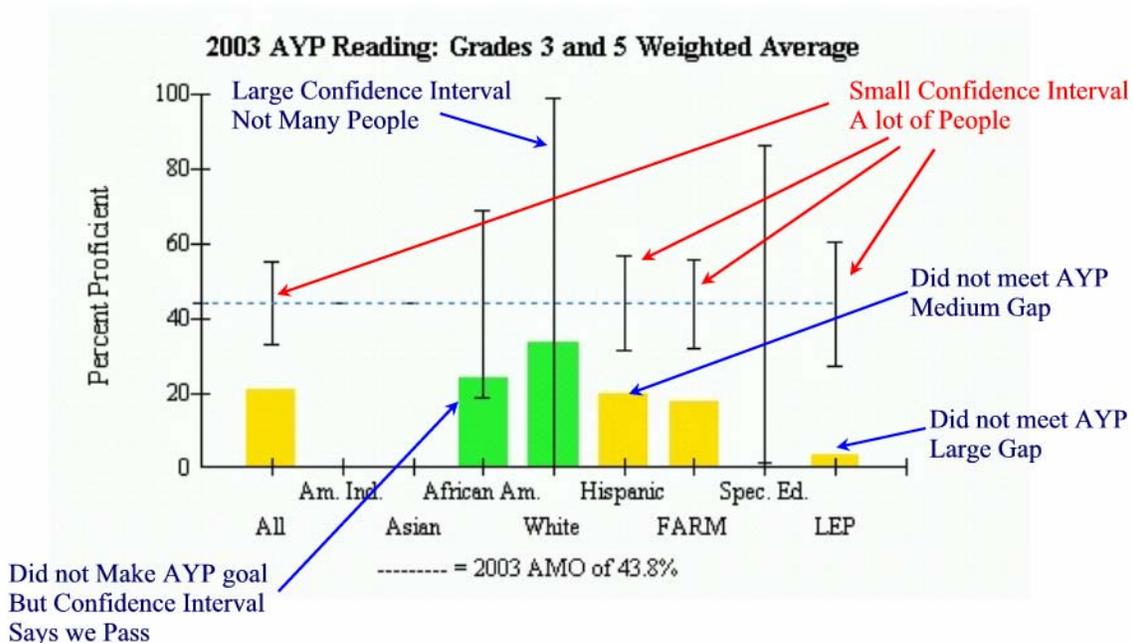
This graph shows the percent of AYP eligible (see explanation below) third and fifth grade students who performed at the proficient level (set at 43.8% this year) on MSA (MD State Assessment) or IMAP (MSA version for Special ED students). Each bar represents the percent of either all students or one of the eight subgroups who performed at the proficient level. The color of the bars indicates whether the school met the AMO target (AMO = Annual Measurable Objective) – green bars represent "met" and yellow bars represent "not met." The blue horizontal

line at the 43.8% is the 2003 annual measurable objective (the AYP target) for reading for schools with your grades. AYP targets are set by the state in accordance with the requirements of NCLB and vary depending on the number of tested grades in each school.

The black lines perpendicular to the blue line are called confidence intervals (they look like the letter I). The confidence intervals are based on a statistical test used to answer the question, "Is the school's performance significantly below the AYP target?" Because the accuracy of scores depends on the number of students in each group, the state uses a statistical test to help ensure they make fair and valid AYP decisions for groups with different numbers of students. The size of the "I" is determined *only* by the number of students in your school (and category) taking the test. The larger the number of students, the smaller the "I" because, statistically, the test is returning a more accurate assessment of your students. If the percent of students in the category who are assessed as proficient is below the bottom of the "I", then the performance of that group is significantly less than the target and AYP is not met. Use the table below to better understand the correspondence of number of students to the size of the confidence interval. Looking at the table, you can see that there are so few White students in LP elementary taking the test, that AYP will always be met (the bottom of the confidence interval is negative).

2003 AYP Reading: Grades 3 and 5 Weighted Average

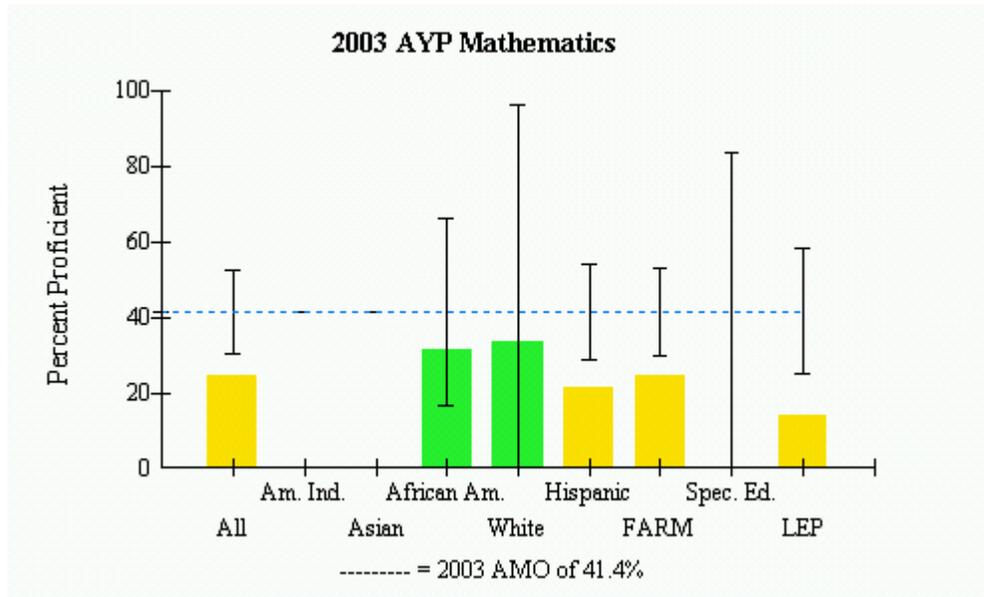|	Percent Proficient	Number Proficient	Total Students	Confidence Interval
All Students	20.8	31	149	32.7-54.8
American Indian/ Alaskan Native	--	--	--	--
Asian/Pacific Islander	na	na	na	na
African American	24.1	7	29	18.8-68.7
White (not of Hispanic origin)	33.3	2	6	-11.1-98.7
Hispanic	19.8	22	111	31-56.5
Free/Reduced Meals	17.4	23	132	32-55.5
Special Education	0	0	10	1.2-86.3
Limited English Proficient	3.1	2	65	27.1-64

'--' indicates no students in the category. **'na'** indicates too few students for AYP rules.

Which students count for AYP?
No students are exempt from taking MSA or IMAP. However, some students may not count toward *the schools* results. All students enrolled for a full academic year (from September 30 through testing or, for geometry, through the duration of the course) count for school, system, and state AYP. Students moving among schools in the same system count for system and state AYP. Students moving among systems count for state AYP.

Math results for Langley Park are shown below.

2003 AYP Mathematics

2003 AYP Mathematics

--------- = 2003 AMO of 41.4%

2003 AYP Mathematics

	Percent Proficient	Number Proficient	Total Students	Confidence Interval
All Students	24.2	36	149	30.5 - 52.3
American Indian/ Alaskan Native	--	--	--	--
Asian/Pacific Islander	na	na	na	na
African American	31	9	29	16.6 - 66.2
White (not of Hispanic origin)	33.3	2	6	-13.1-96.0
Hispanic	21.6	24	111	28.7 - 54.1
Free/Reduced Meals	24.2	32	132	29.8 - 53.0
Special Education	0	0	10	-0.8 - 83.7
Limited English Proficient	13.8	9	65	24.8 - 58.0

A summary chart of Langley Park is shown here. One can quickly see the areas this school needs to focus on.

2003 AYP:	**Not Met** **All** indicators must be "Met" to make AYP.				
	Percent Proficient		Participation Rate		
	Reading	**Mathematics**	**Reading**	**Mathematics**	**Attendance**
All Students	Not Met	Not Met	Met	Met	Met
American Indian/ Alaskan Native	--	--	--	--	
Asian/Pacific Islander	na	na	na	na	
African American	Met	Met	na	na	
White (not of Hispanic origin)	Met	Met	na	na	
Hispanic	Not Met	Not Met	Met	Met	
Free/Reduced Meals	Not Met	Not Met	Met	Met	
Special Education	Not Met	Met	na	na	
Limited English Proficient	Not Met	Not Met	Met	Met	

What does all this mean?

The state has a set of interventions that begins to take place if a school does not meet AYP for two years in a row (for details see http://www.mdk12.org/data/ayp_analyzing/tutorial/step2g.asp?K=161719). **For Langley Park, they must focus on Hispanic's (75% of the school), Free and Reduced Meals Students (88%) and Limited English Proficiency (44%). Obviously, these groups are overlapping – Langley Park has a large Hispanic Immigrant population who have a low socio-economic status.**

I can find other demographic information for the LP elementary school via the Census Bureau (Fact Finder) http://factfinder.census.gov/home/saff/main.html?_lang=en, and enter the school's city and state. Scroll down the page for links to ethnicity, gender, and socio-economic information. For Langley Park, the 2000 Census (the last Census data—only collected every ten years) indicates it is 0.8225 square miles and includes a Latino population which has increased from 6,956 to 10,294 (a 48% increase). Over the last decade, the neighborhood's Latino population grew from about 40% to 63% of the entire area. Due to the large number of immigrants (some of whom are illegal immigrants) it can be inferred that many did not participate in the census. The population number is probably an undercount. Of the 10,294 Hispanics counted in the 10,294 survey, 24% are not identified by nationality, and of the remaining 7,371 people, 5,970 are Central American including 3,483 Salvadorans and 1,825 Guatemalan.

I can also view more information from the school's website:http://www.pgcps.pg.k12.md.us/~lpmcc/ . Langley Park McCormick Elementary School is an older school, having opened in 1954; however for the 2002-2003 school year, it was reconfigured. Having been a school with only fourth, fifth, and sixth grades, it reopened last year with Kindergarten through sixth grades. Additionally, two thirds of the faculty members were new to the building. The school now represents a multicultural neighborhood of largely

immigrant families. The majority of the students walk to school. Some students ride the bus in order to safely cross a major thoroughfare, but are still within one mile of the school.

Langley Park McCormick Elementary is essentially the center of the community. It hosts evening Adult education classes for adult ESOL, citizenship, technology, and G.E.D. Soccer and basketball teams use the gymnasium in the evenings. Churches use the facilities on the weekends. It serves as an emergency food pantry, and regularly distributes clothes and other necessities to members of the community. It regularly refers community members to local charitable and social service agencies that provide medical, financial, and other community assistance.

Langley Park McCormick Elementary participants in the "Communities in Schools" program. The program staffs a half-time employee to assist in the development of community partnerships. This program has been very successful, and has enabled the school to work in conjunction with community organizations to address a spectrum of school and community needs.

The opening enrollment, in the fall of 2003, was 596 students, 200 of whom are in Kindergarten and first grades. A large percentage of the students (46%) are non-English proficient or Limited English Proficient.   An even larger percentage of parents are non-English proficient and are therefore limited in their ability to support their children academically. Typically, this language barrier has been an obstacle to parent involvement not only at home, but in school as well; however, with the current bilingual principal, parent liaison, teachers and secretaries, and now that all meetings are held in Spanish and English, the school is rapidly working to overcome this gap. 17.3% of the students are African, Caribbean, or African American. Many of the students in this category are immigrants confronting the same difficulties as the Hispanic population.   1.2% of the student body is white, and 3.4% Asian. There are no American Indian students. 87% of the students are on free or reduced lunch.

Two thirds of the faculty were new to Langley Park-McCormick last year. 56.4% of all teachers have five years or less of teaching experience. 23% have 6 – 15 years of experience; 20.5% have more than 16 years of experience. 76.9% of the staff is fully certified, 35.9% with Advanced Professional Certificates, and 16 with Standard Professional Certification. Twenty three percent of the faculty are provisionally certified.

The staff consists of 28 classroom teachers, 5 special education teachers, 7 ESOL teachers, a mentor teacher, 1.6 resource teachers, 1.6 counselors, four paraprofessionals, a .5 media specialist, a media aide, a reading specialist/reading recovery teacher, and a technology teacher.   In-service training to develop teachers' address the special needs of the students is a priority.

More specifics about technology equipment and use can be viewed from the Maryland Business Roundtable, Annual School State Technology Inventory found at: http://mbrt.org/ . From http://reports.md.ontargetus.com/SchoolSum.asp?otid=1028&accDesc=Langley+Park%2FMcCormick+Elementary we can see that LP elementary has excellent access to computers in the classroom (4.1:1 student-computer ratio, 100% of the classrooms with Internet access – both above the state targets and state averages), but the teacher knowledge and skill is lacking (10% with intermediate computer skills, and 20% with technology integration skills – both well below the county and state averages and targets). Thus, they have the technology, but they need more training on appropriate use—especially for this population.

Databases: There are a ton of locations for getting data on different groups. Listed below are a few.
(Remember hold down the control key [Ctrl] while clicking on it—to make the hyperlink work within a Word document)
- School Improvement in Maryland - Navigate to Analyzing and Using Data
- MD School Performance Report
- MD Technology Inventory Report
- SCANS report
- Try America Fact finder or Census 2000
- Pew Internet and American Life Project
- IT workforce : Office of Technology Policy/Technology Administration
- Poverty Rates - By state and county
- Affirmative action data - By State and County
- Scientific Research on the Internet - a study (through are very own) about everything you wanted to know about Internet use and time
- UMD Libraries- Database--Sources of International Statistics on the Internet
- Other Resources of interest: Minority Achievement in MD
- Science & Technology National Patterns of Research and Development Resources
- UCLA IT workforce Data Project

- Tech Visa.com (relates to Tech workers and immigration)
- UMD Economic Online Resources Database
- Galileo --data broken down to crime, youth well being education etc.
- Links to other data resources like Gallup polls, international data based, economic trends etc.
- National Center of Education Statistics (NCES) (Click on Data Resources)
- Education Data Portal - You could spend days here. My favorites:
  - CCD Data Resources - scroll down to your school;
  - Ed Week State information;
  - Projections for 2013 and Stats on School Crime
- Education Week Quality Counts (State by State)
- State-by-state data on teachers, student achievement, and state funding systems for education
- Census 2000 and Information Index for MD
- "Brief Economic Facts" for Maryland's 23 counties
- Maryland Department of Assessments and Taxation Real Property Data Search
- MD State Data Center
- Montgomery County GIS Related Links
- Enoch Pratt Demographics for MD
- Maryland Counties: Physical Features, Cultural Features and Census Data
- National Archive of Criminal Justice Data
- MD Ozone Data
- MapStats by state and county
- MD Career and Workforce Information
- Maryland/DC Breeding Bird Atlas - the maps are really the interesting part here
- Federal GIS Data
- Urban Census Data Project
- National Low Income Housing Coalition (Out of Reach)
- MD Genealogy
- MD Business Listings
- Fun Facts
- Fastats An excellent resource for basic state demographic data and data for specific health issues from A to Z from the National Center for Health Statistics (NCHS)
- International data

• Data Sources

• Data Analysis

• Data Interpretation

For these areas see the excel spreadsheets

I have included preK –K data examples--- although this same reading assessment might not be what you school/county does. I have also included several examples of data analysis-since many of you said you were familiar with Excel—just to show you what is possible.