

Contents

Section 1 PowerPlay Web Skills 2

Changing Measures.....	3
Filtering.....	5
Drilling Down.....	7
Replacing a Dimension with Another Dimension.....	9
Nesting a Subcategory.....	11
Removing a Nesting.....	13
Using Measures as a Dimension.....	15
Swapping Rows and Columns.....	17
Nesting Another Dimension.....	19
Swapping Nested Dimensions.....	21
Changing between Percentage of Rows and Columns.....	23
Changing between Percentages of Row/Column Subtotals.....	25
Suppressing Zeros.....	27
Preparing a Bookmark/Favorite.....	28

Section 2 Workshops 30

A. Show the percent of students at each performance level on the ELA 4 for each income group.....	31
B. Show the percentage distribution of results for the 1999 Grade 4 Math test for your school district and compare it to the regionally summarized scores.....	34
C. Show a multi-year comparison of the PEP 5 writing data as well as an analysis of the performance of the different groups of students based on their program services.....	37

Section 3 Appendices 40

Definition of Terms.....	41
Tips and Tricks.....	43
Cognos Web Access Screen Diagram.....	45
Dimension Viewer Diagram.....	46
Results Display Diagram.....	47
Toolbar.....	48
Database and Cube Comparison.....	49
1998-1999 LEAP Record Layout.....	50

Section 1 PowerPlay Web Skills

Changing Measures.....	3
Filtering.....	5
Drilling Down.....	7
Replacing a Dimension with Another Dimension.....	9
Nesting a Subcategory.....	11
Removing a Nesting.....	13
Using Measures as a Dimension.....	15
Swapping Rows and Columns.....	17
Nesting Another Dimension.....	19
Swapping Nested Dimensions.....	21
Changing between Percentage of Rows and Columns.....	23
Changing between Percentages of Row/Column Subtotals..	25
Suppressing Zeros.....	27
Preparing a Bookmark/Favorite.....	28

Changing Measures

Why?

When we want to view a different measure (Number of Assessments or Average Score)

Example

- We're viewing the number of assessments by BOCES for Grade 4 Math
- We'd like to see the average score by BOCES for Grade 4 Math
- We need to change the measure from Number of Assessments to Average Score

Note, we're viewing number of Assessments

Number of ELA Assessments by BOCES

Number of Assessments as values	Genesee Valley BOCES	Wayne-Finger Lakes BOCES	All Districts
Grade 4 ELA	2006	3460	5466
Grade 4 Reading	2006	3460	5466
Grade 8 ELA	2292	3292	5584
PCT Reading	1337	3567	4904
PCT Writing	1115	3092	4207
PEP 3 Reading	2014	3447	5461
PEP 5 Writing	4186	5805	9991
PEP 6 Reading	2113	3639	5752
RCT Reading	65	359	424
RCT Writing	63	347	410
Regents ELA	475	2078	2553
SED Approved Test (variance)	1022	251	1273
ELA	18694	32797	51491

Changing Measures (cont.)

Number of ELA Assessments by BOCES

Number of Assessments	Genesee Valley BOCES	Wayne-Finger Lakes BOCES	All Districts
MEASURES			
Number of Assessments	2006	3460	5466
Average Score	2006	3460	5466
Grade 8 ELA	2292	3292	5584
PCT Reading		3567	4904
PCT Writing		3092	4207
PEP 3 Reading		3447	5461
PEP 5 Writing		5805	9991
PEP 6 Reading		3639	5752
RCT Reading	65	359	424
RCT Writing	63	347	410
Regents ELA	475	2078	2553
SED Approved Test (variance)	1022	251	1273
ELA	18694	32797	51491

Click Average Score to change the Measure

Now, we're viewing the Average Score

ELA Average Score by BOCES

Average Score	Genesee Valley BOCES	Wayne-Finger Lakes BOCES	All Districts
as values			
Grade 4 ELA	658	654	656
Grade 4 Reading	661	658	659
Grade 8 ELA	715	714	714
PCT Reading	239	219	225
PCT Writing	292	317	310
PEP 3 Reading	56	60	58
PEP 5 Writing	25	30	28
PEP 6 Reading	73	84	80
RCT Reading	65	61	62
RCT Writing	75	71	71
Regents ELA	110	167	156
SED Approved Test (variance)	64	0	51
ELA	290	297	294

Filtering

Why?

To view only data for an individual category of a Dimension

Example

- We're viewing the average score of each ELA measure for each BOCES
- We only want to include the scores of students who actually took the test
- We need to filter the Test Status dimension

ELA Average Scores by BOCES

Average Score	Genesee Valley BOCES	Wayne-Finger Lakes BOCES	All Districts
Grade 4 ELA	658	654	656
Grade 4 Reading	661	658	659
Grade 8 ELA	715	714	714
PCT Reading	239	219	225
PCT Writing	292	317	310
PEP 3 Reading	56	60	
PEP 5 Writing	25	3	
PEP 6 Reading	73	84	
RCT Reading	65	61	62
RCT Writing	75	71	71
Regents ELA	110	167	156
SED Approved Test (variance)	64	0	51
ELA	290	297	294

Note these average scores

ELA | All Districts | All School Years | All Genders | All Ethnicities

All Income Levels | All Mobilities | All Education Types | All Building Status | All Populations

All Program Services | All Integration Levels | ALL LEP Status | All Test Status

Average Score	Genesee Valley BOCES	Wayne-Finger Lakes BOCES	All Districts
Grade 4 ELA		654	
Grade 4 Reading		658	

All Test Status
Student not Tested
Student Tested
(+) Rows
(+) Columns

Click Student Tested

Filtering (cont.)

ELA Average Scores by BOCES

Average Score	Genesee Valley BOCES	Wayne-Finger Lakes BOCES	All Districts
Grade 4 ELA	649	647	648
Grade 4 Reading	652	651	651
Grade 8 ELA	705	703	704
PCT Reading	65	64	64
PCT Writing	82	80	80
PEP 3 Reading	41	41	41
PEP 5 Writing	10	10	10
PEP 6 Reading	62	62	62
RCT Reading	51	56	55
RCT Writing		65	67
Regents ELA		76	76
SED Approved Test (variance)		0	6
ELA		248	251

Now, See how the numbers changed. The "999s" are not included

Useful Filters

- Only one school district
- Only one Subject Area or Measure
- Only students tested
- Only one school year

Drilling Down

Why?

When we want to view more detailed results for a category by showing its sub-category instead

Example

- We're viewing the average score by BOCES for ELA exams
- We'd like to see the scores for the districts in the Genesee Valley BOCES
- We need to drill down on Genesee Valley BOCES

ELA Average Scores by BOCES

Average Score	Genesee Valley BOCES	Wayne-Finger Lakes BOCES	All Districts
Grade 4 ELA	647		648
Grade 4 Reading	652		651
Grade 8 ELA	705		704
PCT Reading	65		64
PCT Writing	82		80
PEP 3 Reading	41		41
PEP 5 Writing	10		10
PEP 6 Reading	62		62
RCT Reading	51		55
RCT Writing	75		67
Regents ELA	75	76	76
SED Approved Test (variance)	7	0	6
ELA	255	248	251

Click
Genesee Valley
BOCES to
show the
schools in that
BOCES

Drilling Down (cont.)

ELA Average Scores by District for Genesee Valley BOCES

Average Score as values	Amherst Central School	Beaver River Central School	Cedarville Central School	East Lake Central School	Fairfield Central School	Greenfield City Schools	Hinkley Central School	Inlet Central School	Middleville Central School	North Beach Central School
Grade 4 ELA	653	648	641	657	643	646	653	648	634	642
Grade 4 Reading	651	650	644	665	644	650	656	648	637	647
Grade 8 ELA	701	701	699	702	706	707	710	705	698	708
PCT Reading	63	63	/0	/0	/0	/0	66	65	36	/0
PCT Writing	81	82	/0	86	/0	/0	/0	82	66	/0
PEP 3 Reading	41	43	40	40		42	42	37	35	39
PEP 5 Writing	11	11	9	10		11	10	10	10	10
PEP 6 Reading	63	61	58	61	61	60	67	58	61	62
RCT Reading	/0	/0	/0	/0	/0	/0	/0	/0	51	58
RCT Writing	/0	/0	/0	/0	/0	/0	/0	/0	64	78
Regents ELA	/0	/0	/0	/0	/0	/0	/0	/0	73	72
SED Approved Test (variance)	/0	/0	7	/0	/0	/0	/0	/0	7	7
ELA	258	236	272	259	252	252	252	252	252	220

**Now, we're
viewing the
Districts within
Genesee Valley
BOCES**

Replacing a Dimension with another Dimension

Why?

When we want to view results for another dimension (row or column), we need to replace that dimension

Example

- We're viewing the ELA average scores by Measure and School
- We now want to view the ELA average scores by Income Level
- We need to replace a dimension

ELA Average Scores by District for Genesee Valley BOCES

Average Score	Amherst Central School	Beaver River Central School	Cedarville Central School	East Lake Central School	Fairfield Central School	Greenfield City Schools	Hinkley Central School	Inlet Central School	Middleville Central School	North Beach Central School
Grade 4 ELA	653	648	641	657	643	646	653	648	634	642
Grade 4 Reading	651	650	644	665	641	650	656	648	637	647
Grade 8 ELA	701	701	699	702	700	707	710	705	698	708
PCT Reading	63	63	/0	62	/0	/0	66	65	36	/0
PCT Writing	81	82	/0	86	/0	/0	/0	82	66	/0
PEP 3 Reading	41	43	40	40	39	42	42	37	35	39
PEP 5 Writing	11	11	9	10	11		10	10	10	10
PEP 6 Reading	63	61	58	61	64		67	58	61	62
RCT Reading	/0	/0	/0	/0	/0		/0	/0	51	58
RCT Writing	/0	/0	/0	/0	/0	/0	/0	/0	64	78
Regents ELA	/0	/0	/0	/0	/0				59	72
SED Approved Test (variance)	/0	/0	7	/0						7
ELA	258	236	272	259	241	241	241	241	220	220

Note, we're viewing Districts

Replacing a Dimension with another Dimension (cont.)

Quiet Falls Central School	Raging Falls Central School	Sandy Inlet Central School	Shutesbury Central	South Lake Central School	South Pond Central	Ware Central School	
648	639	640	654	652	654	653	
653	647	646	656	655	655	656	
705	708	708	704	715	702	706	
64	66				66	/0	
/0	84			84	83	/0	
44	40			43	44	43	
11	11	11	11	10	9	12	10
58	61	62	64	64	63	64	62
47	/0	/0	/0	/0	60	/0	51
76	/0	/0	/0	/0	70	/0	75
77	/0	/0	/0	/0	77	/0	75
7	/0	/0	/0	/0	/0	8	7
213	308	234	298	259	213	281	255

▼

- All Genders
- All Ethnicities
- All Income Levels
- All Mobilities
- All Education Types
- All Building Status
- All Populations
- All Program Services
- All Integration Levels
- ALL LEP Status
- Student Tested

Click All Income Levels

ELA Average Scores by Income Level

Average Score	Low-income	Not Low-income	Unknown	All Income Levels
Grade 4 ELA	639	652	/0	649
Grade 4 Reading	643	655	/0	652
Grade 8 ELA	695	707	713	705
PCT Reading	60		68	65
PCT Writing	76		90	82
PEP 3 Reading	38	42	/0	41
PEP 5 Writing	10	11		10
PEP 6 Reading	57	63		62
RCT Reading	52			51
RCT Writing	75			75
Regents ELA	71			75
SED Approved Test (variance)	6	8		7
ELA	266	252	140	255

Now, we're viewing Income Levels

Nesting a Subcategory

Why?

When we want to view more detailed results for all categories shown by also showing their subcategories

Example

- We're viewing the average score for Math assessments by Income Level
- We'd like to see the number of assessments for the individual measures for Math
- We need to nest the Measures

Math Average Score by Measure and Income Level

Average Score	Low-income	Not Low-income	All Income Levels
Grade 4 Math	655	660	659
Grade 8 Math	691	710	705
PEP 3 Math	51	51	51
PEP 6 Math	38	46	43
Mathematics	341	413	391

Number of Assessments	Low-income	Not Low-income	All Income Levels
Grade 4 Math	40	88	128
Grade 8 Math	56	156	212
PEP 3 Math	50	73	123
PEP 6 Math	48	103	151
Mathematics	194	420	614

- All Test Status
- MEASURES
- [Nest]
- [+] Cedarville Central School
- [+] All School Years
- [+] All Genders
- [+] All Ethnicities
- [+] All Income Levels
- [+] All Mobilities
- [+] All Education Types

Click [Nest] or the Plus Sign +

Nesting a Subcategory (cont.)

Math Results by Measure and Income Level

Number of Assessments		Low-income	Not Low-income	All Income Levels
as values				
Grade 4 Math	Level 2	9	20	29
	Level 1	1	2	3
	Level 3	18	37	55
	Level 4	11	26	37
	IEP Exempt		3	4
	Grade 4 Math	40	88	128
Grade 8 Math	Level 2	26	15	41
	Level 1	15	15	30
	Level 3	6	57	63
	Level 4	1	4	5
	IEP Exempt	6	6	12
	Absent, not Tested	2	6	8
	Grade 8 Math	56	156	212
PEP 3 Math	At/above minimum	23	35	58
	At/above distinction	26	36	62
	Below minimum	1	2	3
	PEP 3 Math	50	73	123
PEP 6 Math	At/above minimum	38	78	116
	At/above distinction	3	19	22
	Below minimum	7	4	11
	Absent, not Tested	0	2	2
PEP 6 Math	48	103	151	
Mathematics		194	420	614

Note, we've also changed to Number of Assessments

Now, we're viewing results within each measure

Removing a Nesting

Why?

When we're done viewing the results at the nested level

Example

- We're viewing the number of assessments for the Math measures by Income Level
- We'd like to see only the Math measures by Income Level
- We need to remove a nesting

Number of Assessments by Level for Math Measures by Income Level

Number of Assessments		Low-income	Not Low-income	All Income Levels
as values				
Grade 4 Math	Level 2	9	20	29
	Level 1	1	2	3
	Level 3	18	37	55
	Level 4	11	26	37
	IEP Exempt	1	3	4
	Grade 4 Math	40	88	128
Grade 8 Math	Level 2	26	64	90
	Level 1	15	19	34
	Level 3	6	57	63
	Level 4	1	4	5
	IEP Exempt	6	6	12
	Absent, not Tested	2	6	8
	Grade 8 Math	56	156	212
PEP 3 Math	At/above minimum	23	35	58
	At/above distinction	26	36	62
	Below minimum	1	2	3
	PEP 3 Math	50	73	123
PEP 6 Math	At/above minimum	38	78	116
	At/above distinction	3	19	22
	Below minimum	7	4	11
	Absent, not Tested	0	2	2
	PEP 6 Math	48	103	151
Mathematics	194	420	614	

Click the minus sign -

Removing a Nesting (cont.)

Math Average Score by Measure and Income Level

Average Score as values	Low-income	Not Low-income	All Income Levels
Grade 4 Math	655	660	659
Grade 8 Math	691	710	705
PEP 3 Math	51	51	51
PEP 6 Math	38	46	43
Mathematics	341	413	391

Now, we've removed Levels column

Note, we're viewing Average Scores

Using Measures as a Dimension (cont.)

Number of Assessments and Average Score by Measure and Income Level for the Math Subject Area

MEASURES		Low-income	Not Low-income	All Income Levels
as values				
Grade 4 Math	Number of Assessments	39	85	124
	Average Score	655	660	659
	Score	25541	56123	81664
Grade 8 Math	Number of Assessments	48	144	192
	Average Score	691	710	705
	Score	33186	102178	135364
PEP 3 Math	Number of Assessments	50	73	123
	Average Score	51	51	51
	Score	2564	3722	6286
PEP 6 Math	Number of Assessments	48	101	149
	Average Score	38	46	43
	Score	1829	4597	6426
- Mathematics	+ MEASURES	NA	NA	NA

Note we're now viewing all of the measures

Swapping Rows and Columns

Why?

When we'd like to switch the rows with the columns to make analysis easier

Example

- We're viewing the average score of the Assessments by Education type and Program Services
- We'd like to see more of the results on one page so we don't have to scroll to the right to see the remainder of the view
- We need to Swap Rows and Columns

Average score of the Grade 4 Math by Education type and Program Services

Average Score as values	Regular Education	Special Class	Consultant Teacher	Related/Consultant Teacher	Resource Room	Related Services	Related/Resource Room
Regular Education	663	/0	/0	/0	/0	/0	
Special Education	/0	638	641	641	/0	/0	
Unknown	/0	/0	/0	/0	/0	/0	
All Education Types	663	638	641	641		/0	

Note there are more columns



Click the Swap Rows and Columns Button in the Toolbar

Swapping Rows and Columns (cont.)

Average score of the Grade 4 Math Assessment
by Program Services and Education Type

Average Score as values	Regular Education	Special Education	Unknown	All Education Types
Regular Education	663	/0	/0	663
Special Class	/0	638	/0	638
Consultant Teacher	/0	641	/0	641
Related/Consultant Teacher	/0	641	/0	641
Resource Room	/0	/0	/0	/0
Related Services	/0	/0	/0	/0
Related/Resource Room	/0	/0	/0	/0
Consultant Teacher/Resource Room	/0	/0	/0	/0
Related/Consultant Teacher/Resource Room	/0	/0	/0	/0
All Program Services	663	640	/0	659

Now the rows and columns are switched

Nesting Another Dimension

Why?

When we want to view more detailed results for all categories shown by detailing results by children for another dimension

Example

- We're viewing the average score for the ELA exam by Gender
- We'd like to see the scores also grouped by Income Level
- We need to nest the Income Level dimension

ELA Average Scores by Gender

Average Score	Female	Male	All Genders
as values			
Grade 4 ELA	654	651	652
Grade 4 Reading	655	656	655
Grade 8 ELA	715	739	726
PEP 3 Reading	39	41	40
PEP 5 Writing	41	16	30
PEP 6 Reading	69	72	71
SED Approved Test (variance)	130	160	145
ELA	301	314	307

Nesting Another Dimension (cont.)

Average Score	Female	Male	All Genders
as values			
Grade 4 ELA	659	658	
Grade 4 Reading	660	662	
Grade 8 ELA	719	711	
PCT Reading	247	232	
PCT Writing	313	273	
PEP 3 Reading	54	57	
PEP 5 Writing	24	27	
PEP 6 Reading	69	76	73
RCT Reading	51	74	65
RCT Writing	79	73	75
Regents ELA	104	117	110
SED Approved Test (variance)	61	66	64
[+] All Income Levels	294	287	290

Click [+] All Income Levels

ELA Average Scores by Gender and Income Level

Average Score	Female			Male			All Genders
	Low. income	Not Low. income	All Income Levels	Low. income	Not Low. income	All Income Levels	
Grade 4 ELA	657	653	654	644	654	651	652
Grade 4 Reading	655	654	655	653	657	656	655
Grade 8 ELA	710	717	715	748	736	739	726
PEP 3 Reading	40	39	39	40	41	41	40
PEP 5 Writing	34	44	41	8	19	16	30
PEP 6 Reading	53	77	69	52	82	72	71
SED Approved Test (variance)	50	158	130	100	180	160	145
ELA	284	308	301	285	327	314	307

Now, we've nested the Income Level Dimension

Swapping Nested Dimensions

Why?

When we want to change the grouping order in a set of nested dimensions

Example

- We're viewing ELA scores grouped by Gender and then Income level
- We'd like to see the ELA scores by Income level and then Gender
- We need to swap the nested dimensions

ELA Average Scores by Gender and Income Level

Average Score as values	Female			Male			All Genders
	Low-income	Not Low-income	All Income Levels	Low-income	Not Low-income	All Income Levels	All Income Levels
Grade 4 ELA	657	653	654	644	654	651	652
Grade 4 Reading	655	654	655	653	657	656	655
Grade 8 ELA	710	717	715	748	736	739	726
PEP 3 Reading	40	39	39	40	41	41	40
PEP 5 Writing	34	44	41	8	19	16	30
PEP 6 Reading	53	77	69	52	82	72	71
SED Approved Test (variance)	50	158	130	100	180	160	145
ELA	284	308	301	285	327	314	307

Average Score as values	Female			Male			All Genders
	Low-income	Not Low-income	All Income Levels	Low-income	Not Low-income	All Income Levels	All Income Levels
Grade 4 ELA	657	653	654	644	654	651	652
Grade 4 Reading	655	654	655	653	657	656	655
Grade 8 ELA	710	717	715	748	736	739	726
PEP 3 Reading	40	39	39	40	41	41	40
PEP 5 Writing	34	44	41	8	19	16	30
PEP 6 Reading	53	77	69	52	82	72	71
SED Approved Test (variance)	50	158	130	100	180	160	145
ELA	284	308	301	285	327	314	307

Click [Swap Up] in the innermost dimension

Swapping Nested Dimensions (cont.)

ELA Average Scores by Income Level and Gender

Average Score as values	Low-income			Not Low-income			All Income Levels
	Female	Male	All Genders	Female	Male	All Genders	All Genders
Grade 4 ELA	657	644	651	653	654	653	652
Grade 4 Reading	655	653	654	654	657	656	655
Grade 8 ELA	710	748	727	736	726	726	726
PEP 3 Reading	40	40	40	40	40	40	40
PEP 5 Writing	34	8	21	44	30	30	30
PEP 6 Reading	53	52	52	77	71	71	71
SED Approved Test (variance)	50	100	74	158	145	145	145
ELA	284	285	285	308	307	307	307

Now, the two dimensions are reversed

Changing Between % of Rows and Columns

Why?

When we want to view the percentage of the measure of its column total or of its row total.

Example

- We're viewing percentages of ELA 4 assessments by Level grouped by gender
- We'd like to see the percentages of assessments by Gender grouped by Level
- We need to change the measure display type to % of column total

Percentage Breakdown of ELA 4 Assessments by Gender

Number of Assessments as % of row total	Female	Male	All Genders
Level 1	37.50%	62.50%	100.00%
Level 2	45.00%	55.00%	100.00%
Level 3	46.30%	53.70%	100.00%
Level 4	50.00%	50.00%	100.00%
IEP Exempt	33.33%	66.67%	100.00%
Absent, not Tested	100.00%	0.00%	100.00%
Grade 4 ELA	45.38%	54.62%	100.00%

Note figures are percentages of the row total (Gender)

Note this is the average for the column (Gender)

Number of Assessments as % of row total	Female	Male	All Genders
as values	37.50%		100.00%
as % of row total			100.00%
as % of row subtotals			100.00%
as % of column total	46.30%	53.70%	100.00%
as % of column subtotals	50.00%	50.00%	100.00%
as % of grand total	33.33%	66.67%	100.00%
[Hide Calculations]			
Absent, not Tested	100.00%	0.00%	100.00%
Grade 4 ELA	45.38%	54.62%	100.00%

Click as % of column total

Changing Between % of Rows and Columns (cont.)

Percentage Breakdown of ELA 4 Assessments by Level

Number of Assessments as % of column total	Female	Male	All Genders
Level 1	5.08%	7.04%	6.15%
Level 2	45.76%	46.48%	46.15%
Level 3	42.37%	40.85%	41.54%
Level 4	3.39%	2.82%	3.08%
IEP Exempt	1.69%	2.82%	2.31%
Absent, not Tested	1.69%	0.00%	0.77%
Grade 4 ELA	100.00%	100.00%	100.00%

Now figures are percentages of the column total (Gender)

Now this is the average for the row (Level)

Changing between % of Row/Column Subtotals

Why?

When we want to view the percentage of the measure of its column subtotal or of its row subtotal.

Example

- We're viewing the percentage breakdown by Education Type for the Grade 4 ELA performance levels for each Gender
- We'd like to see the percentage breakdown by Performance Level for each Education Type for each Gender
- We need to change the measure display type to % of column subtotals

Note figures are percentages of Gender/Performance Level by Education type

Percentage Breakdown by Education Type for the ELA4 for Each Gender

Number of Assessments		Regular Education	Special Education	All Education Types
as % of row subtotals				
Female	Level 1	66.67%	33.33%	100.00%
	Level 2	77.78%	22.22%	100.00%
	Level 3	96.00%	4.00%	100.00%
	Level 4	100.00%	0.00%	100.00%
	IEP Exempt	0.00%	100.00%	100.00%
	Absent, not Tested	0.00%	100.00%	100.00%
	Grade 4 ELA	83.05%	16.95%	100.00%
Male	Level 1	60.00%	40.00%	100.00%
	Level 2	72.73%	27.27%	100.00%
	Level 3	93.10%	6.90%	100.00%
	Level 4	50.00%	50.00%	100.00%
	IEP Exempt	0.00%	100.00%	100.00%
	Grade 4 ELA	77.46%	22.54%	100.00%
All Genders		80.00%	20.00%	100.00%

Note these rows are the percentage of females and males at this level by Education Type

Note this row is the percentage of assessments by Education Type

Changing between % of Row/Column Subtotals (cont.)

Number of Assessments		Regular Education	Special Education	All Education Types
as % of row subtotals	Level 1		10.00%	5.08%
	Level 2		60.00%	45.76%
	Level 3		10.00%	42.37%
	Level 4		0.00%	3.39%
	IEP Exempt		10.00%	1.69%
	Absent, not Tested		10.00%	1.69%
	Grade 4 ELA	100.00%	100.00%	100.00%
Male	Level 1	5.45%	12.50%	7.04%
	Level 2	43.64%	56.25%	46.48%
	Level 3	49.09%	12.50%	40.85%
	Level 4	1.82%	6.25%	2.82%
	IEP Exempt	0.00%	12.50%	2.82%
	Grade 4 ELA	100.00%	100.00%	100.00%
All Genders	Grade 4 ELA	NA	NA	NA

Click as % of column subtotals

Note figures are percentages of Gender/Education type by Performance Level

percentage Breakdown for Each Education Type by ELA4 Level for Each Gender

Number of Assessments		Regular Education	Special Education	All Education Types
as % of column subtotals	Level 1	4.08%	10.00%	5.08%
	Level 2	42.86%	60.00%	45.76%
	Level 3	48.98%	10.00%	42.37%
	Level 4	4.08%	0.00%	3.39%
	IEP Exempt	0.00%	10.00%	1.69%
	Absent, not Tested	0.00%	10.00%	1.69%
	Grade 4 ELA	100.00%	100.00%	100.00%
Female	Level 1	5.45%	12.50%	7.04%
	Level 2	43.64%	56.25%	46.48%
	Level 3	49.09%	12.50%	40.85%
	Level 4	1.82%	6.25%	2.82%
	IEP Exempt	0.00%	12.50%	2.82%
	Grade 4 ELA	100.00%	100.00%	100.00%
All Genders	Grade 4 ELA	NA	NA	NA

Now these columns are the % of males or females by performance level for each Education Type

Note this column is the percentage breakdown by level for this Gender

Suppressing Zeros

Why?

To eliminate categories whose measures are all zero

Example

- We're viewing the performance of the ELA 4 by Education Type and we have no assessments in the LEP Exempt and no assessments for Unknown Education Types
- We'd like to remove the LEP Exempt row and the Unknown Education Type column

Performance Breakdown for the ELA 4 by Education Type

Number of Assessments as % of column subtotals	Regular Education	Special Education	Unknown	All Education Types
Level 1	4.81%	11.54%	∅	6.15%
Level 2	43.27%	57.69%	∅	46.15%
Level 3	49.04%	11.54%	∅	41.54%
Level 4	2.88%	3.85%	∅	3.08%
IEP Exempt	0.00%	11.54%	∅	2.31%
LEP Exempt	0.00%	0.00%	∅	0.00%
Absent, not Tested	0.00%	3.85%	∅	0.77%
Grade 4 ELA	100.00%	100.00%	∅	100.00%



Click the Zero Suppression button in the toolbar

Regular Education	Special Education	All Education Types
Level 1	11.54%	6.15%
Level 2	57.69%	46.15%
Level 3	11.54%	41.54%
Level 4	3.85%	3.08%
IEP Exempt	11.54%	2.31%
Absent, not Tested	3.85%	0.77%
Grade 4 ELA	100.00%	100.00%

Now, the "Unknown" column is gone

Now, the "LEP Exempt" row is gone

Note, indication that Zero Suppression is on

Creating a Bookmark / Favorite

Why?

When we want to save an analysis view for later use

Steps

1. When you've found a view that you'd like to save, click the Prepare a Bookmark button in the toolbar

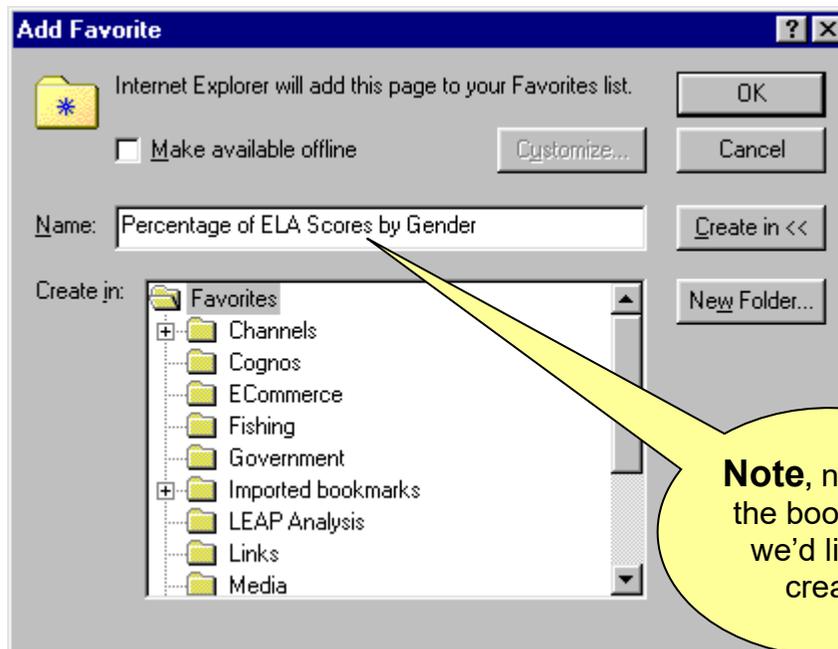


Click the Prepare a bookmark button in the toolbar

2. Follow the steps for your browser to create a bookmark or favorite

Creating a Bookmark in Microsoft Internet Explorer:

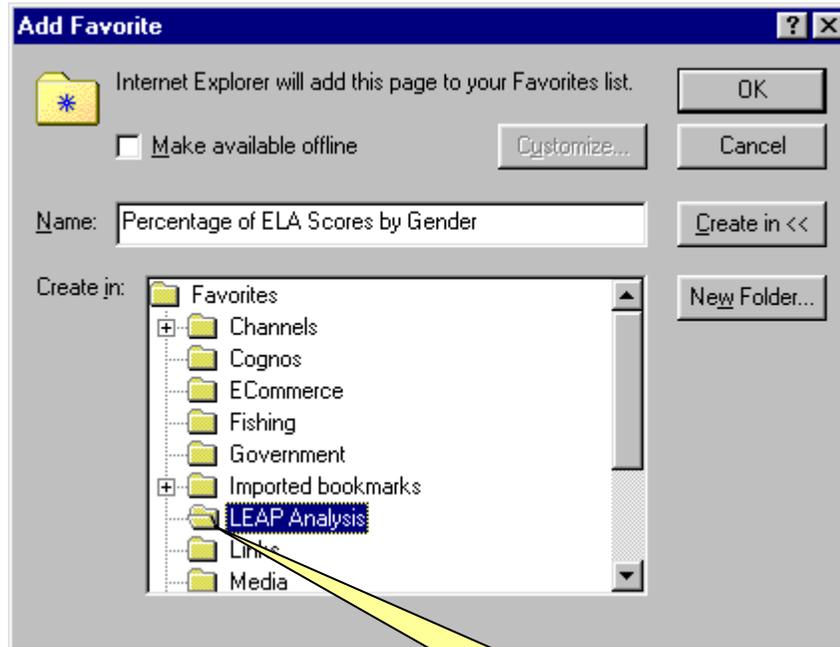
1. Click **Add to Favorites** from the **Favorites** menu



2. Type the name of the bookmark in the **Name:** box. In this example, we're looking at Percentage of ELA Scores by Gender.

Creating a Bookmark / Favorite (cont.)

3. Click the **folder** in which you'd like to create the bookmark. In this example, we'll place the bookmark in the LEAP Analysis folder. Note that the folder appears "open" after selecting it.



4. Click **OK** to save the bookmark.

Note, folder appears "open"

For Netscape Communicator

1. Click **Bookmarks** from the **Communicator** menu
2. Click **Add Bookmark**
3. The bookmark is placed in bookmarks list but, not in a specific folder
4. To move the bookmark to a different folder, click **Bookmarks** from the **Communicator** menu then click **Edit Bookmarks**. You can then drag the bookmark into an existing folder or create a new folder for the bookmark.

Section 2 Workshops

- A. Show the percent of students at each performance level on the ELA 4 for each income group..... **31**
- B. Show the percentage distribution of results for the 1999 Grade 4 Math test for your school district and compare it to the regionally summarized scores..... **34**
- C Show a multi-year comparison of the PEP 5 writing data as well as an analysis of the performance of the different groups of students based on their program services..... **37**

Workshop A

Show the percent of students at each performance level on the ELA 4 for each income group.

Your results should look like the following (note: your columns will be determined by your access level):

Number of Assessments as % of column subtotals		Genesee Valley BOCES	Wayne-Finger Lakes BOCES	All GV/WFL Districts
Level 1	Low-income	48.78%	52.66%	51.56%
	Not Low-income	51.22%	46.86%	48.10%
	Unknown	0.00%	0.48%	0.35%
	All Income Levels	100.00%	100.00%	100.00%
Level 2	Low-income	36.26%	32.91%	34.14%
	Not Low-income	63.74%	67.09%	65.86%
	Unknown	0.00%	0.00%	0.00%
	All Income Levels	100.00%	100.00%	100.00%
Level 3	Low-income	20.18%	17.33%	18.41%
	Not Low-income	79.82%	82.67%	81.59%
	Unknown	0.00%	0.00%	0.00%
	All Income Levels	100.00%	100.00%	100.00%
Level 4	Low-income	13.59%	8.78%	10.39%
	Not Low-income	86.41%	91.22%	89.61%
	Unknown	0.00%	0.00%	0.00%
	All Income Levels	100.00%	100.00%	100.00%
IEP Exempt	Low-income	47.06%	28.13%	37.88%
	Not Low-income	52.94%	71.88%	62.12%
	Unknown	0.00%	0.00%	0.00%
	All Income Levels	100.00%	100.00%	100.00%
LEP Exempt	Low-income	66.67%	55.56%	58.33%
	Not Low-income	33.33%	44.44%	41.67%
	Unknown	0.00%	0.00%	0.00%
	All Income Levels	100.00%	100.00%	100.00%
Absent, not Tested	Low-income	50.00%	41.94%	44.90%
	Not Low-income	50.00%	58.06%	55.10%
	Unknown	0.00%	0.00%	0.00%
	All Income Levels	100.00%	100.00%	100.00%
Grade 4 ELA	All Income Levels	NA	NA	NA

View next page for solutions

Questions

Of all of the Level 1 Assessments, what percent was from students noted as low-income?
At what level of assessment was the greatest percentage difference between each income level?

Going Further

What percentage of assessments from Low Income students attained a Level 3?

Workshop A – Tasks to Perform

Tasks

1. Start with the Default View
2. Drill down on ELA
3. Drill down on ELA 4
4. Nest the Income Level as rows
5. Change the Measure Display Type to % of Column subtotal

Going Further Tasks

1. Swap the nested Row dimension

Workshop A – Step by Step Instructions

Step by Step Instructions

1. Start with the Default View
 - Start with Subject Areas as the Rows and your district(s) data as the columns
2. Drill down on ELA
 - Click the ELA row in the Results View
3. Drill down on ELA 4
 - Click the Grade 4 ELA row in the Results View
4. Nest the Income Level as rows
 - Click the [+] All Income Levels from the Row Dimension pulldown
5. Change the Measure Display Type to % of Column subtotal
 - Click the As % of Column total from the Measure Display Type pulldown

Going Further Step by Step Instructions

1. Swap the nested Row dimension
 - Click the Swap Left from the nested, Income Level row's Row Dimension pulldown

Workshop B

Show the percentage distribution of results for the 1999 Grade 4 Math test for your school district and compare it to the regionally summarized scores.

Your results should look similar to the following:

Number of Assessments as % of column total	Central School	Wayne-Finger Lakes BOCES
Level 1	5.93%	3.50%
Level 2	22.88%	19.34%
Level 3	44.92%	49.38%
Level 4	26.27%	26.31%
IEP Exempt	0.00%	0.99%
LEP Exempt	0.00%	0.13%
Absent, not Tested	0.00%	0.35%
Grade 4 Math	100.00%	100.00%

View next page for solutions

Questions

- In which levels did students at your school perform better than the regional average?
- In which levels did students at your school perform worse than the regional average?

Going Further

Show the percentage distribution for each of the measures in the mathematics subject area in one display.

Or

Show the percentage distribution for the Grade 4 Math results as a clustered bar graph.

Workshop B – Tasks to Perform

Tasks

1. Start with the Default View
2. Drill down on Mathematics
3. Drill down on Grade 4 Math
4. Filter year 1999
5. Change to show measures as a % of Column Total

Going Further Tasks

1. Show all of the Mathematics measures as the outside row
2. Nest the Mathematics sub-categories (results levels)

Or

1. Select clustered bar graph as the display

Workshop B – Step by Step Instructions

Step by Step Instructions

1. Start with the Default View
 - Start with Subject Areas as the Rows and your district(s) data as the columns
2. Drill down on Mathematics
 - Click the Mathematics row in the Results View
3. Drill down on Grade 4 Math
 - Click the Grade 4 Math row in the Results View
4. Filter year 1999
 - Select 1999 as from the All Years pulldown in the dimension line
5. Change to show measures as a % of Column Total
 - Select As % of Column total from the Measures Display type pulldown

Going Further Step by Step Instructions

1. Show all of the Mathematics measures as the outside row
 - Drill down on Mathematics by clicking the Mathematics row in the Results View
2. Nest the Mathematics sub-categories (results levels)
 - Click the [Nest] from the Mathematics row's Row Dimension pulldown

Or

1. Click the clustered bar graph button in the toolbar

Workshop C

Show a multi-year comparison of the PEP 5 writing data as well as an analysis of the performance of different groups of students based on their program services.

Your results should look like the following:

		Central School			Wayne-Finger Lakes BOCES
		1999	1998	All School Years	
Regular Education	Below minimum	0.95%	0.00%	0.51%	2.27%
	At/above minimum	97.14%	97.83%	97.46%	97.14%
	Absent, not Tested	1.90%	2.17%	2.03%	0.59%
	PEP 5 Writing	100.00%	100.00%	100.00%	100.00%
Related Services	At/above minimum	100.00%	100.00%	100.00%	64.71%
	PEP 5 Writing	100.00%	100.00%	100.00%	100.00%
Consultant Teacher	At/above minimum	100.00%	∅	100.00%	86.24%
	PEP 5 Writing	100.00%	∅	100.00%	100.00%
Resource Room	Below minimum	33.33%	0.00%	20.00%	17.54%
	At/above minimum	66.67%	100.00%	80.00%	81.99%
	PEP 5 Writing	100.00%	100.00%	100.00%	100.00%
Related/Consultant Teacher	At/above minimum	100.00%	100.00%	100.00%	89.83%
	PEP 5 Writing	100.00%	100.00%	100.00%	100.00%
Related/Resource Room	Below minimum	60.00%	0.00%	30.00%	22.41%
	At/above minimum	20.00%	100.00%	60.00%	75.86%
	Absent, not Tested	20.00%	0.00%	10.00%	1.72%
	PEP 5 Writing	100.00%	100.00%	100.00%	100.00%
Related/Consultant Teacher/Resource Room	At/above minimum	100.00%	∅	100.00%	66.67%
	PEP 5 Writing	100.00%	∅	100.00%	100.00%
Special Class	Below minimum	42.86%	7.14%	25.00%	30.95%
	At/above minimum	57.14%	92.86%	75.00%	48.41%
	PEP 5 Writing	100.00%	100.00%	100.00%	100.00%
All Program Services	PEP 5 Writing	NA	NA	NA	NA

View next page for solutions

Questions

Of all of the PEP 5 Writing Assessments for students who were in the resource room for part of the day, what percent scored above the minimum?

Students participating in what program service realized the greatest decrease in performance on the PEP 5 writing measure?

Going Further

Show a stacked bar graph of the percentage of students, for each year, using each program service grouped by whether the students met the minimum score. The graph should show how each program service contributed to the number of students who scored at each level.

Workshop C – Tasks to Perform

Tasks

1. Start with the Default View
2. Drill down on ELA
3. Drill down on PEP 5 Writing
4. Nest the Years dimension as columns
5. Nest the Program Services dimension as Rows
6. Change the Measure Display Type to % of Column Subtotal
7. Swap the nested row dimension
8. Eliminate the rows that have zeros in all columns

Going Further Tasks

1. Swap the nested Row dimension again
2. Change the display to a Stacked Bar Graph

Workshop C – Step by Step Instructions

Step by Step Instructions

1. Start with the Default View
 - Start with Subject Areas as the Rows and your district(s) data as the columns
2. Drill down on ELA
 - Click the ELA row in the Results View
3. Drill down on PEP 5 Writing
 - Click the PEP 5 Writing row in the Results View
4. Nest the Years dimension as columns
 - Click the [+] All Years from the Row Dimension pulldown
5. Nest the Program Services dimension as Rows
 - Click the [+] All Program Services from the Row Dimension pulldown
6. Change the Measure Display Type to % of Column Subtotal
 - Select As % of Column total from the Measures Display type pulldown
7. Swap the nested row dimension
 - Click the Swap Left from the nested, Program Services row's Row Dimension pulldown
8. Eliminate the rows that have zeros in all columns
 - Click the Zero Suppression button on the toolbar

Going Further Step by Step Instructions

1. Swap the nested Row dimension again
 - Click the Swap Left from the nested, Score level row's Row Dimension pulldown
2. Change the display to a Stacked Bar Graph
 - Click the Stacked Bar Display button on the toolbar

Section 3 Appendices

Definition of Terms.....	41
Tips and Tricks.....	43
Cognos Web Access Screen Diagram.....	45
Dimension Viewer Diagram.....	46
Results Display Diagram.....	47
Toolbar.....	48
Database and Cube Comparison.....	49
1998-1999 LEAP Record Layout.....	50

Definition of Terms

Data Analysis

- Make informed decisions by analyzing your school's data
- Explore data from different angles and gain new insights
- Find faster answers to Education-delivery questions

Cube: A collection of related data on which you can perform analysis. The LEAP data resides in a cube

Dimension: a grouping of data that defines something you're analyzing

Examples:

- LEP
- Building
- Regular or Special Ed.
- Mobility
- Gender

Measure: performance indicators of the data that you're analyzing

Examples:

- Score on a test
- Number of days absent
- Number of students exempted from a test
- Amount of budget spent on each program
- Percentage of students requiring special services

Multidimensional Analysis: analyzing school performance across different dimensions

Examples:

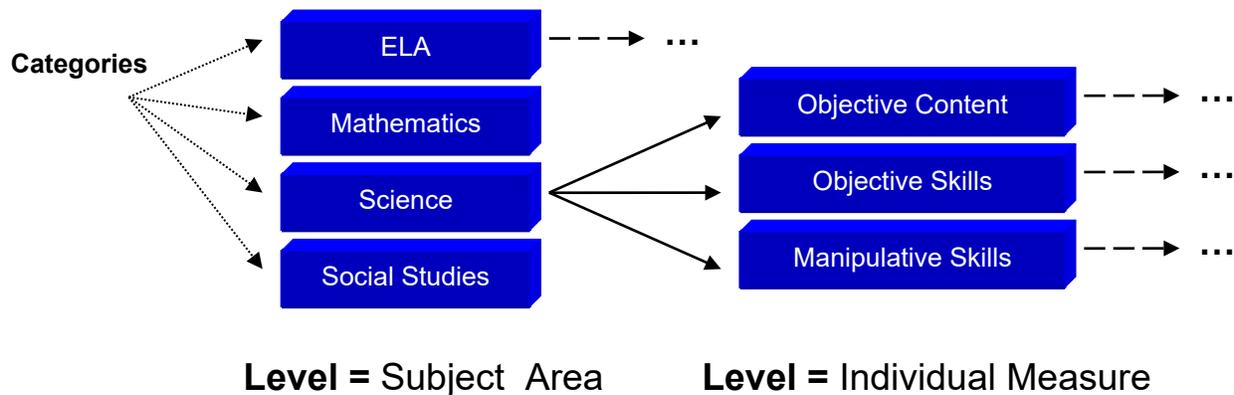
- Percentage of students at each performance level on the ELA-4 for each income group
- Percentage of Special Ed. students at each Performance level of the ELA by level of integration
- Percentage of students by integration level exempted from each ELA test

Definition of Terms (cont.)

Levels and Categories:

- Data is organized into **dimensions** and stored in a hierarchy of **levels**
- A **category** is a data item that exists in a **level**

LEAP Data Subject Area Dimension



Tips and Tricks

- ❑ When viewing **Average Scores**, make sure you filter for “Students Tested” from the “All Test Status” dimension.
- ❑ When viewing **Number of Assessments**, use the “All Test Status” dimension to select whether your analysis will include: only students tested, only students not tested, or both.
- ❑ All tasks that can be performed for rows (filtering, nesting, swapping, etc.) can also be performed for columns, and vice versa.
- ❑ You only have access to the data appropriate to you. For district personnel, only your school is available for analysis. For BOCES personnel, only your BOCES (at an aggregate level) is available for analysis.
- ❑ The “Score” measure is of little use
- ❑ PowerPlay Web is best viewed at a monitor resolution of at least 800 by 600.
- ❑ No student-level data is available in this cube.
- ❑ Use bookmarks to get back to your favorite reports.
- ❑ You must “Prepare a Bookmark” before you use your browser to create a bookmark
- ❑ Use Excel to perform further data manipulation, if needed. Save your results to a .CSV (comma separated values) formatted file and import it into Excel.
- ❑ “/0” (division by zero) usually means that the value is zero.
- ❑ Use your browser’s **Back** button to go back to a previous view.
- ❑ To nest rows (or columns), you can use the [+] Rows (or [+] Columns) from the dimension in the dimension line **or** you can choose [+] *DimensionName* from the Row (or Column) Dimension pulldown

Cognos Web Access Screen Diagram

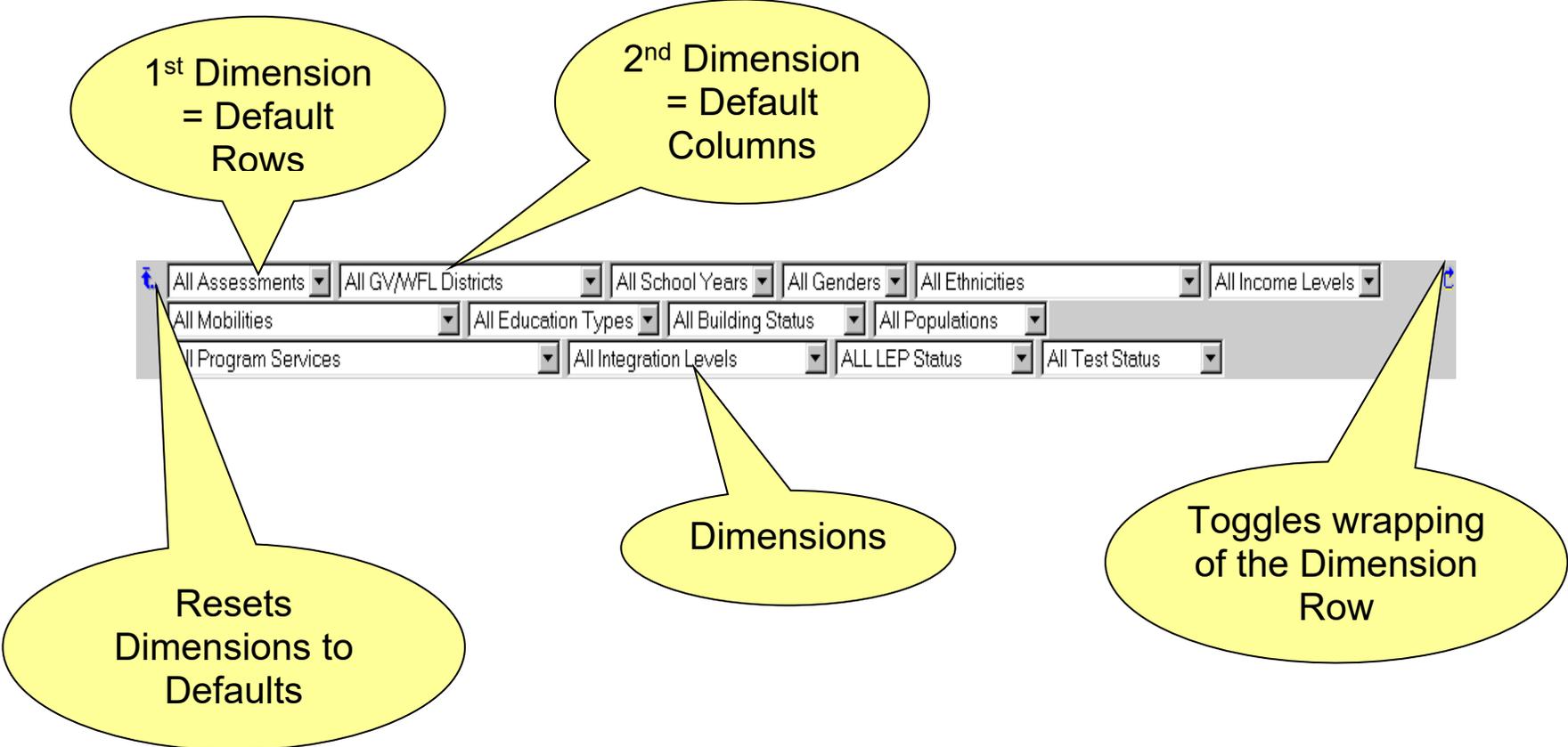
Number of Assessments as values	Genesee Valley BOCES	Wayne-Finger Lakes BOCES	All GV/WFL Districts
ELA	18694	32797	51491
Mathematics	8918	15962	24880
Science	12252	19460	31712
Social Studies	17472	26933	44405
All Assessments	57336	95152	152488

Toolbar

Results Display

Dimension Viewer

Dimension Viewer



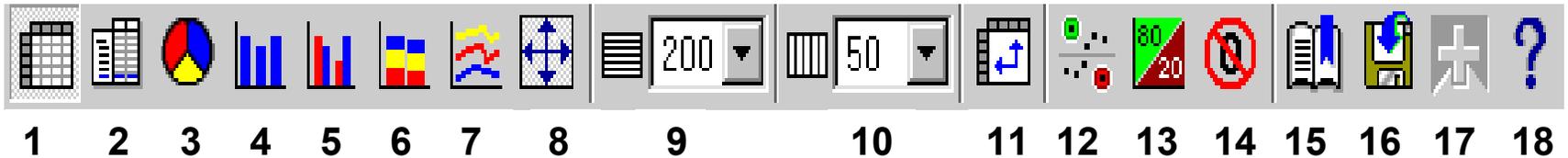
Results Display

The image shows a data table with several callouts pointing to specific features:

- Current Measure Display Type / Click for Others:** Points to the 'Number of Assessments' dropdown.
- Current Measure / Click for Others:** Points to the 'as values' dropdown.
- Sort Ascending / Descending:** Points to the sort arrow on the 'Genesee Valley BOCES' header.
- Category:** Points to the 'Wayne-Finger Lakes BOCES' header.
- Values:** Points to the numerical data cells.
- Current Column Dimension / Click for Column Modifications:** Points to the 'All GV/WFL Districts' dropdown.
- Nest this Level's Children:** Points to the '+' icon on the 'All Assessments' row.
- Row Total:** Points to the '51491' value in the 'All Assessments' row.
- Column Total:** Points to the '95152' value in the 'All Assessments' row.
- Grand Total:** Points to the '152488' value in the 'All Assessments' row.
- Rows:** Points to the 'ELA', 'Mathematics', 'Science', and 'Social Studies' categories.
- Category:** Points to the 'All Assessments' dropdown.
- Current Row Dimension / Click for Row Modifications:** Points to the '+' icon on the 'All Assessments' row.
- Nest this dimension's next level:** Points to the '+' icon on the 'All Assessments' row.
- Columns:** Points to the column headers.

	Genesee Valley BOCES	Wayne-Finger Lakes BOCES	All GV/WFL Districts
ELA	18694	32797	51491
Mathematics	8918	15962	24880
Science	12252	19460	31712
Social Studies	17472	26933	44405
All Assessments	57336	95152	152488

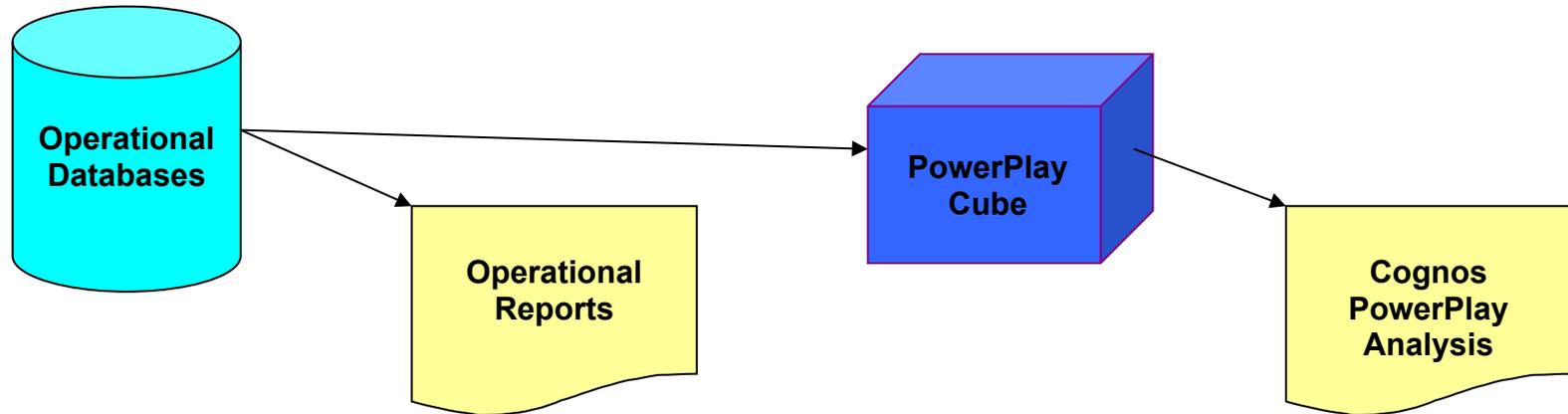
Toolbar



- 1** Crosstab display (default)
- 2** Indented Crosstab display
- 3** Pie Chart
- 4** Bar Chart
- 5** Clustered Bar Chart
- 6** Stacked Bar Chart
- 7** Multiline Chart
- 8** Fit chart displays to page
- 9** Limits # of Rows per page

- 10** Limits # of Columns per page
- 11** Swaps Rows and Columns
- 12** Applies Exception highlighting
- 13** Applies 80/20 suppression
- 14** Applies Zero suppression
- 15** Prepares a bookmark
- 16** Saves to .CSV format
- 17** Drills through to another report
- 18** Opens the Help window

Database and Cube Comparison



Operational Database(s)
Holds operational data, has frequent updates, very detailed

Examples:
Schoolmaster
SASI
Part 200
CP
CCC
Jostens
Spreadsheets
Access Databases
Etc.

Operational Report(s)
Reports on day-to-day, operational data

Examples:
Attendance
Grade summaries
Budget reports
Class schedules
Etc.

PowerPlay Cubes
Holds summarized, static data for analysis purposes. Typically, trend analysis.

Examples:
LEAP cube
Regents cube
Financial cube
Item analysis cube
Etc.

PowerPlay Analysis

- Reporting with high-level, strategic analysis goal in mind
- OLAP tool (On-Line Analytical Processing)
- Analyze data without awaiting a “report” to be created and run
- Enables you to easily find new ways to analyze data

