

***The Missouri Schoolwide Positive Behavior Support
School Data Profile:
Moving Beyond the Black Hole of Data Reporting***

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Agenda

- Vision for the School Data Profile
- The Road from Development to Roll Out
- What the SDP Looks Like
- Initial SDP Reports
- Our Future Questions & Reports
- Your Questions



The SDP Vision

The Vision for Monitoring & Evaluation

- Help schools access previously submitted compliance data that could inform proactive decision making
- Aggregate a variety of data sources
- Increase efficient and timely data collection & analysis
 - One stop spot with embedded tools
 - School & district level progress monitoring
 - Statewide programmatic evaluation

Inputs

Student Demographics

- [Student Race](#)
- [Student Ethnicity](#)
- [Student Gender](#)
- [Free and Reduced Lunch Status](#)
- IEP, Non-IEP or All Students

PBS Implementation

- [School Safety Survey \(SSS\)](#)
- [Team Implementation Checklist \(TIC\)](#)
- [Self Assessment Survey \(SAS\)](#)
- [Schoolwide Evaluation Tool \(SET\)](#)
- Benchmarks of Quality (BoQ)
- Benchmarks of Advanced Tiers (BAT)

Building Demographics

- [RPDC Region](#)
- Location (Rural, Suburban, Urban)
- [Enrollment Number](#)
- Grade Level (begin / end grade)
 - [High School 9-12](#)
 - [Middle / Junior 6-9](#)
 - [Elementary K-6](#)
 - [K-8 or K-12](#)
 - Pre-school
 - Alternative
- [Staff Head Count](#)
- [New Staff Head Count](#)



Outcomes

[Attendance](#)

[Graduation / Dropout Rates](#)

Office Discipline Referrals

- [By Grade Level \(IEP & Non-IEP\)](#)
- [By Student](#)
- ISS
- OSS

[Assistance Referrals](#)

Special Education Identification / Eligibility

Missouri School improvement Program

Advanced Questionnaire - Perceptions from Parents, Students, Certified, & non-Certified Staff

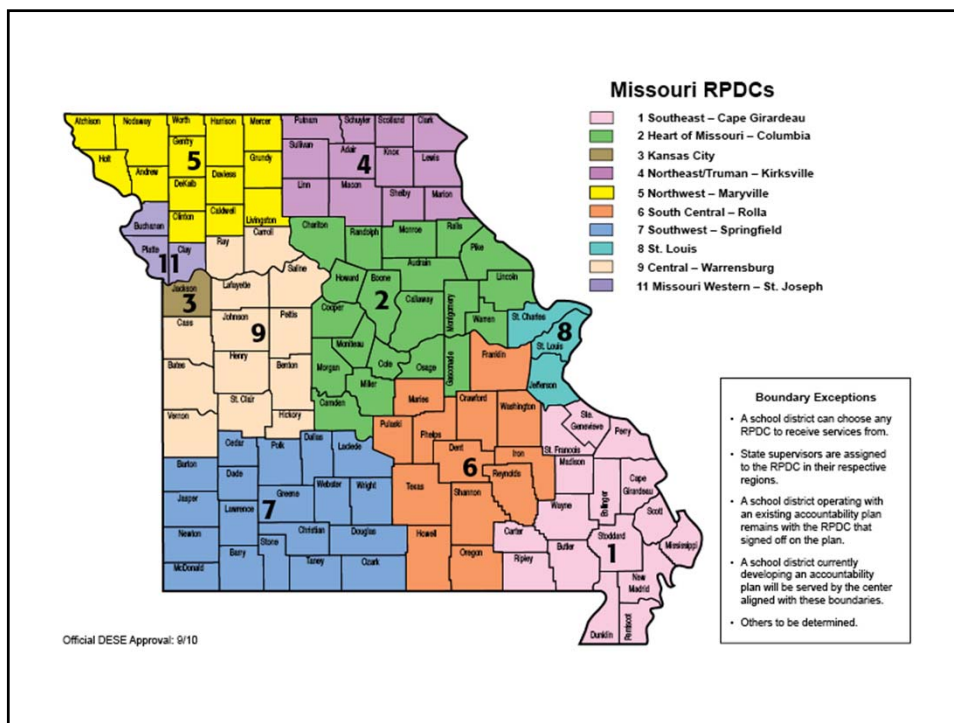
Missouri Assessment Program

- [Communication Art & Math](#)
 - [Total reportable](#)
 - [Top two levels](#)
 - [Gender](#)
 - [Race / Ethnicity](#)
 - [IEP](#)



(MO SW-PBS) School Data Profile Rationale

- *School and District Level*
 - Development and assessment of an annual action plan
 - Decision-making throughout the year to prioritize best use of resources and personnel
 - Identification of specific factors which may be impacting progress toward increased academic and behavioral achievement
 - Assessment of areas of strength
 - Development of reports and graphs to report progress to families, the community, school boards, and staff



(MO SW-PBS)
School Data Profile Rationale

- *Regional SW-PBS Consultants Level*
 - Prioritization of on-site assistance for schools/districts
 - Identification of most relevant training topics and materials
 - Assessment of types and/or levels of technical assistance needed for new and experienced schools

(MO SW-PBS)
School Data Profile Rationale

- *State Level*
 - Development and assessment of state's annual SW-PBS action plan
 - Assessment of potential SW-PBS factors supporting school/district progress
 - Prioritization of types and levels of training & support needed for regional consultants
 - Identification of schools meeting requirements for annual state recognition awards

**(MO SW-PBS)
School Data Profile Rationale**

- *National Level*
 - Awareness of the progress Missouri schools, districts and regions are making in implementing and sustaining SW-PBS
 - Assessment of the adequacy of national center technical support & materials for states and districts
 - Identification of research priority topics

The Road from Development to
Roll Out

The Road from Development to Roll Out

- 2007
 - Paper-Pencil template which was entered into Excel file
- 2008
 - Began discussions with Dept. of Ed Personnel & Interface Developer
- 2009
 - First school data entry into online interface
- 2010
 - School Data Entry Continued
 - Merged PBIS Survey entered
 - Department of Ed Warehouse Data Entered
 - Initial Reporting Commenced



Challenges

- Time to Collaborate with All Stakeholders
- Communicating Purpose (s)
- Funding Issues
- Technological Expertise
 - Development
 - Technical Assistance
 - In Building
- Sustainability

What Does the SDP Look Like?

Accessing Account
www.formhog.com



The screenshot shows the FormHog website interface. At the top left is the logo for FormHog, which includes a stylized '@' symbol and the text "formHog" with the tagline "any form. any purpose." below it. To the right of the logo is a "Home" link. Below the logo is a "Login" section with two input fields: "Email Address" and "Password". Below these fields is a "Login" button. The background of the page is a light green gradient.

PBS Data Collection: [select orange arrow](#)

formHog any form. any purpose

Home My Forms My Profile

Current Organization: DESE - Schools Title Search: Search

Forms	Form Type	Pending Approvals	Fill-in Form	View	Created	Last Accessed
PBS Data Collection	CUSTOM			➔	10/16/2008	10/16/2008
RTI Data Collection	CUSTOM			➔	10/21/2010	10/21/2010

Selecting Your School

formHog any form. any purpose

Home My Forms My Profile

Data Reporting Options

Data Analysis Tools

Cost Benefit Calculator

Per Day/Per Month Generator

Logs

Update Log

PBS Data Collection Management

Select a School: -- Select a school --
 -- Select a school --
 TEST DISTRICT - *TEST SCHOOL*

Annual Data > Entry

Left Hand Menu

The screenshot shows the 'Annual Data > Entry' interface. On the left is a 'Left Hand Menu' with the following items: Annual Data, Performance Monitoring Data, Progress Monitoring Tools Configuration, School Supplied Data (PDF), DESE School Building Profile, School Report Card, Data Analysis Tools, Cost Benefit Calculator, Per Day/Per Month Generator, Triangle Generator, Logs, and Update Log. A red arrow points from 'Annual Data' in the menu to the main content area.

The main content area is titled 'PBS Data Collection Management' and shows 'TEST DISTRICT' - 'TEST SCHOOL' [change]. It has tabs for Staff Headcount, New Staff, Assistance Referrals, Office Referrals, and Referrals By Student. The 'Referrals By Student' tab is active, displaying 'Table F3 - Referrals By Student (Office Disciplinary Referrals - ODRs)'. Below the table is a note: 'Enter the total number of student for each category. The Total at the bottom should exactly match this enrollment.' The table data is as follows:

	2008-2009	2009-2010
	#	%
0-1 Office Disciplinary Referrals	250.00	74%
2-5 Office Disciplinary Referrals	20.00	6%
6+ Office Disciplinary Referrals	69.00	20%
Total	339.00	346.00
Enrollment (Your total should match this)	Unknown	Unknown

Performance & Progress Monitoring

Left Hand Menu

The screenshot shows the 'Performance & Progress Monitoring' interface. On the left is a 'Left Hand Menu' with the following items: Annual Data, Performance Monitoring Data, Progress Monitoring Tools Configuration, School Supplied Data (PDF), DESE School Building Profile, School Report Card, Data Analysis Tools, Cost Benefit Calculator, Per Day/Per Month Generator, Triangle Generator, Logs, and Update Log. A red arrow points from 'Progress Monitoring Tools Configuration' in the menu to the main content area.

The main content area is titled 'Progress Monitoring Tools Configuration' and contains the instruction: 'Choose the Progress Monitoring Tool(s) used in your school:'. Below this is a list of tools with checkboxes:




- DIBELS
- DIBELS Next
- AIMSweb
- RigbyREADS
- STAR Reading
- D2SC
- Acuity
- Yearly Progress Pro (YPP)
- Scholastic Reading Inventory (SRI)
- Scantron Performance Series
- Developmental Reading Assessment (DRA)

At the bottom of the configuration area is a 'Save' button.

Embedded Reports & Tools: School Supplied Data > PDF Report

Left Hand Menu

- Annual Data
- Performance Monitoring Data
- Progress Monitoring Tools Configuration
- School Supplied Data (PDF)
- DESE School Building Profile
- School Report Card
- Data Analysis Tools**
- Cost Benefit Calculator
- Per Day/Per Month Generator
- Triangle Generator
- Logs**
- Update Log

Missouri Schoolwide Positive Behavior Support School Data Profile School Supplied Data

School/Program: *TEST SCHOOL* District: *TEST DISTRICT*

Building Administrator: George Sugai Building SW-PBS Coach: Tom

Implementation Level: 04-Gold

RPDC: Central, Warrensburg Regional SW-PBS Coordinator: Bob Rethemeyer

Category A: Building Staffing


Staff Headcount - Total FTE

Legend: 2007-2008 (Orange), 2008-2009 (Blue), 2009-2010 (Red)

Embedded Reports & Tools: DESE School Building Profile > Web Link

Left Hand Menu

- Annual Data
- Performance Monitoring Data
- Progress Monitoring Tools Configuration
- School Supplied Data (PDF)
- DESE School Building Profile
- School Report Card
- Data Analysis Tools**
- Cost Benefit Calculator
- Per Day/Per Month Generator
- Triangle Generator
- Logs**
- Update Log



<p>School Improvement Planning Profile for:</p> <p>MISSOURI</p> <p>Missouri School Directory</p>	<p>Reports Summary Reports</p> <ul style="list-style-type: none"> • Adequate Yearly Progress (AYP) • Annual Performance Report (APR) • Missouri Public School Accountability Report • Statistical Profile of District • District Data in Detail • Special Education State Profile
<p>Demographics</p> <ul style="list-style-type: none"> • 2000 Census Demographics • Missouri KIDS Count Report • County Profiles 	<p>Educational Resources</p> <ul style="list-style-type: none"> • Calendar Days and Hours • Student Demographics • Student Staff Ratios • Teacher Characteristics • Teacher Certification • School Finance Data • Monthly Transmittal and Calculation Sheets • Census of Technology
<p>Educational Process Data</p> <ul style="list-style-type: none"> • MSIP Second Cycle Information <ul style="list-style-type: none"> ◦ MSIP Review AQ Report ◦ Frequency Distribution Report ◦ Indicator Analysis • MSIP Third Cycle Information <ul style="list-style-type: none"> ◦ MSIP Review AQ Report (Word) 	<p>Educational Performance Data</p> <ul style="list-style-type: none"> • District Accreditation • Attendance Rate • Discipline Incidents • Dropouts • Graduation Rates • Graduation Analysis • American College Test (ACT)

Embedded Reports & Tools: School Report Card > Web Link

Left Hand Menu

- Annual Data
- Performance Monitoring Data
- Progress Monitoring Tools Configuration
- School Supplied Data (PDF)
- DESE School Building Profile
- School Report Card
- Data Analysis Tools**
- Cost Benefit Calculator
- Per Day/Per Month Generator
- Triangle Generator
- Logs**
- Update Log

Grade Span: 10-12
 Title I School: No
 Achieved AYP: No
 In School Improvement: Non Title I School Improvement Year 4

1) Preschool Enrollment

	2006	2007	2008	2009	2010
	0	0	0	0	0

[Definition](#) | [More Data](#)

2) K-12 ENROLLMENT

	2006	2007	2008	2009	2010
Total	2,038	2,109	2,143	2,123	1,975
Asian	4.7%	4.9%	4.5%	4.5%	4.3%
Black	22.9%	22.8%	24.9%	25.1%	26.1%
Hispanic	3.0%	3.7%	4.3%	3.9%	3.8%
Indian	0.4%	0.3%	0.4%	0.5%	0.5%
White	69.0%	68.3%	65.9%	66.0%	65.4%

[Definition](#) | [More Data](#)

3) Attendance

	2006	2007	2008	2009	2010
	92.2	92.6	92.1	92.2	94.2

[Definition](#) | [More Data](#)

Embedded Reports & Tools: Cost Benefit Calculator

Left Hand Menu

- Annual Data
- Performance Monitoring Data
- Progress Monitoring Tools Configuration
- School Supplied Data (PDF)
- DESE School Building Profile
- School Report Card
- Data Analysis Tools**
- Cost Benefit Calculator
- Per Day/Per Month Generator
- Triangle Generator
- Logs**
- Update Log

PBS Data Collection Management Cost/Benefit Calculator

Please enter the following information then click Submit Button:

School Name

Number of referrals for last year

Number of referrals for this year

Average # of minutes student is out of class due to referral

Average # of minutes administrator needs to process referral

Embedded Reports & Tools: Per Day Per Month Generator

Left Hand Menu

- Annual Data
- Performance Monitoring Data
- Progress Monitoring Tools Configuration
- School Supplied Data (PDF)
- DESE School Building Profile
- School Report Card
- Data Analysis Tools**
- Cost Benefit Calculator
- Per Day/Per Month Generator
- Triangle Generator
- Logs**
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PBS Data Collection Management

Per Day Per Month Calculator

Based on 2008-2010 SWIS Statistics

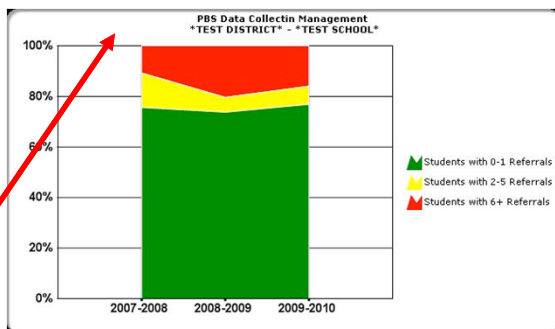
Entering your total number of students in the yellow box will allow you to generate PER DAY PER MONTH Average, as well as a range for high and low for building of your size and grade level.

Student population on official count day	256
Your student population divided by 100	2.6
Average for Elementary Schools is .22 referrals per 100 students with SD of .49	
Elementary Low End of Range (multiply by (.22 -.49) or -.027)	-0.991
Elementary Average (multiply by .22)	0.583
Elementary High End of Range (multiply by (.22 + .49) or .70)	1.818
Average for Middle Schools is .50 referrals per 100 students with SD of 1.11	
Middle School Low End of Range (multiply by (.50 - 1.11) or -.61)	-1.592
Middle School Average (multiply by .50)	1.280
Middle School High End of Range (multiply by (.50 + 1.11) or 1.61)	4.122
Average for High Schools is .68 referrals per 100 students with SD of 2.39	
High School Low End of Range (multiply by (.68 - 2.60) or -1.12)	-4.915
High School Average (multiply by .68)	1.741
High School High End of Range (multiply by (.68 + 2.60) or 3.66)	8.397
Average for K-8 or K-12 is .42 referrals per 100 students with SD of 2.60	
K-8 or K-12 Low End of Range (multiply by (.42 - 2.60) or -2.18)	-5.581
K-8 or K-12 Average (multiply by .42)	1.075
K-8 or K-12 High End of Range (multiply by (.42 + 2.60) or 3.02)	7.731

Embedded Reports & Tools: Triangle Generator

Left Hand Menu

- Annual Data
- Performance Monitoring Data
- Progress Monitoring Tools Configuration
- School Supplied Data (PDF)
- DESE School Building Profile
- School Report Card
- Data Analysis Tools**
- Cost Benefit Calculator
- Per Day/Per Month Generator
- Triangle Generator
- Logs**
- Update Log



A peek at the Report Generator...

The screenshot shows the FormHog Data Explorer interface. On the left is a tree view for selecting columns, including categories like 'PBS Data', 'General Data', and 'Missouri Schools'. The main area displays a table with the following data:

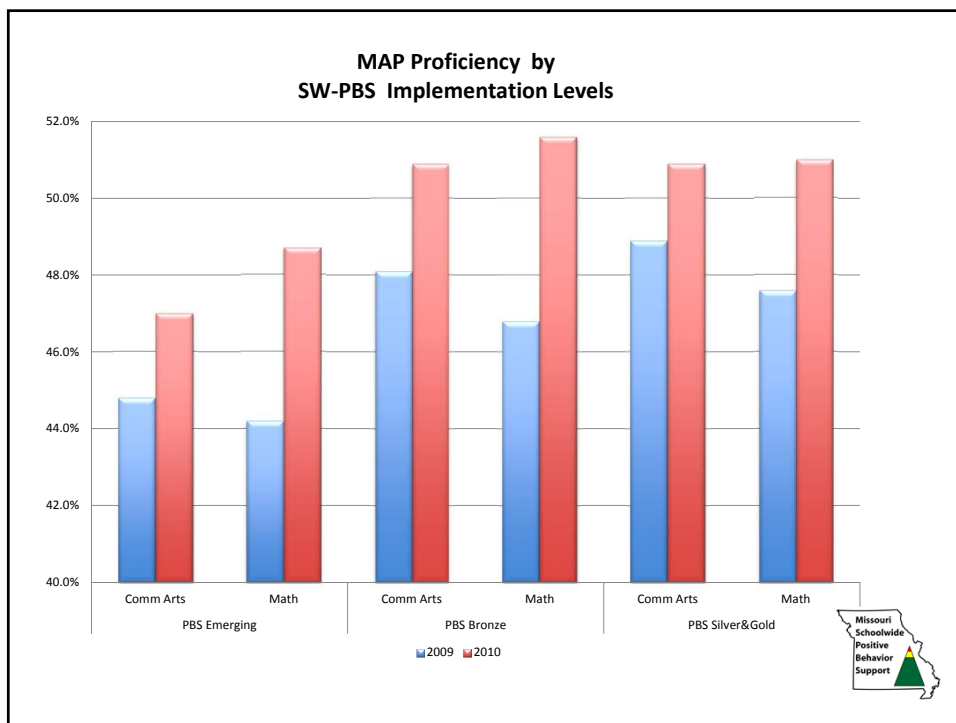
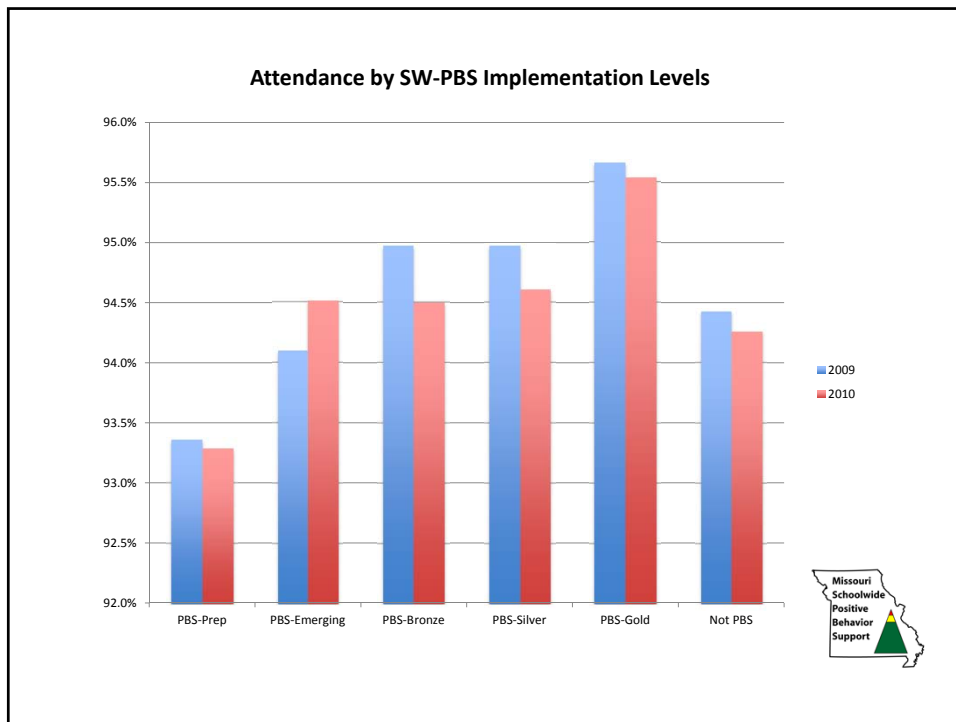
School Name	PBS Phase 2007	PBS Phase 2008	PBS Phase 2009	PBS Phase 2010
HALLS FERRY ELEM	04-Gold	03-Silver	04-Gold	04-Gold
BALLWIN ELEM.	04-Gold	02-Bronze	01-Emerging	01-Emerging
F. P. TILLMAN ELEM	04-Gold	02-Bronze	02-Bronze	02-Bronze
WESTCHESTER ELL	04-Gold	04-Gold	01-Emerging	01-Emerging
KIRKWOOD EARLY	04-Gold	04-Gold	01-Emerging	01-Emerging
TEST SCHOOL	04-Gold	04-Gold	04-Gold	04-Gold
RITENOUR MIDDLE	03-Silver	04-Gold	01-Emerging	01-Emerging
JACKSON PARK ELL	03-Silver	01-Emerging	01-Emerging	01-Emerging
WEDGWOOD ELEM	03-Silver	01-Emerging	01-Emerging	01-Emerging
LEE HAMILTON ELL	03-Silver	02-Bronze	01-Emerging	01-Emerging
MONTGOMERY CIT	03-Silver	02-Bronze	01-Emerging	01-Emerging
CENTRAL MIDDLE	02-Bronze	02-Bronze	02-Bronze	02-Bronze
MONTGOMERY CO.	02-Bronze	02-Bronze	02-Bronze	01-Emerging

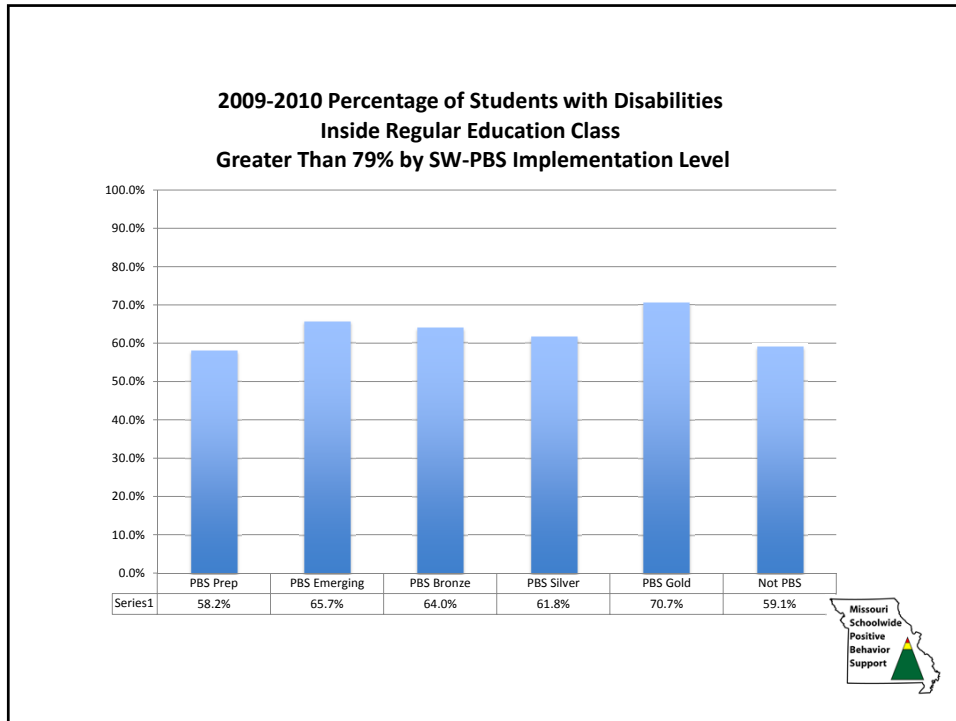
At the bottom right of the interface is the Missouri Schoolwide Positive Behavior Support logo, which features a map of Missouri and a green triangle.

Initial SDP Reports

Practical Application







Initial SDP Reports

Research Application



Fidelity of Implementation at Tier 1

- Does administrator and teacher turnover impact Tier-1 fidelity of implementation?
- Data- TIC, SAS, and SET scores for Missouri schools across four school years (2006-2007, 2007-2008, 2008-2009, 2009-2010)

Staff Change and TIC scores

- Analytic method:
 - Longitudinal Hierarchical Linear Modeling
 - Level 1 included TIC scores and wave
 - Level 2 included enrollment, school type, percentage of minority students, and mean staff turnover

Full Model with Predictors

Level-1 Model

$$TIC_{ti} = \pi_{0i} + \pi_{1i} * (WAVES_{ti}) + e_{ti}$$

Level-2 Model

$$\begin{aligned} \pi_{0i} &= \beta_{00} + \beta_{01} * (MEAN_TOT_i) + \beta_{02} * (SCHOOLTY_i) + \\ &\beta_{03} * (ENROLLME_i) + \beta_{04} * (PERC_NON_i) + r_{0i} \\ \pi_{1i} &= \beta_{10} + \beta_{11} * (MEAN_TOT_i) + \beta_{12} * (SCHOOLTY_i) \\ &+ \beta_{13} * (ENROLLME_i) + \beta_{14} * (PERC_NON_i) \end{aligned}$$

Results

- Empty Model
- Growth Model- Mean TIC score for schools at wave 1 was 46.5% and, on average, increased by 6.4% each year.
- Growth Model with Predictors- when controlling for size, type, and ethnicity, mean at wave 1 was 42.6% and increased 7.5%
- Staff change was not a significant predictor of either mean or slope.

Staff Change and SET Scores

- Analytic method
 - Logistic Regression with the 80/80 rule of met or not met in 2009-2010 as the outcome
 - Independent variables included enrollment, school type, Percentage of minority students, RPCD regional code, and Mean Staff Change

Model

$$\ln\left(\frac{\hat{p}}{1-\hat{p}}\right) = \beta_0 + \beta_1 \text{Mean_Change} + \beta_2 \text{SchoolType} + \beta_3 \text{PBS2010} + \beta_4 \text{Perc_Minority} + \beta_5 \text{Enrollment} + e$$

Results

Table X.

Logistic Regression Predicting SET 80/80

Variable	!	SE	Odds Ratio	95% Confidence Interval for Odds Ratio		p
				Lower	Upper	
Mean Change	.056	.044	1.057	.969	1.153	.212
School Type	-.195	.136	.823	.630	1.075	.153
2010 PBS Implementation Level	1.472	.187	4.357	3.020	6.285	.000*
Percentage of Minority Students	.678	.619	1.970	.586	6.627	.273
Total Enrollment	-.001	.001	.999	.998	1.000	.169
RPDC	.065	.052	1.067	.964	1.181	.211

Note. * $p < .000$

What Does it Mean?

Research Application



Our Future Questions

- How to document Tier 2 and Tier 3 while assuring confidentiality
- How to provide TA for district level reporting users
- How to get “quick” results to gain and maintain buy-in



Our Future Reports

- How *Implementation Fidelity* Impacts:
 - Attendance
 - MAP Scores (AYP measure in Missouri)
- Disaggregated by
 - F/R Status
 - Race/Ethnicity
 - Gender
 - IEP Status
 - Grade Level
- Using Various PBIS Surveys as Fidelity Measures



Unanticipated Outcomes

- As the SDP was developed multiple state initiatives have understood the logic of the plan and have been added to the SPD (Transition, PLC, MIM, Academic RtI)
- Embedding Tools has given schools a better understanding about how the bits all fit together to support their progress
 - Tier 1
 - Tier 2
 - Tier 3



Your Questions



Contact Information

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