



General Assumptions

- School teams are involved in regular meetings in which they are expected to identify and solve academic and behavioral solutions that improve the quality of the school as a learning environment.
- There is increasing access to data about student academic and behavior performance.
- There is a need, however, to help teams identify how to use data productively... and efficiently.



Basic Assumption

- Team-based decision-making based on current, accurate data will result in:
 - More effective decisions/solutions
 - More efficient decisions/solutions
 - Better use of team time.



Goals

1. Define an approach for using data in the development of decisions.
2. Establish standards for building “problem statements”
3. Define data sources needed for effective decision-making
4. Define a process and outline for defining solutions.



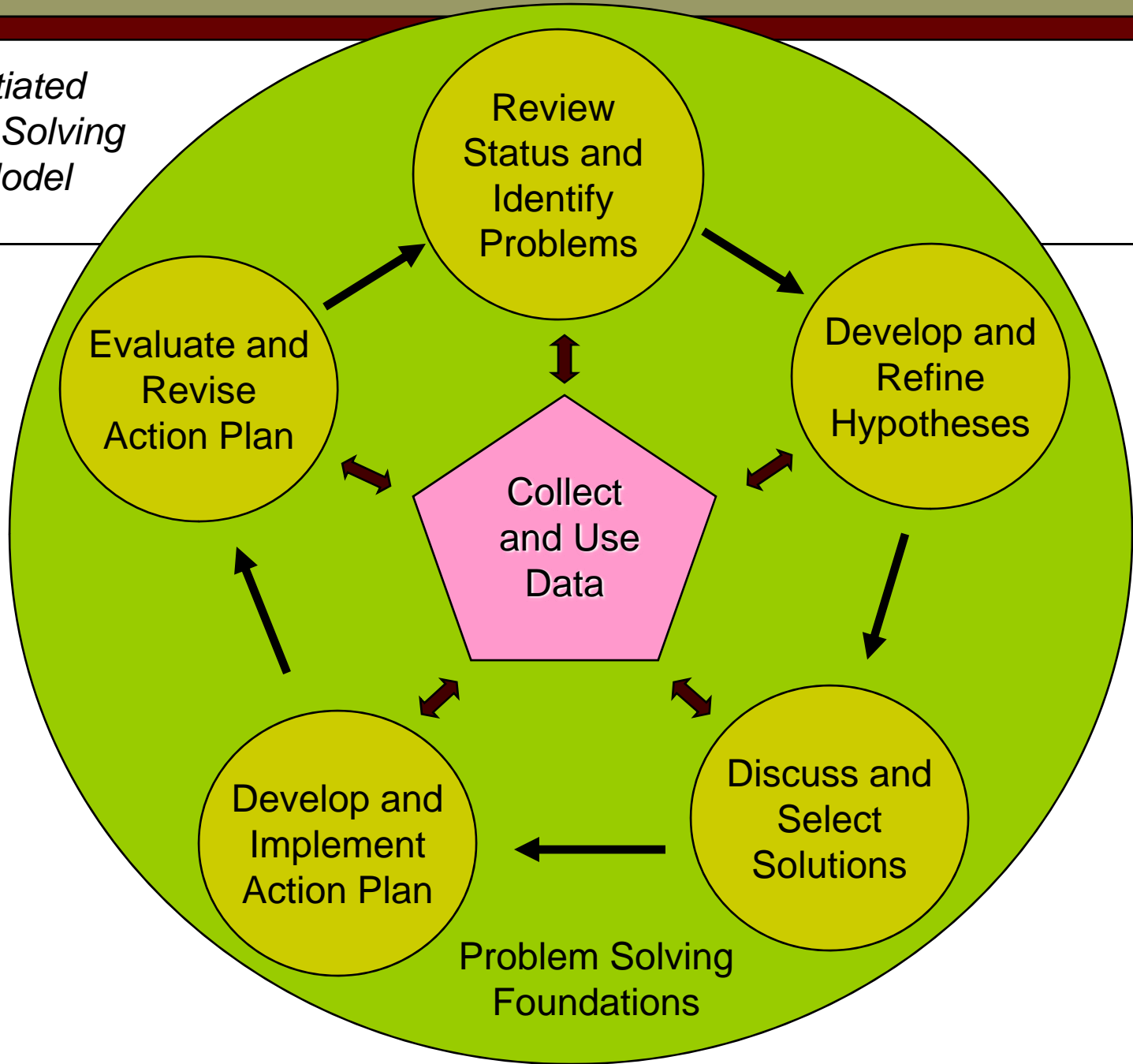
TIPS

Team Initiated Problem Solving


A five step process with continual data reviews to define a problem and develop a workable implementation and evaluation plan

1. Review status and identify problems
2. Develop and refine hypothesis
3. Discuss and select solutions
4. Develop and implement Action Plan
5. Evaluate and revise Action Plan

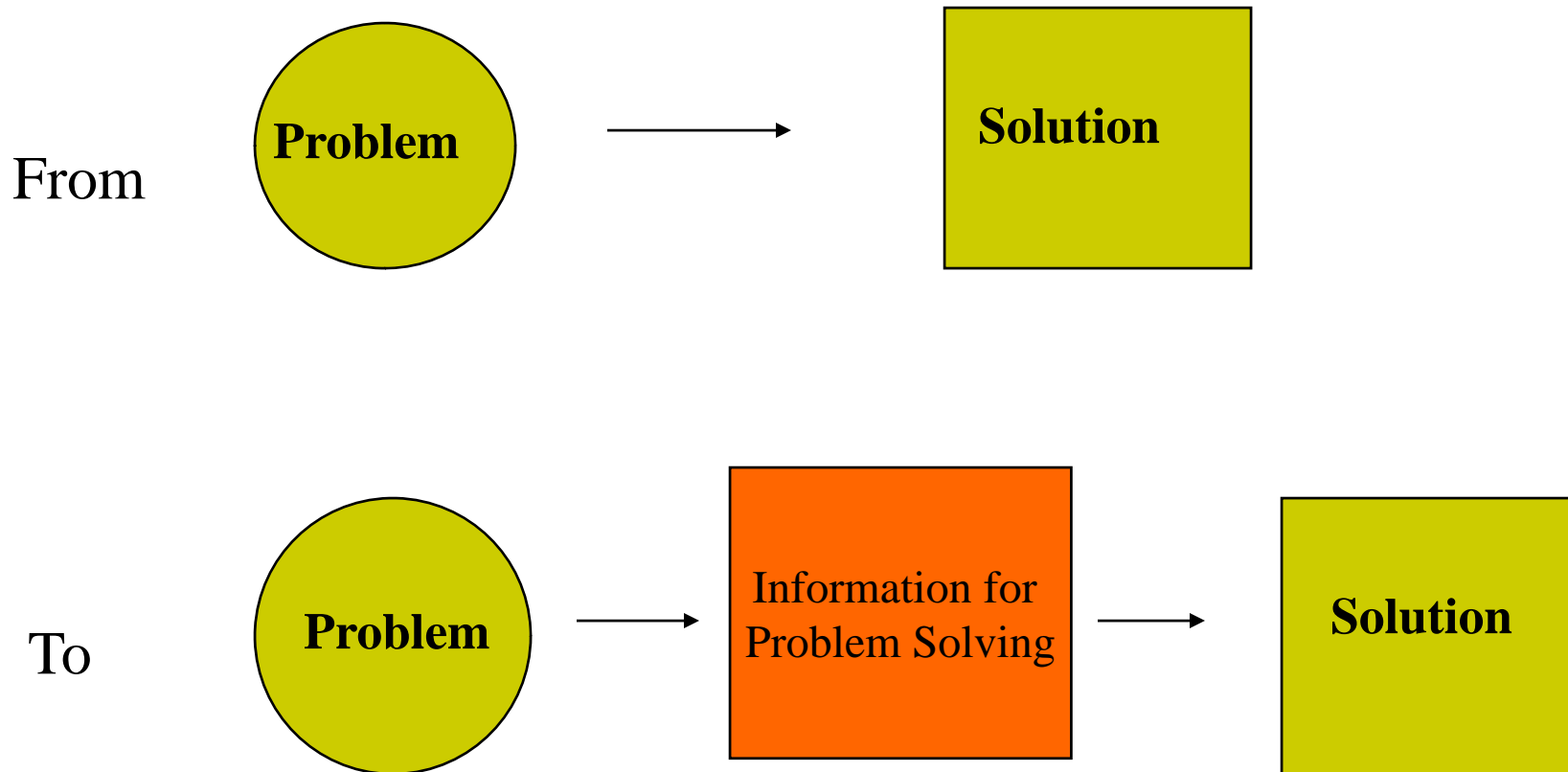
*Team Initiated
Problem Solving
(TIPS) Model*



Common Errors and things to avoid

- ❑ Define solution before the problem (next slide) 
- ❑ Define broad problem that does not allow people to focus on functional solutions.
 - ❑ “Students are behaving in a disrespectful manner.”
- ❑ Failure to use data to confirm/define problem
 - ❑ “One teacher states that cafeteria is out of control...”
- ❑ Agree on solution without plan for implementation or evaluation
- ❑ Agree on solution but never re-visit if solution was implemented or effective
- ❑ Serial problem solving without decisions
 - ❑ Many solutions...limited implementation

Improving Decision-Making





Main Ideas

1. Practice effective meeting foundations
2. Define problems with precision
3. Use accurate and current data to identify and refine problem statements
4. Be accountable: use data to evaluate (a) implementation and (b) impact
5. The people who implement a solution should be involved in (a) defining the problem and (b) selecting the solution.

Problem-solving process is relevant at many levels of decision-making.

- Whole school
- Grade/Classroom
- Unstructured area of school (hallway, playground)
- Individual student
- -----
- Same basic process



Carol



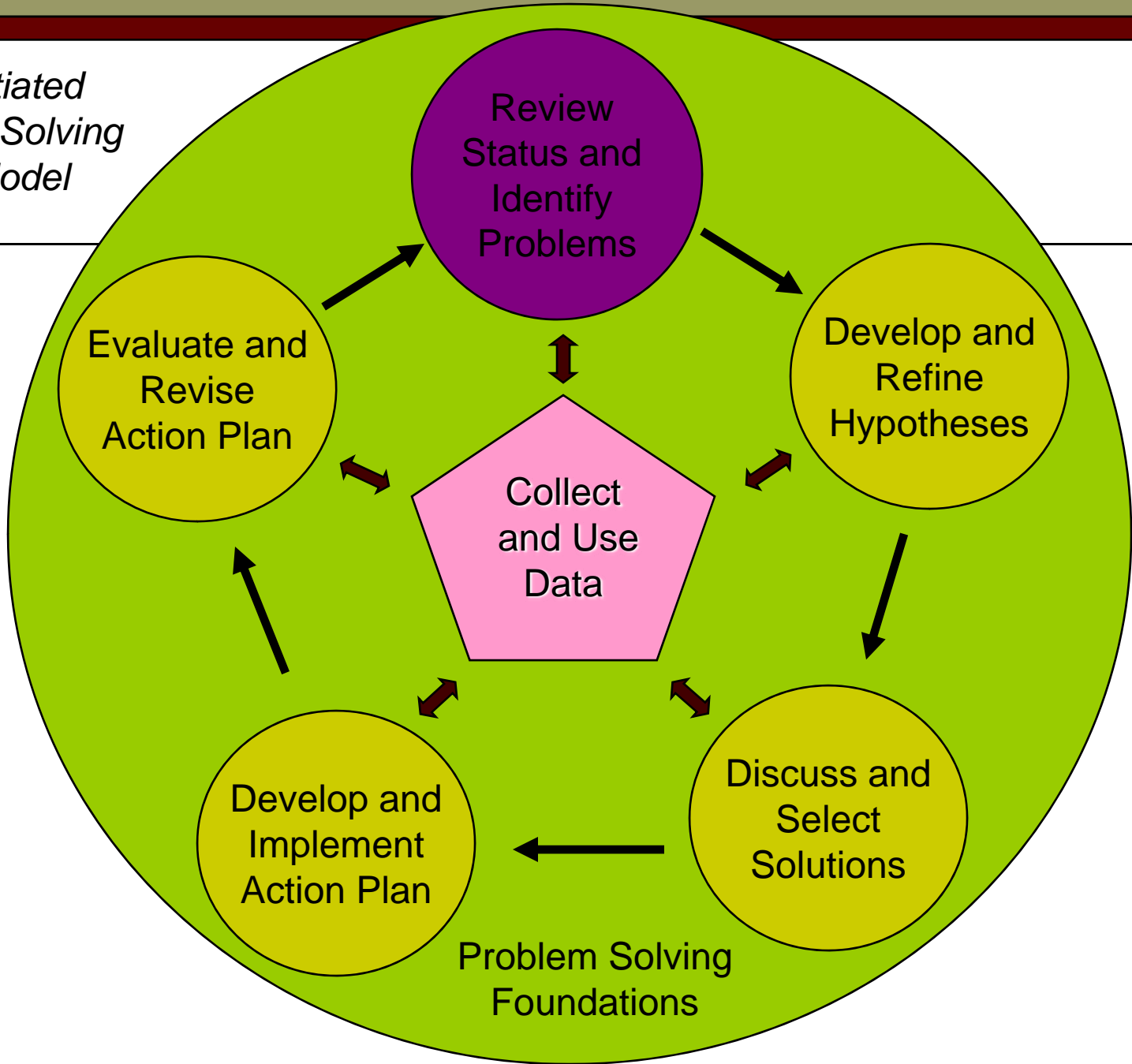
SWIS



Uses of Data

- Identify problems early
 - Use data on a regular basis (every two weeks) to monitor key indicators, and identify problems before they become difficult
- Refine a problem statement to a level of precision that will allow functional solutions
- Use data to identify possible solutions.

*Team Initiated
Problem Solving
(TIPS) Model*

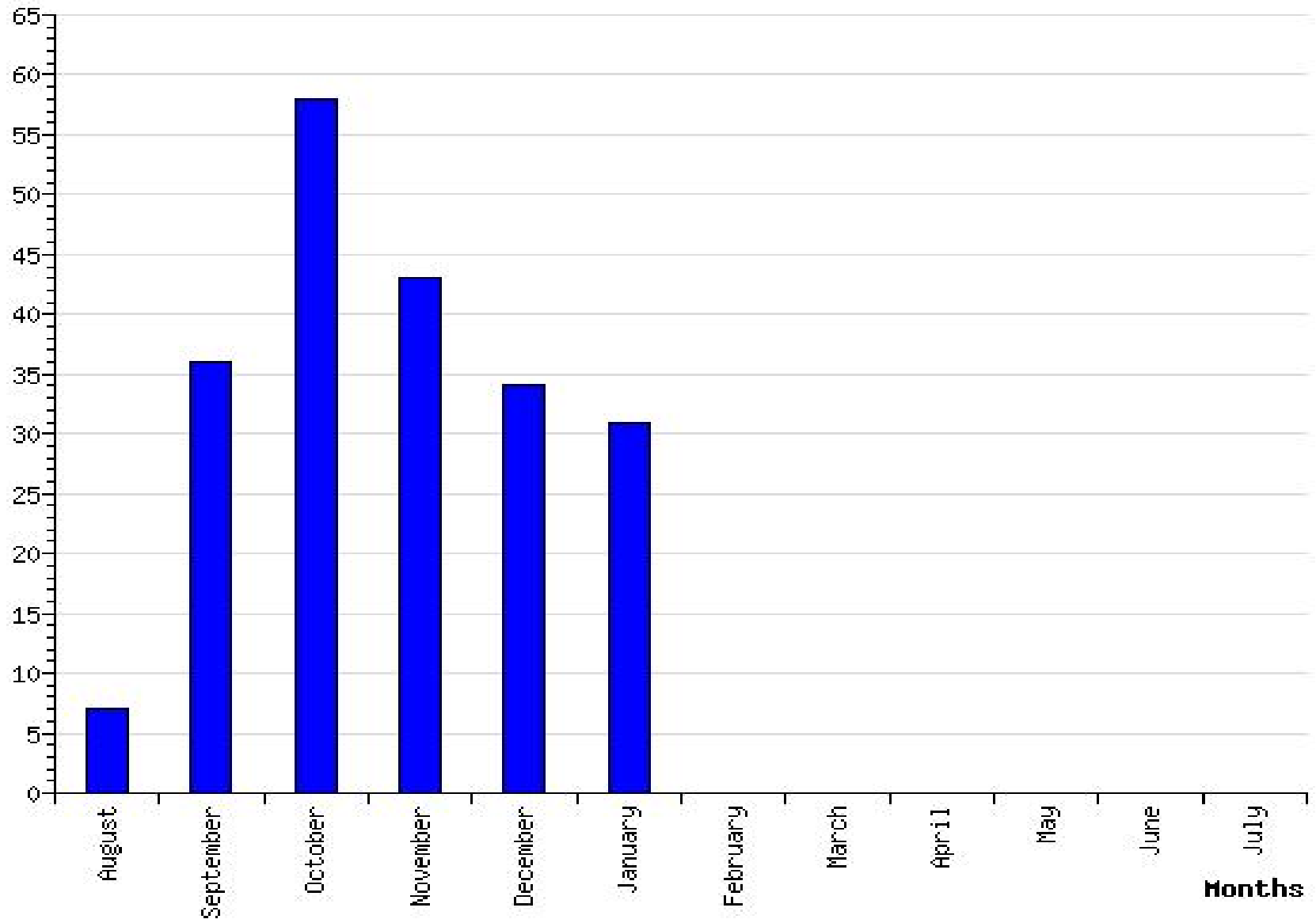


Identifying and Refining our Understanding of Problems

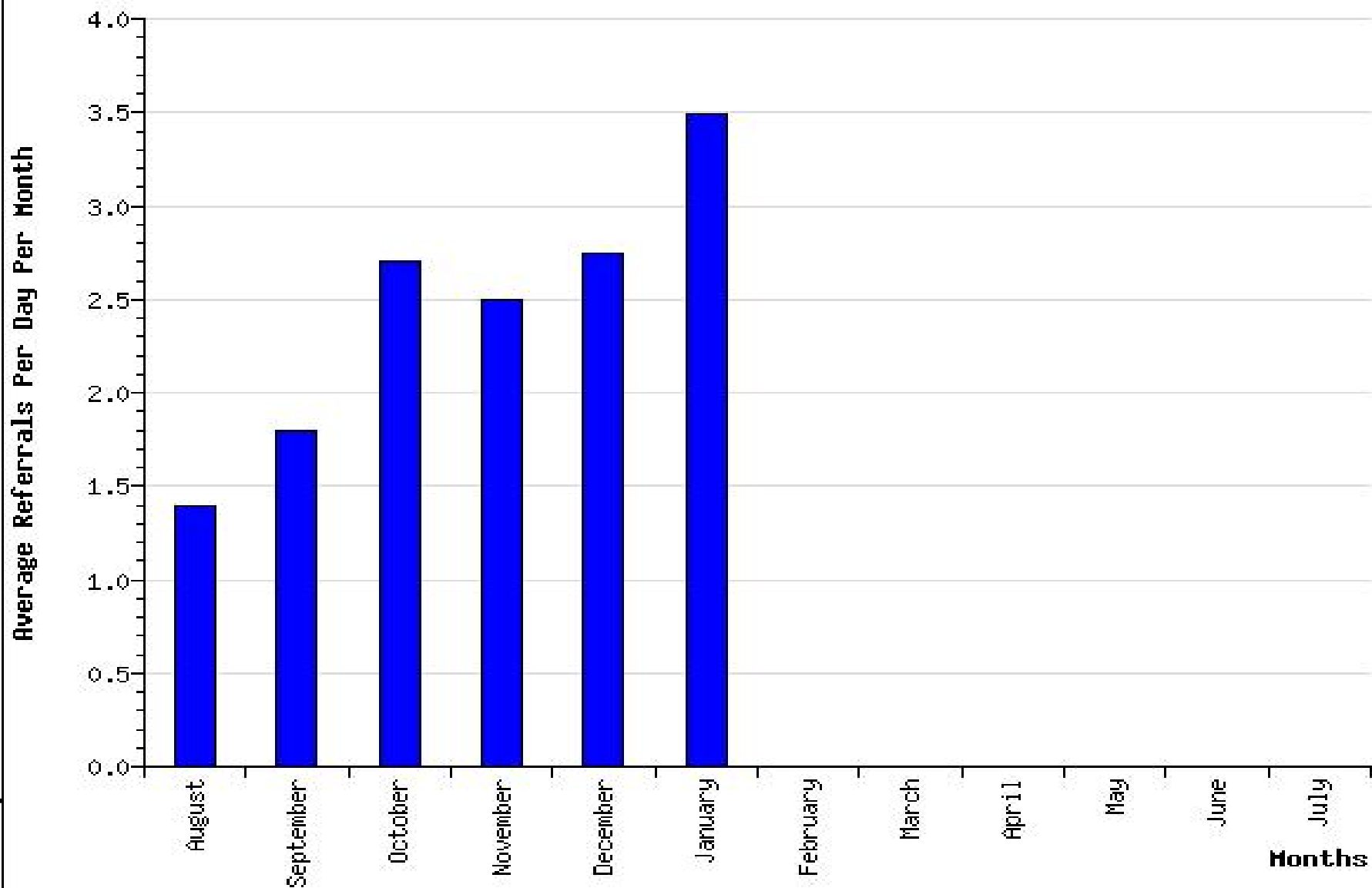
- **What data to monitor**
 - ODR per day per month
 - OSS, ISS, Attendance, Teacher report
- **What question to answer**
 - Do we have a problem?
- **What questions to ask of Level, Trend, Peaks**
 - How do our data compare with last year?
 - How do our data compare with national/regional norms?
 - How do our data compare with our preferred/expected status
- **If a problem is identified, then ask**
 - What are the data we need to make a good decision?

Total Office Discipline Referrals as of January 10

Total Office Discipline Referrals



Average Referrals Per Day Per Month



Using Data to Refine Problem Statement

- The statement of a problem is important for team-based problem solving.
 - Everyone must be working on the same problem with the same assumptions.
- Problems often are framed in a “Primary” form, that creates concern, but is not useful for problem-solving.
 - Frame primary problems based on initial review of data
 - Use more detailed review of data to build “Precision Problem Statements.”

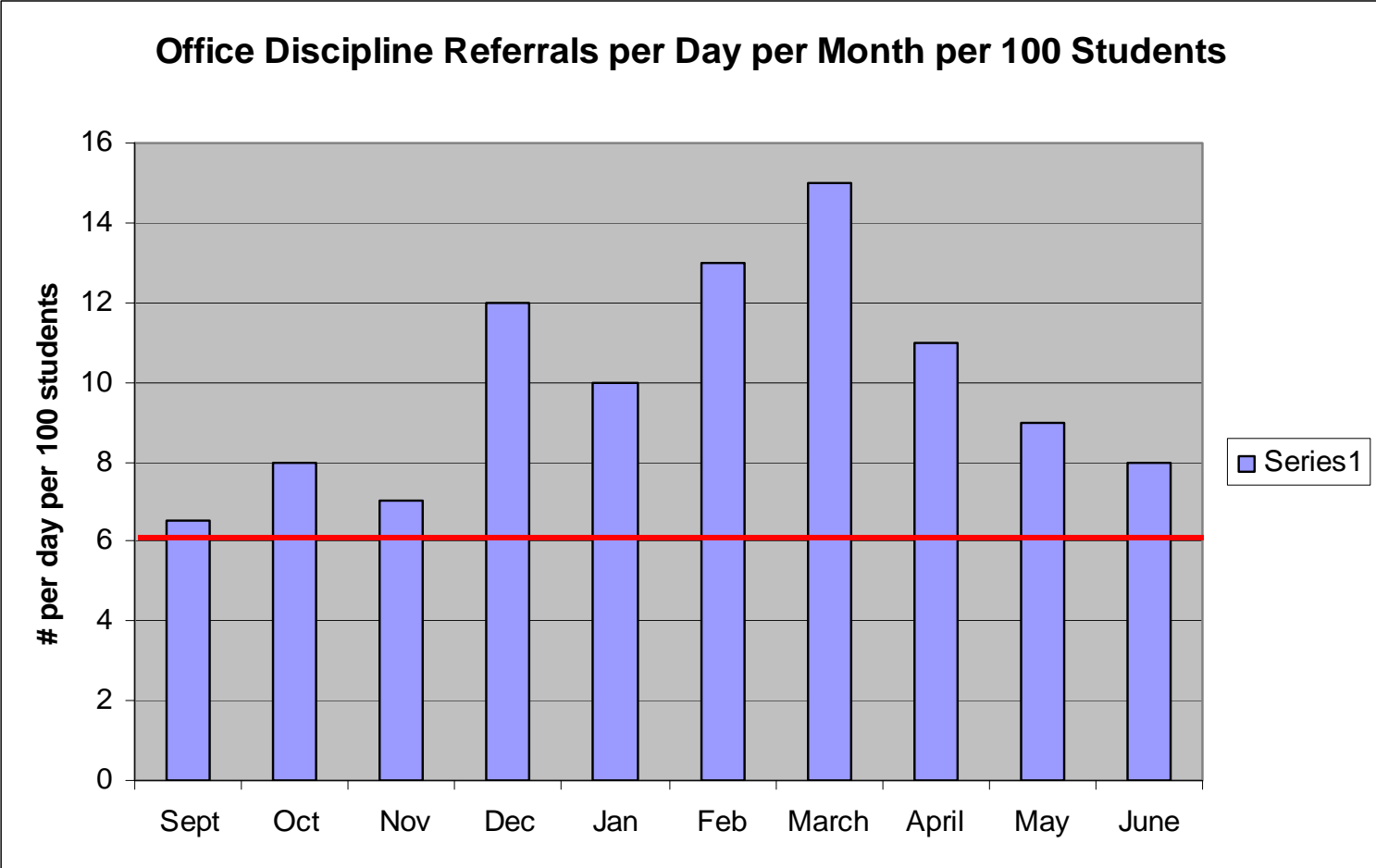
SWIS summary 06-07 (Majors Only)

1974 schools; 1,025,422 students; 948,874 ODRs

Grade Range	Number of Schools	Mean Enrollment per school	Mean ODRs per 100 per school day
K-6	1288	446	.34 (sd=.37) (1 / 300 / day)
6-9	377	658	.98 (sd=1.36) (1/ 100 / day)
9-12	124	1009	.93 (sd=.83) (1/ 107 / day)
K-(8-12)	183	419	.86 (sd=1.14) (1/ 120 / day)

Application Activity: Absolute Value
Is there a Problem?

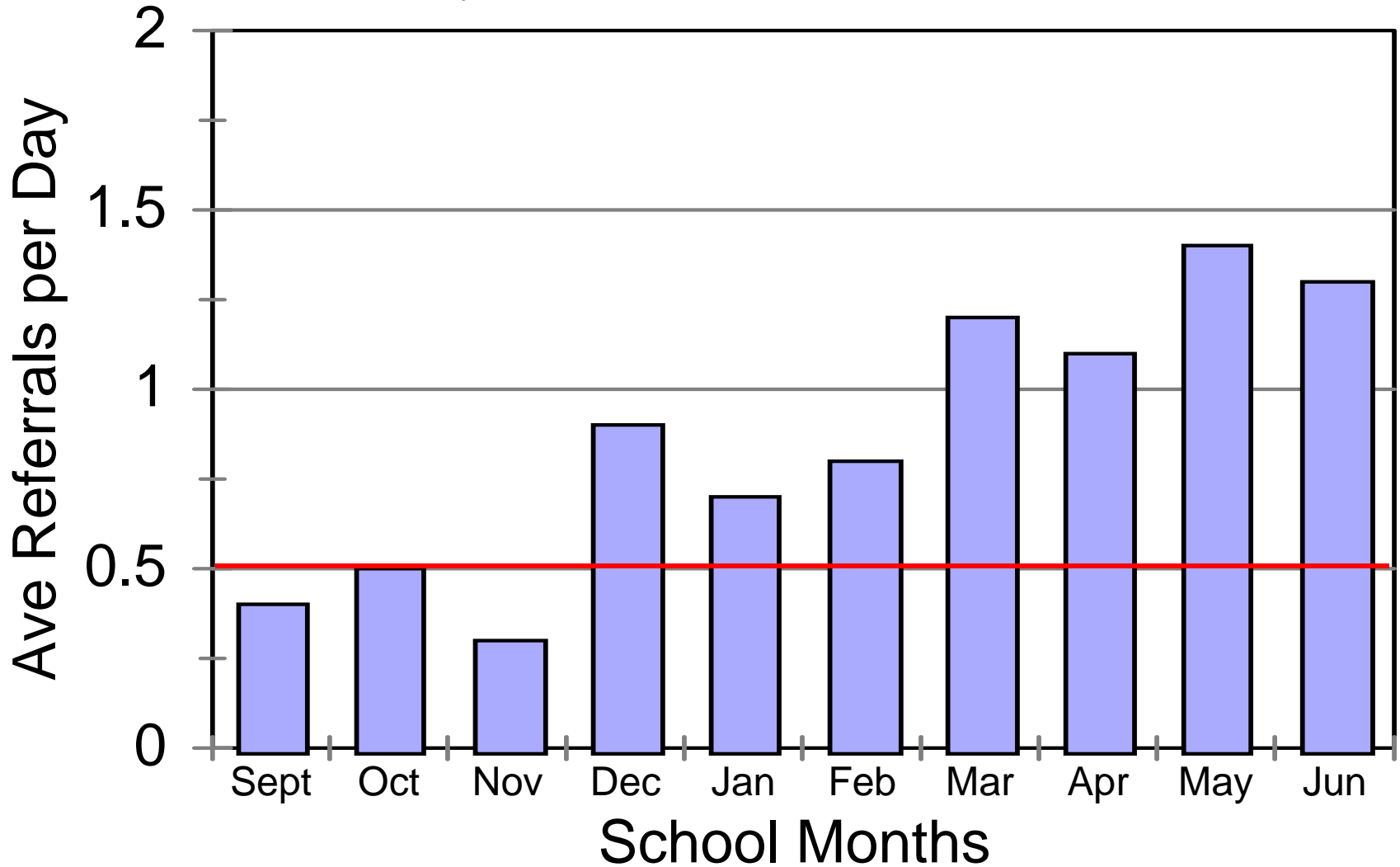
Middle School of 625 students?



Office Referrals per Day per Month

Last year

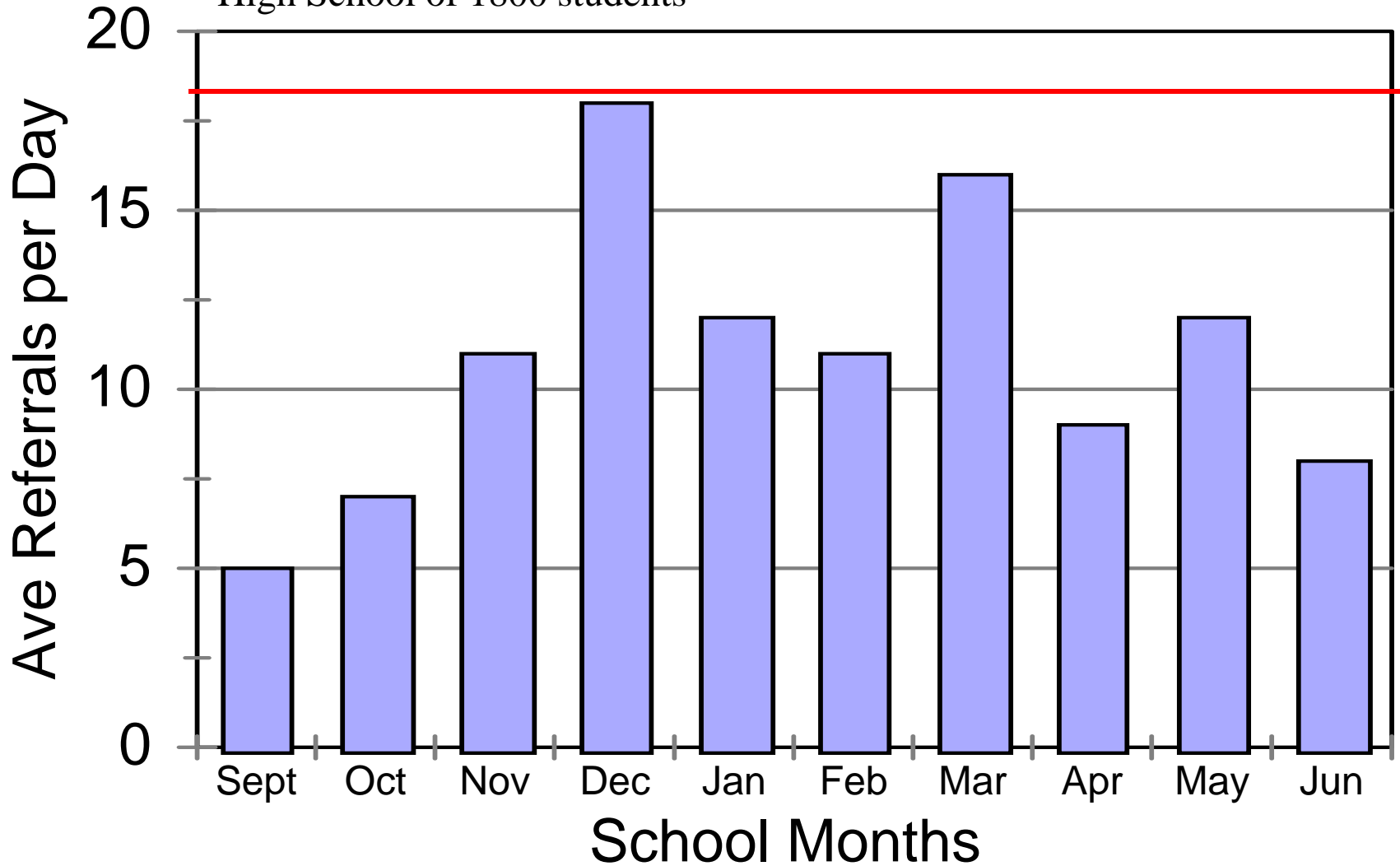
Elementary School with 150 Students



Office Referrals per Day per Month

Last year

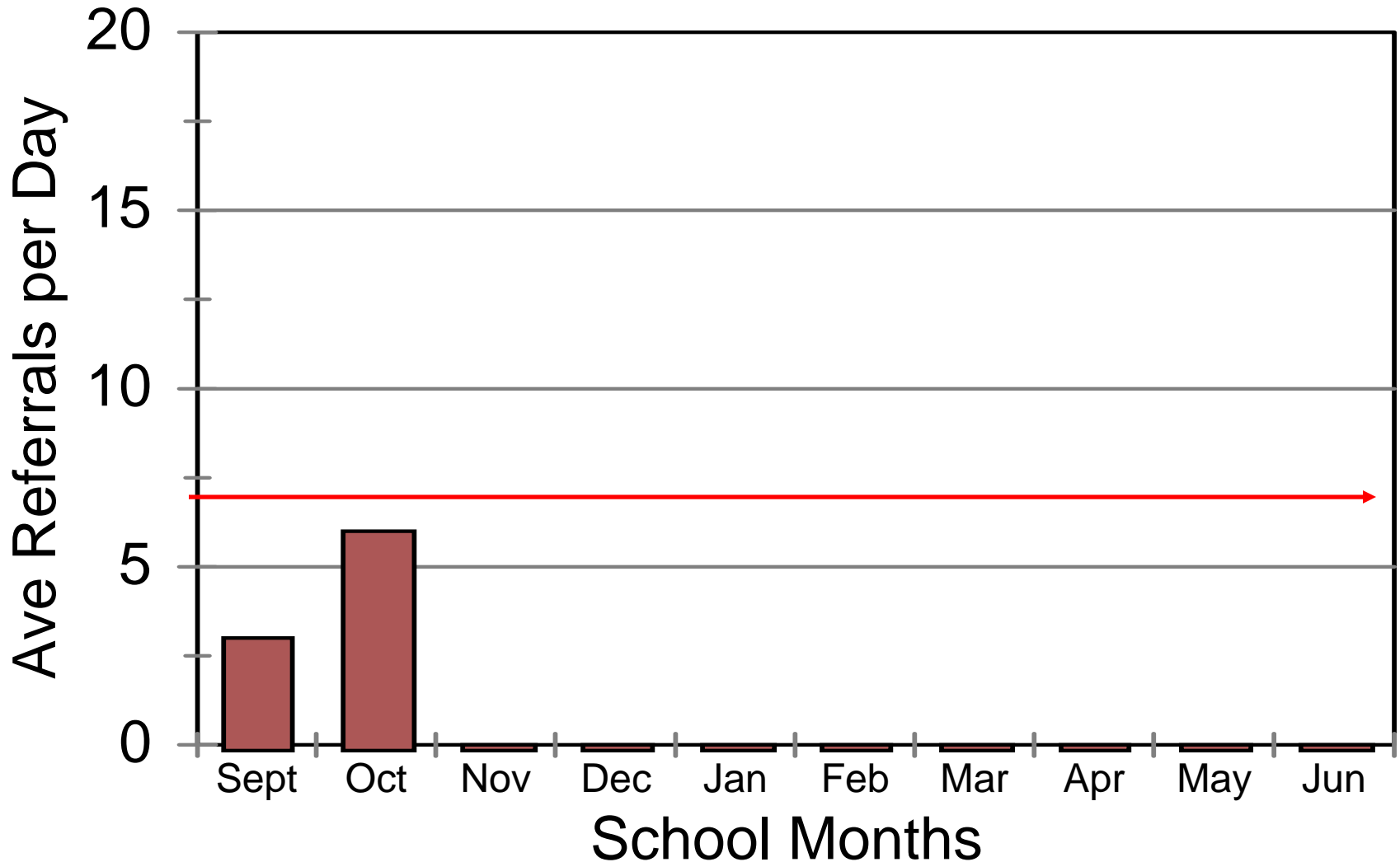
High School of 1800 students



Office Referrals per Day per Month

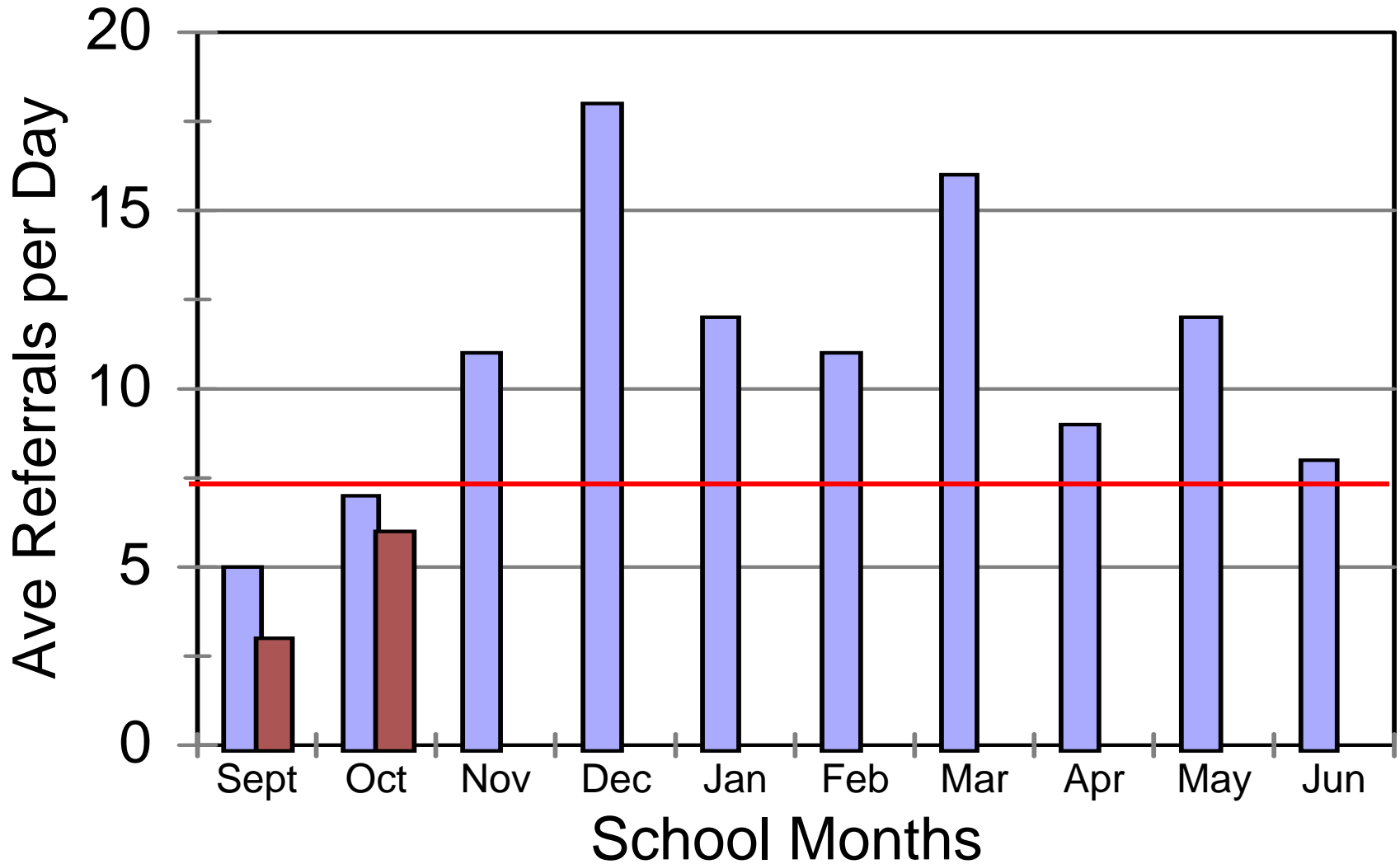
This Year

Middle School of 700 students



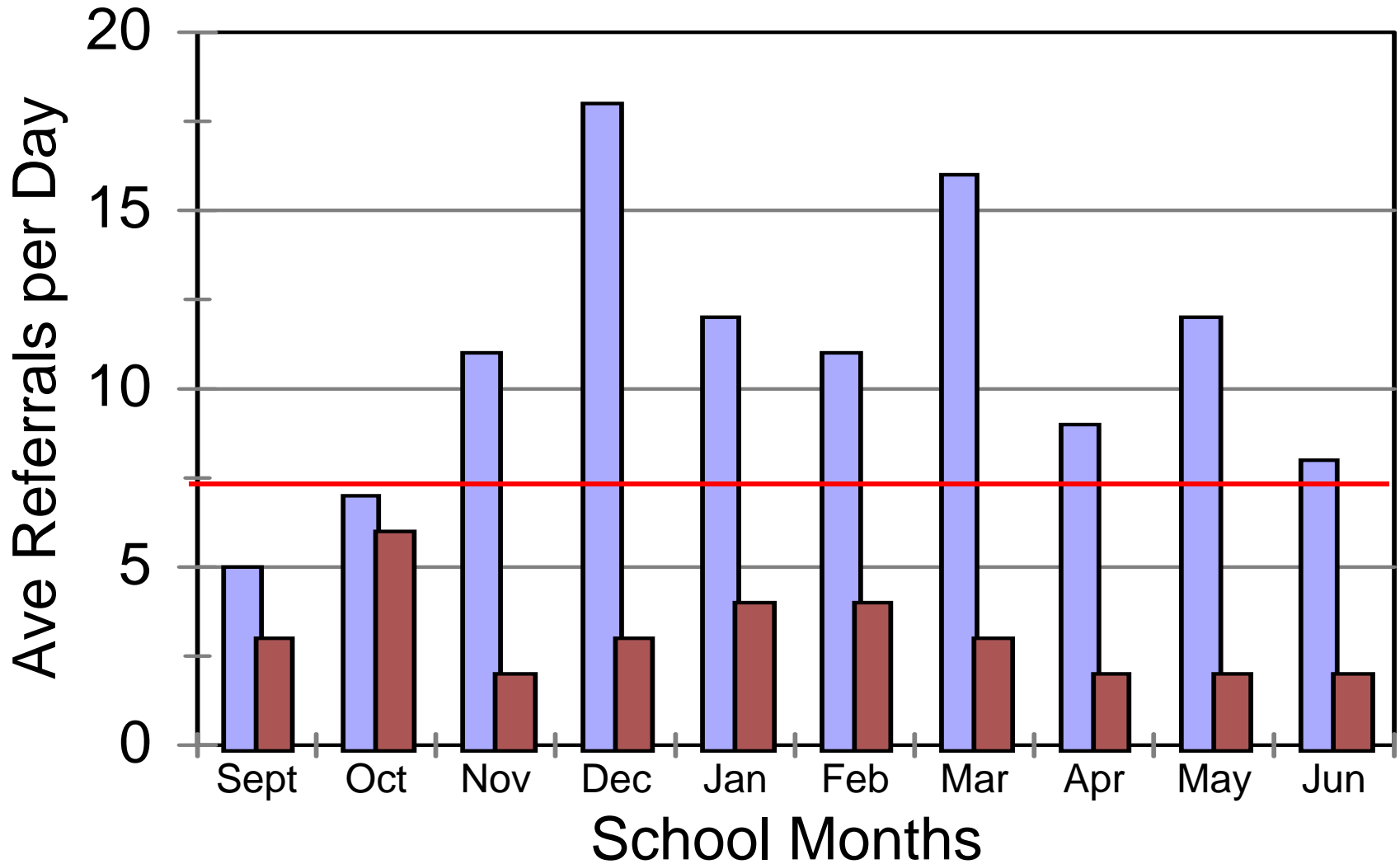
Office Referrals per Day per Month

Last Year and This Year



Office Referrals per Day per Month

Last Year and This Year

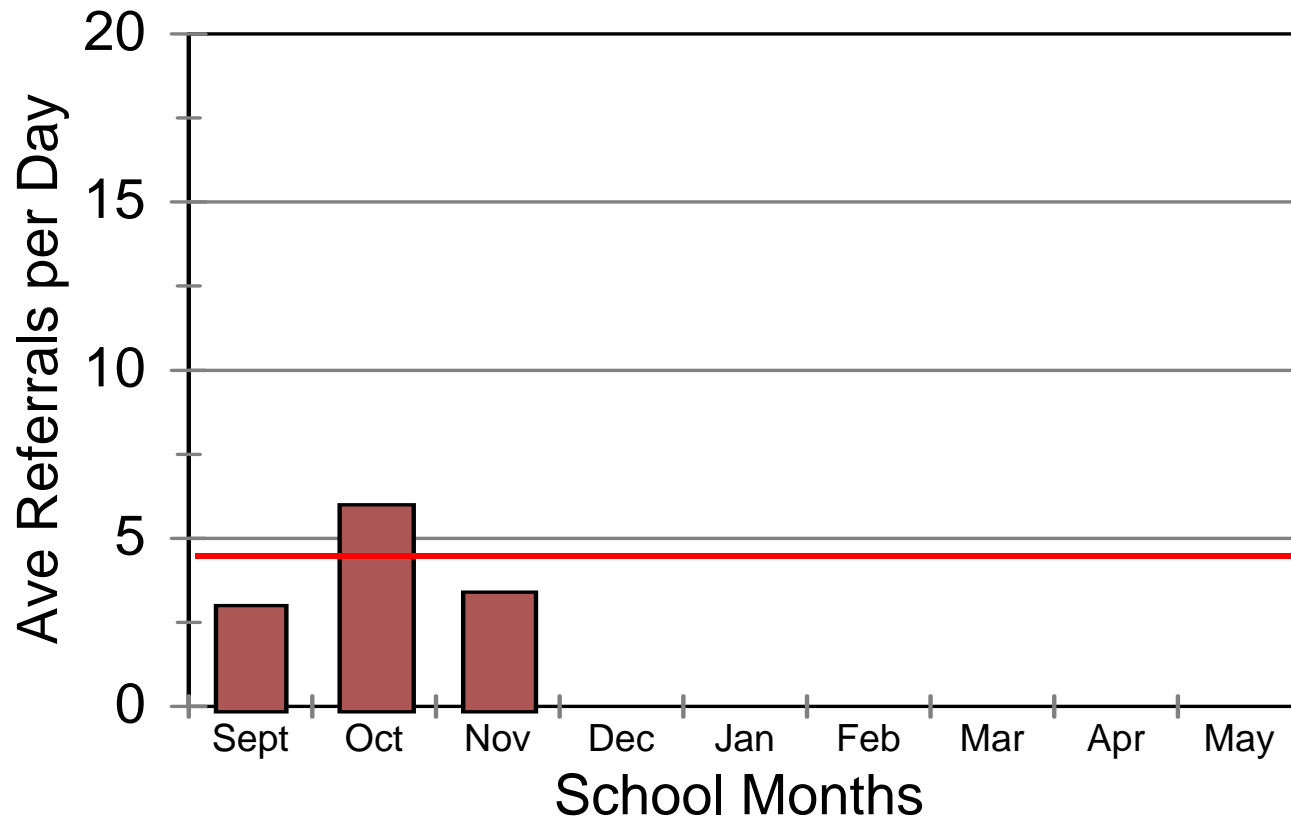


Middle
School

N= 495

Office Referrals per Day per Month

This Year



Middle
School

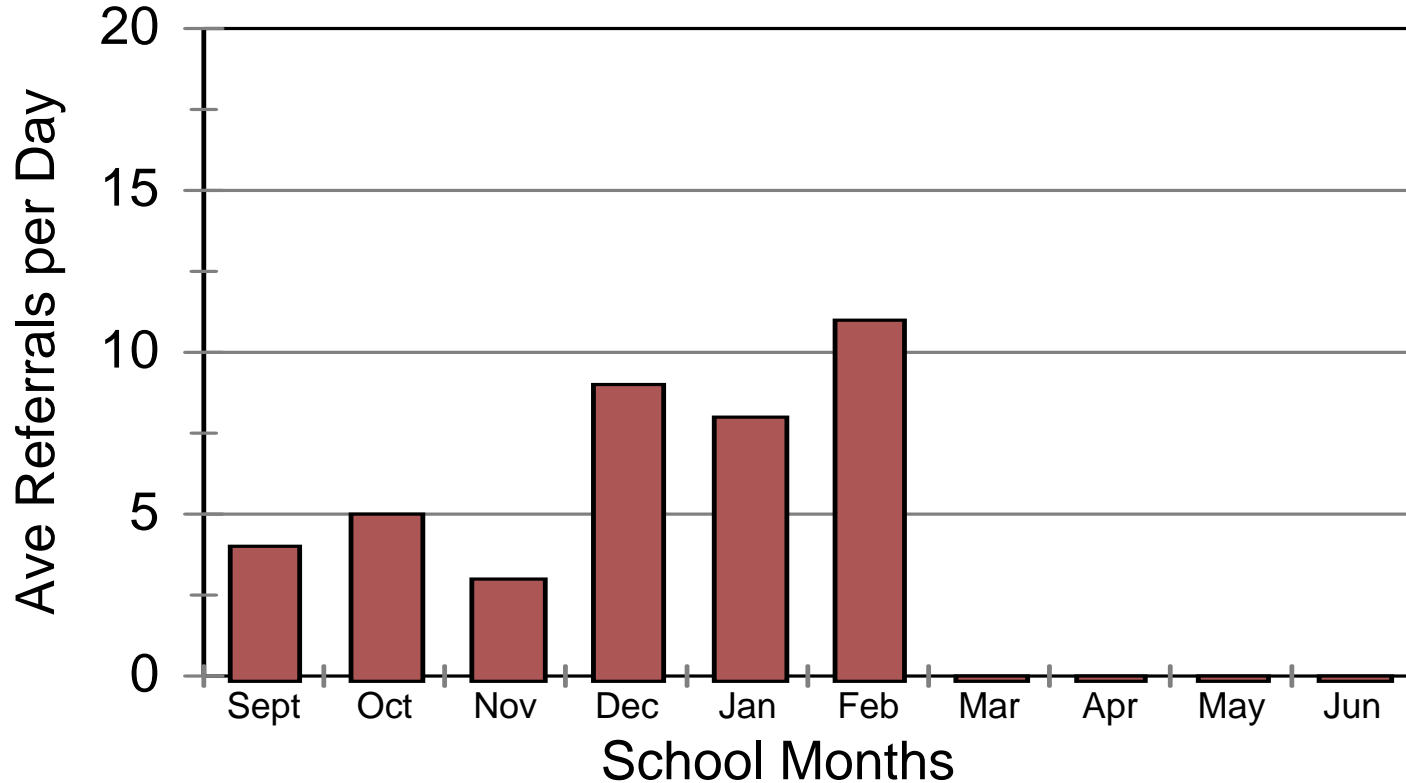
N= 495

Is There a Problem? #2

Absolute - Trend - Compare

Office Referrals per Day per Month

This year (Middle)

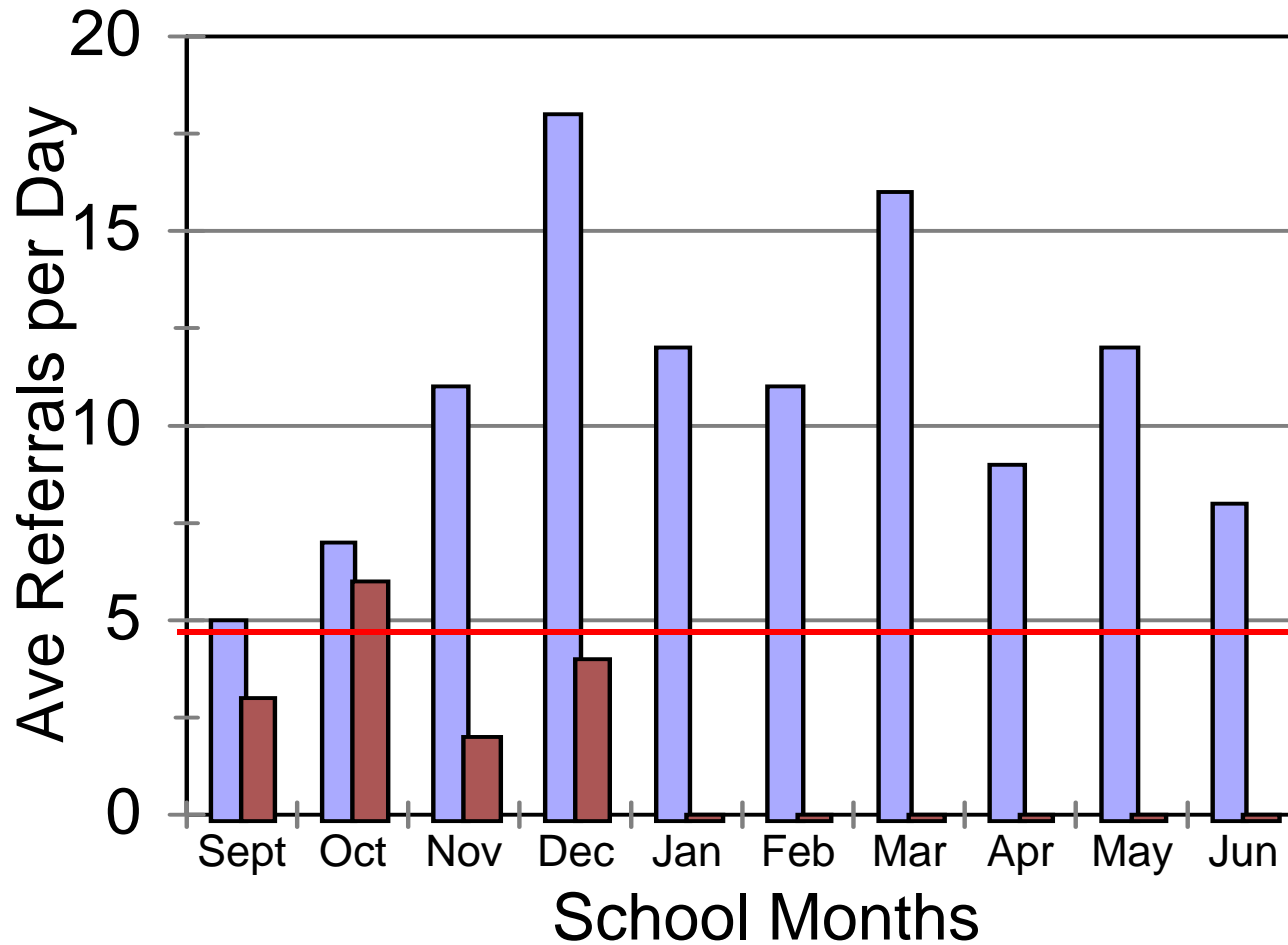


Middle
School

N= 495

Office Referrals per Day per Month

Last Year and This Year

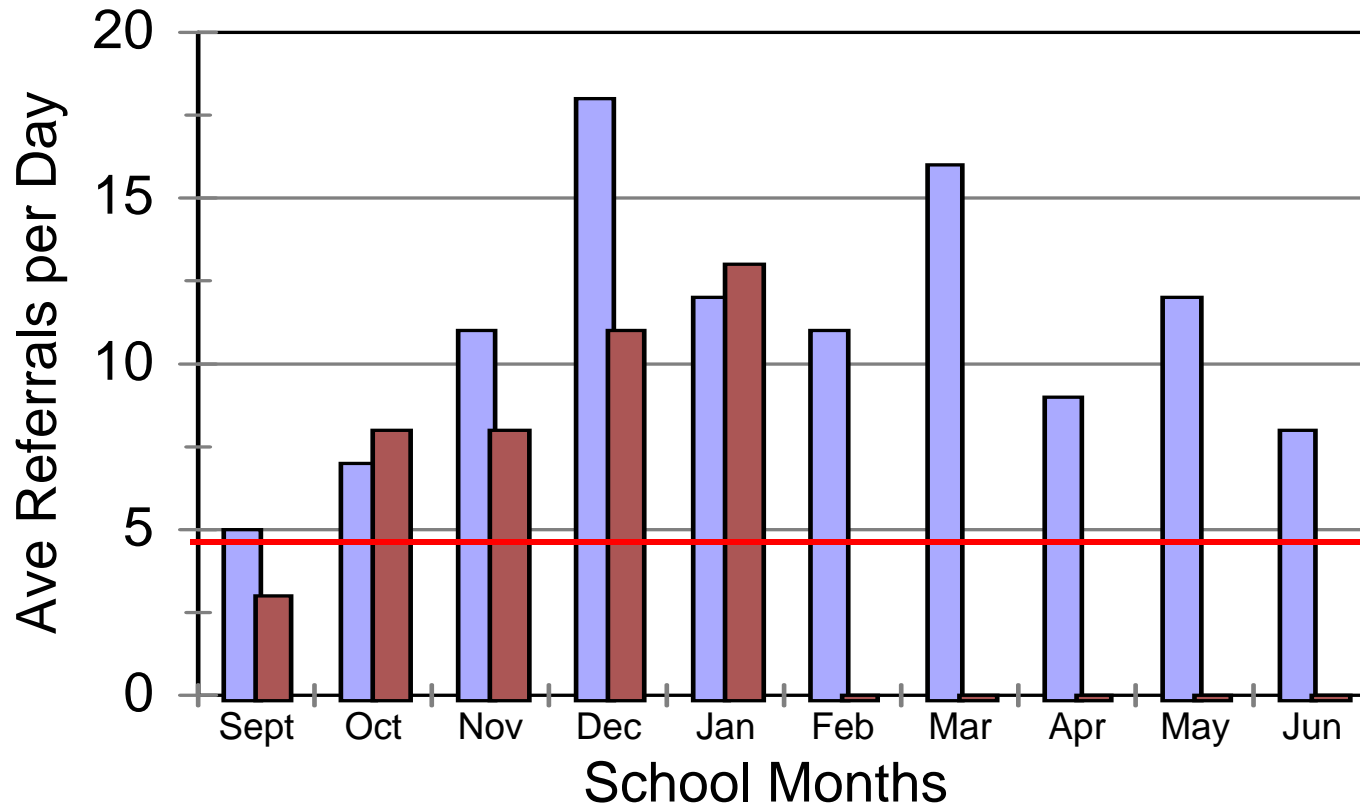


Middle
School

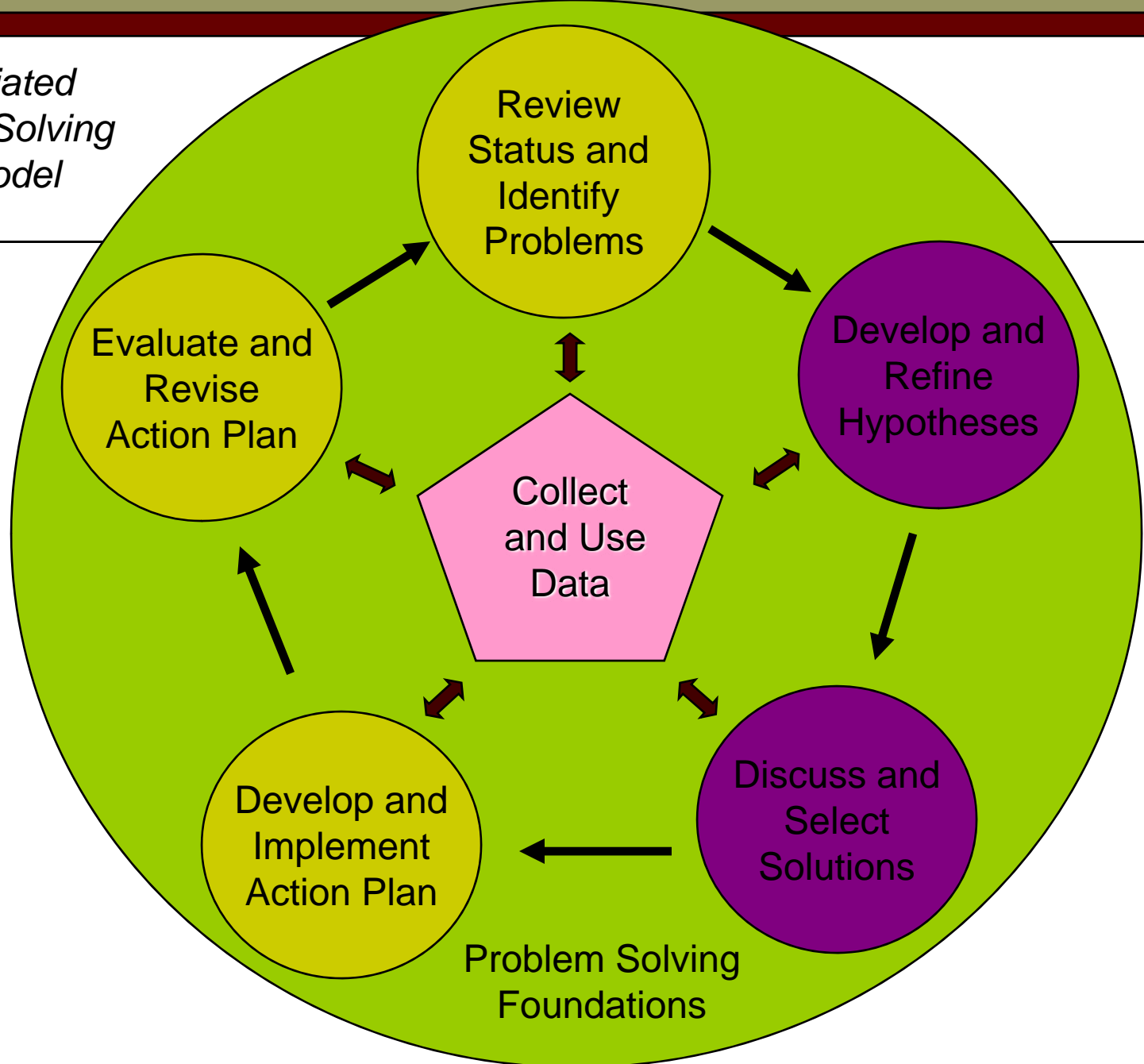
N= 495

Office Referrals per Day per Month

Last Year and This Year



*Team Initiated
Problem Solving
(TIPS) Model*



Problem Solving
Foundations



Precision Problem Statements

(What are the data we need for a decision?)

- Precise problem statements include information about the five core “W” questions.
 - **What** is problem, and how often is it happening
 - **Where** is it happening
 - **Who** is engaged in the behavior
 - **When** the problem is most likely
 - **Why** the problem is sustaining

Primary versus Precision Statements

□ Primary Statements

- Too many referrals
- September has more suspensions than last year
- Gang behavior is increasing
- The cafeteria is out of control
- Student disrespect is out of control

□ Precision Statements

- There are more ODRs for aggression on the playground than last year, and these are most likely to occur during first recess, with a large number of students, and the aggression is related to getting access to the new playground equipment.

Precise or Primary Statement?

- Children are using inappropriate language with a high frequency in the presence of both adults and other children. This is creating a sense of disrespect and incivility in the school
- James D. is hitting others in the cafeteria during lunch, and his hitting is maintained by peer attention.

Precise or Primary Statement?

- ODRs during December are higher than in any other month.
- Minor disrespect and disruption are increasing over time, and are most likely during the last 15 minutes of our block periods when students are engaged in independent seat work. This pattern is most common in 7th and 8th grades, involves many students, and appears to be maintained by escape from work (but may also be maintained by peer attention... we are not sure).



Precise or Primary Statement?

- Three 5th grade boys are name calling and touching girls inappropriately during recess in an apparent attempt to obtain attention and possibly unsophisticated sexual expression.
- Boys are engaging in sexual harassment

What are the data you are most likely to need to move from a Primary to a Precise statement?

- **What** problem behaviors are most common?
 - ODR per Problem Behavior
- **Where** are problem behaviors most likely?
 - ODR per Location
- **When** are problem behaviors most likely?
 - ODR per time of day
- **Who** is engaged in problem behavior?
 - ODR per student
- **Why** are problem behaviors sustaining?
 - No graph



What other data may you want?

- ❑ ODR by staff
- ❑ ODR by IEP
- ❑ ODR by grade
- ❑ ODR by gender by grade
- ❑ Faculty subjective impressions
- ❑ Academic performance
- ❑ Attendance
- ❑ Information about home status

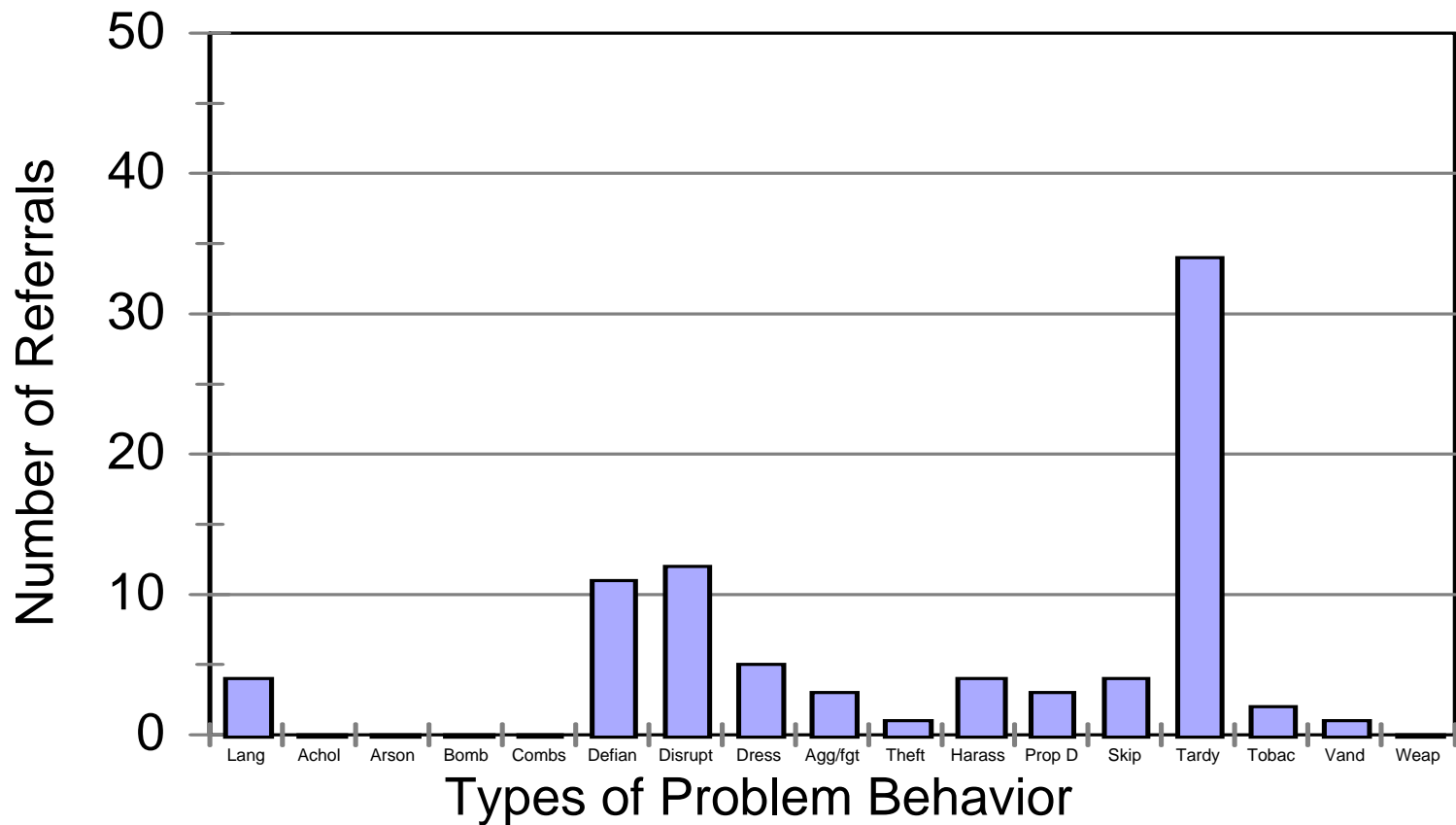


Test precision problem statement

- Use precise problem statements to build and test hypotheses.
 - Problems are most common in D-Hall wing
 - Problems are more likely during second recess
 - Problems are most common during assembly schedule
 - Problems are more likely during state testing periods

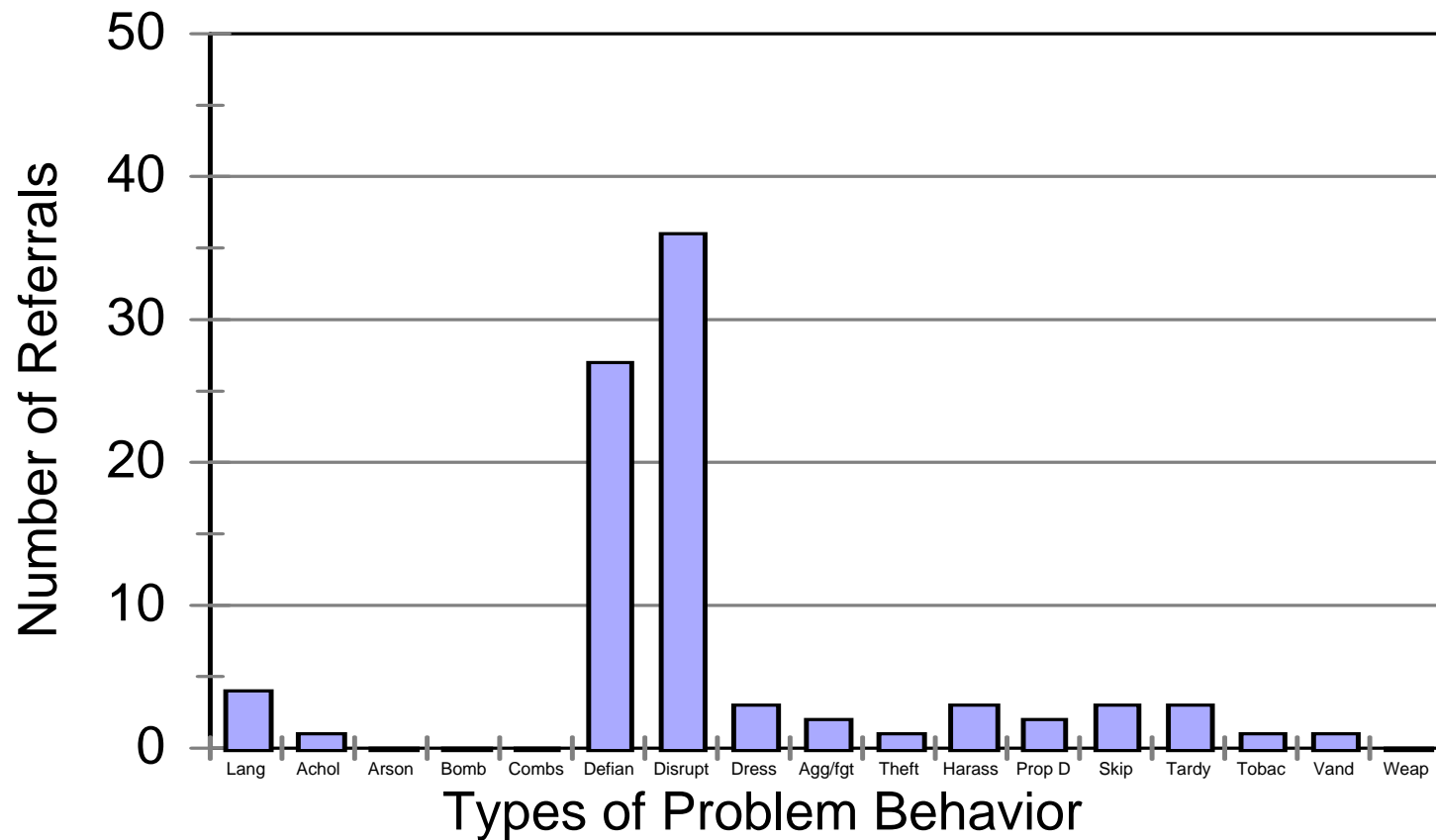
What behaviors are problematic?

Referrals per Prob Behavior



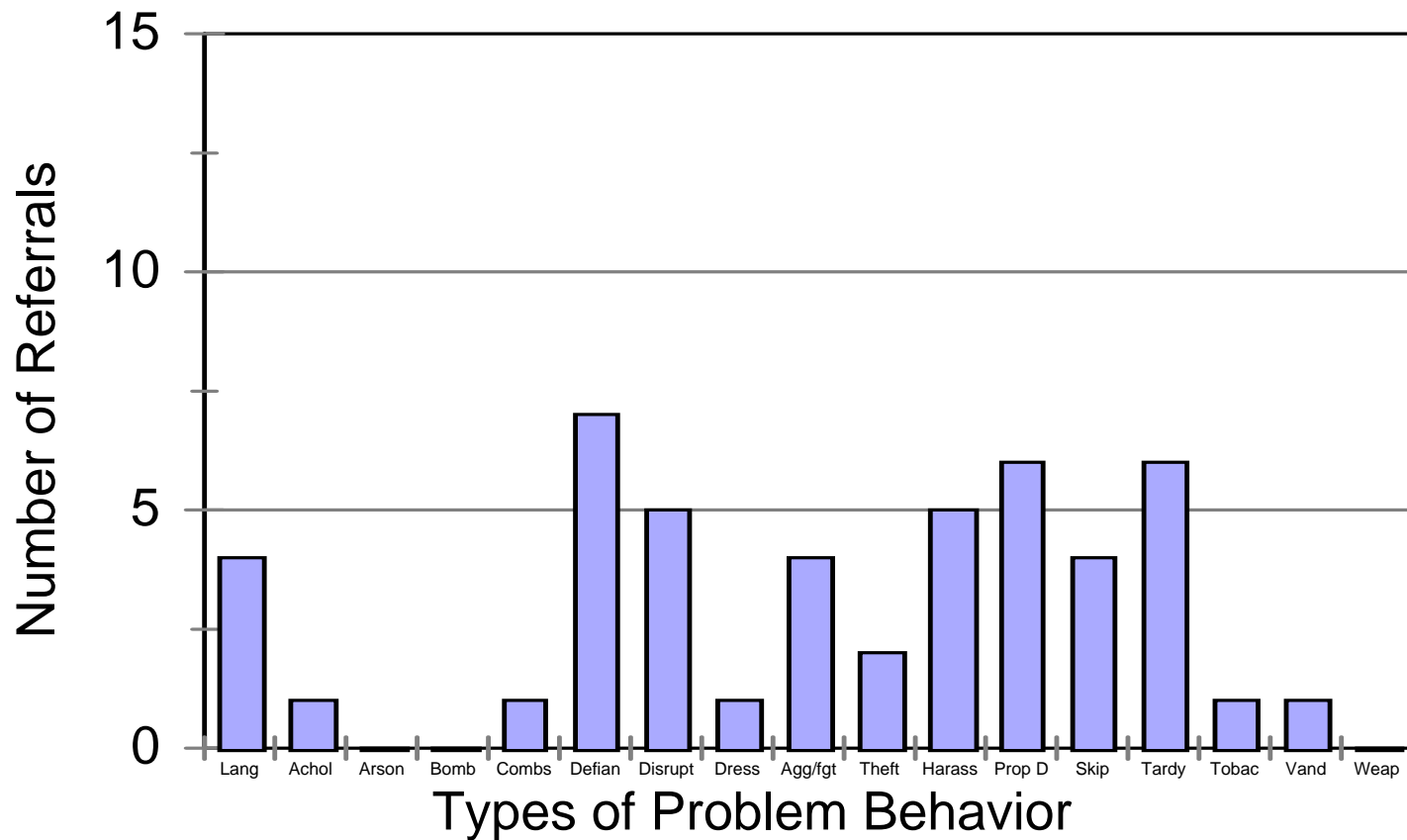
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Referrals per Prob Behavior



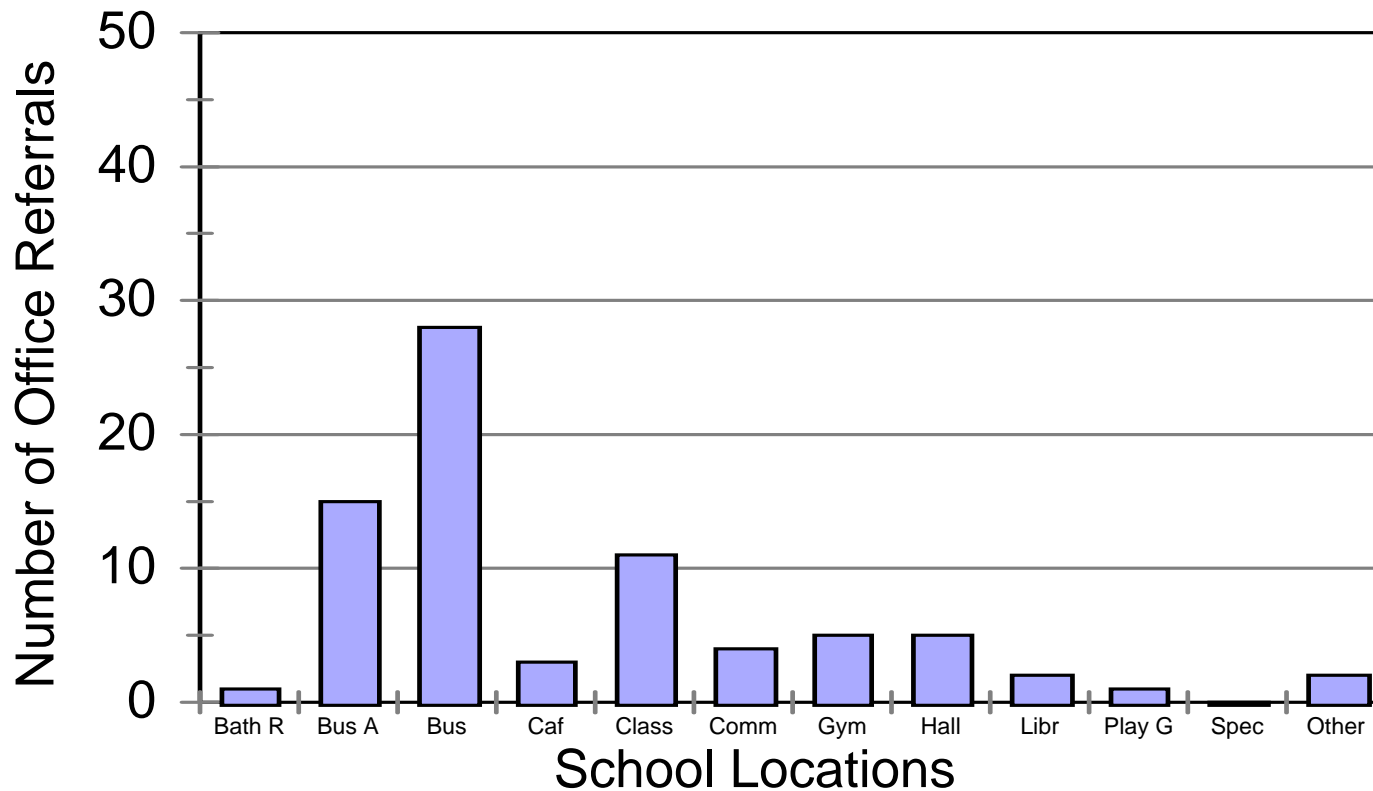
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Referrals per Prob Behavior



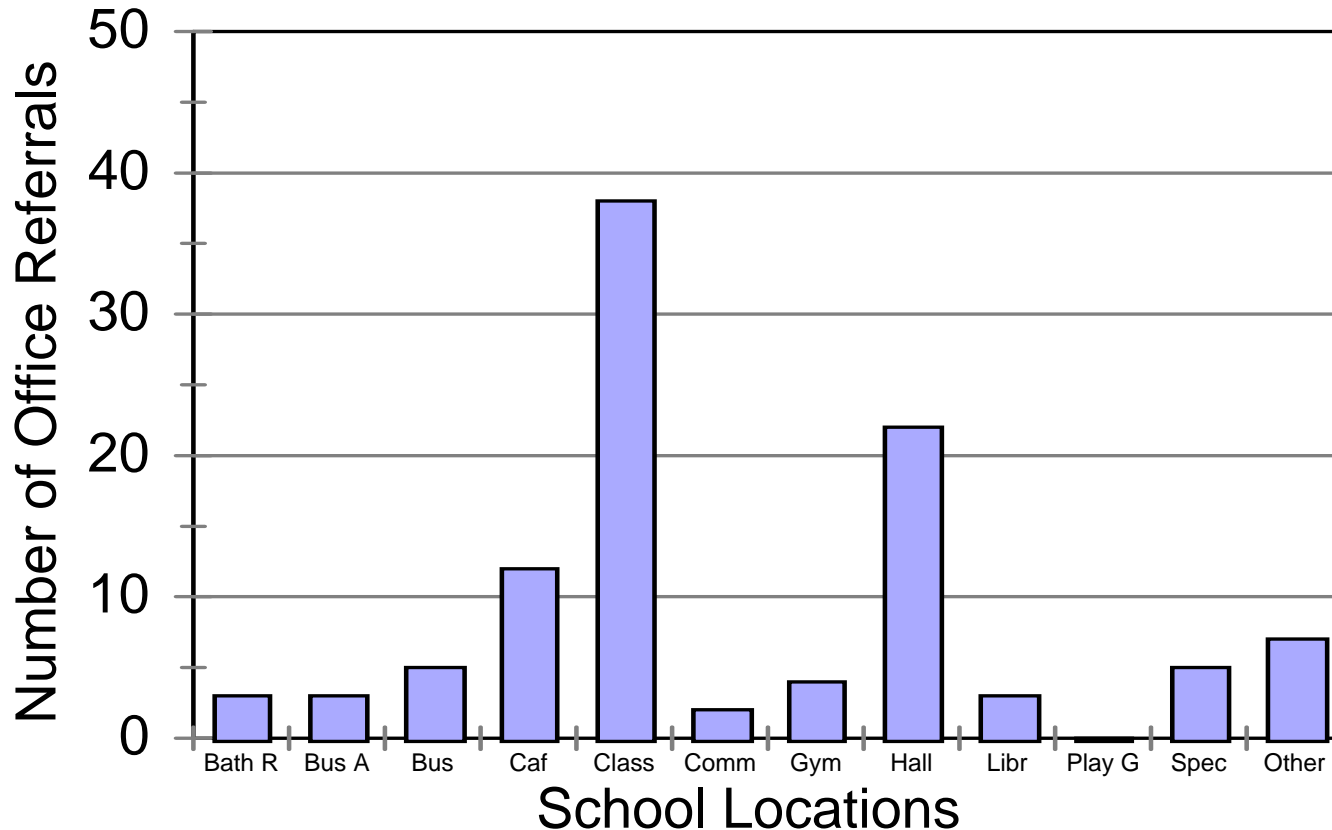
Where are the problems occurring?

Referrals by Location



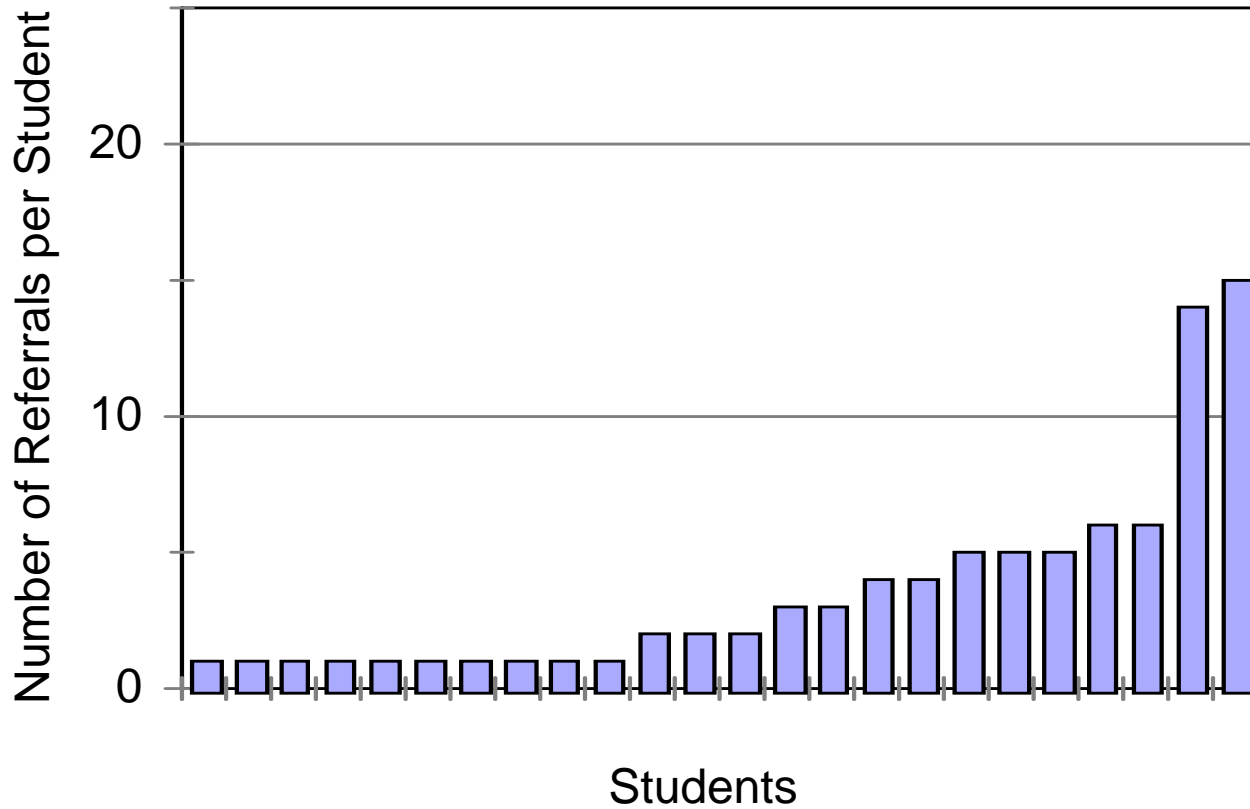
Where are the problems occurring?

Referrals by Location



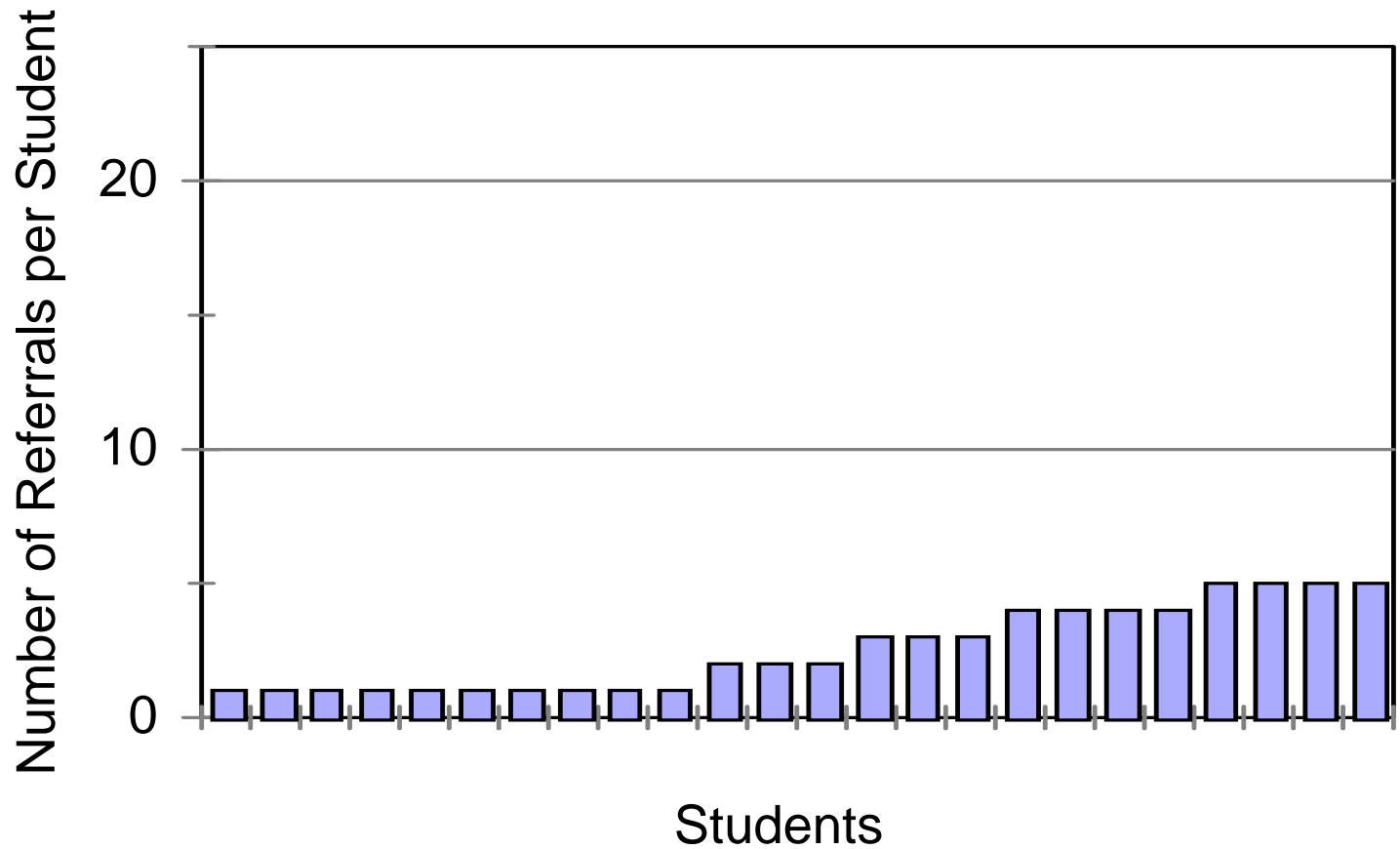
Who is contributing to the problem?

Referrals per Student



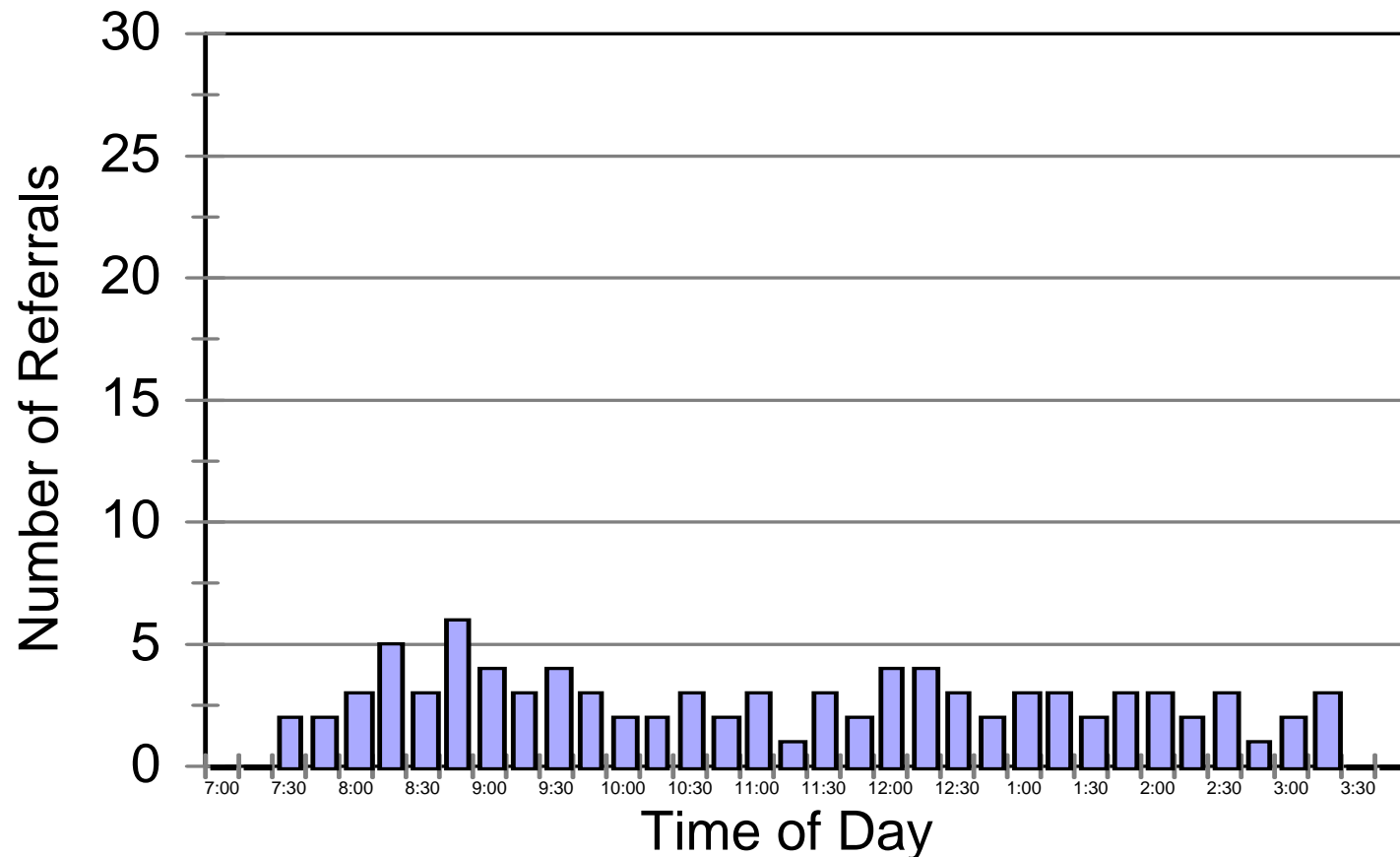
Who is contributing to the problem?

Students per Number of Referrals



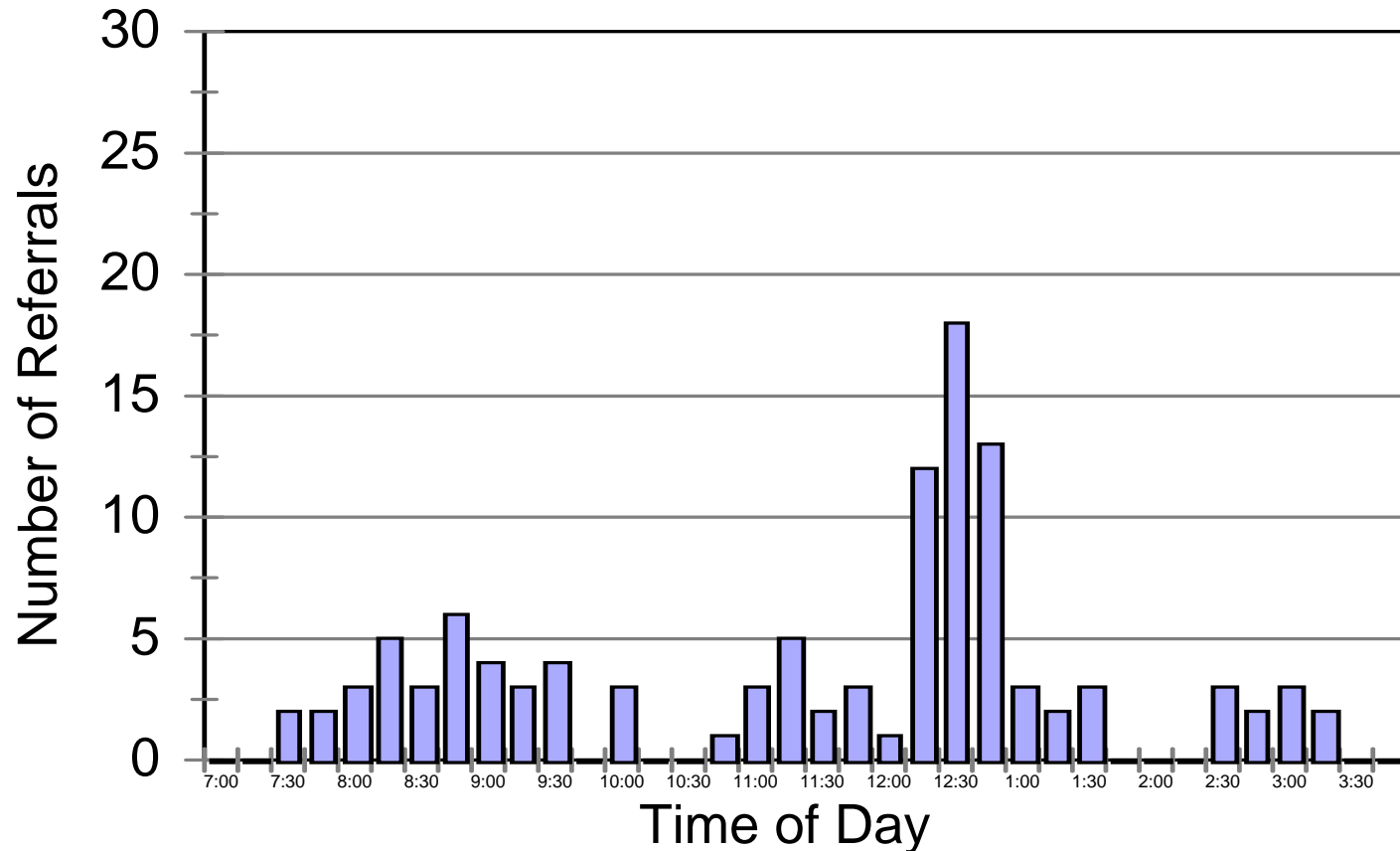
When are the problems occurring?

Referrals by Time of Day



When are the problems occurring?

Referrals by Time of Day





Decision Making

- ❑ Is there a problem?
- ❑ What areas/systems are involved?
- ❑ Are there many students or a few involved?
- ❑ What kinds of problem behaviors are occurring?
- ❑ When, where and with whom are these behaviors most likely?
- ❑ **What is the most effective use of our resources to address this problem?**

Using Data to Build Solutions

- **Prevention: How can we avoid the problem context?**
 - Who, When, Where
 - Schedule change, curriculum change, etc

- **Teaching: How can we define, teach, and monitor what we want?**
 - Teach appropriate behavior
 - Use problem behavior as negative example

- **Recognition: How can we build in systematic reward for desired behavior?**

- **Extinction: How can we prevent problem behavior from being rewarded?**

- **Consequences: What are efficient, consistent consequences for problem behavior?**

- **How will we collect and use data to evaluate (a) implementation fidelity, and (b) impact on student outcomes?**

Precision Statement/Hypothesis

- **Define Problem**

- What
- Where
- When
- Who
- Why
- What other info needed?

- **Define Solution**

- Prevention
- Teaching
- Reward
- Extinction
- Corrective Consequences
- Monitoring

Trevor Test Middle School

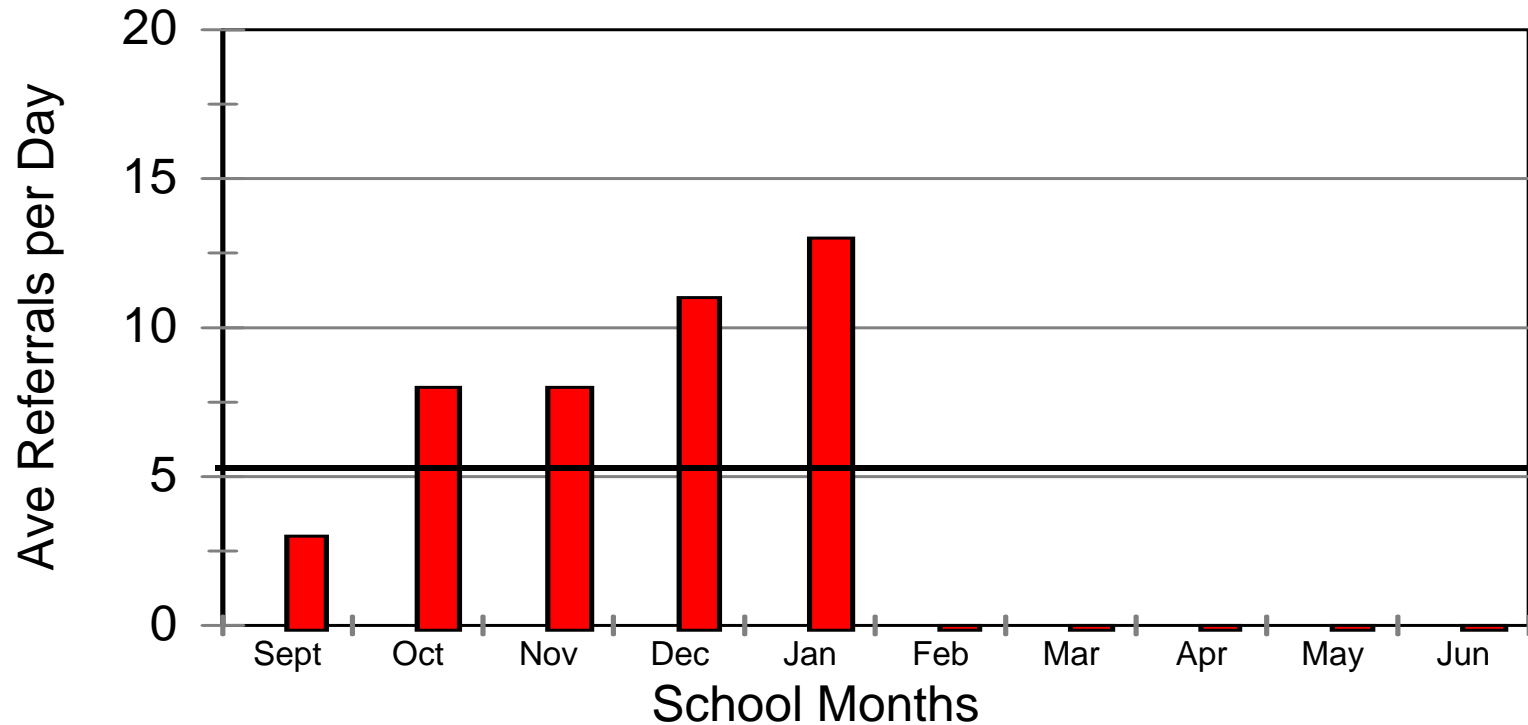
565 students

Grades 6,7,8

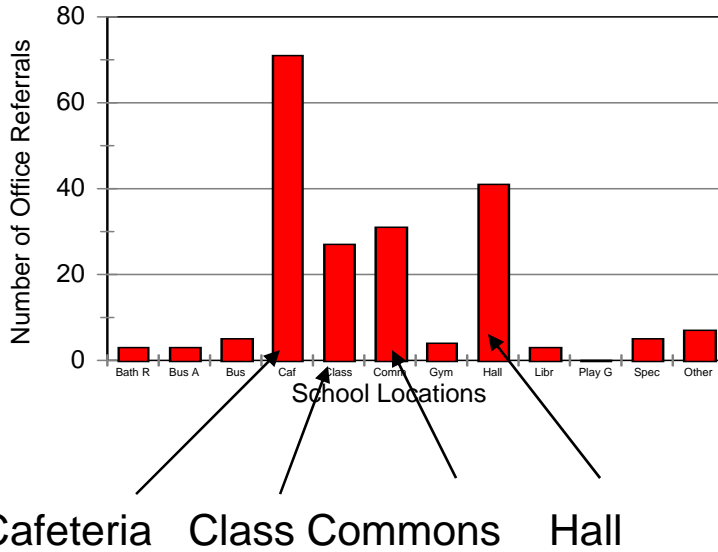
Trevor Test Middle School

Office Referrals per Day per Month

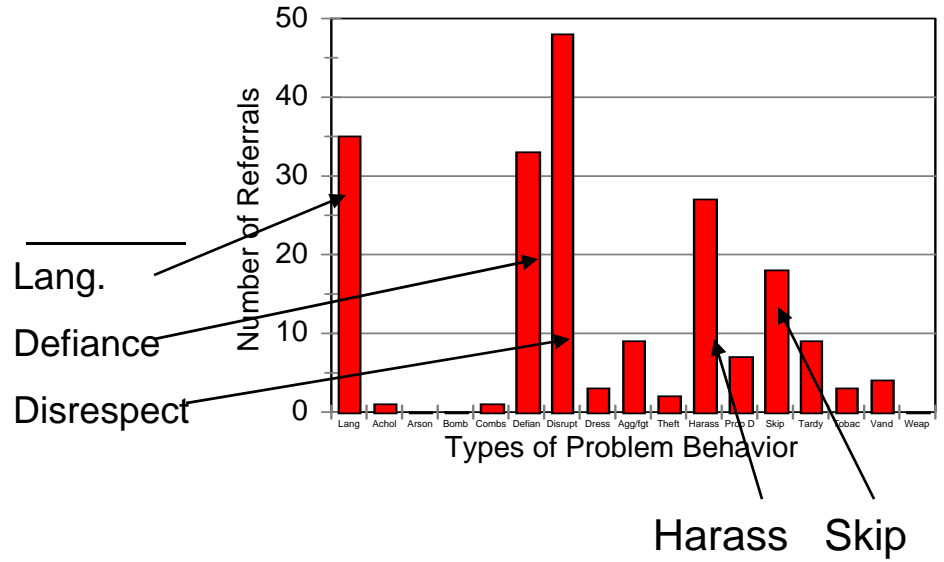
This Year



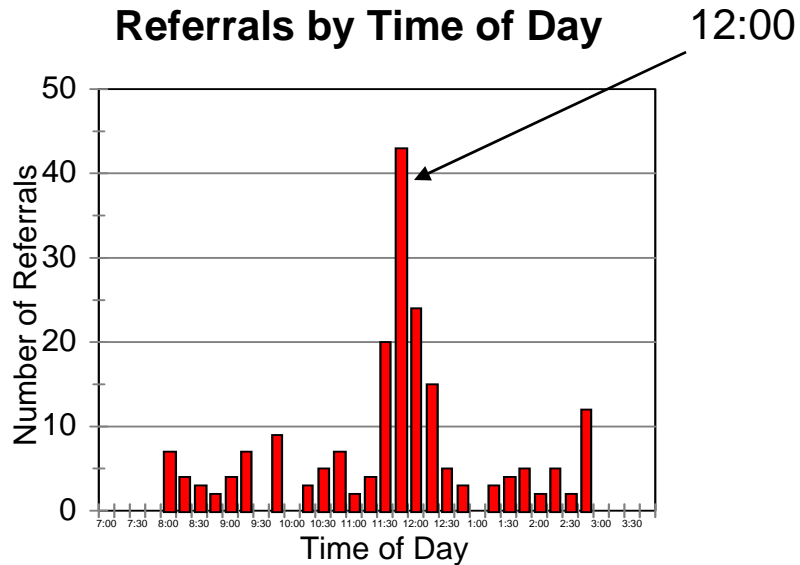
Referrals by Location



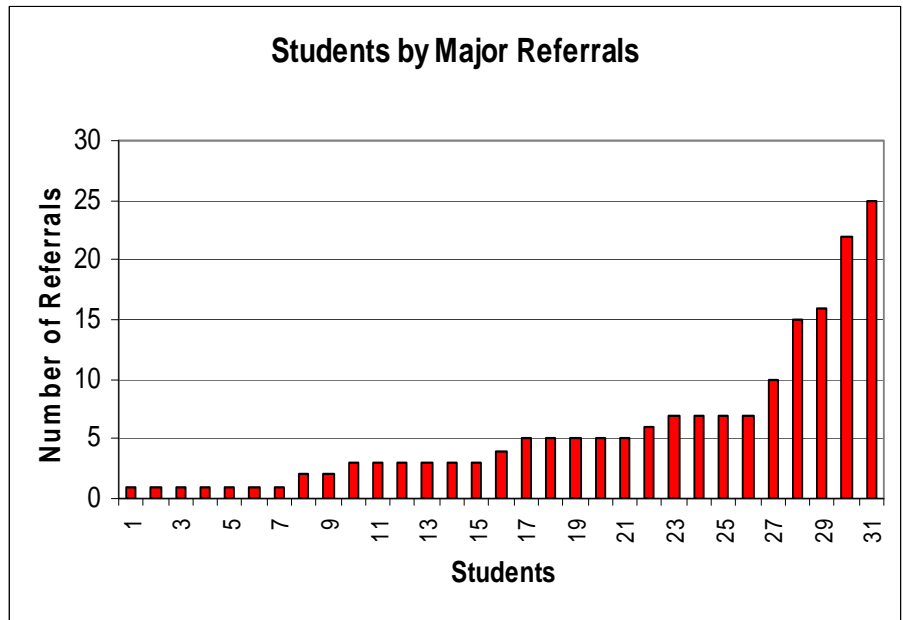
Referrals per Prob Behavior



Referrals by Time of Day



Students by Major Referrals



Precision Statement/Hypothesis

Define Problem

- What
- Where
- When
- Who
- Why
- What other info needed?

Define Solution

- Prevention
- Teaching
- Reward
- Extinction
- Corrective
Consequences
- Monitoring

Trevor Test Middle School Problem Statement

- Increasing trend in frequency of problem behavior
- About 24 students with 2-5 ODRs
- Two problems
 - Most problem behaviors occur during the noon lunch time and include disrespect, insubordination, inappropriate language, and harassment
 - Skipping class is also a problem



Problem Statement

□ Preliminary:

- There is an increase in office discipline referrals from Sept to Jan, and the increase is resulting in more referrals than we consider acceptable, and more than is typical of national norms.

□ Precise:

- Inappropriate language, harassment, disrespect and defiance toward staff is occurring in the cafeteria, before, during and after lunch. Many students and we are unclear what is maintaining these behaviors.
- We believe over-crowding may be a factor, and we did not teach school-wide expectations in cafeteria.

Solution Development

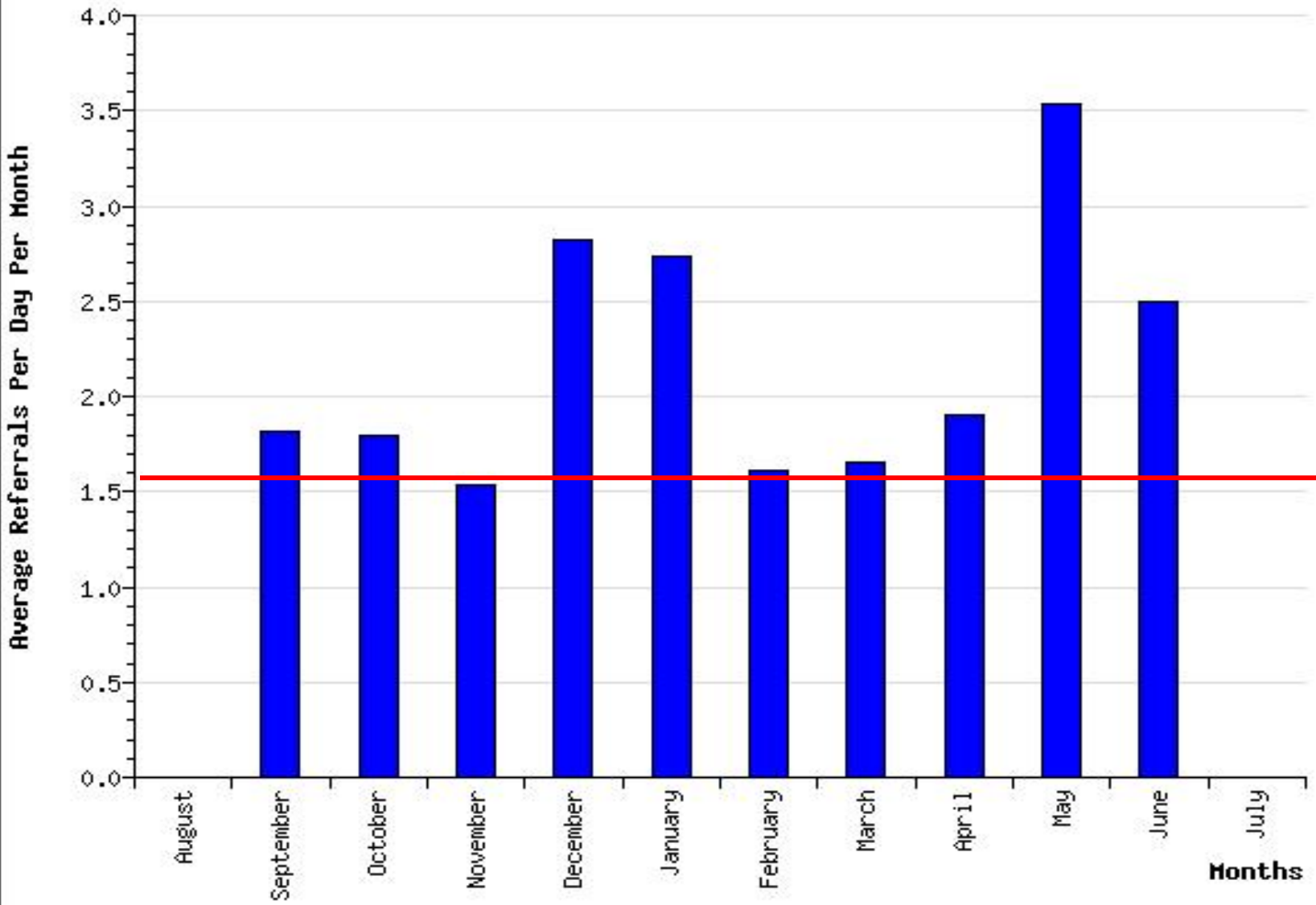
Prevention	<i>*Teach behavioral expectations in cafeteria</i>
Teaching	<i>*Maintain current lunch schedule, but shift classes to balance numbers.</i>
Reward	<i>Establish “Friday Five”: Extra 5 min of lunch on Friday for five good days.</i>
Extinction	<i>Unclear</i>
Corrective Consequence	<i>Active supervision, and continued early consequence</i>
Data Collection	<i>Maintain ODR record and report weekly</i>

Langley Elementary School

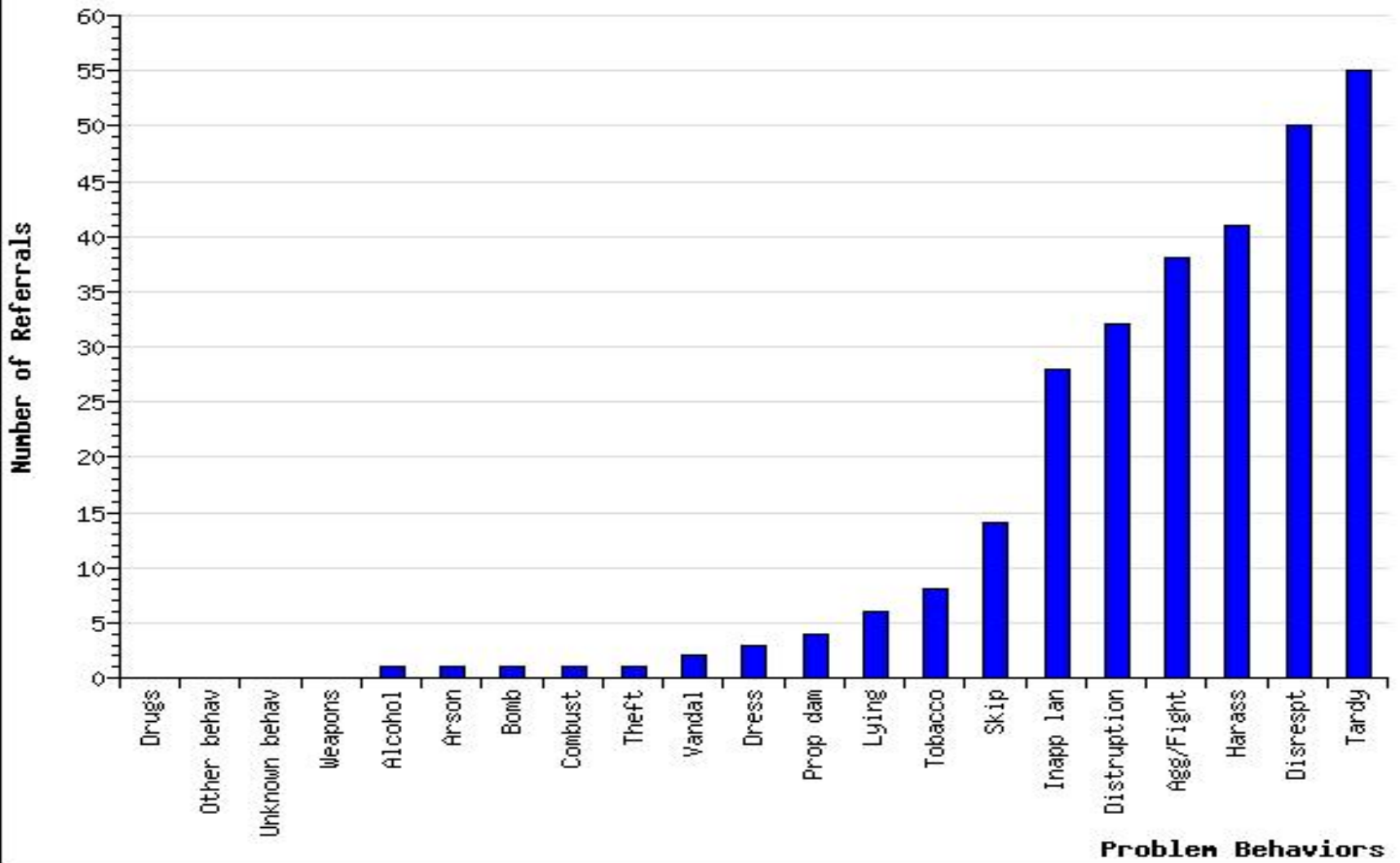
478 Students

K-5

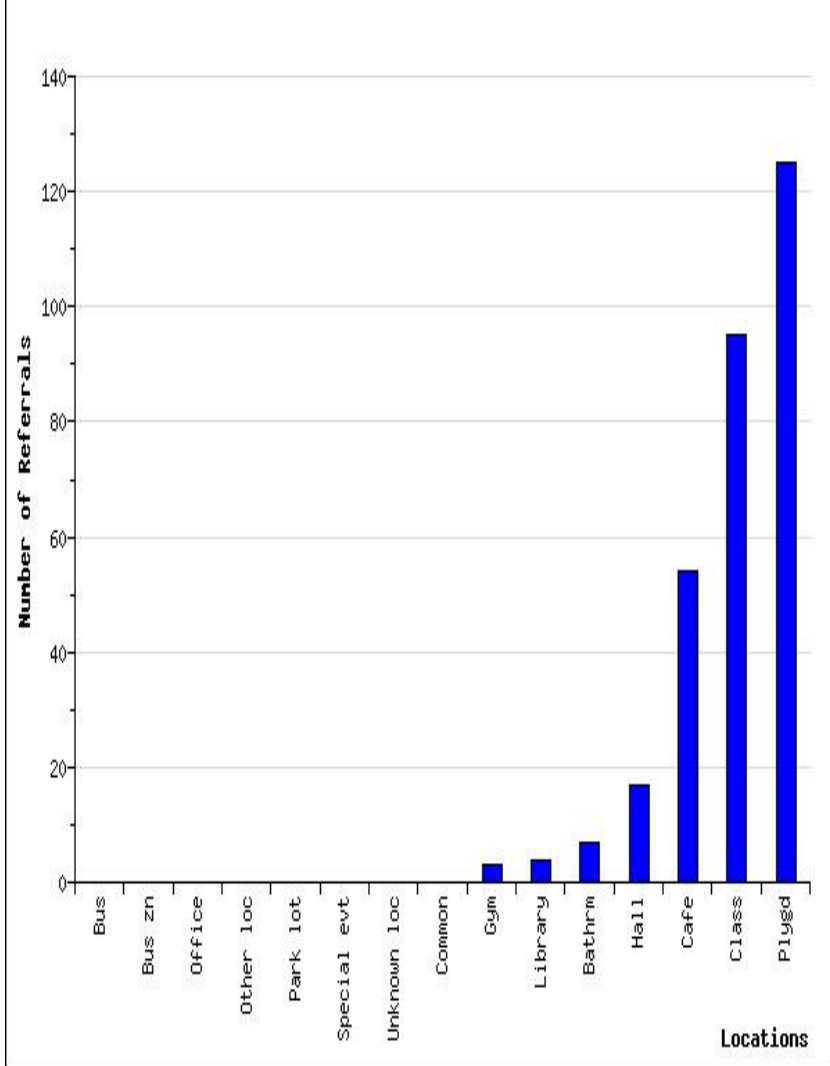
Average Referrals Per Day Per Month



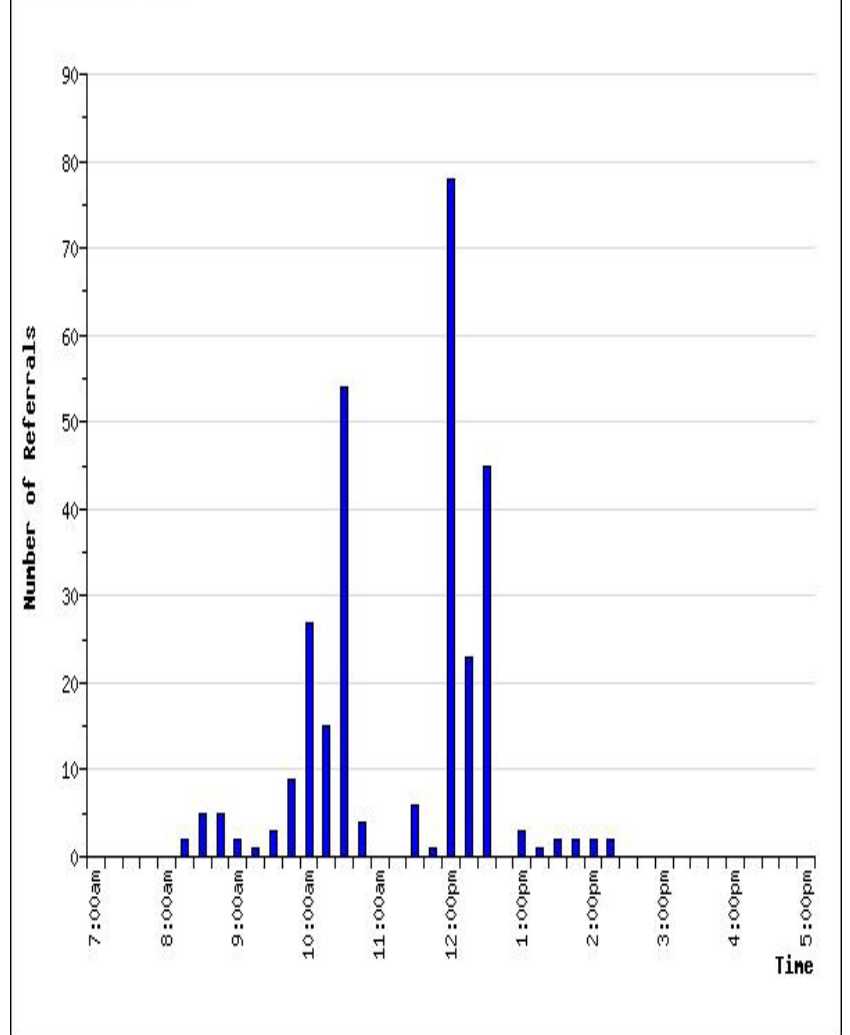
Referrals by Problem Behavior



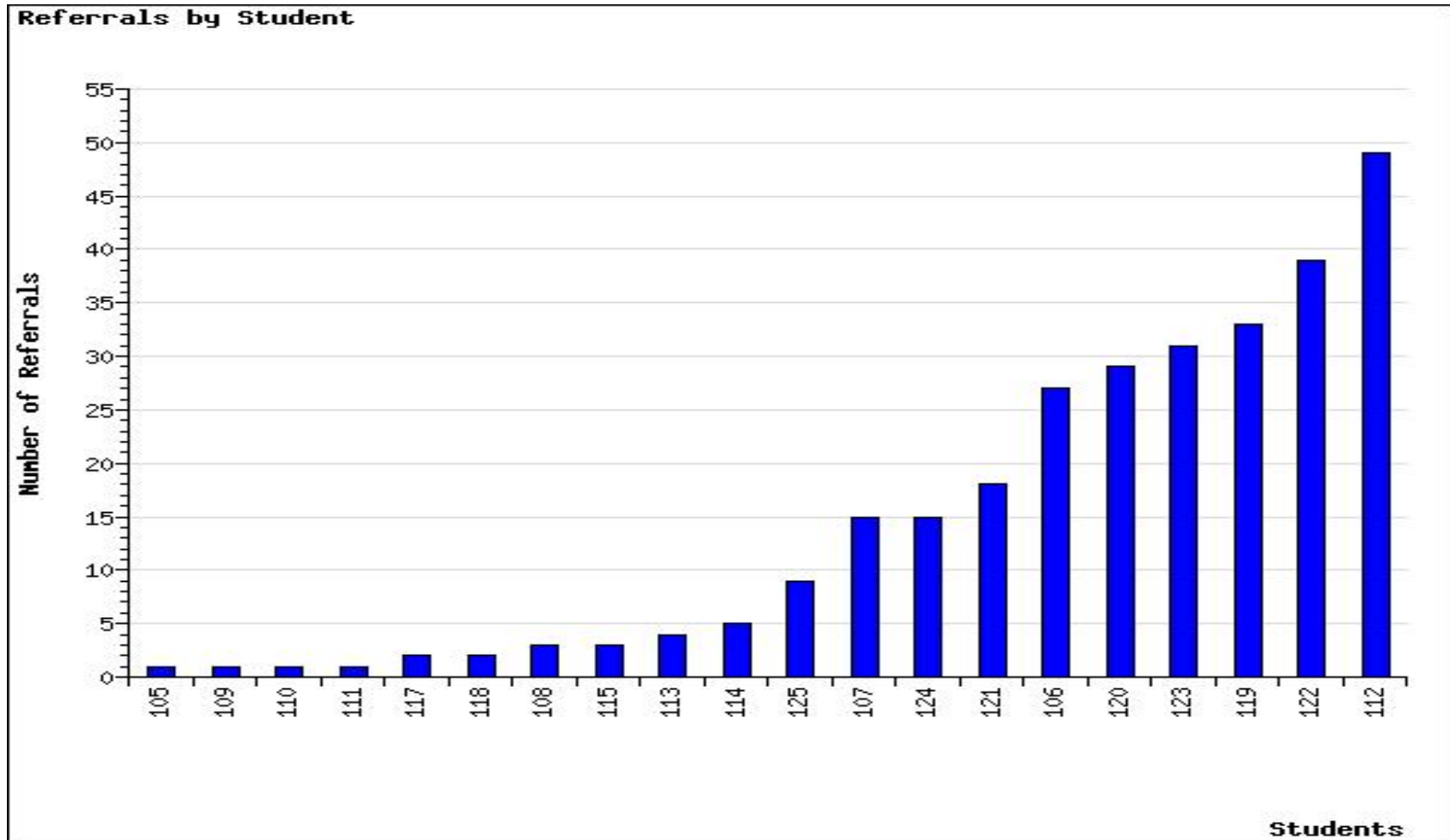
Referrals by Location



Referrals by Time



Varying data requires different decisions





What additional information might you want?

Precision Statement/Hypothesis

Define Problem

- What
- Where
- When
- Who
- Why
- What other info needed?

Define Solution

- Prevention
- Teaching
- Reward
- Extinction
- Corrective Consequences
- Monitoring



Problem Statement

- Preliminary Problem Statement(s)
 - Students are not getting to class on time after lunch
 - Aggression, harassment on playground is out of control
- Precise Problem Statement



Solution Development

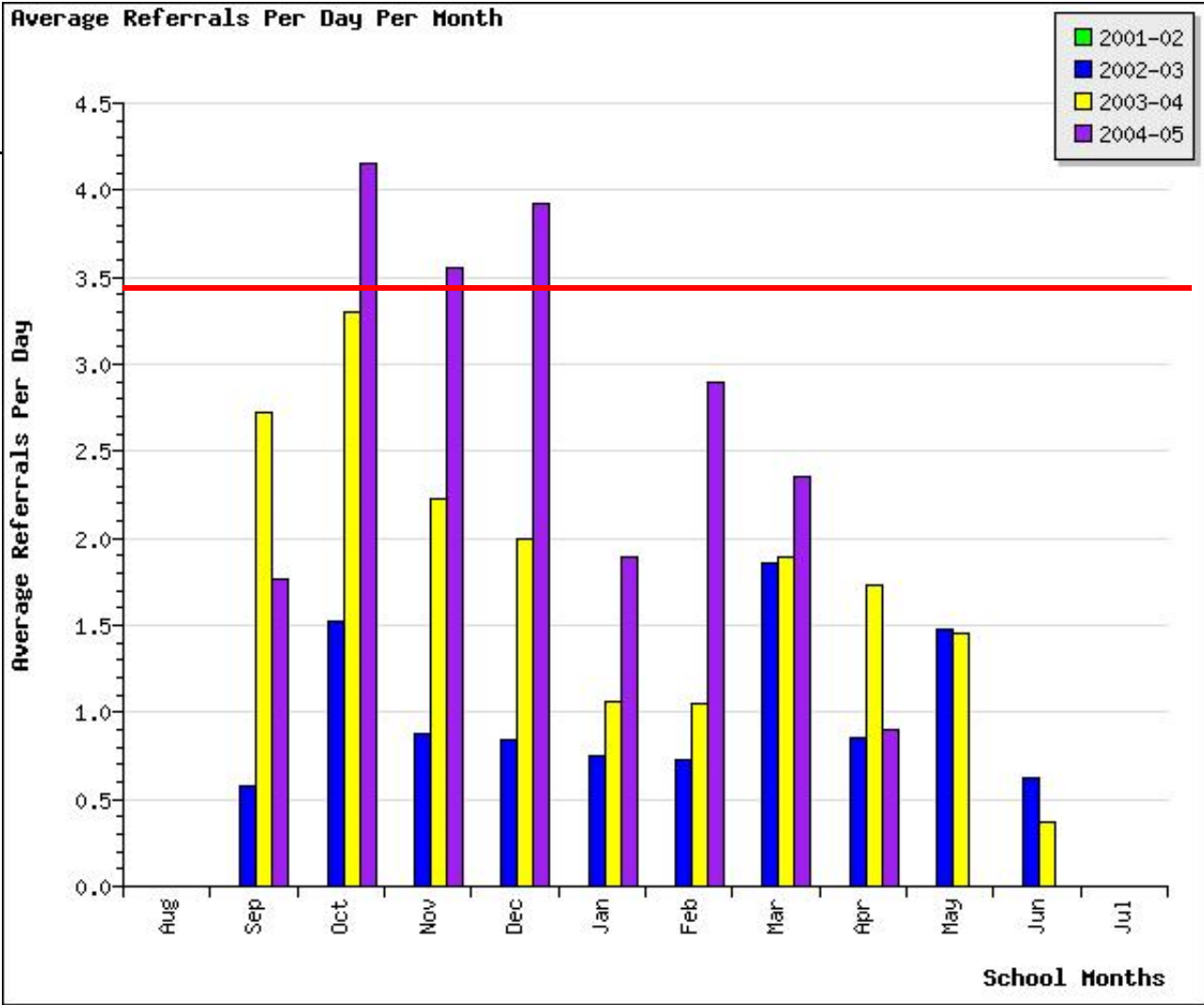
Prevention	
Teaching	
Reward	
Extinction	
Corrective Consequence	
Data Collection	



Sandhill High school

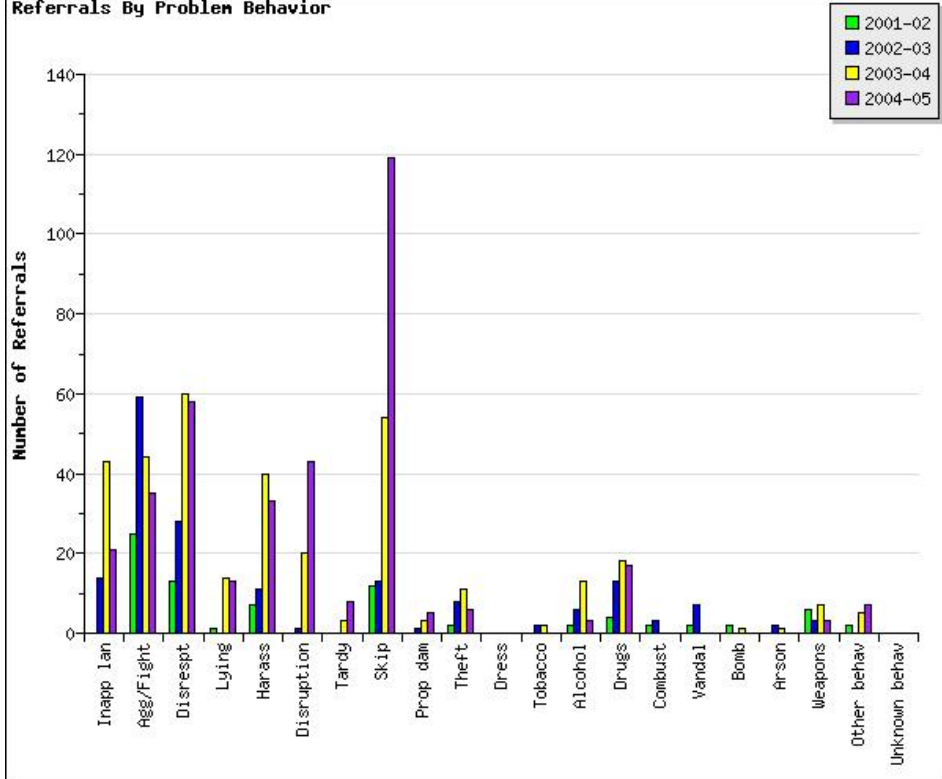
354 students

Sandhill High School: 354 students

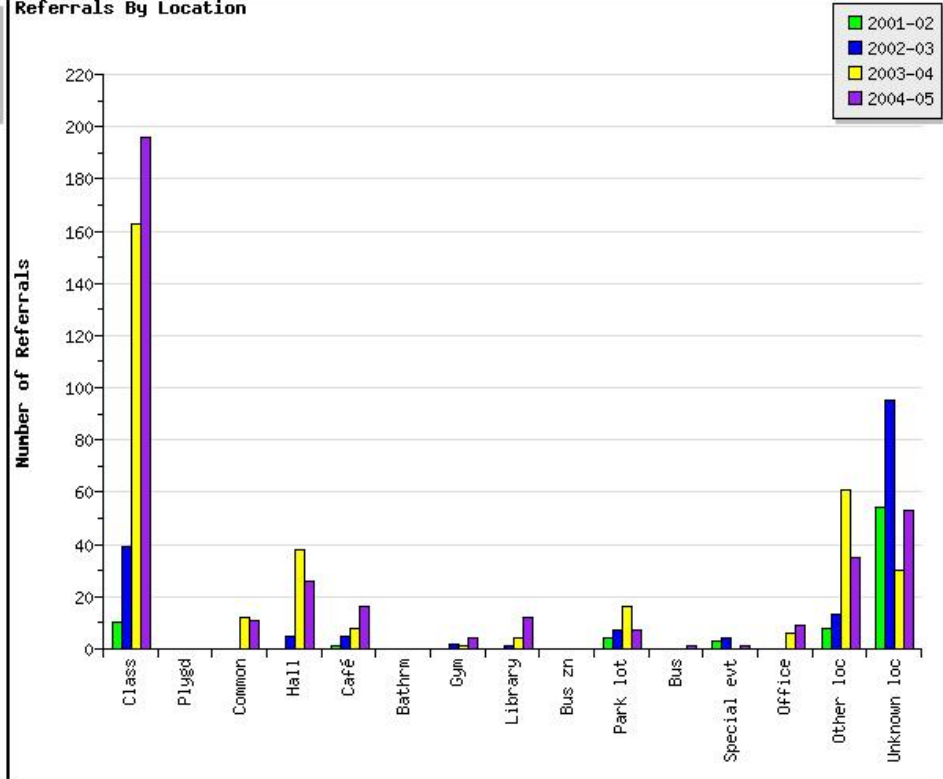


Sandhill High School

Referrals By Problem Behavior

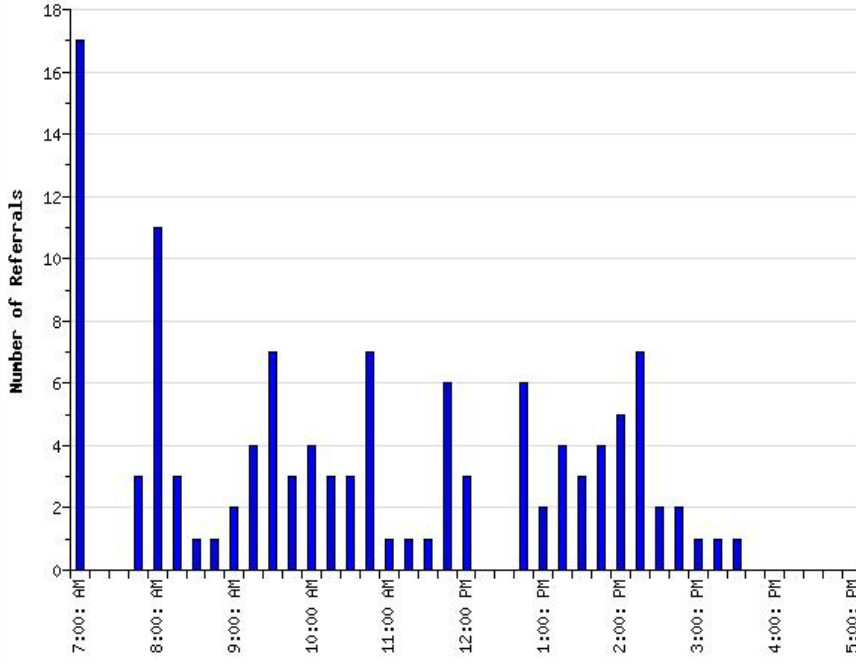


Referrals By Location

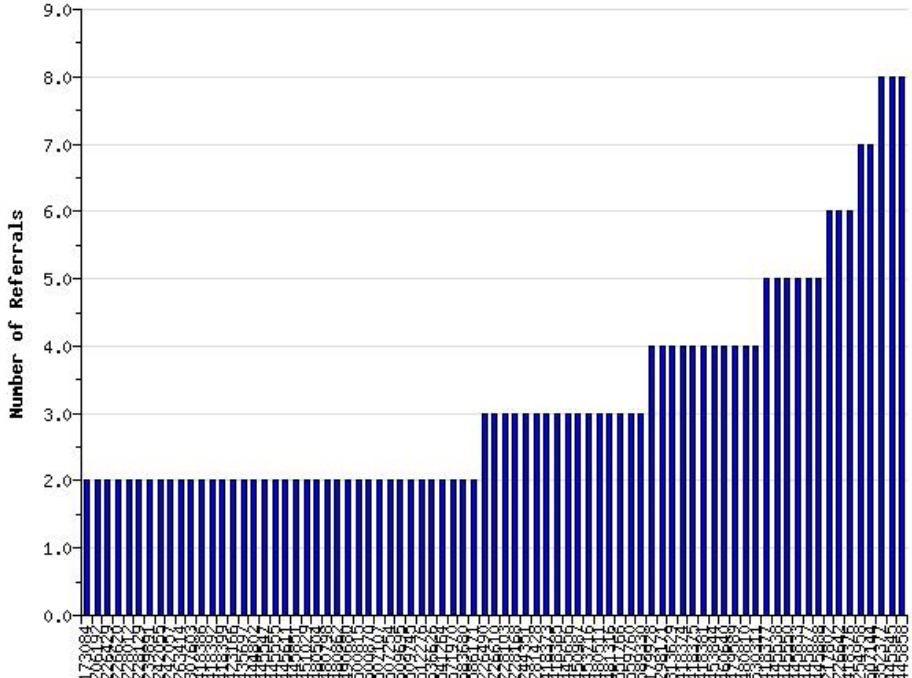


Sandhill High School

Custom Graph - Referrals By Time



Referrals By Student





Sandhill High School Problem Statement

- An increase in problems last school year
- Skipping class is the most problematic behavior and location
- Approximately 75 students have 2-5 ODRs
 - About 20% of enrollment
- Time of day is not clear



Sandhill High School

- Make the previous problem statement more precise
 - Do you need more information?
 - If so, what information might be helpful?

Precision Statement/Hypothesis

Define Problem

- What
- Where
- When
- Who
- Why
- What other info needed?

Define Solution

- Prevention
- Teaching
- Reward
- Extinction
- Corrective Consequences
- Monitoring



Solution Development

Prevention	
Teaching	
Reward	
Extinction	
Corrective Consequence	
Data Collection	

Simulations

Elementary



Middle



High



Activity

□ Step #1

- On 5" X 8" card write a “problem you have experienced”
 - School grades and enrollment
 - Description of problem (precise statement)
 - What, How often, When, Where, Who, Why (best guess)

□ Step #2

- Trade cards, and propose one possible solution (on back)
 - Prevention, Teaching, Reward, Extinction, Consequences, Data

Activity: Consider your school

- Enrollment
- Office discipline referrals
 - Do we have a believable system?
 - Do have know the numbers?
- Use your “best estimate”
- Draw the “comparator” line
- Do we have a problem?
- Build a hypothesis
- Refine the hypothesis
- Identify possible solutions
- Test solutions against available data
- What additional data would you like to have?