Data Analysis Simulation

Focus: The analysis and use of school-wide Attendance, Behavior, and Course Performance (ABCs) data within teams to identify and develop interventions.

Background: As part of a weeklong seminar program within the Talent Development Secondary (TDS) organization, the participants will develop data driven strategies surrounding TDS's Four Pillars.[1]

- *Pillar One*: Teacher Teams and Small Learning Communities
- *Pillar Two*: Specialized Curriculum and Coaching
- *Pillar Three*: Tiered Student Supports
- *Pillar Four*: Can-Do Climate for Students and Staff

This session will be among other sessions that include TDS's curriculum, PBIS, school reorganization, scheduling, and teacher teaming.

PD Assumptions: This PD assumes the following from its participants

- They will be working as School Transformation Facilitators for Talent Development Secondary.
- Everyone will have a basic understanding of how to read bar graphs, pie charts, scatterplots, etc.
- The participants will know and understand the use of Early Warning Indicators: Attendance, Behavior, and Course Performance.

PD Structure: After a brief introduction to data analysis and intervention planning through the lens of the positive feedback loop, the group will be broken up into teams of 5-6 people. They will be given a set of data to analyze and create interventions for. After they have developed their plan they will go through two rounds of "incidents" that will either negatively or positively affect their goals.

PD Agenda
- Presentation and breaking into groups: 10 Min
- Analysis & Intervention #1: 20 Min
- Analysis & Intervention #2: 10 Min
- Analysis & Intervention #3: 10 Min
- Debrief: 20 Min

PD Materials
- Positive Behavior Loop Presentation
- Sample EWI Data Charts/Graphs
- Data Analysis Wkst
- Incident Cards
- Incident Response Wkst

---

[1]As of May 11th, 2012 on the Talent Development Website http://www.tdschools.org/about-talent-development-secondary/four-pillars-of-transformation/

Professional Development Outline

Simulation Flowchart - The PD is divided into 5 distinct sections. Find a description of each unit below the chart.
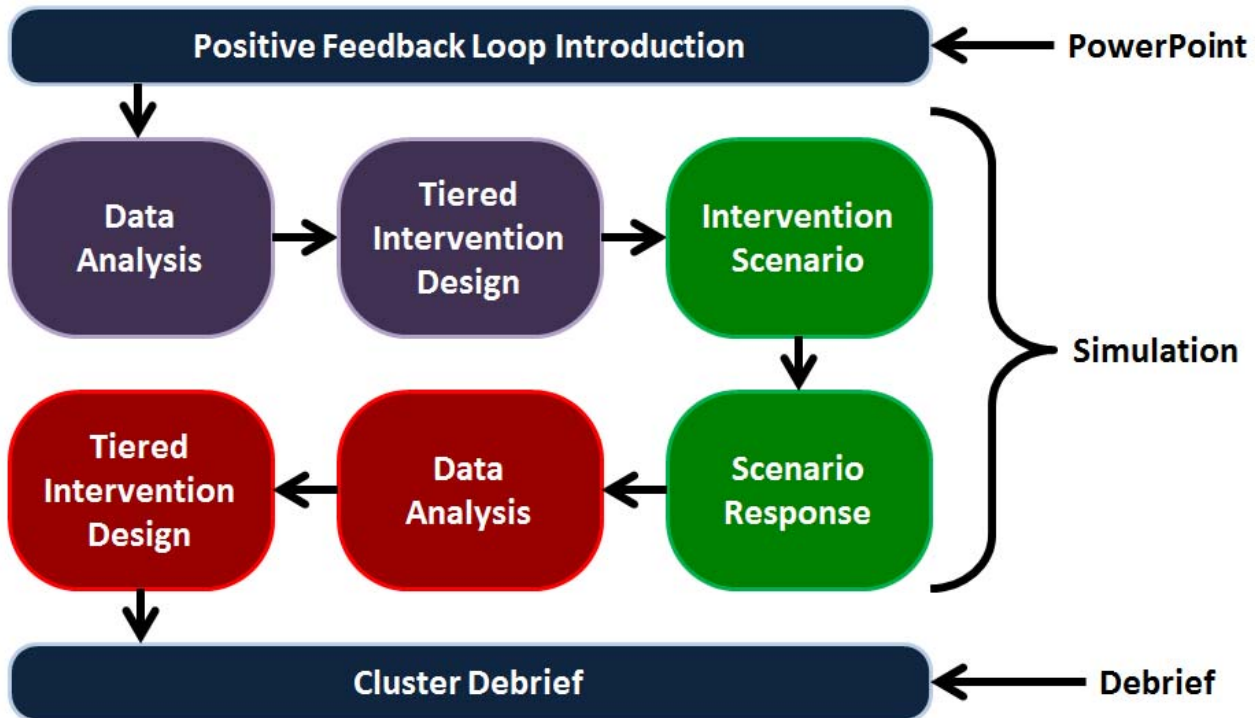
Positive Feedback Loop Introduction – 5 Min
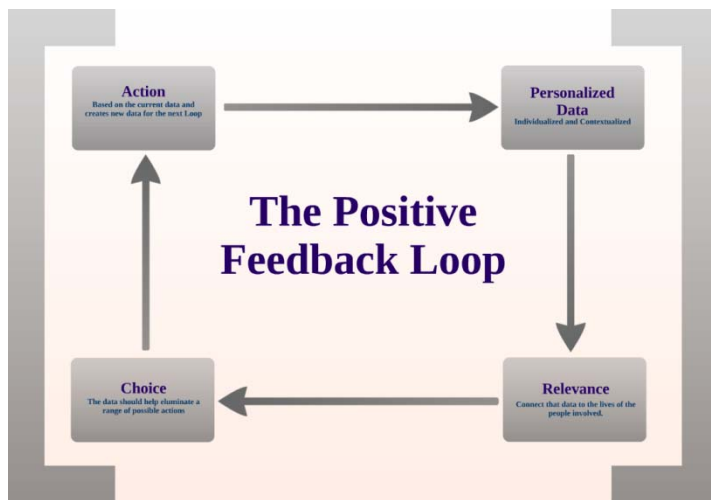
The full presentation can be found at http://prezi.com/ha2hijicbxan/stf-training-pfl-presentation/.

The purpose of the presentation is to introduce the Positive Feedback Loop (PFL) and the idea of a data driven cyclical intervention process. It also provides an outlines to keep the PD Facilitator on track while conducting the session.

Data Analysis and Intervention Design – 20 Min

Data Analysis: The group will be divided into teams of 5 to 6 people. Each team will be given a set of data based on the ABCs, they will be assigned one of those indicators, and as a team will go through the first half of the PFL: Personalized Data and Relevance

- *Personalized Data*: I will ask them to open the envelopes at their tables. This data represents the school they are currently working in and the kids they are currently working with.
- *Relevance*: What issues does this data illuminate? Needs/Areas of Concern?

Intervention Design: After brainstorming their needs/areas of concern, the teams will move on to the action side of the loop: Choice and Action.

- *Choice*: It is here that all possible interventions/preventative measures are put on the table. No idea is a bad Idea. Lay it all on the table. What are all the things we CAN do?
- *Action*: You can't do it all. Of all the possible action items it is time to pick on and flesh it out. What are the things we WILL do?

PD Procedure

1. **Personalized Data (1 min)**: Teams will be asked to open their envelopes with data.

2. **Relevance (9 min)**: Brainstorming on the Data Analysis Worksheet (Problem/Issue)
   a. A team facilitator will write down all of the possible problems/issues the team comes up with based on the data.
   b. The other team members will call them out for him/her to write down.

3. **Choice (5 min)**: Brainstorming on the Data Analysis Worksheet
   c. A team facilitator will write down all of their suggestions to fix the problem/issue.
   d. The other team members will call them out for him/her to write down.

2. **Action (10 min)**: Developing Action Plan on the Action Plan Worksheet.
   a. Title the Chart Paper: Name of School (from Envelope) and Assigned Indicator (ABCs)
   b. Draw lines to divide that paper in three sections.
   c. Teams will go through their possible choices and develop a three tiered intervention plan to affect their chosen indicator.
   d. This plan must be written out in as much detail as possible so that people would understand without explanation.

Example: a team was assigned Attendance, they developed the following Action Plan
- Whole School (Tier 1): An awareness campaign for a ceremony to recognize those students who had perfect attendance.
- Targeted (Tier 2): a late room for kids who come to school late.
  Intensive (Tier 3): case management from CIS and a referral to the Truancy Officer.

Intervention Scenarios and Response – 20 min

Intervention Evaluation: after designing their own interventions they will go to another team's action plan and develop a possible scenario that could impede the implementation of the plan.

>Example: the team developed an awards ceremony based on students who had perfect attendance for an entire month of school. The team evaluating that intervention offered a scenario in which the ceremony was cancelled because of a fight that happened on the previous day.

Evaluation Response: the team will go over the scenario presented by the other team and develop a response that will modify the plan to overcome the scenario presented.

>Example: in response to the cancellation of the ceremony, the winners were announced over the school PA, and a small lunch was held the following week.

PD Procedure

1. **Intervention Scenario (10 Min)**
    a. In the top section of the Implementation Scenario Worksheet the team will review another team's action plan and develop a possible scenario that could impede that team's implementation.
    b. This scenario must be detailed enough to understand on its face and without further help from the team.

2. **Evaluation Response (10 Min)**
    a. The team will return to their table and use the bottom section of the worksheet to respond to the other team's scenario.
    b. They will develop a response that modifies their original action plan to still meet the goal of the original plan.

3. The teams will place both the scenario and response on the wall next to their original intervention design.

Data Analysis and Intervention Design – 10 Min

Intervention Design Round Two: after responding to the scenarios the teams will be handed another set of data for the following semester. It will show the same data points and same graphs as previously used, but will also add growth data. How they did in Round 1 vs. Round 2.

>   Example: The data showed a drop in attendance rather than an increase. The same students who had poor attendance in Round 1 had poor attendance in Round 2.

PD Procedure

1. **Data Analysis and Intervention Design (10 Min)**
    a. The Teams will be given an envelope with Round 2 Data in it
    b. They will analyze it the same way they did in Round 1
    c. They will be given another 8X14 piece of paper to write out their new plan
    d. They will title it the name of their school, indicator, and "Round 2"
    e. They will use the ideas from their previous brainstorming as well as the scenario/response to once again modify the intervention.

Simulation Debrief – 15 min

Relating the PFL to the Quarterly EWI Spreadsheets, Resource Maps, and Transformation Plan
*   *Personalized Data*: EWI Spreadsheets
*   *Relevance*: Turning that data to charts/graphs and looking at the data in your groups
*   *Choice*: First time around you are creating your Resource Map and every time after that you are adding to it.
*   *Action*: implementing your resource map.

Relating the PFL to the School Transformation Plan
*   *Current Status*: In the *Relevance* section, what data caused you to create the intervention?
*   *Action Initiated*: Original Intervention Plan
*   *Evidence of Initiation/Impact*: Scenario and 2nd round of data.
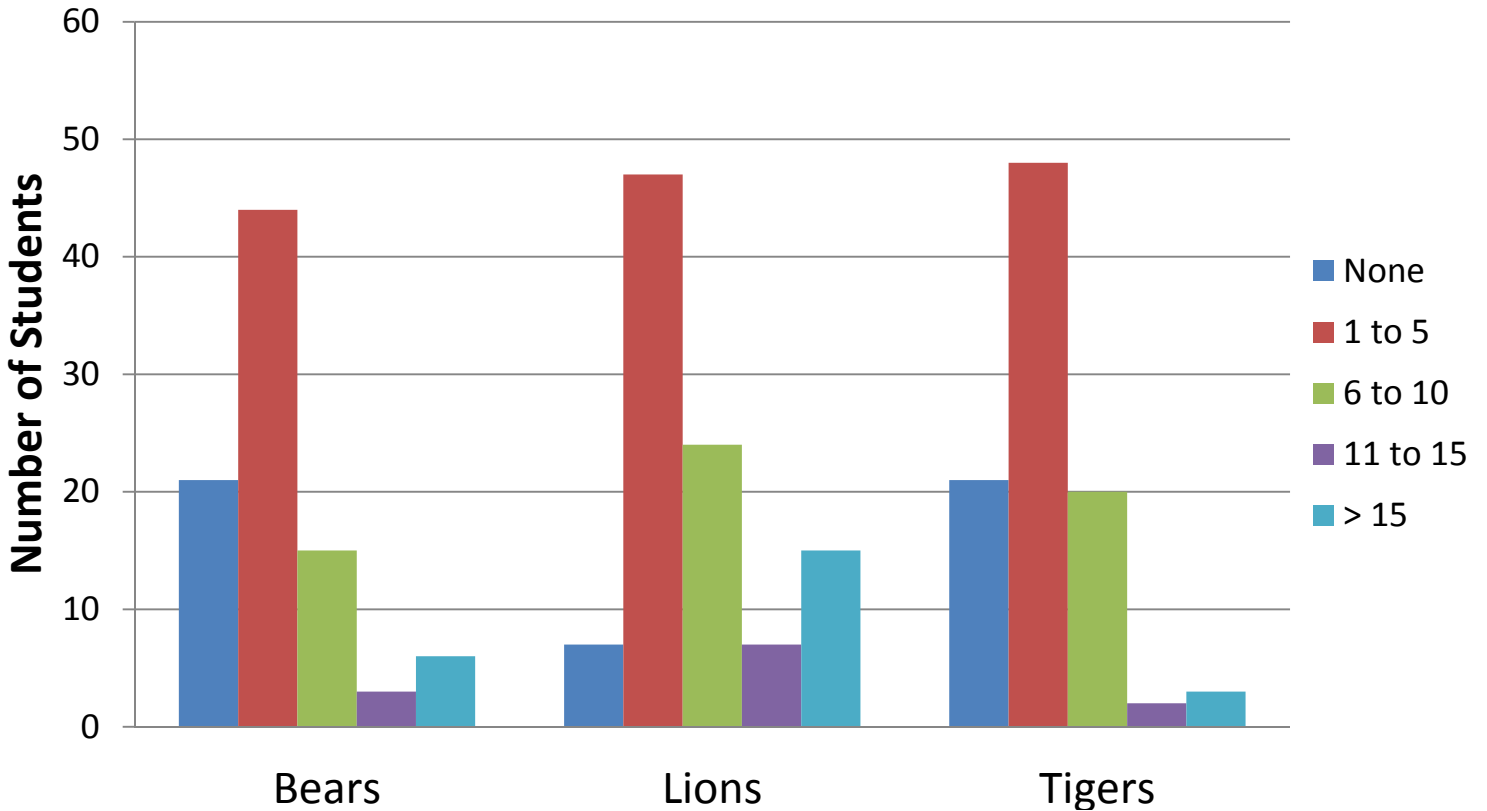*   *Next Action Determined*: Scenario Response and 2nd round of Intervention Design

PD Procedure

1. Completion of Prezi Presentation (5 min)
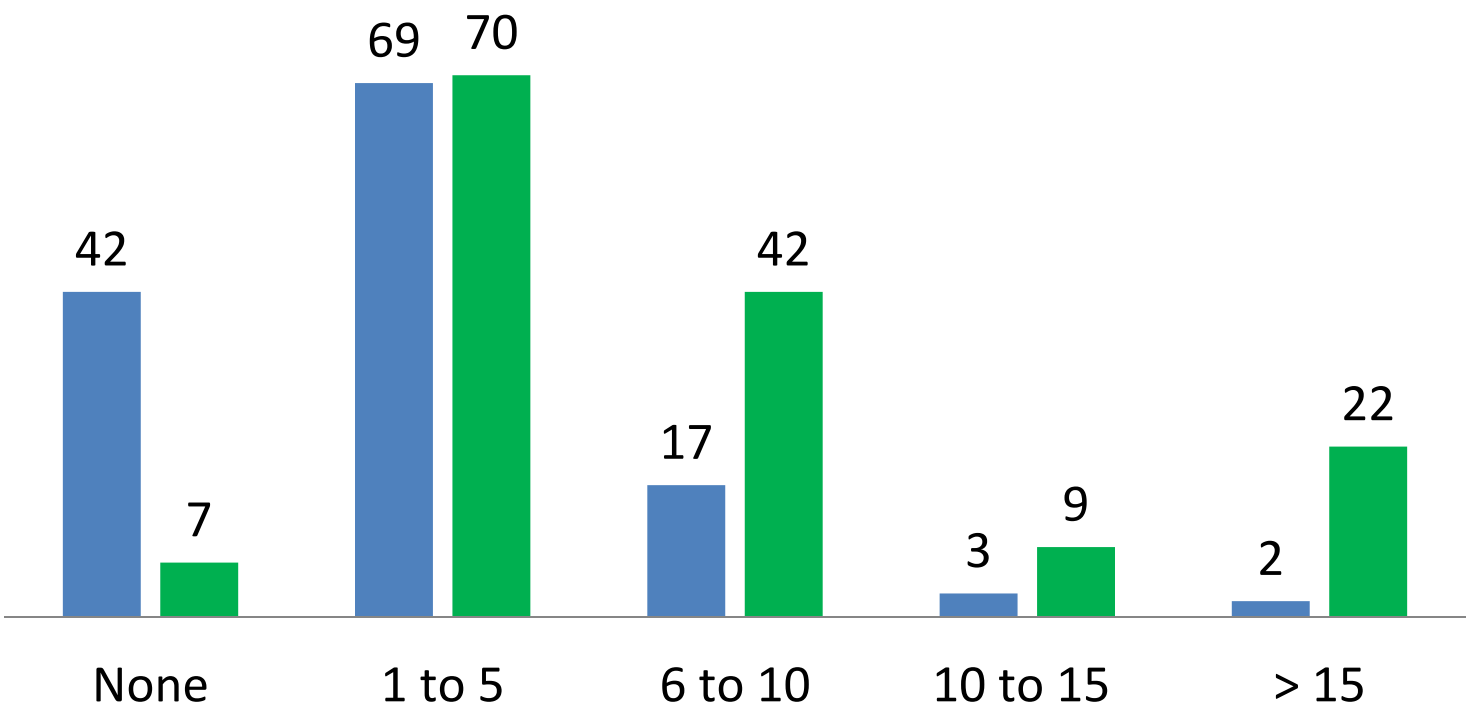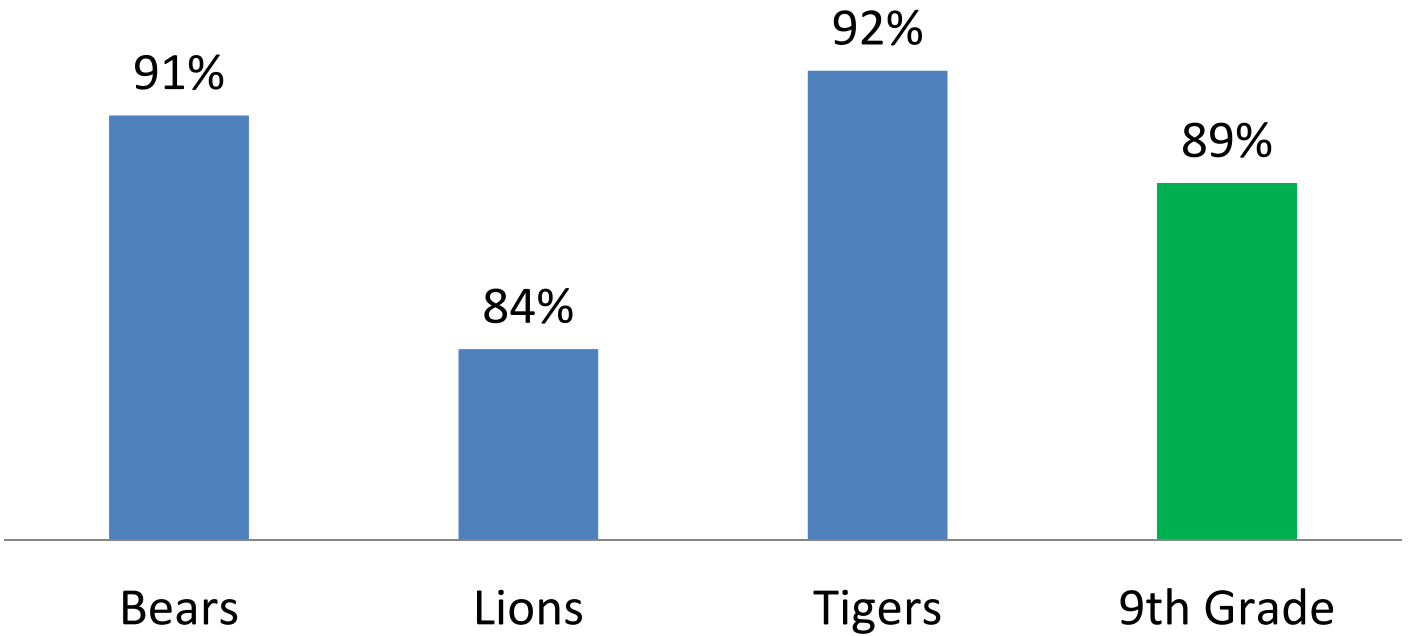
'"'

'""""""""""Uko wrcvgf 'Data

Attendance

Q1

Team Absences

Absences by Gender

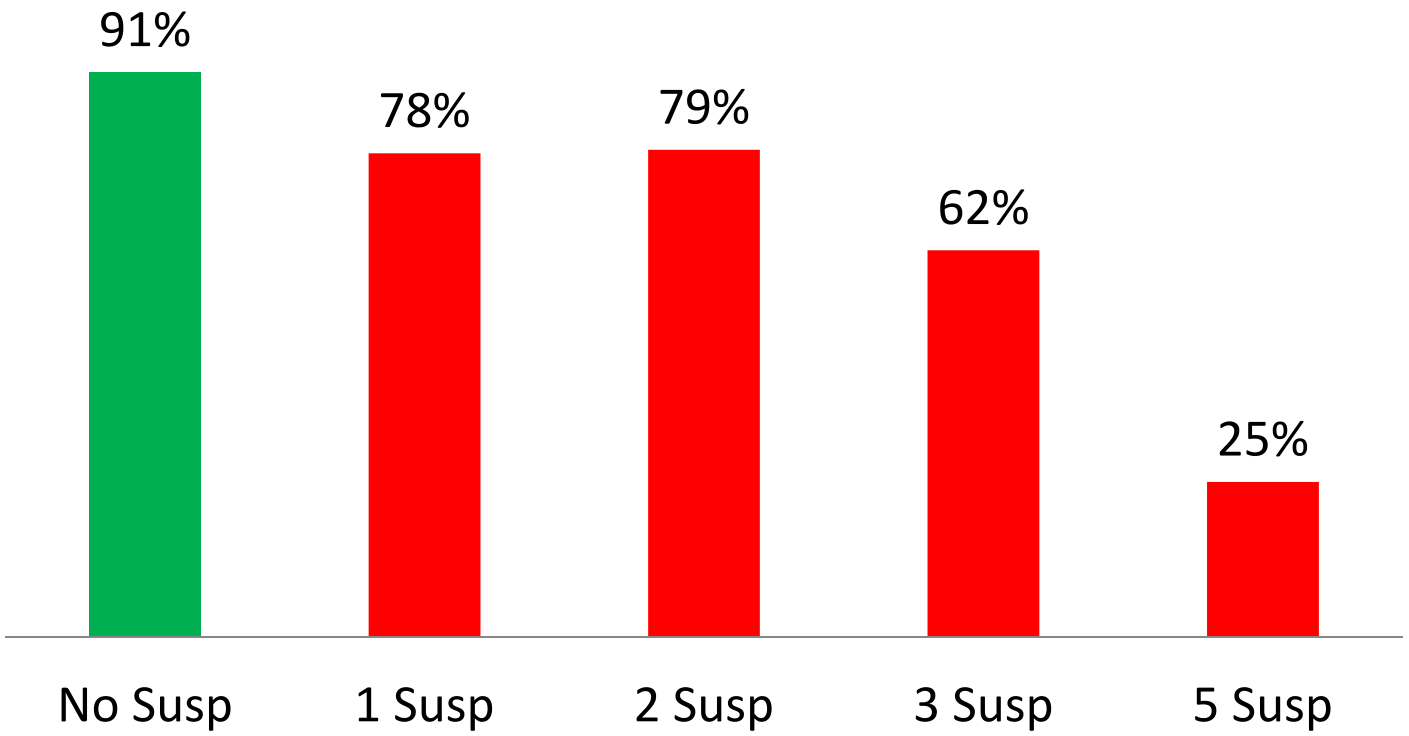# ADA by Team

Team	ADA
Bears	91%
Lions	84%
Tigers	92%
9th Grade	89%

ADA by Course Passing

Category	ADA
Passing All	94%
Failing One	87%
Failing Two	75%
Failing Three	77%
Failing Four	55%

ADA by Num of Suspensions

91%

78%   79%

62%

25%

No Susp   1 Susp   2 Susp   3 Susp   5 Susp

Behavior

Q1

Behavior by Gender

Legend: ■ Total Suspensions ■ Total Referrals

	Total Suspensions	Total Referrals
Female	8	201
Male	61	139

Behavior by Team

Legend: ■ Total Suspensions ■ Total Referrals
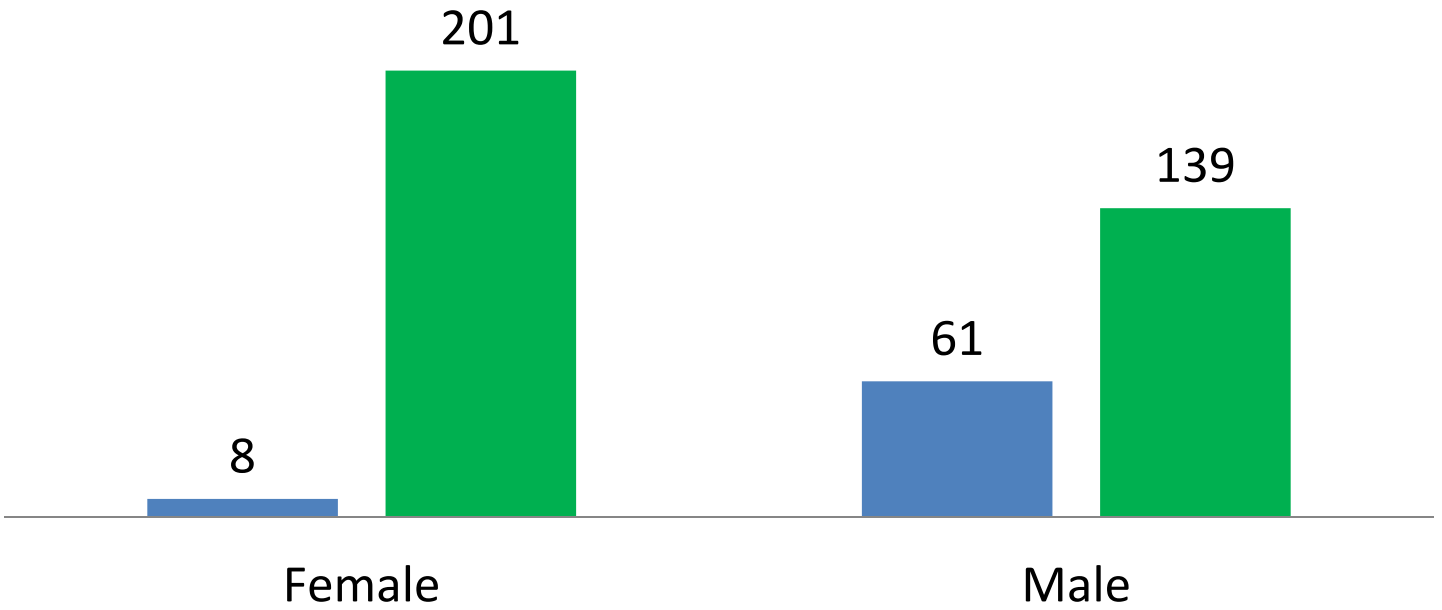
	Total Suspensions	Total Referrals
Bears	18	97
Lions	36	109
Tigers	15	134
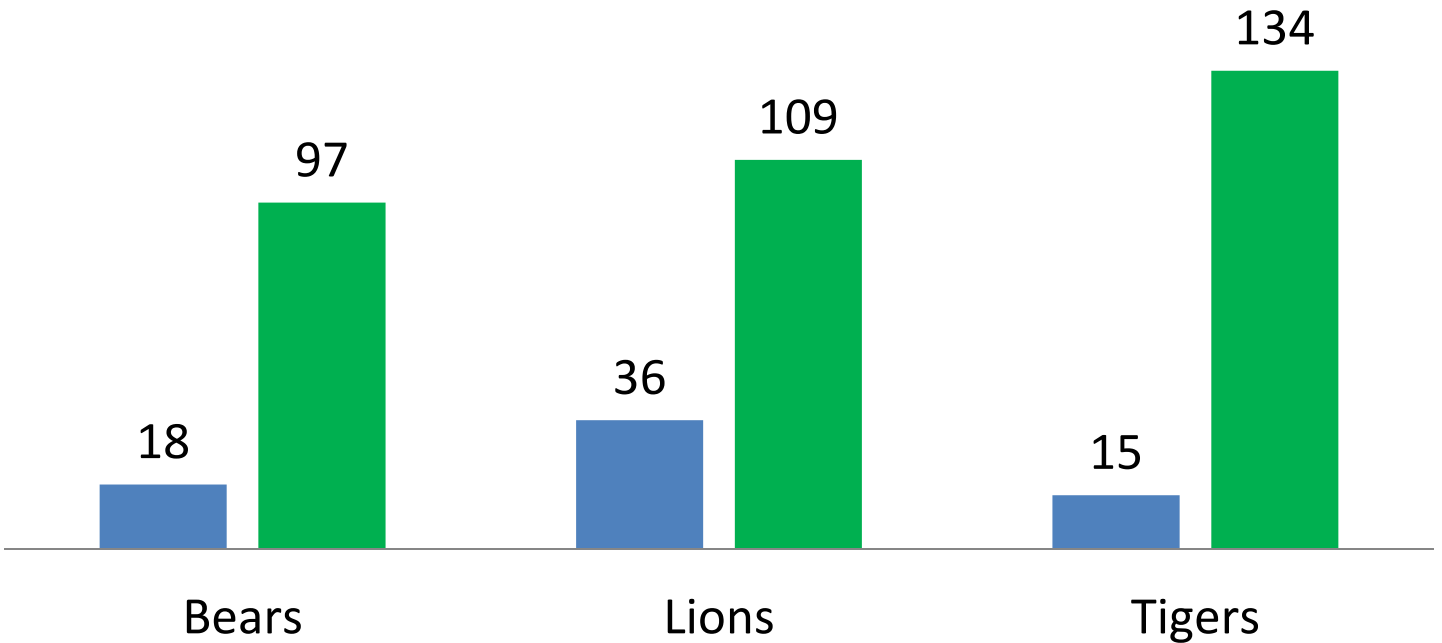
Suspensions - Team/Gender
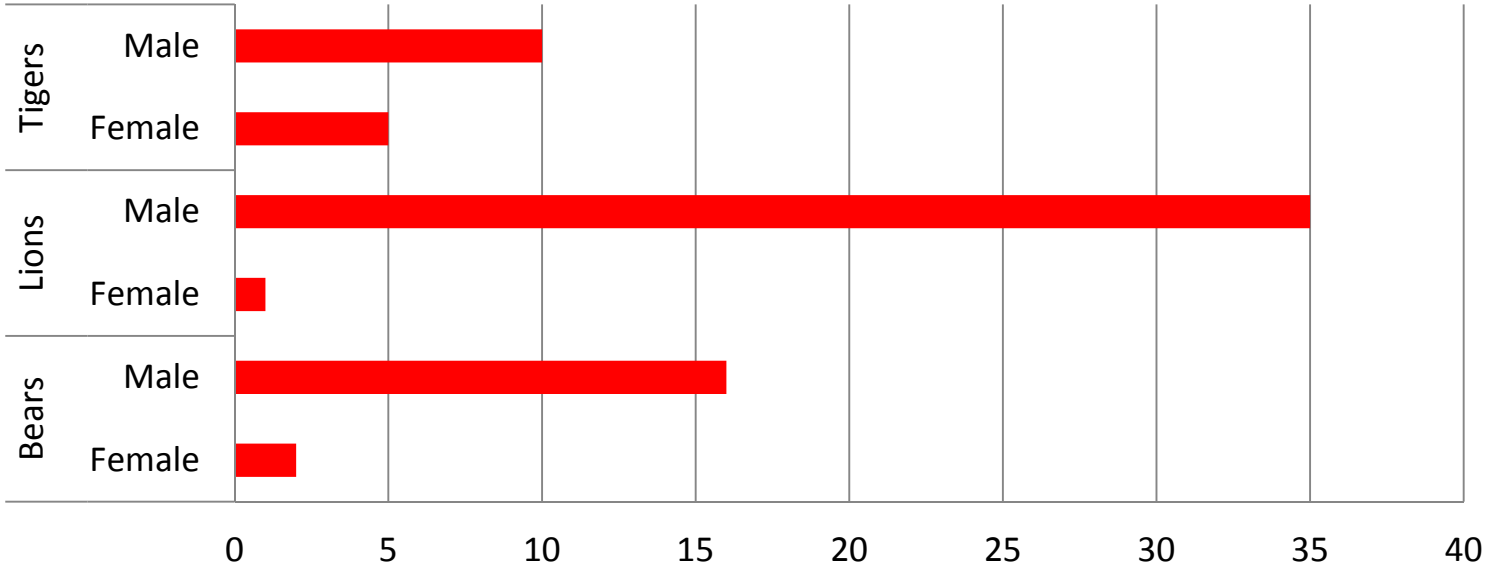
	Bears		Lions		Tigers	
	Female	Male	Female	Male	Female	Male
Total	2	16	1	35	5	10

Referrals - Team/Gender
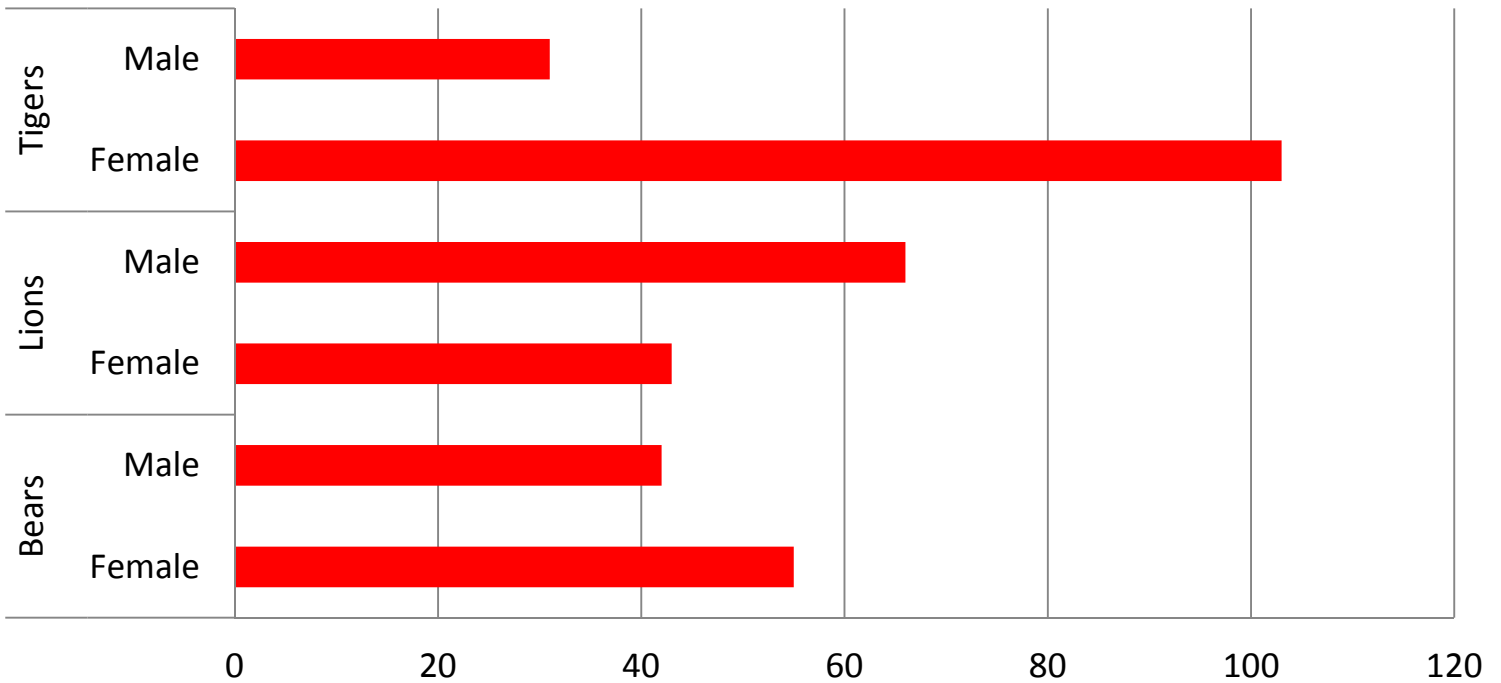
	Bears		Lions		Tigers	
	Female	Male	Female	Male	Female	Male
Total	55	42	43	66	103	31

ADA by Num of Suspensions
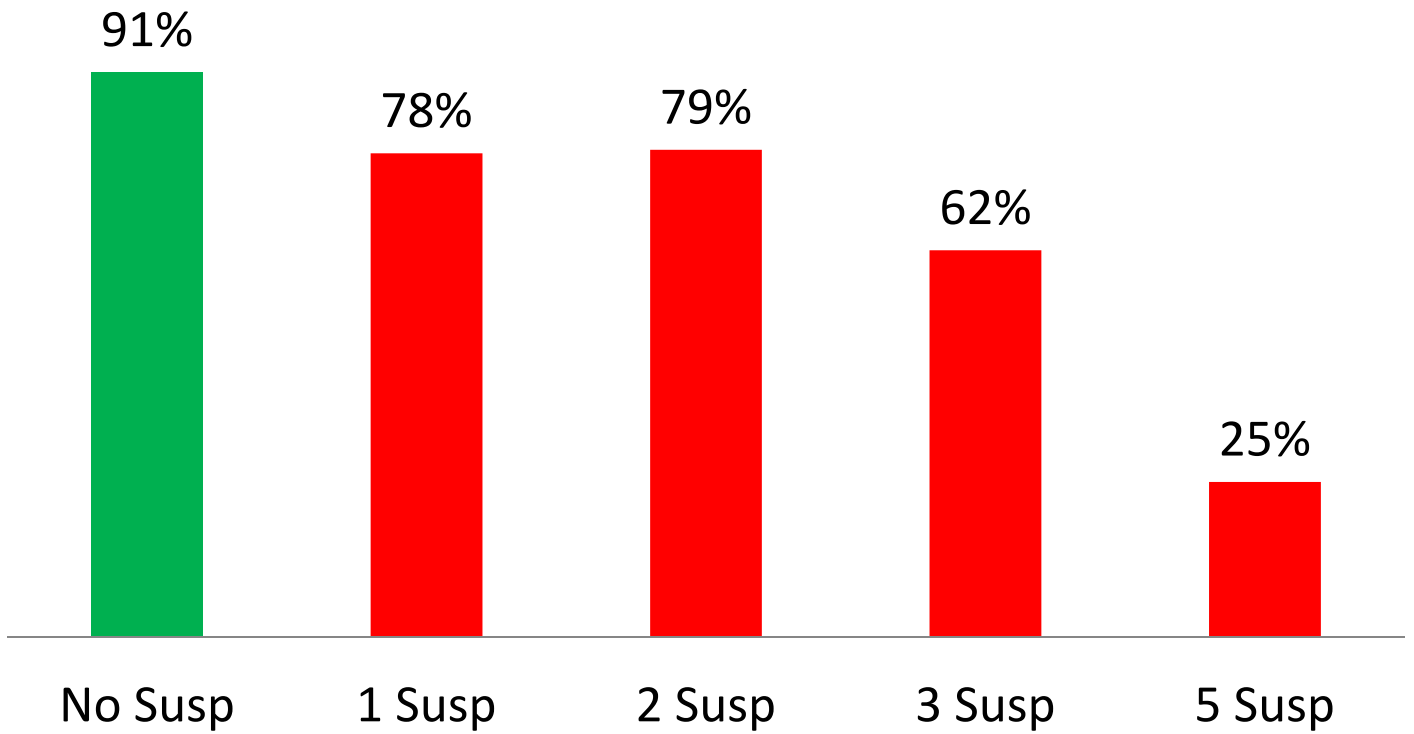
91% 78% 79% 62% 25%

No Susp   1 Susp   2 Susp   3 Susp   5 Susp

Num of Susp by Course Passing

■ No Susp ■ 1 Susp ■ 2 Susp ■ 3 Susp ■ 5 Susp

100%
80%
60%
40%
20%
0%

Passing All   Failing 1   Failing 2   Failing 3   Failing 4

Course Performance

Q1
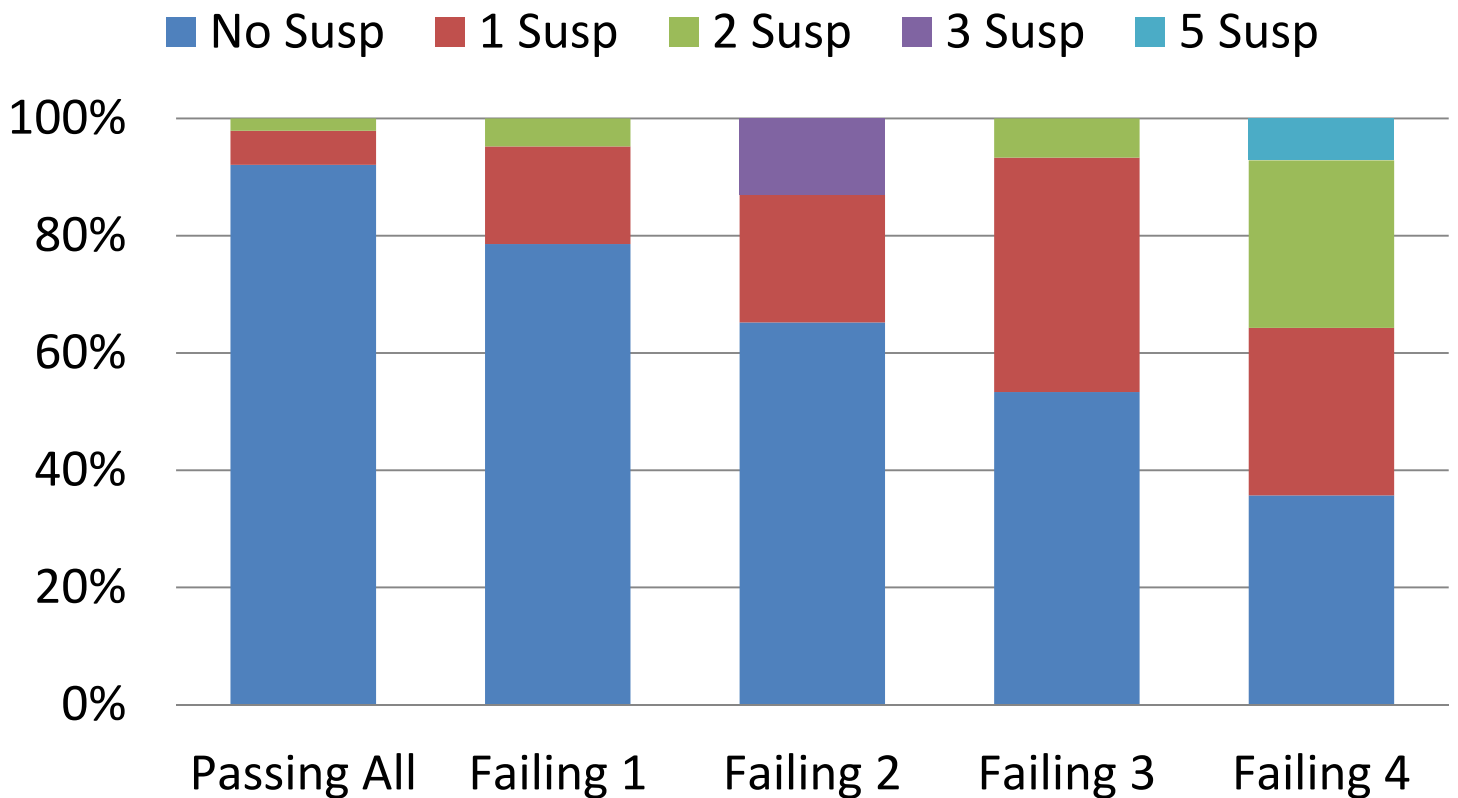
Course Passing by Team
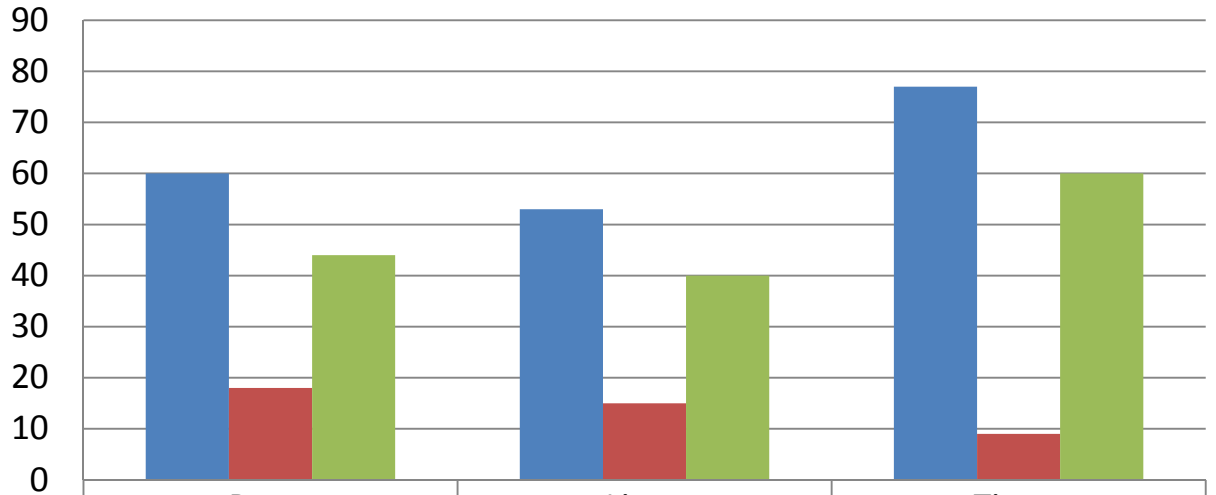
	Bears	Lions	Tigers
Passing All	60	53	77
Failing One	18	15	9
Failing 2 or More	44	40	60

Course Passing by Gender
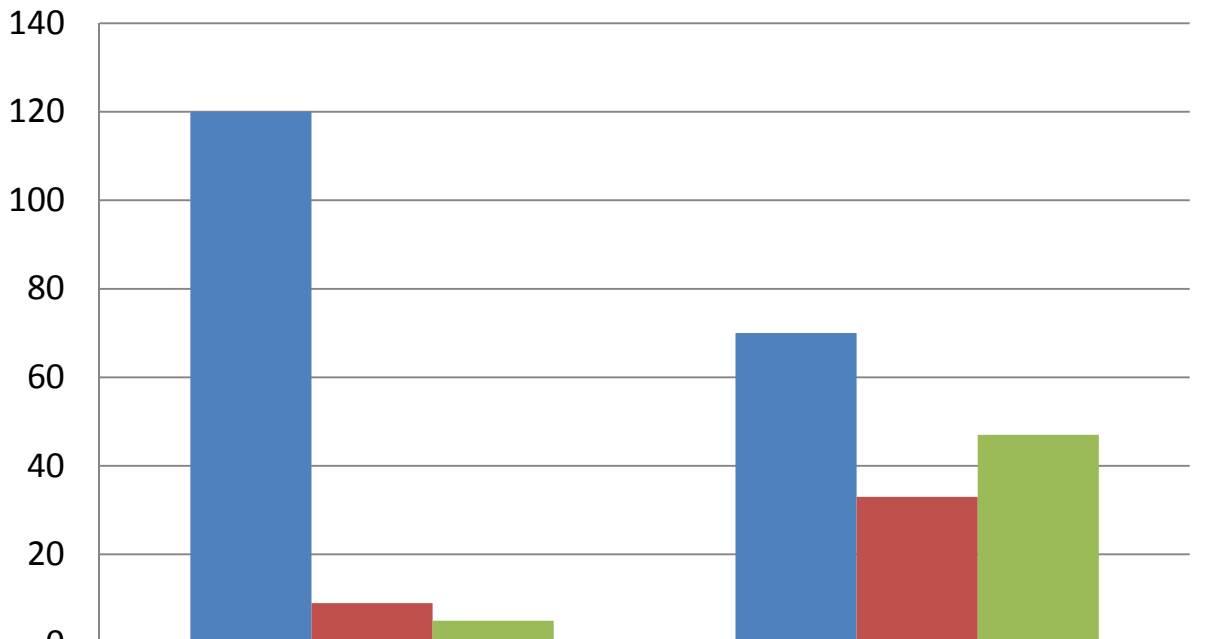
	Female	Male
Passing All	120	70
Failing One	9	33
Failing 2 or More	5	47

ELA Grade Distribution by Team
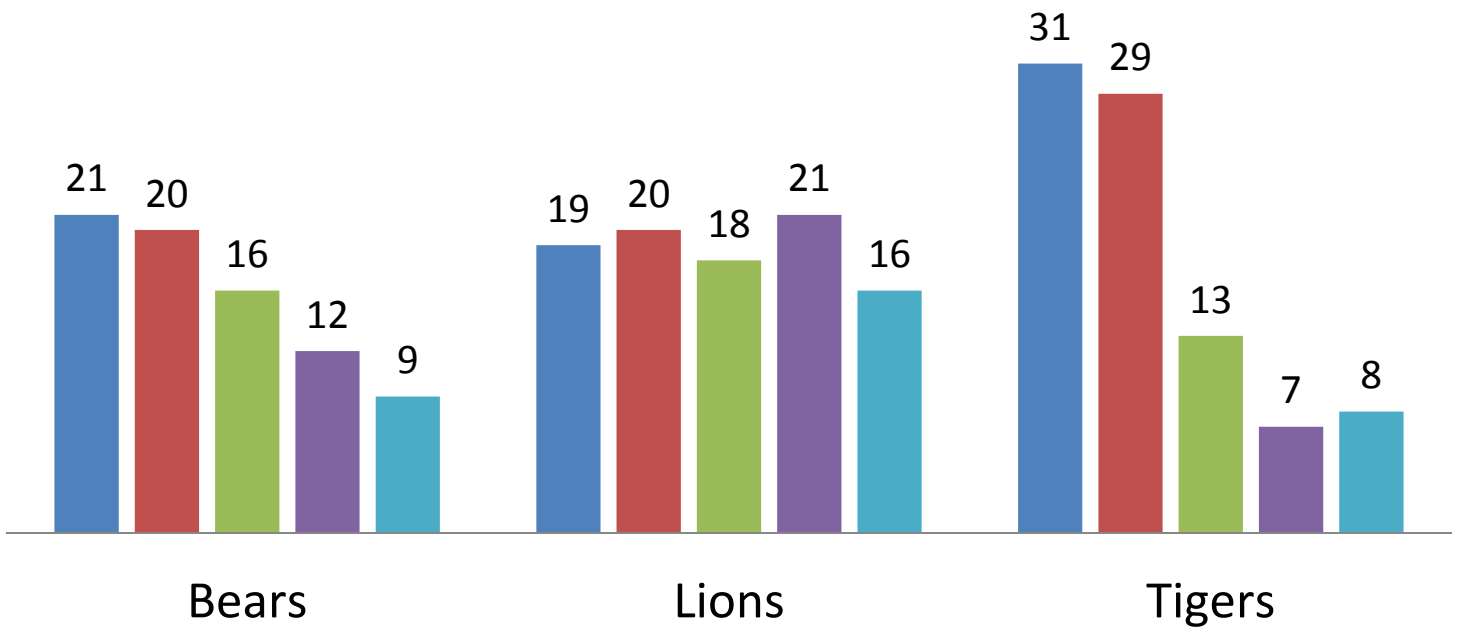
Legend: A B C D F

Bears: A 21, B 20, C 16, D 12, F 9
Lions: A 19, B 20, C 18, D 21, F 16
Tigers: A 31, B 29, C 13, D 7, F 8

Math Grade Distribution by Team

Legend: A B C D F

Bears: A 15, B 17, C 25, D 15, F 6
Lions: A 15, B 17, C 30, D 18, F 15
Tigers: A 18, B 35, C 15, D 17, F 3

ADA by Course Passing

Passing All	94%
Failing One	87%
Failing Two	75%
Failing Three	77%
Failing Four	55%

Num of Susp by Course Passing

■ No Susp ■ 1 Susp ■ 2 Susp ■ 3 Susp ■ 5 Susp

Passing All   Failing 1   Failing 2   Failing 3   Failing 4
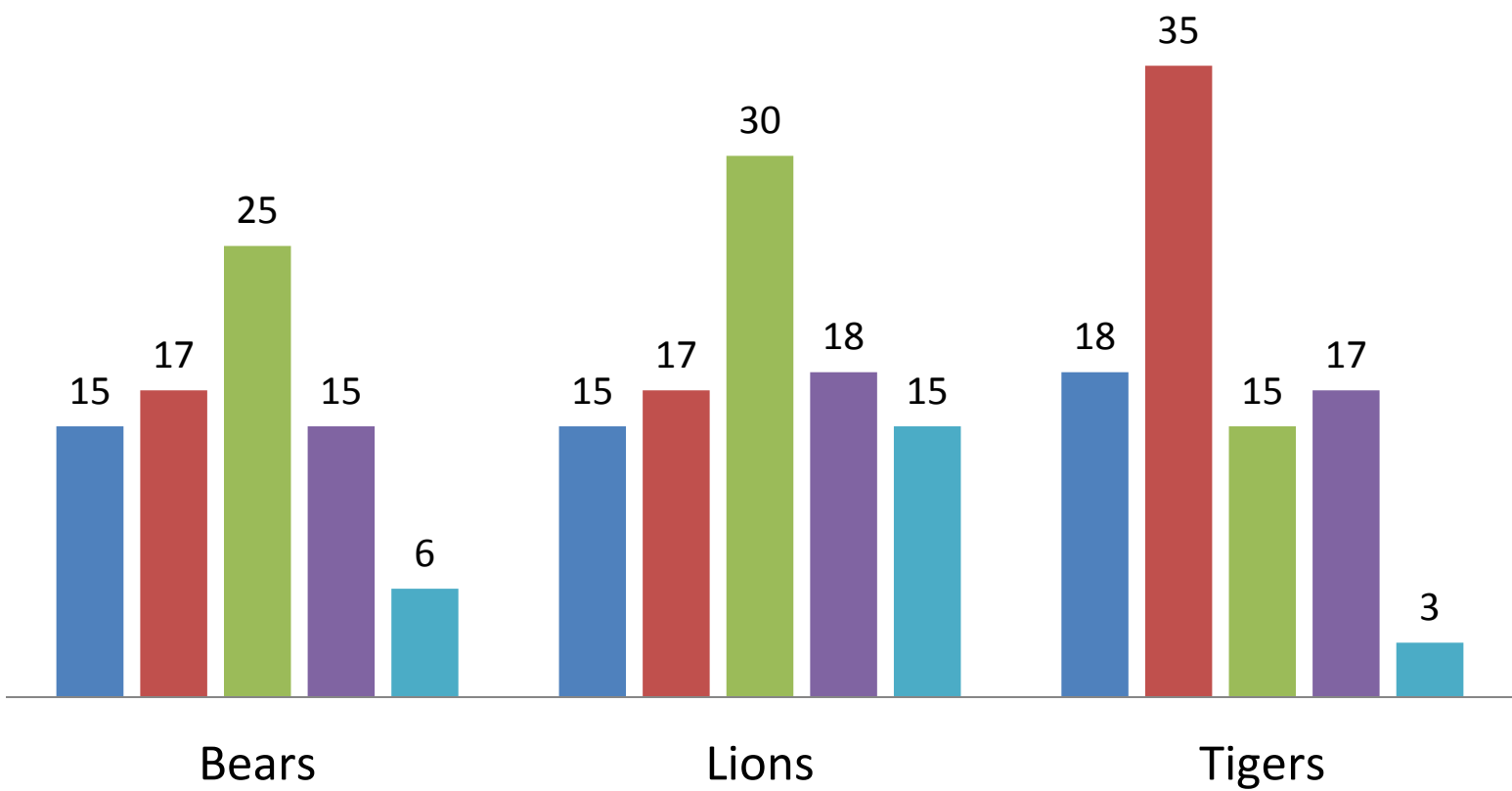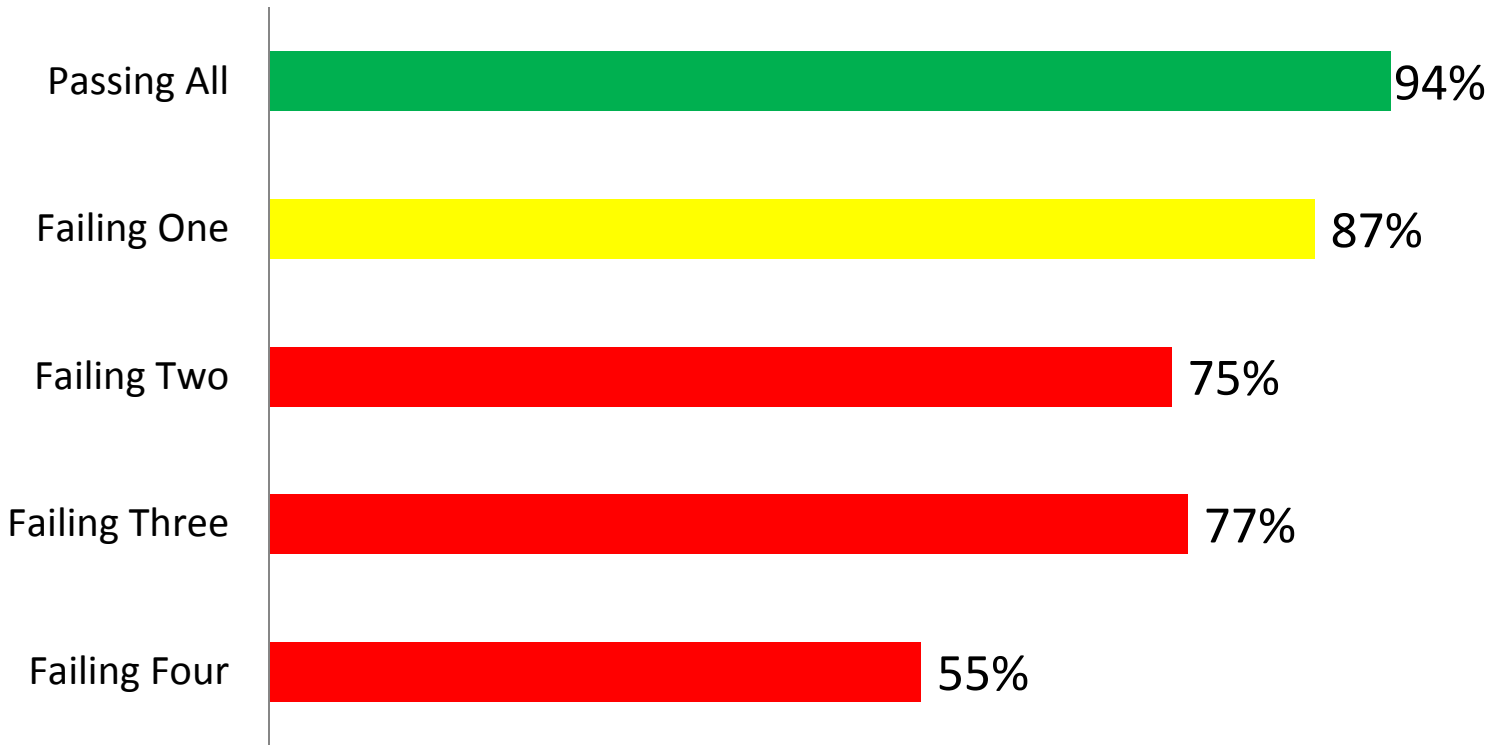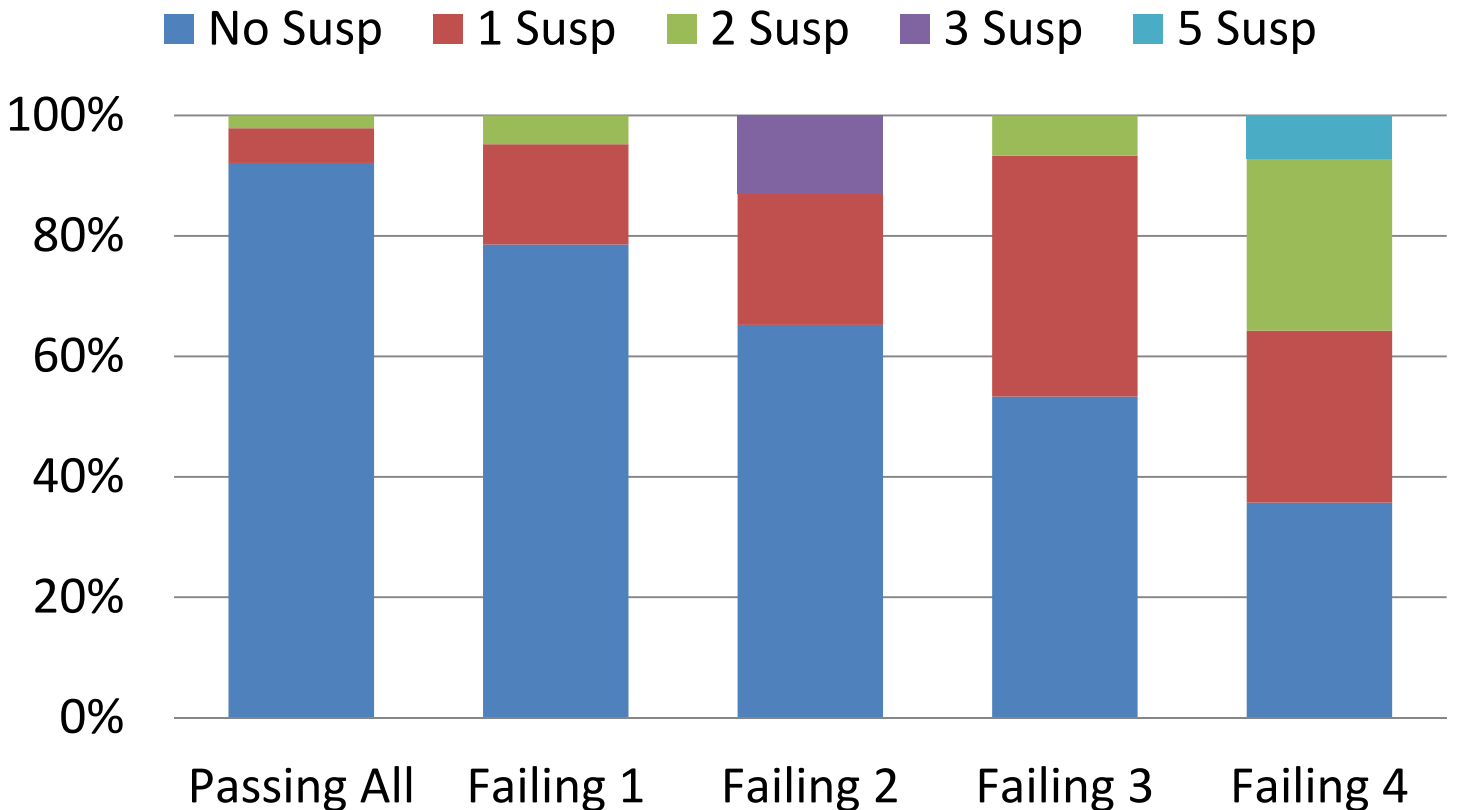
Attendance

Q3

Team Absences

- None
- 1 to 5
- 6 to 10
- 11 to 15
- > 15
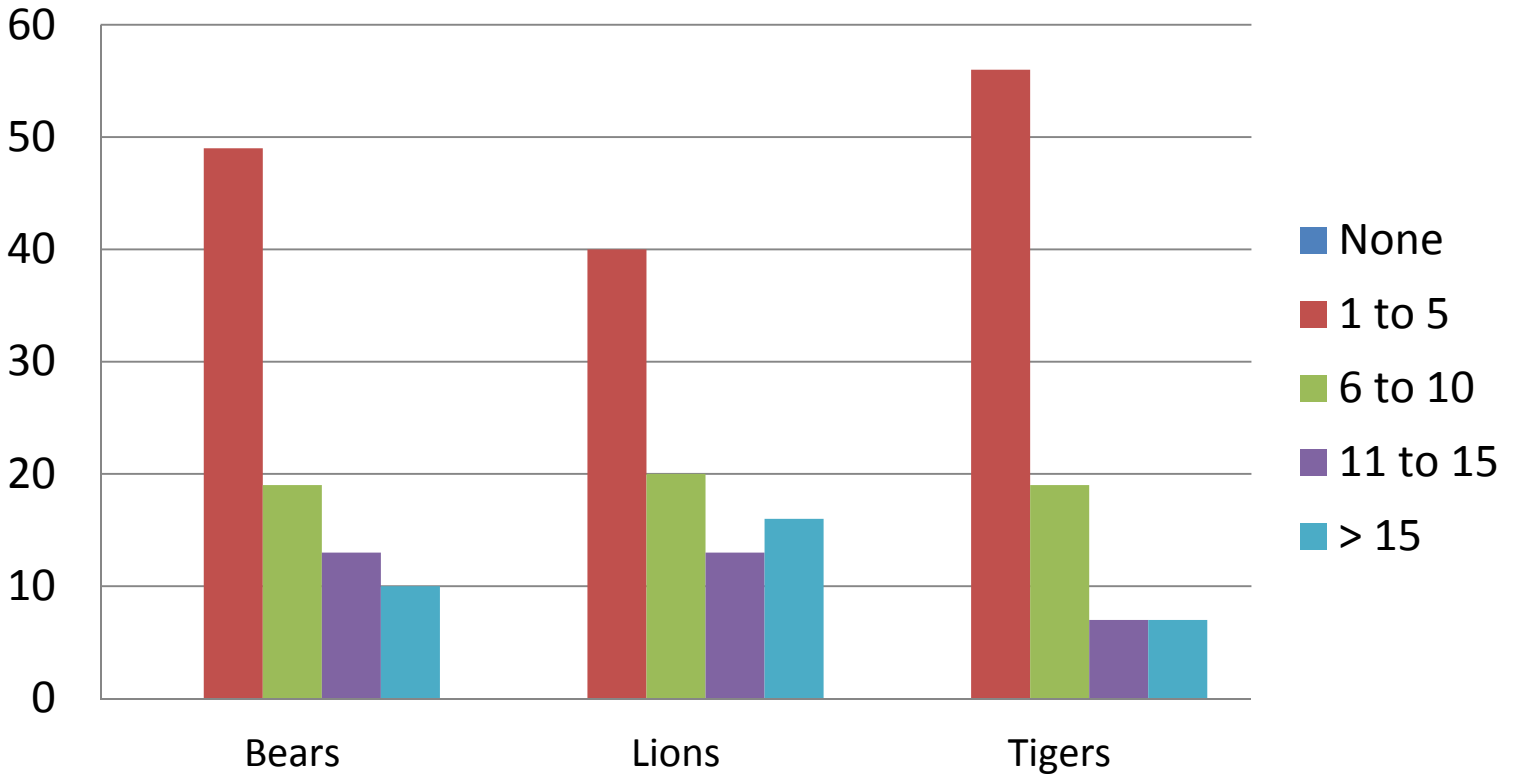
Absences by Gender

- Female
- Male

	None	1 to 5	6 to 10	11 to 15	> 15
Female	0	89	28	10	8
Male	0	56	30	23	25

ADA by Team

Bears	Lions	Tigers	9th Grade
84%	81%	87%	84%

ADA by Course Passing

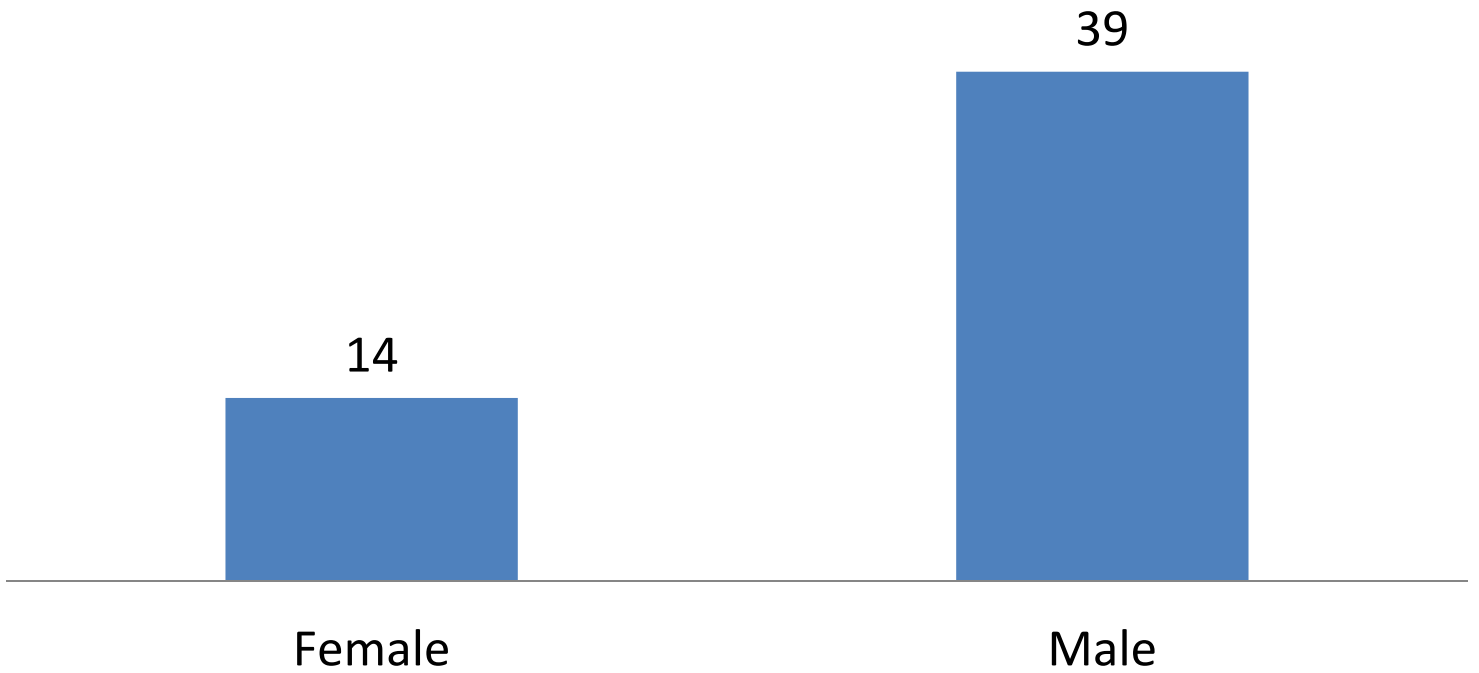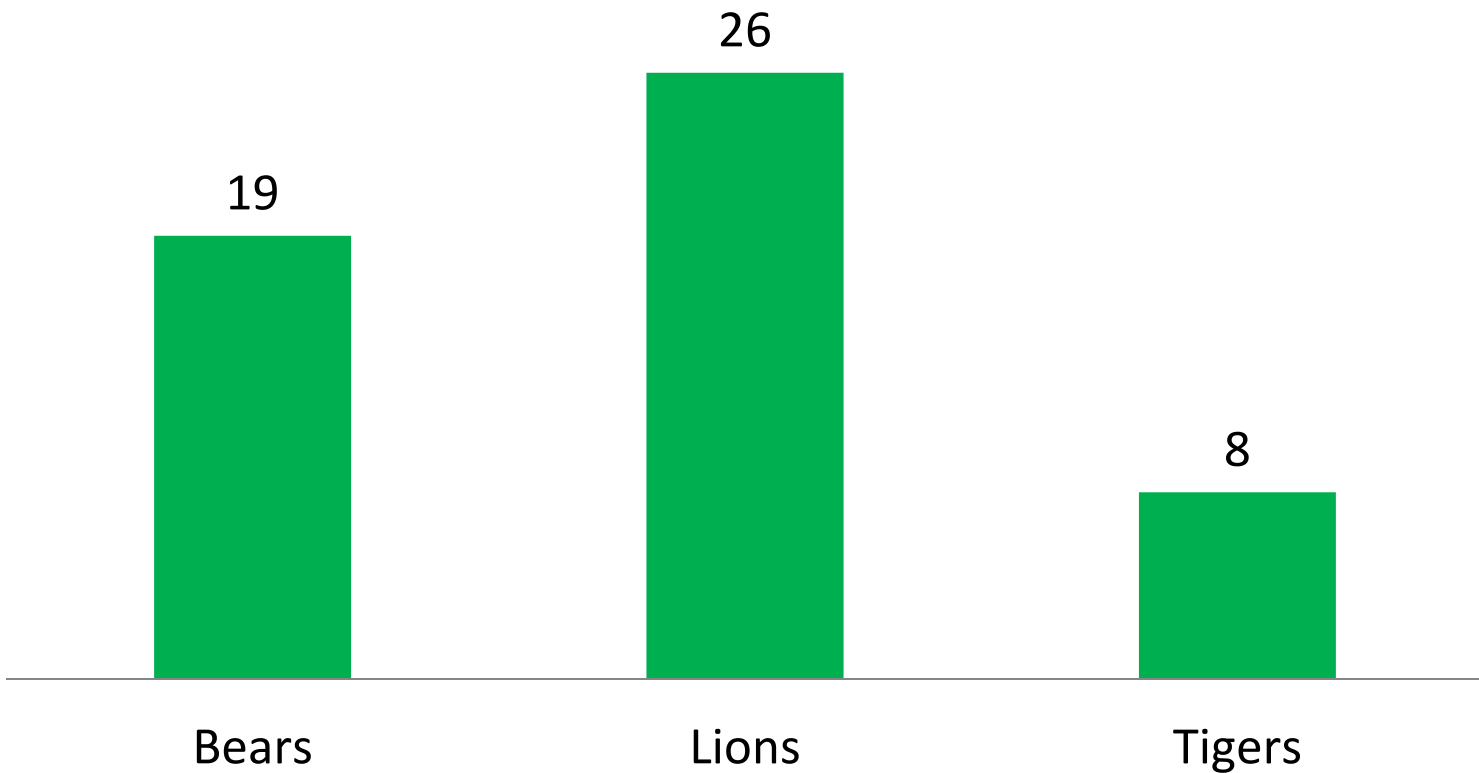| Passing All	90%
Failing 1	84%
Failing 2	81%
Failing 3	70%
Failing 4	59%
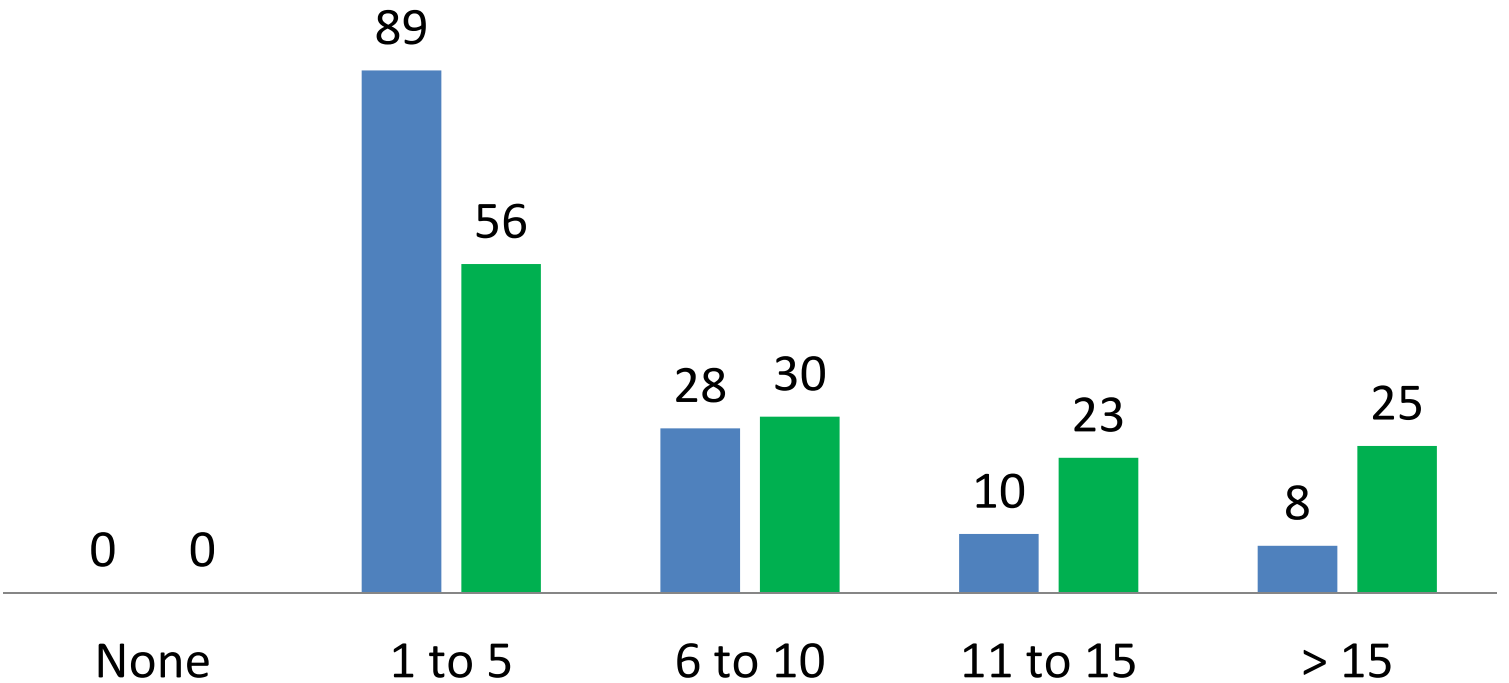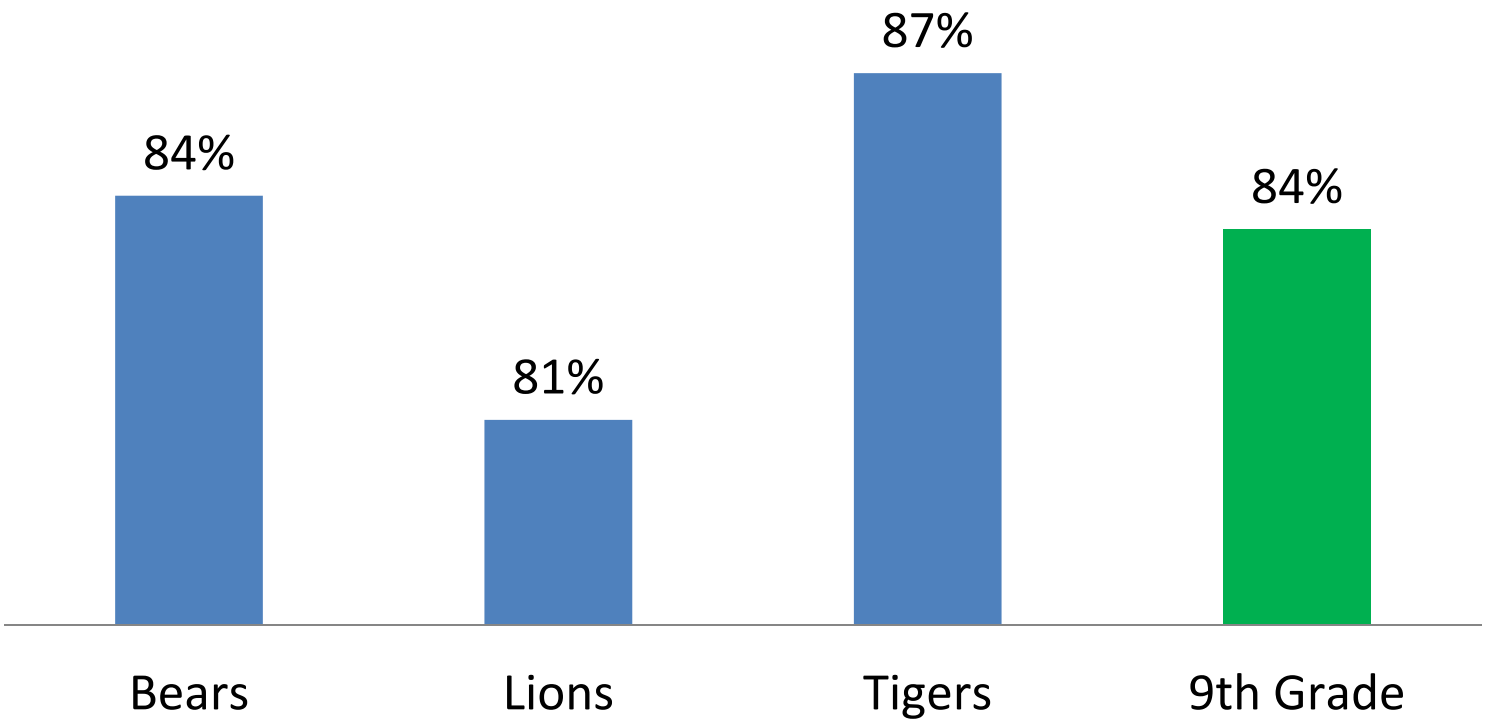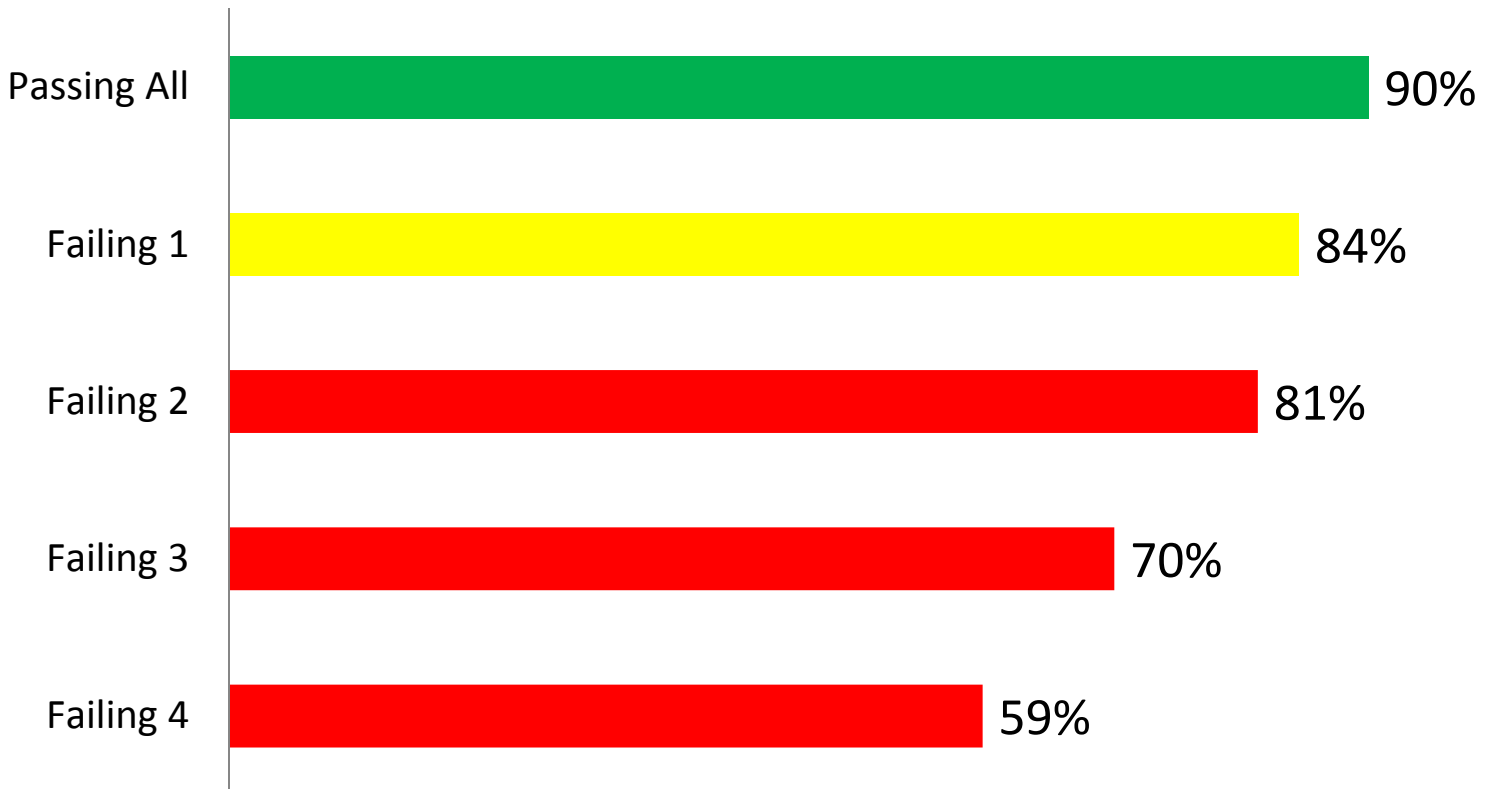
ADA by Num of Suspensions
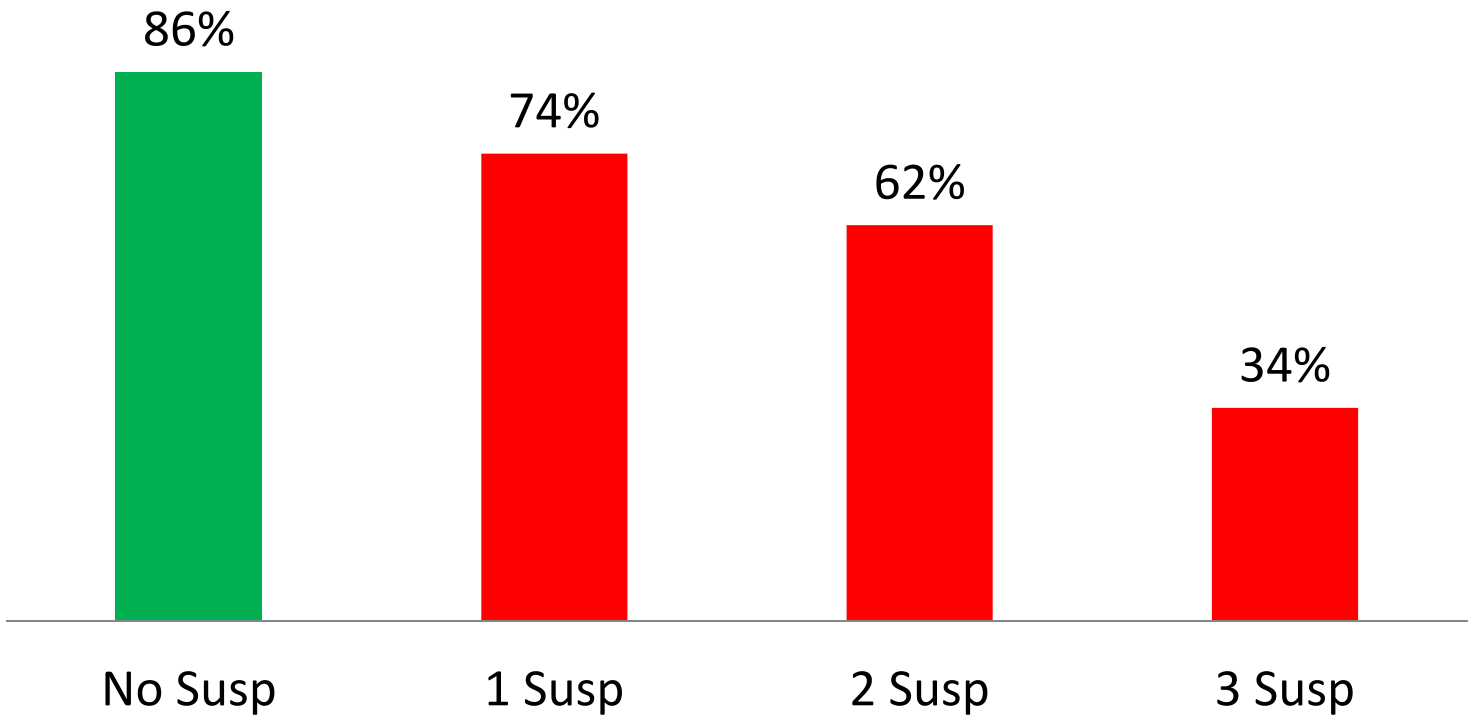
Behavior

Q3

Total Suspensions by Gender

Total Suspensions by Team

Suspensions by Team/Gender
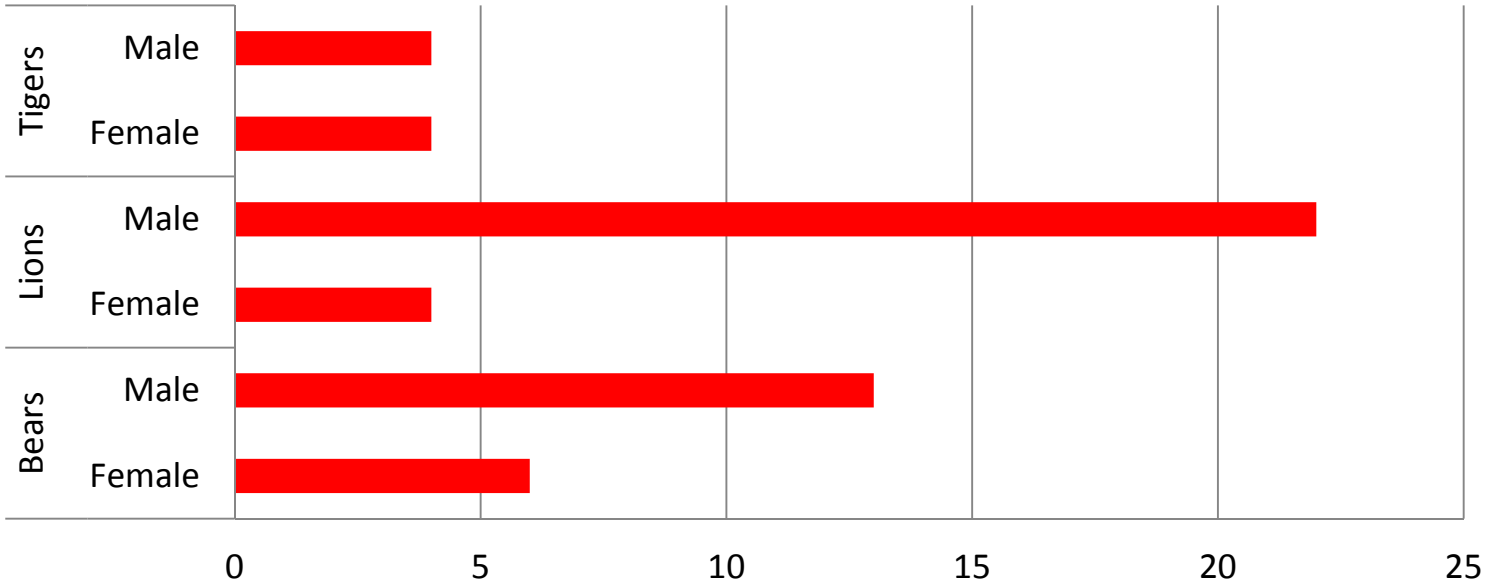
	Bears		Lions		Tigers	
	Female	Male	Female	Male	Female	Male
■ Total	6	13	4	22	4	4

Num of Susp by Course Passing
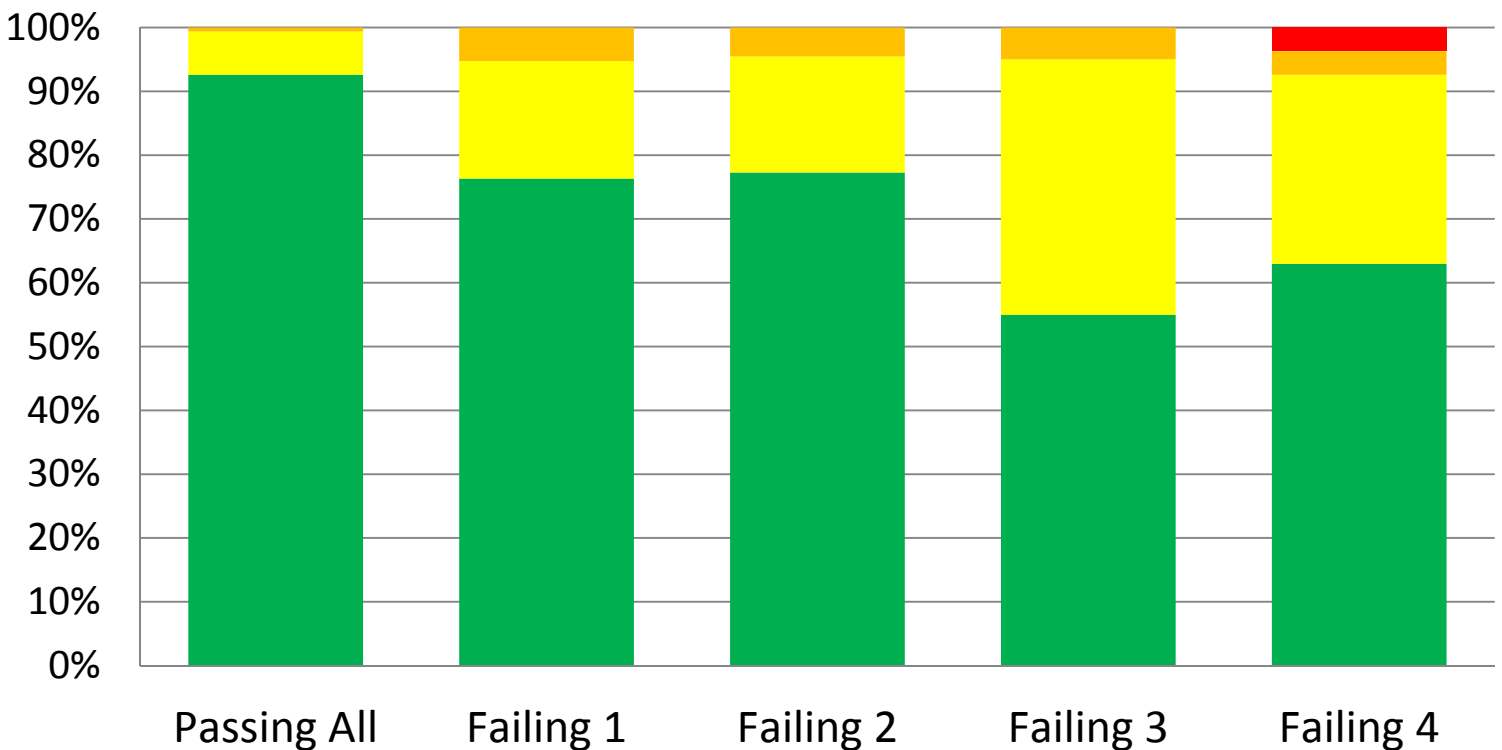
■ No Susp   ■ 1 Susp   ■ 2 Susp   ■ 3 Susp

ADA by Num of Suspensions

86%

74%

62%

34%

No Susp   1 Susp   2 Susp   3 Susp

Course Performance

Q1
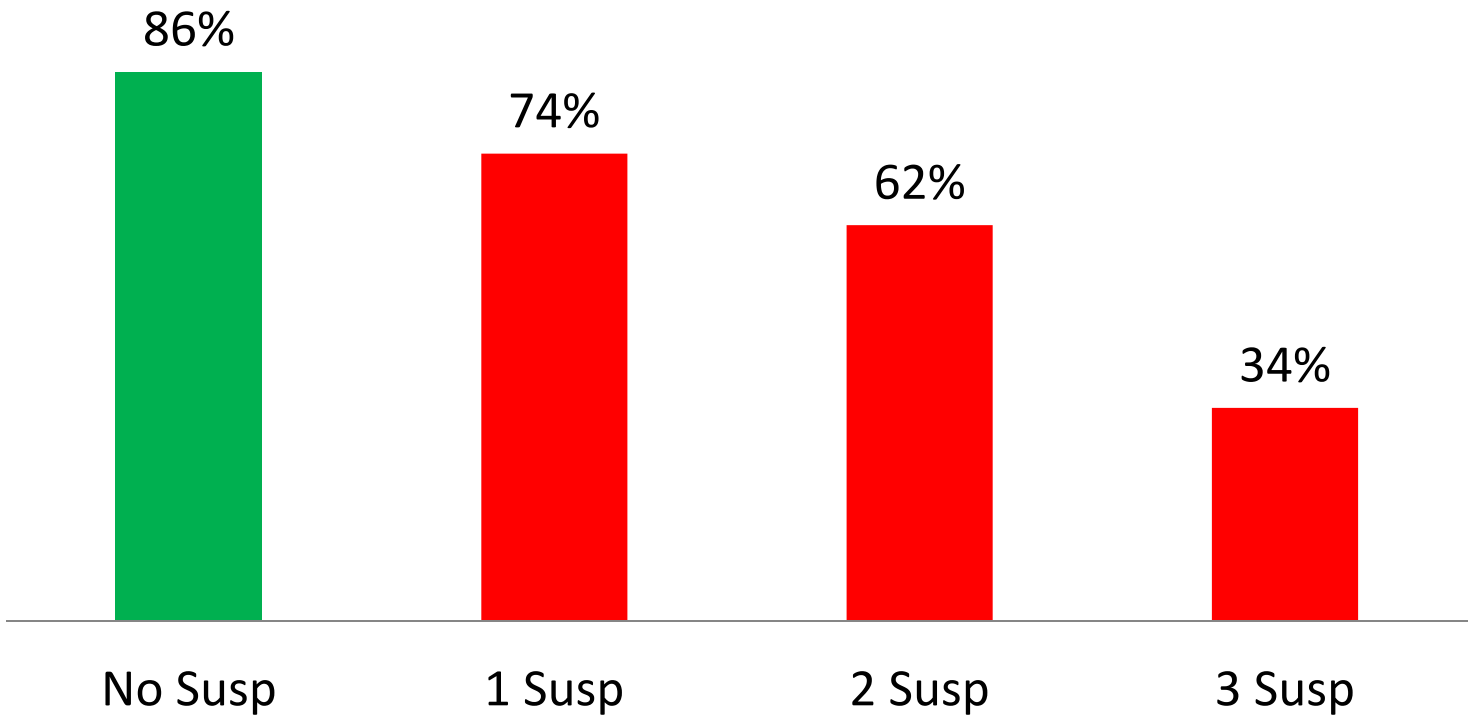
Course Passing by Team

	Bears	Lions	Tigers
Failing 2 or More	24	29	16
Failing One	15	17	6
Passing All	52	43	67

Course Passing by Gender

	Female	Male
Failing 2 or More	13	56
Failing One	11	27
Passing All	111	51

Math Grade Distribution by Gender
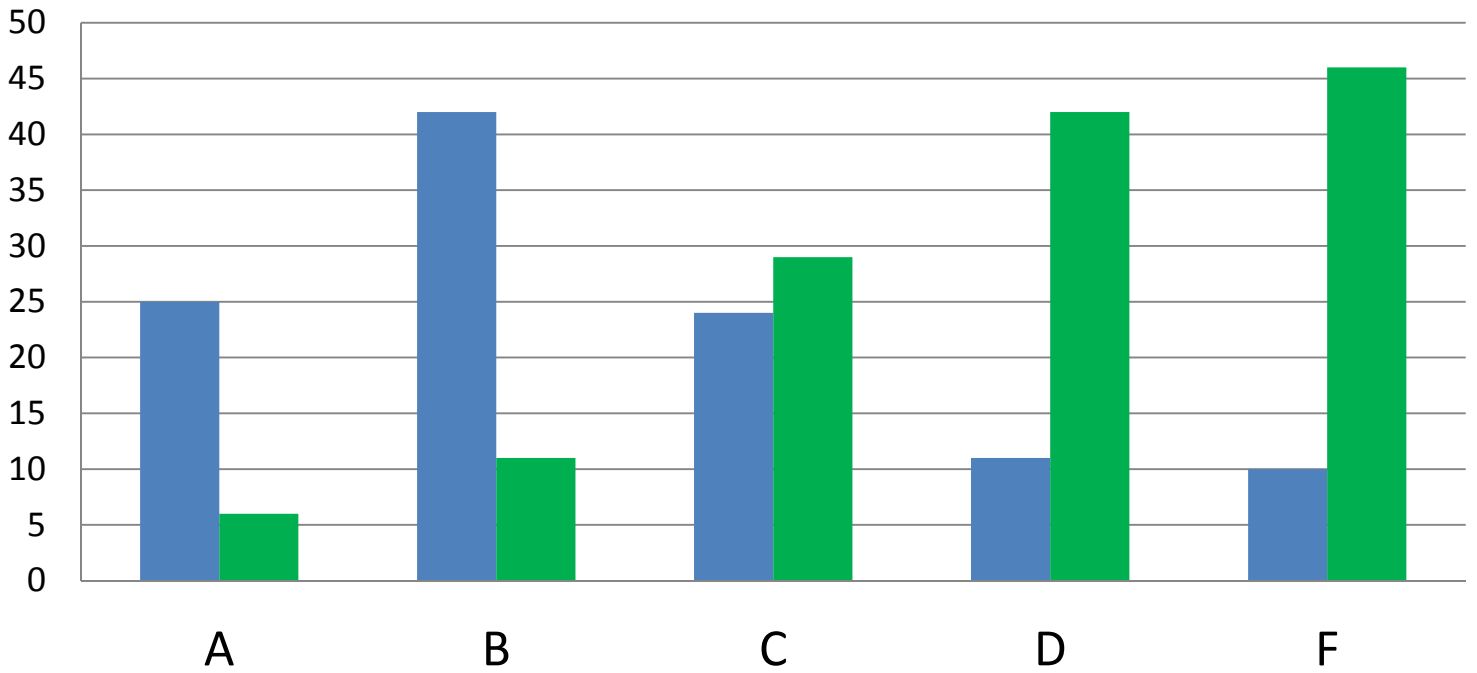
■ Female ■ Male

Grade	Female	Male
A	25	6
B	42	11
C	24	29
D	11	42
F	10	46

ELA Grade Distribution by Gender

■ Female ■ Male

Grade	Female	Male
A	33	5
B	34	25
C	21	24
D	17	40
F	8	39

ADA by Course Passing

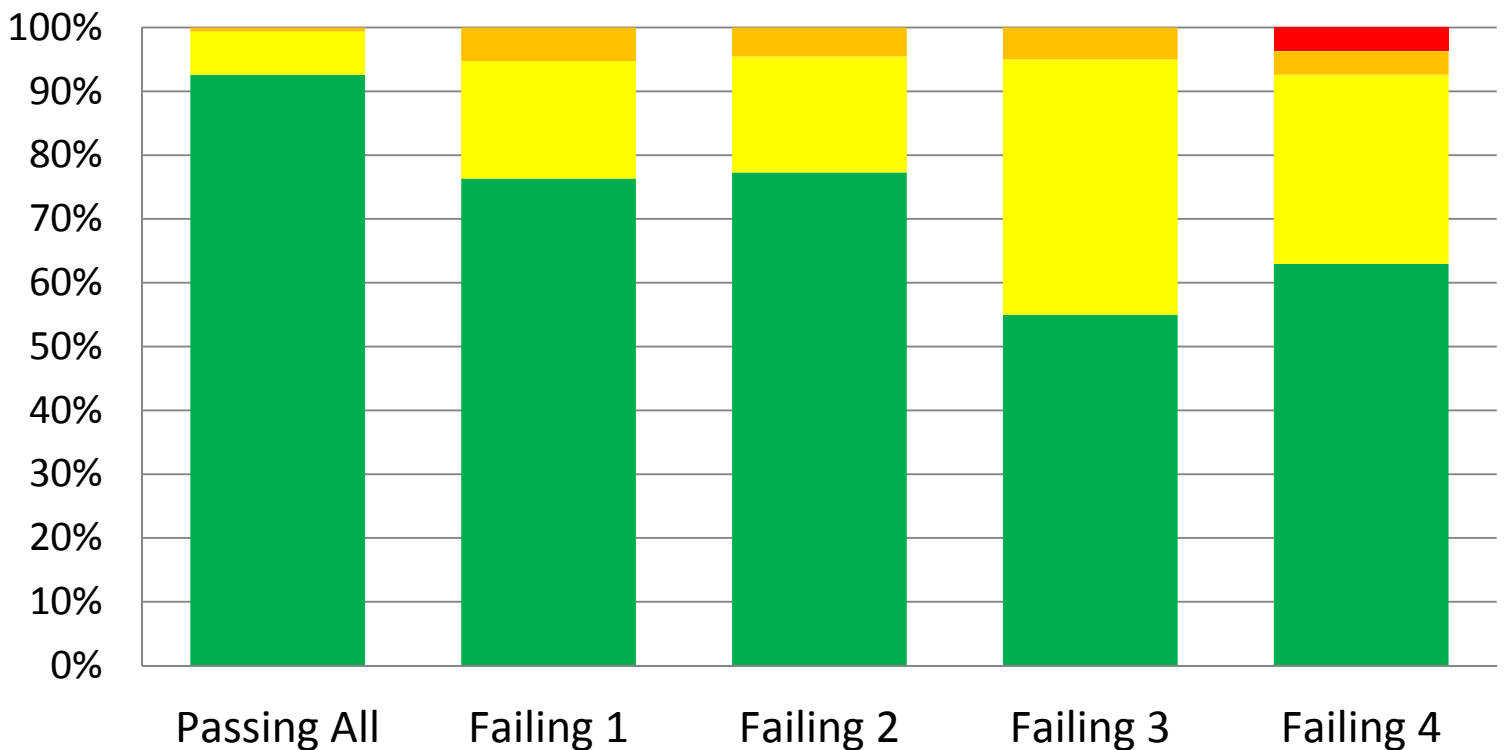|	
Passing All	90%
Failing 1	84%
Failing 2	81%
Failing 3	70%
Failing 4	59%
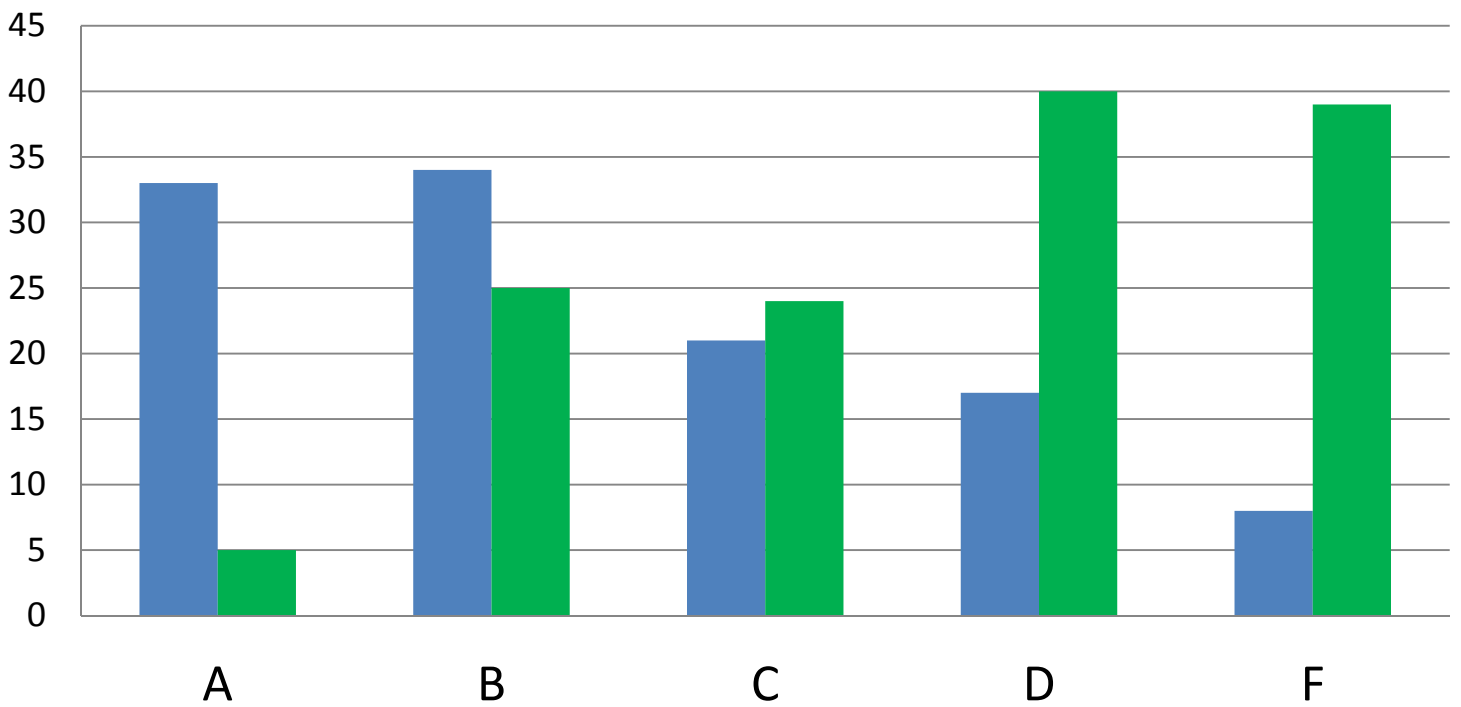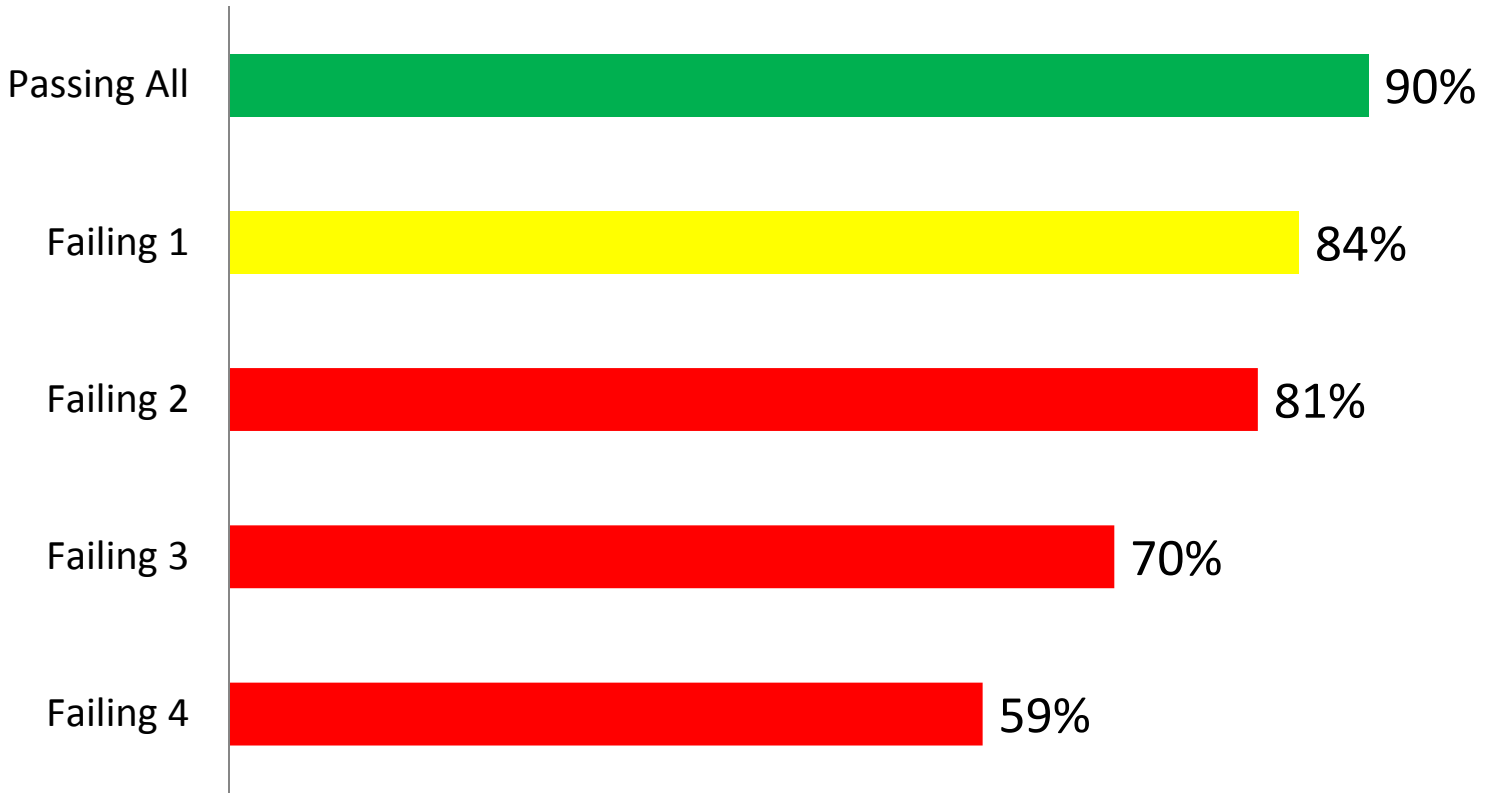
Num of Susp by Course Passing

Legend: ■ No Susp ■ 1 Susp ■ 2 Susp ■ 3 Susp

Data Analysis Worksheets

Data Analysis

Problem/Issue: Looking at the data, what issue do you want to tackle for Intervention?	**Possible Solution/Intervention**: Brainstorm as many possibilities as you can. No idea is a bad idea.

Action Plan

Problem/Issue: Looking at the data, what issue do you want to tackle for Intervention?	**Goal**: Looking at the data, what will it look like when your intervention is completed?

Prevention/Intervention Design: What are you going to do?	
Recourses Needed	
Human Capital Needed	

Action Champion (Title/Name):_____

Implementation Scenario

Scenario Fully describe a possible issue that might come up to hinder the implementation of this Action Plan.	
Response how will you modify your Action Plan to accommodate the scenario presented above	

Action Plan – Revisited

Results: time has passed and we need to look again at the goal/results of the program.

Revisit the Goal: Go back to what you initially hoped to accomplish	**Actual Results**: where did your data end up?

Response to New Data: Now that you see the results of your Prevention/Intervention Plan, what ways can you make it more effective?

Prevention/Intervention Re-Design: In light of the new data, how will you modify/adapt the program to be more effective?	