

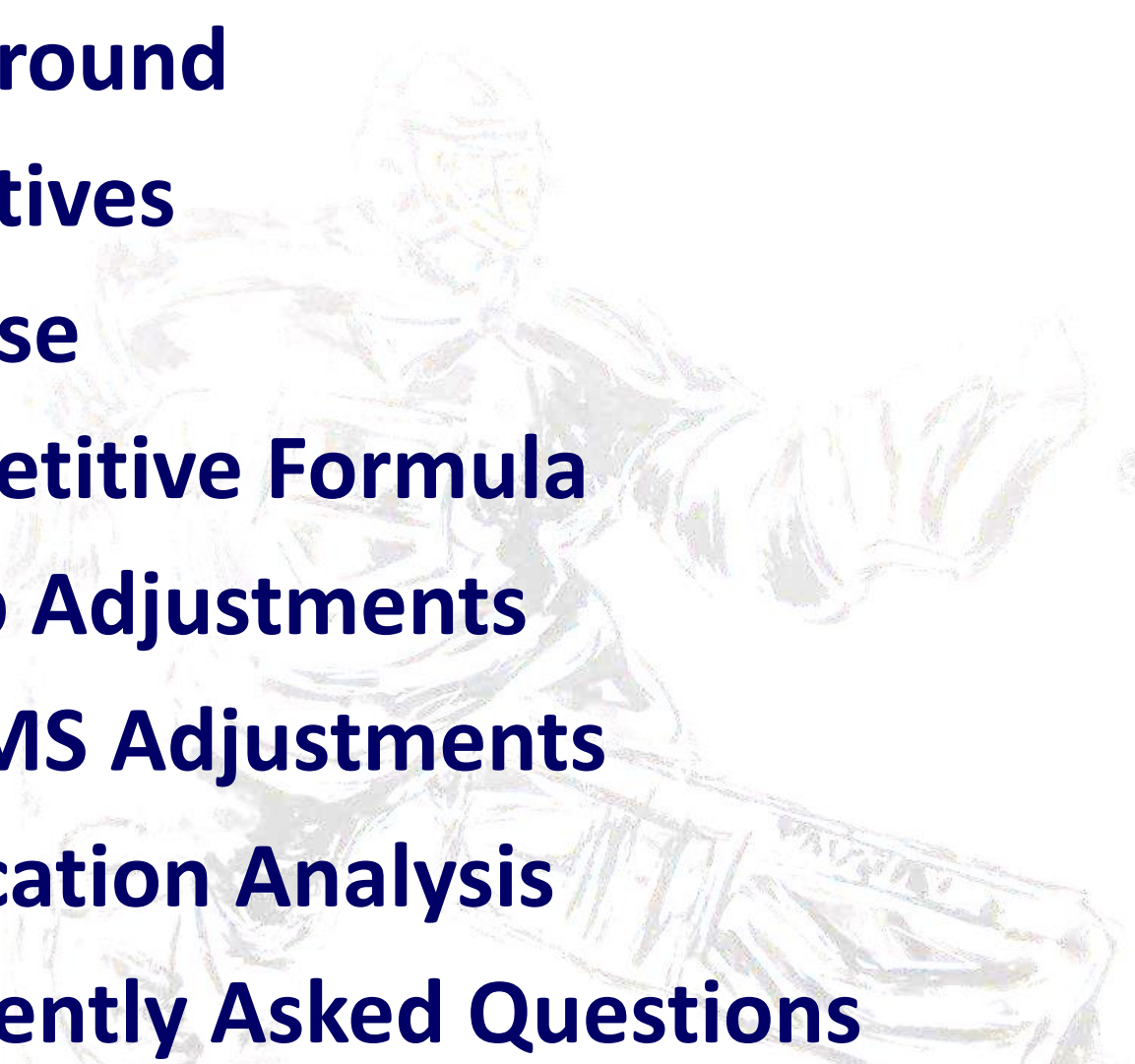
PIHL COMPETITION INITIATIVE

2019-2020 PIHL SEASON



PIHL COMPETITION INITIATIVE

Presentation Topics

- 1. Background**
 - 2. Objectives**
 - 3. Premise**
 - 4. Competitive Formula**
 - 5. Co-Op Adjustments**
 - 6. JV & MS Adjustments**
 - 7. Application Analysis**
 - 8. Frequently Asked Questions**
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- A faint, stylized background image of a person in a suit, possibly a businessman, is visible behind the list of topics. The person appears to be in a dynamic pose, perhaps gesturing or walking.

PIHL COMPETITION INITIATIVE

2019-2020 PIHL SEASON



BACKGROUND

PIHL COMPETITION INITIATIVE

Background

Timeline of Plan

- **Fall 2006 – Creation of first draft with formula**
- **February 2007 – Informal public release**
- **March 2008 – New revision based on feedback**
- **March 2013 – Input from Competition Committee + Coaches Council**
- **November 2013 – First presentation to PIHL Executive Committee**
- **February 2014 – First presentation to PIHL Board of Governors**
- **March 2014 – New revision based on BoG feedback**
- **April 2014 – Approval by BoG for implementation in 2014-15 season**

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OBJECTIVES



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Objectives

#1: Increase game competition

**Decrease the number
of lopsided games and
running-clock situations**

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Objectives

#2: Improve the on-ice product



**Develop players via
consistent competition
against similar opponents**

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Objectives

**#3: Place teams where they have
the potential to compete**



**Account for
factors influencing
on-ice performance**

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Objectives

#4: Minimize “human factors” in team placement

Objective metrics rather than subjective opinions

Repeatable; reliable duplication

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Objectives

#5: Properly structure the Co-Op Division

**Restore & maintain its
intended purpose to allow
co-op teams to “mature”**

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2019-2020 PIHL SEASON



PREMISE

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Premise

Traditional method for classifying HS sports = Enrollment

Assumption of these other factors being roughly equal:

- **Access to facilities**
- **Number of weekly practices and regular-season games**
- **Funding for sufficient equipment to provide to players**
- **Availability of qualified coaches**
- **Access to school-provided transportation to games & practices**
- **Minimal roadblocks for any student who wishes to participate**

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Premise

The number of students = largest variable

- **A larger school = more good athletes**
- **More good athletes = competition for playing time**
- **Competition for playing time = accelerated player development**

Therefore...

- **Like-sized schools = more level playing field**

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Premise

**Enrollment
=
POTENTIAL
TO COMPETE**



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Premise

Additional factors to consider for the sport of ice hockey:

- Number of available hockey players within the district
- Number of AAA-caliber players registered within an association
- Proximity of a rink (or multiple rinks) to the school
- Quality/existence of amateur hockey programs in the school's area
- Number of JV, Middle School, and Developmental teams within a program
- Money within the community to support the large expenses incurred in hockey
- Socio-economic demographics of the school district
- Amount of travel involved to play against other equivalently-competitive teams
- Natural local/regional rivalries that exist
- Proximity of a private school with an established hockey program

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Premise

Difficult to individually measure and/or compare



Collectively demonstrated by the quality of the Varsity team
“the product on the ice”



Deduction: measured over time by Varsity winning percentage
Proven over several consecutive seasons

PIHL COMPETITION INITIATIVE

Premise

**Enrollment +
Historical Winning Percentage**

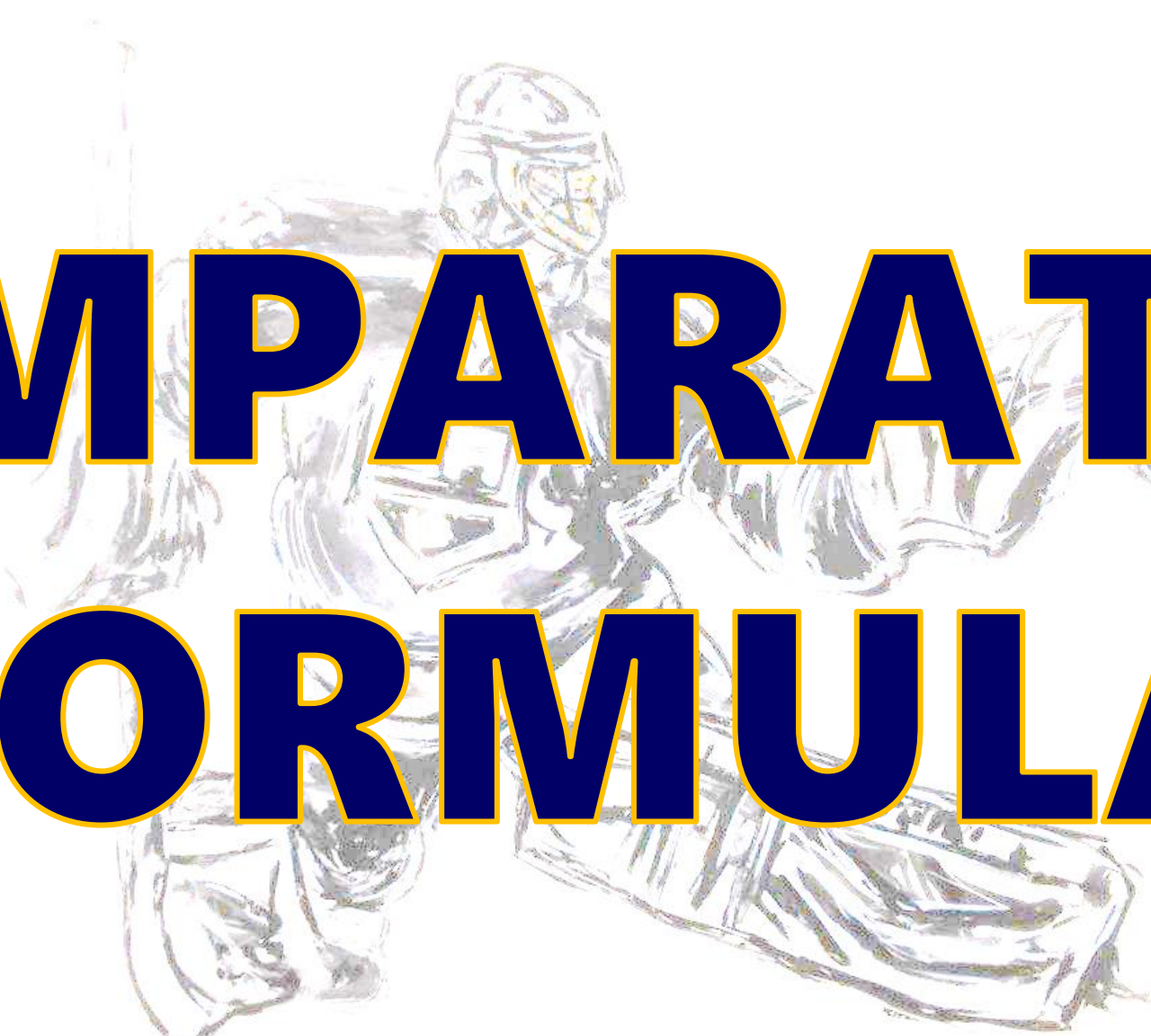
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**POTENTIAL
TO COMPETE**

PIHL COMPETITION INITIATIVE

2019-2020 PIHL SEASON

COMPARATIVE FORMULA



PIHL COMPETITION INITIATIVE

Comparative Formula

Metric #1: Account for PIAA-based enrollment

- **Male students in grades 9-11**
 - PIAA enrollment figures
 - Adjust West Virginia teams accordingly
- **Two-year cycle**
 - New enrollment figures released in December 2017
 - Apply to 2018-19 and 2019-20 seasons

PIHL COMPETITION INITIATIVE

Comparative Formula

Metric #2: Account for 4 years of Varsity Win Percentage

- **Previously used 3 years to transition to new formula**
- **Full class of student-athletes (9th to 12th)**
- **Balance of recent and historical success**
- **Represents the “current state” of the Varsity program**

PIHL COMPETITION INITIATIVE

Comparative Formula

Metric #2: Account for 4 years of Varsity Win Percentage

- **Weighted values on the class in which that W% was obtained**
 - **AAA = 1000** (similar to value of highest enrollment)
 - **AA = 600** (60% of AAA)
 - **A = 360** (60% of AA)
 - **B = 216** (60% of A)
 - **C = 130** (60% of B)
- **Basis: 1.000 W% in AA = .600 W% in AA... and so on**

PIHL COMPETITION INITIATIVE

Comparative Formula

Result: sum of enrollment and four weighted winning percentages

ENROLLMENT

+ (PCT1 x WEIGHT1)

+ (PCT2 x WEIGHT2)

+ (PCT3 x WEIGHT3)

+ (PCT4 x WEIGHT4)

TOTAL POINTS

PIHL COMPETITION INITIATIVE

Comparative Formula

Example: Fox Chapel

- 2018-2020 PIAA Male Enrollment = 516
- 2018-19 W% (A) = .444 x 360 = 160
- 2017-18 W% (A) = .600 x 360 = 216
- 2016-17 W% (AA) = .000 x 600 = 000
- 2015-16 W% (AA) = .545 x 600 = 327

516	
+ 160	
+ 216	
+ 000	
+ 327	
1219	

Raw
W%

Weighted
Value

Yearly
Points

TOTAL
POINTS

PIHL COMPETITION INITIATIVE

Comparative Formula

Application: Sort teams based on Total Points

2019 PIHL VARSITY COMPARATIVE FORMULA

PURE TEAM		ENROLLMENT RANK ENROLL		2018-2019			2017-2018			2016-2017			2015-2016			TOTAL POINTS
				W%	WGT	PTS	W%	WGT	PTS	W%	WGT	PTS	W%	WGT	PTS	
29	Bishop McCort	45	111	.778	360	280	1.000	360	360	.722	360	260	.795	360	286	1297
30	North Hills	21	446	.722	360	260	.184	600	110	.474	600	284	.318	600	191	1292
31	Indiana	34	340	.694	360	250	.775	360	279	.778	360	280	.600	216	130	1279
32	Fox Chapel	17	516	.444	360	160	.600	360	216	.000	600	0	.545	600	327	1219
33	Norwin	7	632	.500	360	180	.400	360	144	.167	360	60	.045	600	27	1043
34	Chartiers Valley	27	394	.417	360	150	.525	360	189	.667	360	240	.091	600	55	1028
35	Kiski	22	446	.083	360	30	.500	360	180	.639	360	230	.364	360	131	1017

Enrollment

Raw
W%

Weighted
Value

Yearly
Points

TOTAL POINTS

PIHL COMPETITION INITIATIVE

2019-2020 PIHL SEASON

A faint, stylized sketch of a hockey player in action, wearing a helmet and jersey, is visible in the background. The player is in a dynamic pose, possibly skating or about to shoot.

CO-OP

ADJUSTMENTS

PIHL COMPETITION INITIATIVE

Co-Op Adjustments

- Account for 4 years of Varsity Co-Op winning percentages
- No enrollment metric due to co-op variables

+ (PCT1 x WEIGHT1)

+ (PCT2 x WEIGHT2)

+ (PCT3 x WEIGHT3)

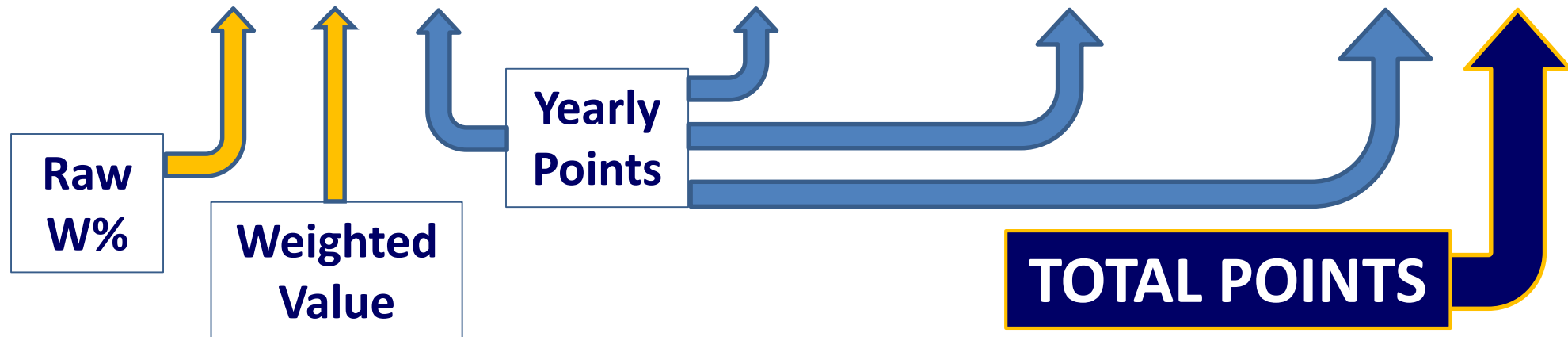
+ (PCT4 x WEIGHT4)

TOTAL POINTS

PIHL COMPETITION INITIATIVE

Comparative Formula

CO-OP TEAM		ENROLLMENT RANK ENROLL	2018-2019			2017-2018			2016-2017			2015-2016			TOTAL POINTS
			W%	WGT	PTS	W%	WGT	PTS	W%	WGT	PTS	W%	WGT	PTS	
1	Bishop Canevin	96	.175	216	38			0	.316	600	190	.705	600	423	650
2	Carrick	7	.675	216	146	.139	216	30	.800	216	173	.675	216	146	494
3	Ringgold		.800	216	173	.778	216	168	.500	216	108	.289	130	38	486
4	Burrell	2	.950	216	205	.722	216	156	.806	130	105			0	466
5	Neshannock		.825	216	178	.500	216	108	.833	130	108	.316	130	41	436
6	Central Valley	4	.450	216	97	.389	216	84	.625	216	135	.526	130	68	385
7	Connellsville	528	.800	216	173	.611	216	132	.444	130	58			0	362



PIHL COMPETITION INITIATIVE

2019-2020 PIHL SEASON

A faint, stylized sketch of a hockey player in action, wearing a helmet and jersey, is visible in the background. The player is in a dynamic pose, possibly skating or about to shoot.

JV & MS

ADJUSTMENTS

PIHL COMPETITION INITIATIVE

JV & MS Adjustments

Account for 3 years of Winning Percentages

- **Full class of student-athletes (9th - 11th and 6th - 8th)**
- **Weighted values on the tier in which that W% was obtained**
 - **Tier 1 = 1000 (Matches Varsity AAA)**
 - **Tier 2 = 600 (60% of Tier 1)**
 - **Tier 3 = 360 (60% of Tier 2)**
- **No enrollment metric**

PIHL COMPETITION INITIATIVE

JV & MS Adjustments

Result: sum of three weighted winning percentages

(PCT1 x WEIGHT1)

+ (PCT2 x WEIGHT2)

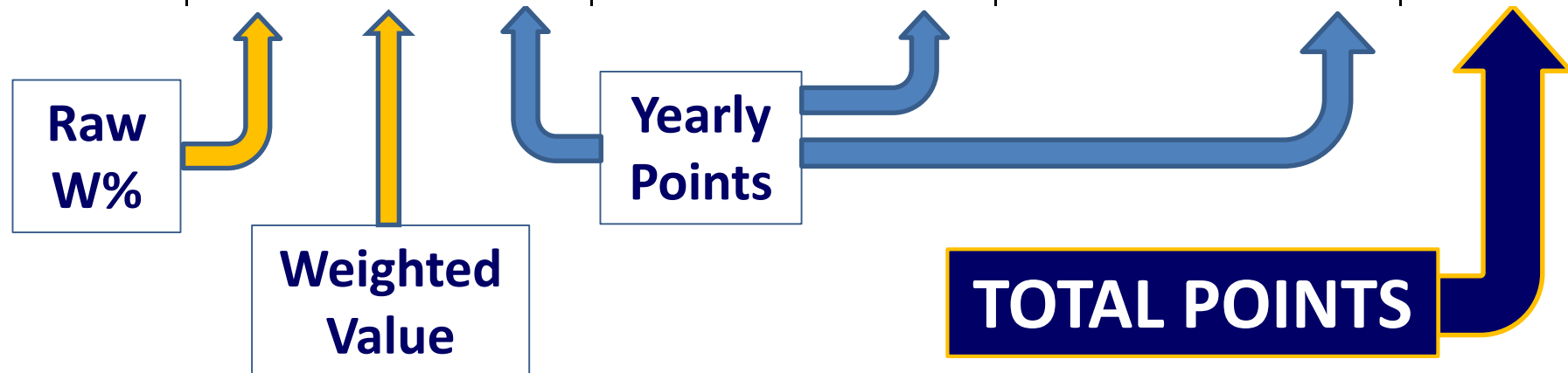
+ (PCT3 x WEIGHT3)

TOTAL POINTS

PIHL COMPETITION INITIATIVE

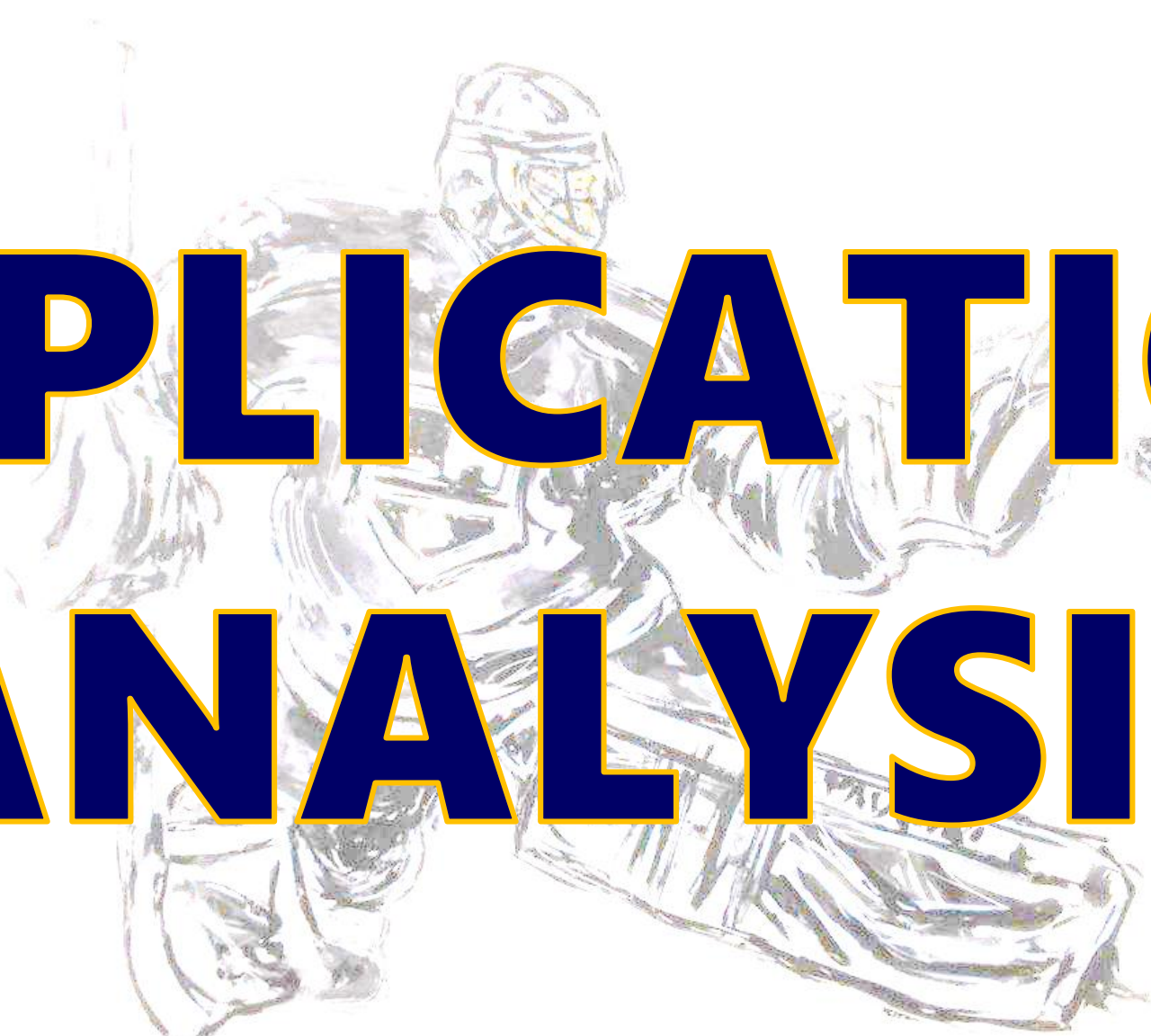
JV & MS Adjustments

2019 PIHL MS COMPARATIVE FORMULA											
PURE TEAM		2018-2019			2017-2018			2016-2017			TOTAL POINTS
		W%	WGT	PTS	W%	WGT	PTS	W%	WGT	PTS	
43	Upper Saint Clair 2	.393	360	141	.357	360	129	.643	360	231	501
44	Wheeling Catholic	.321	360	116			0	1.000	360	360	476
45	Ringgold	.929	360	334	.143	600	86			0	420
46	Fox Chapel	.571	360	206	.393	360	141	.107	600	64	411
47	Blackhawk	.357	360	129	.179	360	64	.321	600	193	386
48	Greensburg Catholic			0	.000	600	0	.643	600	386	386
49	Canon-McMillan 2	.192	360	69	.464	360	167	.393	360	141	378



PIHL COMPETITION INITIATIVE

2019-2020 PIHL SEASON



APPLICATION ANALYSIS

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Application Analysis

**The formula is not intended
to predict who will win**

**It is intended to group similar teams to level the playing field and
increase the potential for all teams to compete**

**It is admittedly reactionary, but any formula that is meant to predict
outcomes would have to involve human factors.**

PIHL COMPETITION INITIATIVE

Application Analysis

**There are still factors that affect W%
that are strictly up to the team**

**Execution, development/use of talent, quality of coaches,
organization/operations of the program, “culture”**

**This formula takes away most variables that are beyond the team's
control & thereby gives the team more control over internal factors.**

PIHL COMPETITION INITIATIVE

Application Analysis

The competition initiative is not meant to guarantee that a team wins

It is meant to serve as a means to allow more teams to be competitive by grouping like teams and giving a team more control over its fate.

Moving more teams down (placing more teams in lower classifications) to increase the chances of those teams winning is contrary to the purpose of the formula.

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Application Analysis

**The number of teams in each class
should be loosely balanced**

As opposed to 2018-19: AAA = 9, AA = 14, A = 22

**Without a balanced distribution, the teams at the bottom suffer, which
is a subset this formula is designed to help be competitive.**

PIHL COMPETITION INITIATIVE

Application Analysis

Additional Advantages:

- 1. Application of 4 years of winning percentages does not “punish” a team for having one good season, as would happen in a relegation system.**
- 2. Teams new to the Varsity level start with only enrollment points, which assures their placement into Class A (pure).**
- 3. Teams that leave Varsity for a year and then return do not necessarily get a free pass to the bottom since they have a historical record to apply... but their year off does count as 0 points.**

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Application Analysis

Disadvantage – the Human Factor:

Number of teams put in each classification (“where to draw the lines”) involves the consideration of a practical game schedule, including divisional/conference alignments and corresponding playoff formats.

This must remain a human factor until it is logical to divide into three equal groups or set standard percentages.

- With 45 Varsity teams in 2018-19, each classification would have had 15 teams
- Example of standard percentages:
 - Class AAA = Top 25%
 - Class AA = Middle 35%
 - Class A = Bottom 40%

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Application Analysis

Additional Considerations:

- 1. Use of 4 years of winning percentages allows the option to realign every 2nd year, in conjunction with new enrollment numbers.**
- 2. Teams can request to be placed into a higher classification, subject to review.**
 - JV Tier 1 & MS Tier 1 remain strictly opt-in**
- 3. Only extreme circumstances initiate any consideration of moving a team down in classification**
 - Example: the school district is split into two high schools (1 team becomes 2)**
 - IMPORTANT: moving a team down often requires moving another team up**

PIHL COMPETITION INITIATIVE

2019-2020 PIHL SEASON

**FREQUENTLY
ASKED
QUESTIONS**

PIHL COMPETITION INITIATIVE

Frequently Asked Questions

QUESTION

Has this had any real affect on competition?

ANSWER

It sure has! Let's check the facts...

PIHL COMPETITION INITIATIVE

Frequently Asked Questions

Goal differential in PIHL Varsity games

2012-13 SEASON				
	AAA	AA	A	D2
0-2	34%	30%	30%	27%
3-4	30%	25%	23%	16%
5+	36%	45%	47%	57%

2015-16 SEASON				
	AAA	AA	A	D2
0-2	55%	42%	32%	27%
3-4	34%	25%	27%	22%
5+	11%	33%	41%	51%

CUMULATIVE NUMBERS (roughly)			
2012-13 games 4 goals or less	54%	66%	2015-16 games 4 goals or less
2012-13 games 5 goals or more	46%	34%	2015-16 games 5 goals or more

+12%

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Frequently Asked Questions

QUESTION

Enrollment seems to work in other sports, especially football, so why can't that work for hockey?

ANSWER

Is enrollment really working in football?

Let's examine that...

PIHL COMPETITION INITIATIVE

Frequently Asked Questions

WPIAL Football Analysis

- **2013 Season (4 classifications)**
 - Week 1 average score differential = 28
 - Week 8 average score differential = 24
- **2018 Season (6 classifications)**
 - Week 2 average score differential = 25
 - Week 9 average score differential = 25

PIHL COMPETITION INITIATIVE

Frequently Asked Questions

QUESTION

Why not account for a JV team's recent record since those kids are going to be Varsity players?

ANSWER

Several reasons...

PIHL COMPETITION INITIATIVE

Frequently Asked Questions

REASONS NOT TO INCLUDE JV RECORDS:

- **JV is still developmental – winning should be secondary, at best**
- **We do not want to winning to become a focus at the JV level because of its affect on the Varsity level**
- **Some schools do not have a JV team, some have 2 JV teams (unequal)**
- **Some players opt not to start playing until they are on the Varsity team**
- **Enrollment is not a factor in JV alignments**
- **FACT: The WPIAL does not conduct JV playoffs nor name JV champions because it is strictly developmental!**

PIHL COMPETITION INITIATIVE

Frequently Asked Questions

QUESTION

Why not account for the number of amateur AAA players a team has on its Varsity roster? Or the playing experience of the Varsity players? Or a rating system of current players?

ANSWER

Again, several reasons...

PIHL COMPETITION INITIATIVE

Frequently Asked Questions

REASONS NOT TO INCLUDE ROSTER DATA:

- These items can be very difficult to track and police
- Even a school cannot be sure in May if a player is going to play for them the following year
- What if a player is not accounted for because he elects not to play and then decides to re-join the Varsity team in January?
- Define “amateur AAA” when any team can declare itself as AAA
- These are also human factors!

PIHL COMPETITION INITIATIVE

Frequently Asked Questions

QUESTION

My Varsity team is graduating 10 seniors this year, so why can't we be moved down a classification for next season?

ANSWER

Everyone graduates seniors every year!

10 seniors at North Allegheny $\neq$ 10 seniors at Freeport

Use of 4 years of winning percentages covers this

PIHL COMPETITION INITIATIVE

Frequently Asked Questions

QUESTION

Isn't this hurting us in the State Finals since our top Single A teams end up in AA and our elite AA teams end up in AAA?

ANSWER

This was a legitimate concern when the PIHL realigned in 2014, and it has proven to be an issue. But please consider...

PIHL COMPETITION INITIATIVE

Frequently Asked Questions

STATE FINALS CONCERNS:

- We are placing a greater focus on our regular season and Penguins Cup playoffs (over 40 PIHL teams playing greater than 1000 games in 7 months) to make those more competitive versus putting too much emphasis on the State Finals (3 PIHL teams playing only 3 games in 1 day)
- Eastern PA currently has a “competition problem” of its own, especially since WC Rustin has dominated Class A; they are now considering our formula
- Western PA routinely beat Eastern PA when enrollment was used, despite EPA enrollments being significantly higher within each classification

PIHL COMPETITION INITIATIVE

2019-2020 PIHL SEASON



QUESTIONS

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Thank You!

**For questions, comments, and/or clarifications
on the PIHL competition initiative, please contact:**

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THANK YOU!