

Probation Management: Identification, Intervention, and Reduction

Poll Everywhere: www.pollev.com/vinhnguyen321

Presentation: bit.ly/probation-management

Presented by:

Vinh Nguyen and Loris Fagioli

Irvine Valley College



What is your institution doing to move the completion needle?

“Cohort Grouping”

“SI; Early Alert; student-to-student mentoring programs...”

“SI; Early Alert; student-to-student mentoring programs; pathways”

“Supplemental instruction, building success teams, scaling affinity groups”

“Focusing on our entering college transfer students”

“Embedded support”

“Talking about it. Ab705”

“ ... ”

What is Probation?



- Academic Probation: *Attempted** at least 12 units cumulatively and has a cumulative GPA of 2.0 (with course repeats taken into consideration)



- Progress Probation: *Enrolled* in at least 12 units cumulatively and has a cumulative ratio of W/NP/NC/I grades of above 50% of all grades earned.



- Dismissal: Students on probation (Progress Probation or GPA < 1.75 for Academic Probation) for 3 consecutive semesters could get dismissed from the district

* Attempted units, also known as graded units, consist of all units in which the students earn a letter grade (A, B, C, D, or F)

Legacy Probation Process

First Probation



- Registration hold
- Attend probation workshop
- Registration hold removed

Subsequent Probations



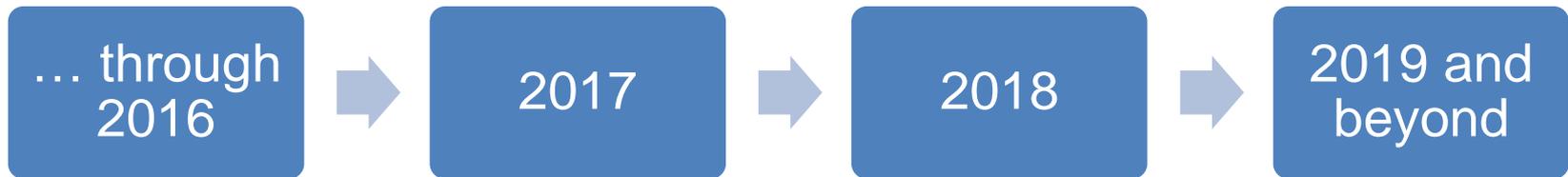
- Notification

Dismissal



- Registration hold
- Attend a dismissal workshop and submit an appeal form to continue
- Otherwise: dismissed from district

Probation Workshop/Intervention



Workshop

- In-person
- Review probation policies
- Why students are on probation
- How to get off probation

Workshop

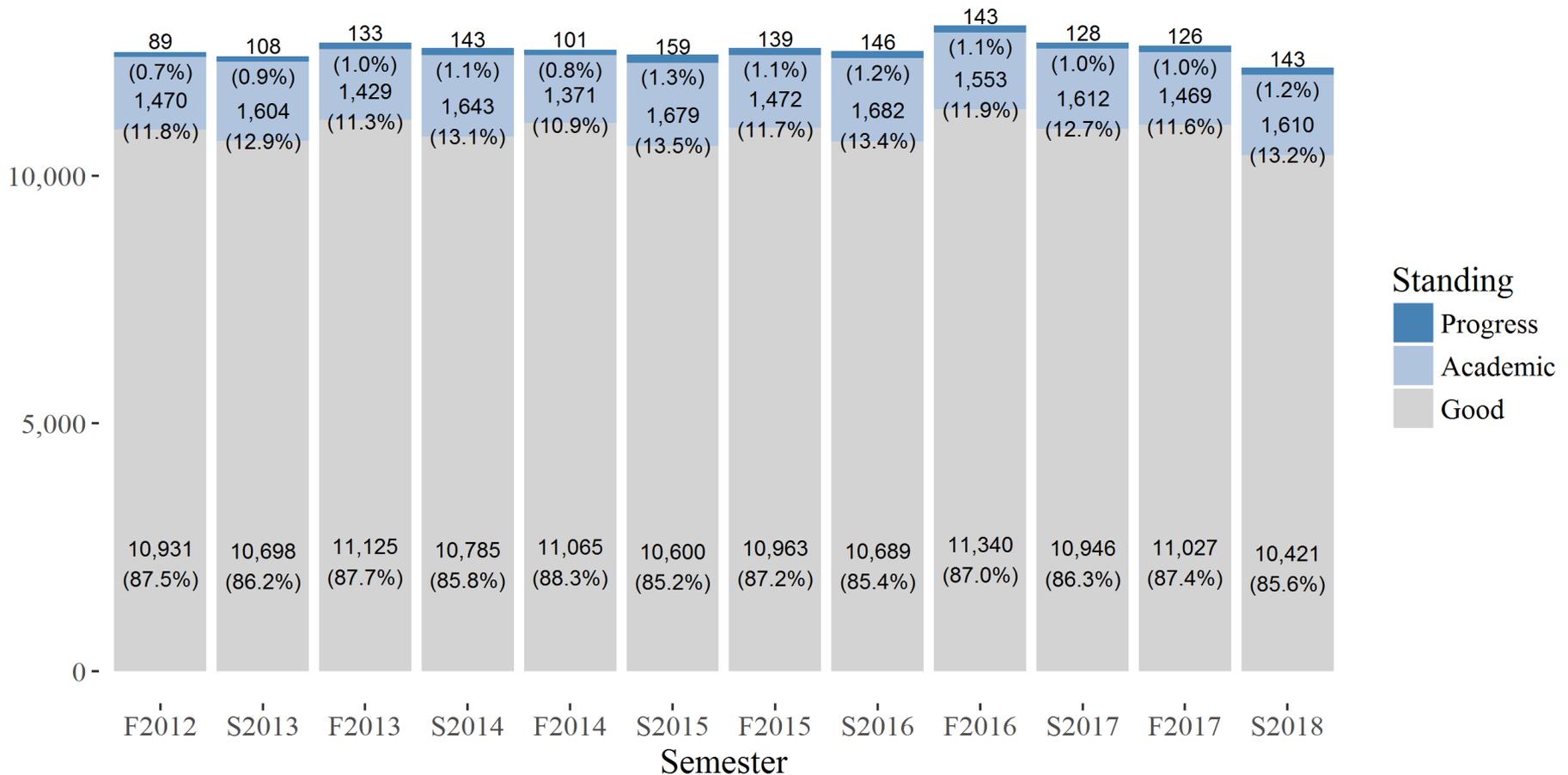
- In-person and online
- Previous material
- + Time Management



13-15% of students get on probation

Academic Standing (Recalculated)

IVC Credit Students

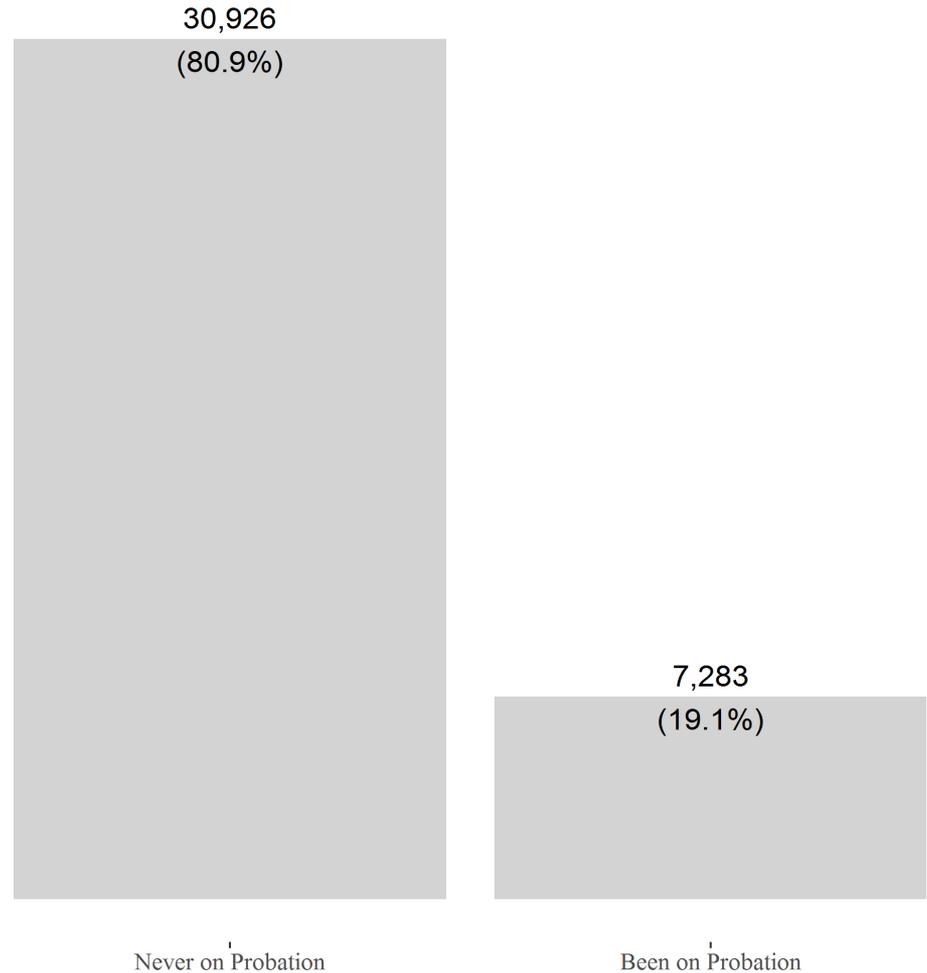


Why do we care about students
on probation?

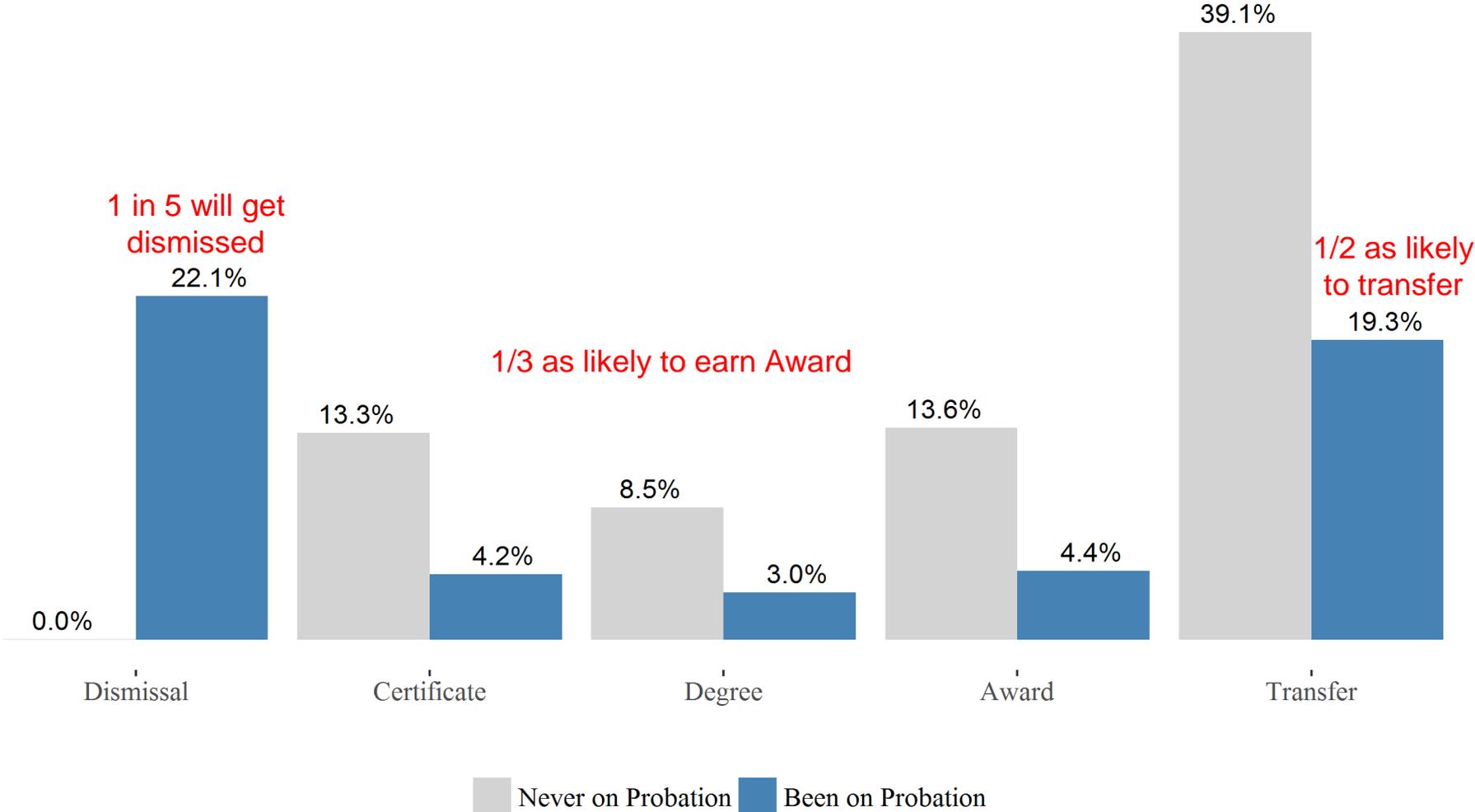
Research Data

N = 38,209

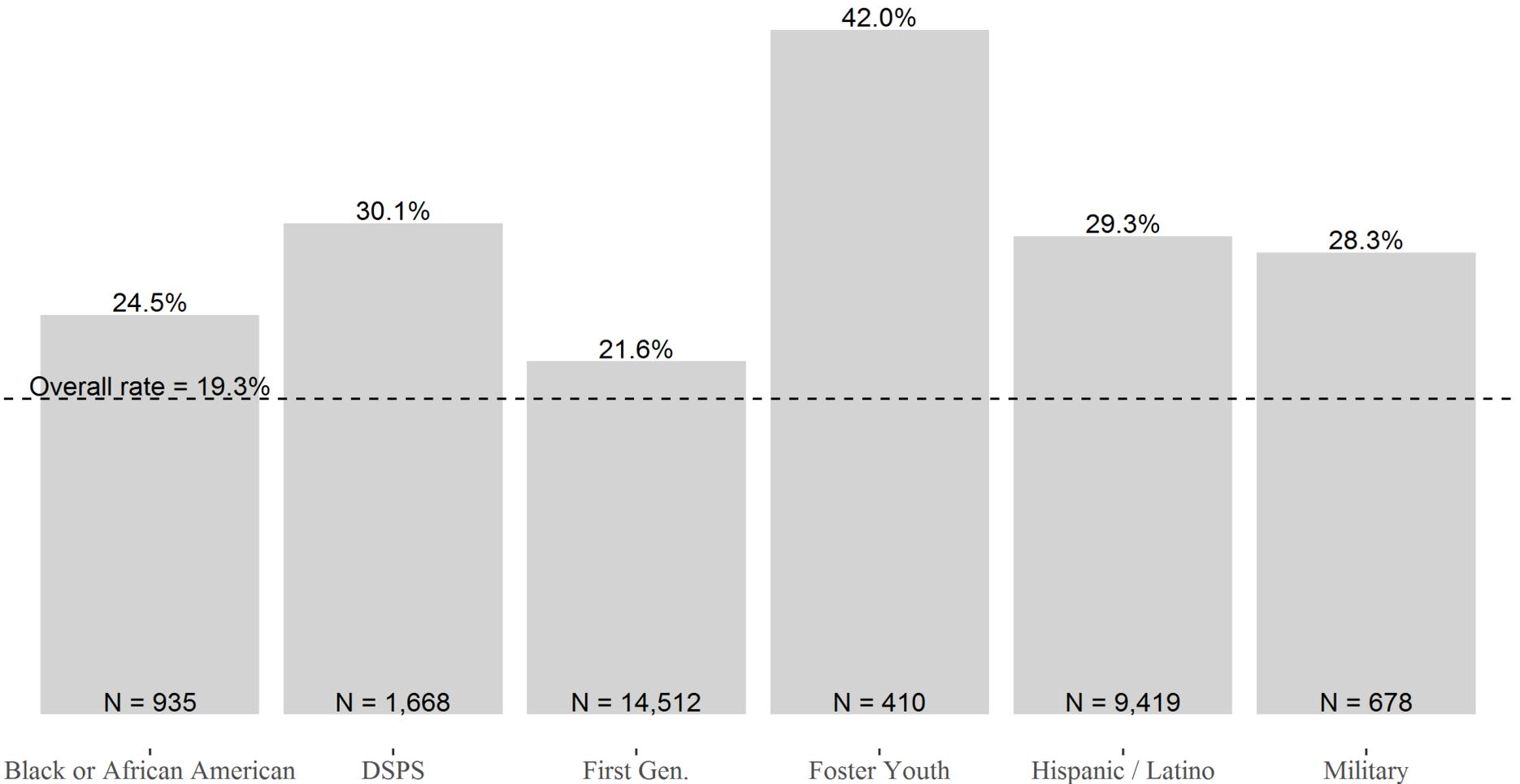
- Terms: Fall 2012 – Spring 2018
- First non-dual enrolled term after Fall 2012
- IVC students enrolling in credit courses



Impact of Probation

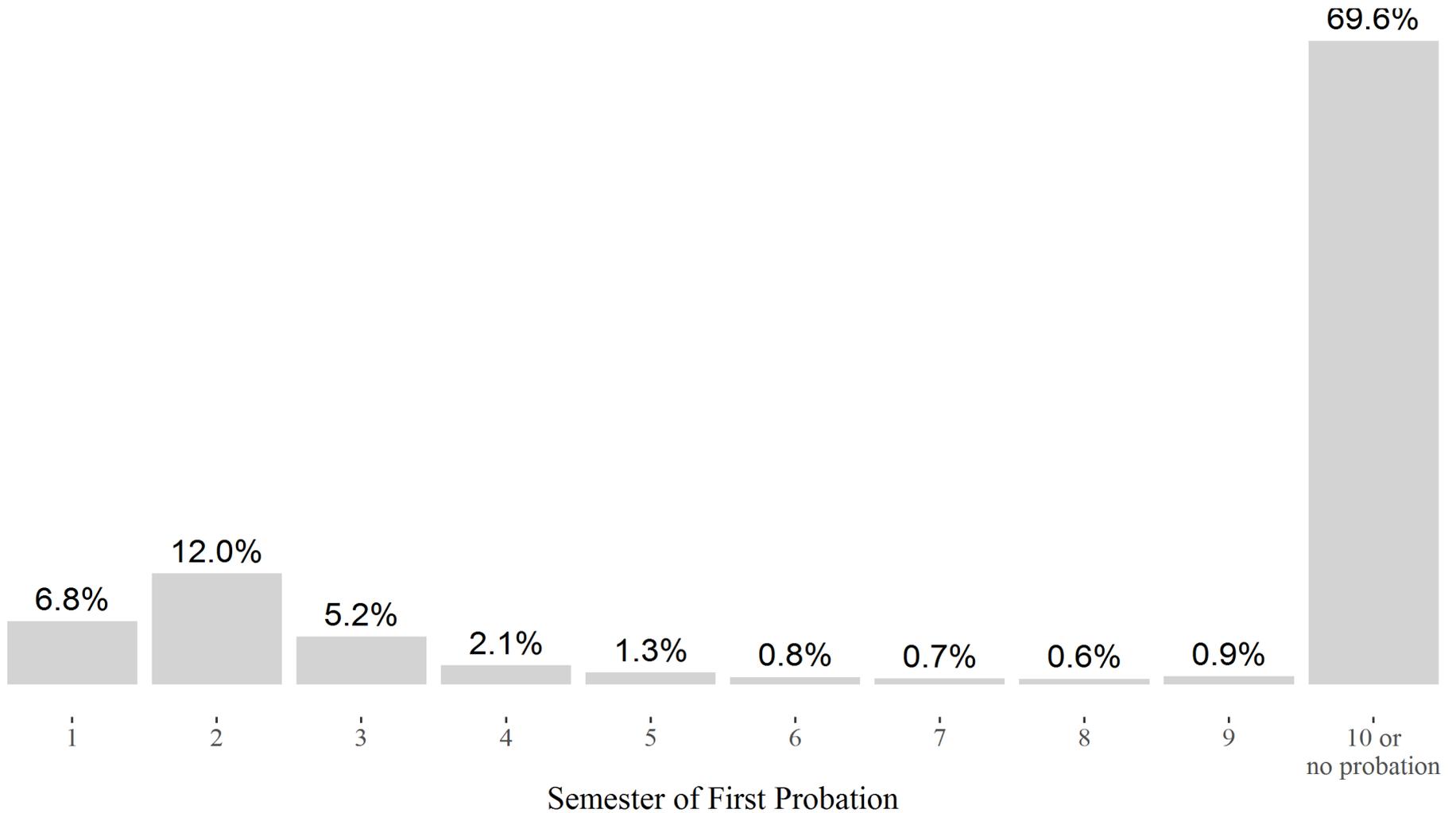


Equity Groups More Likely of Probation

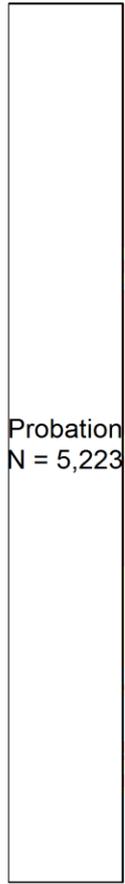


Can students get off probation?

Time To First Probation

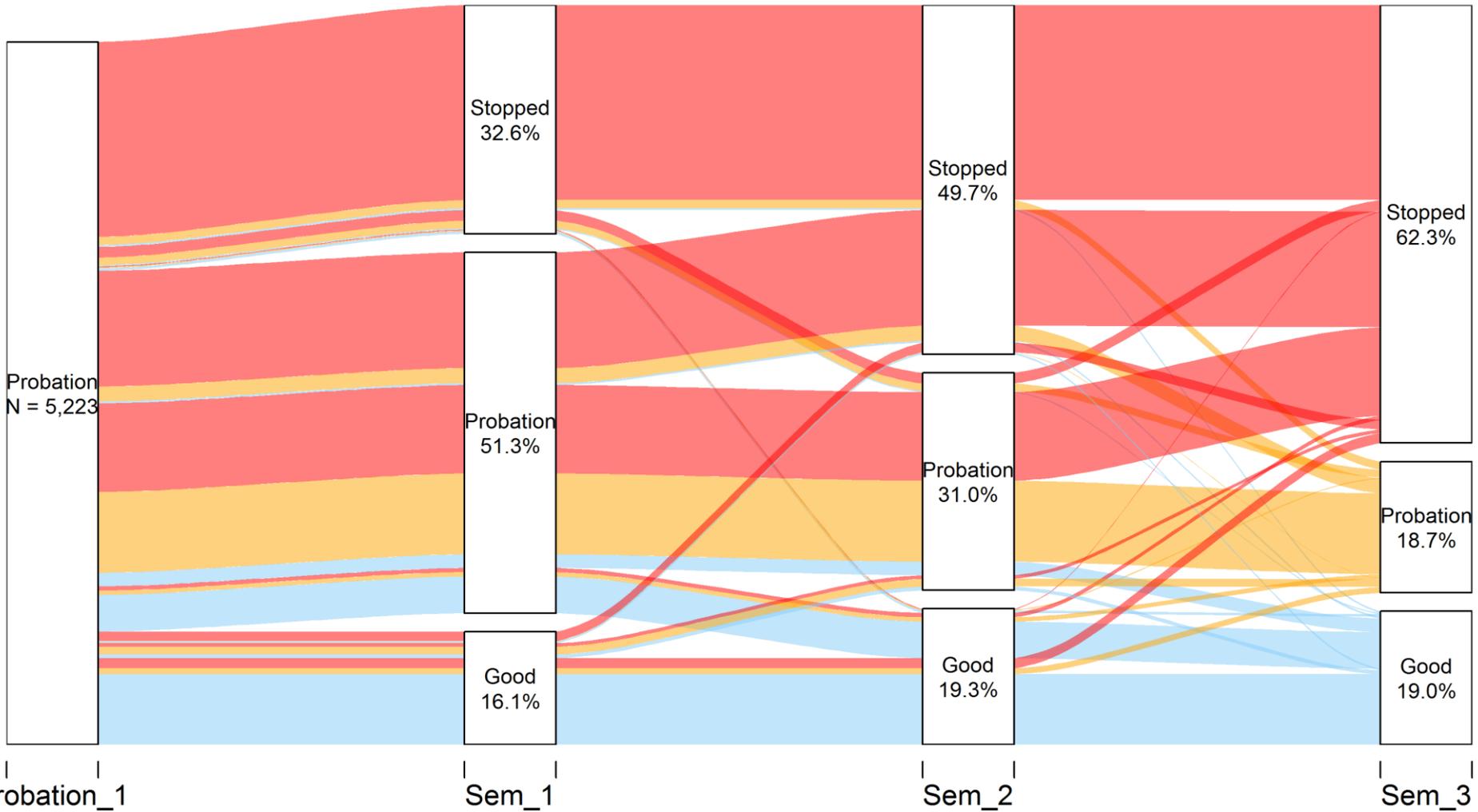


Progress After First Probation



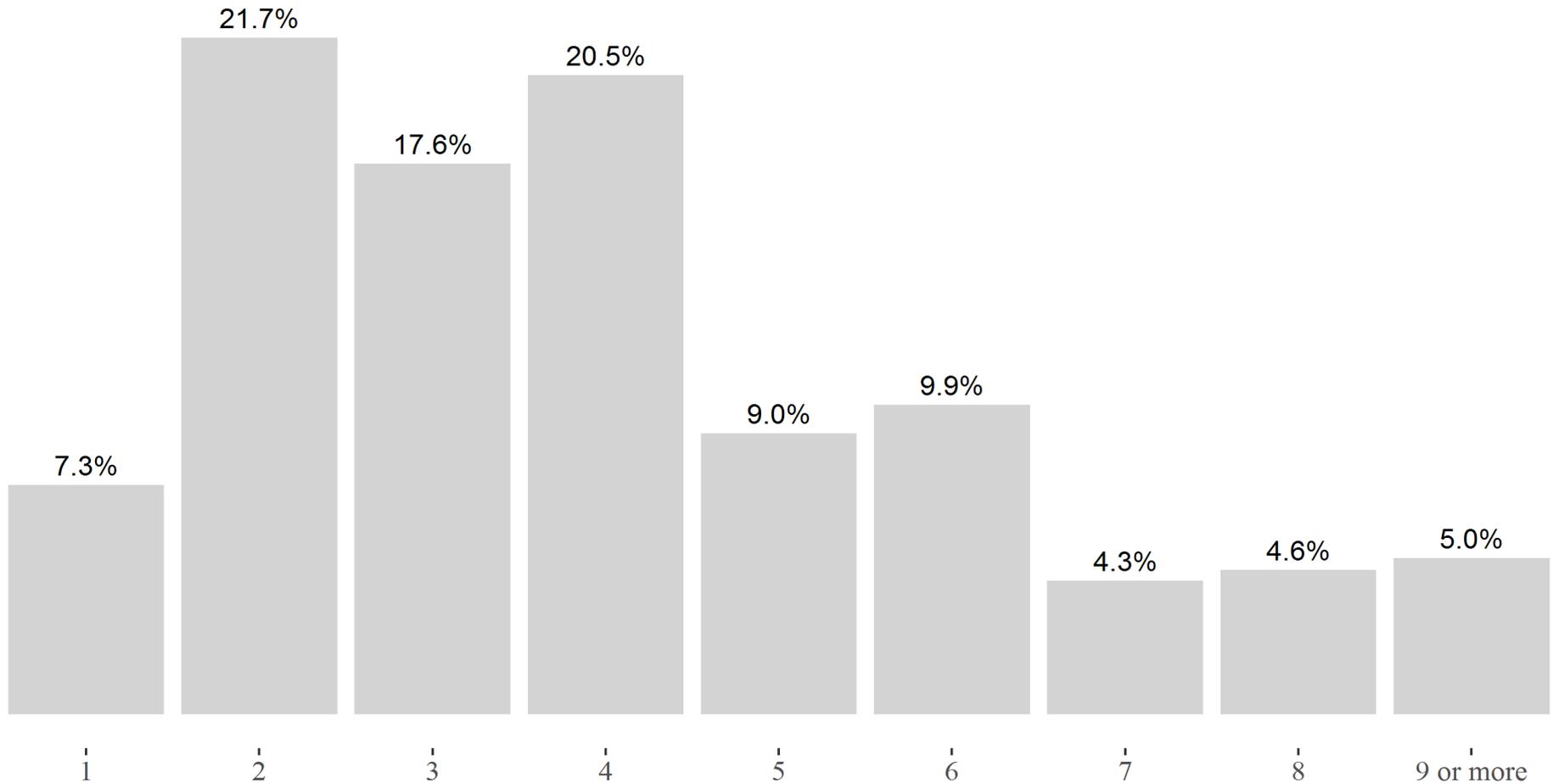
Probation.

Progress After First Probation



Probation is sticky

Frequency of probations



Probation Risk Model
and
Managing Students with High Need

Time to try something new

Existing probation workshop does not work.

Case Management

- Help students identify challenges
- Refer students to resources to overcome challenges
- Follow up with students
- Repeated touch points

Who should we focus on?

Case management is effort-intensive

Not yet ready to scale to all students

- Need evidence that it works
- Need more resources to be allocated

Solution: build a probation risk model, and focus on a subset

Risk Score: 0 – 100 %

Risk: likelihood of being on probation at the end of term

Case Management List

Student ID	Risk Score	Other Variables
123456	80 %	
987654	79 %	
963852	77 %	
999999	75 %	
...		

What do you think is most predictive of a student's likelihood of getting on probation?

Demographics (eg, age, ethnicity, socioeconomic status, etc)

High school GPA

50%

High school

College GPA

10%

Past probation status

20%

Other

20%

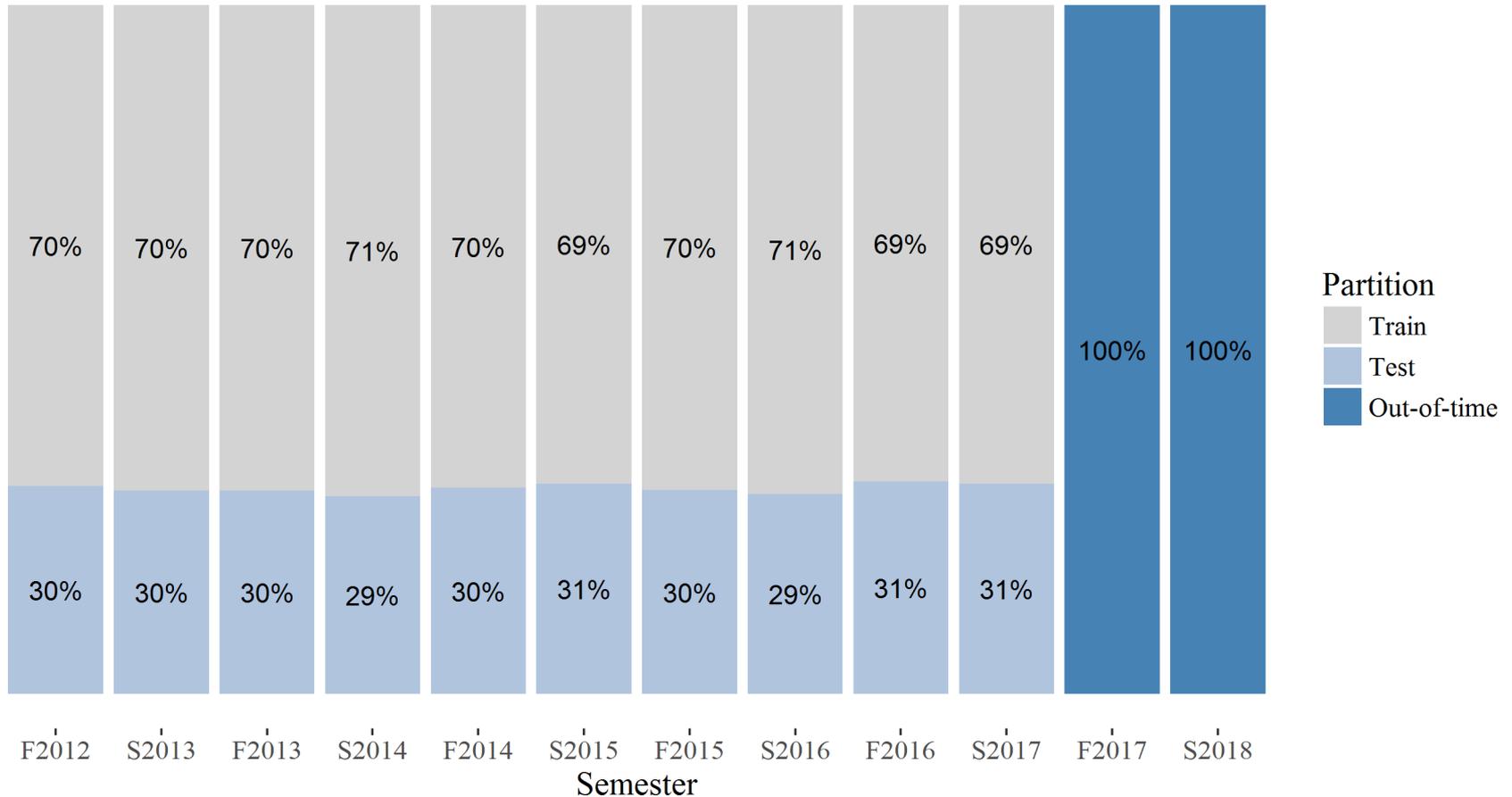
0% 10% 20% 30% 40% 50%

Useful Variable Derivations

- Academic Probation - impossible: less than 12 units at end of term or with a 0.0 GPA, student will not be on probation
- Academic Probation - for sure: even with a 4.0 GPA this term, student will still be on probation
- Minimum Target Term GPA to not be on probation
- Similar variables for Progress Probation

Excel file with formulas: bit.ly/probation-target-gpa

Goal: Predict Probation (Yes/No)



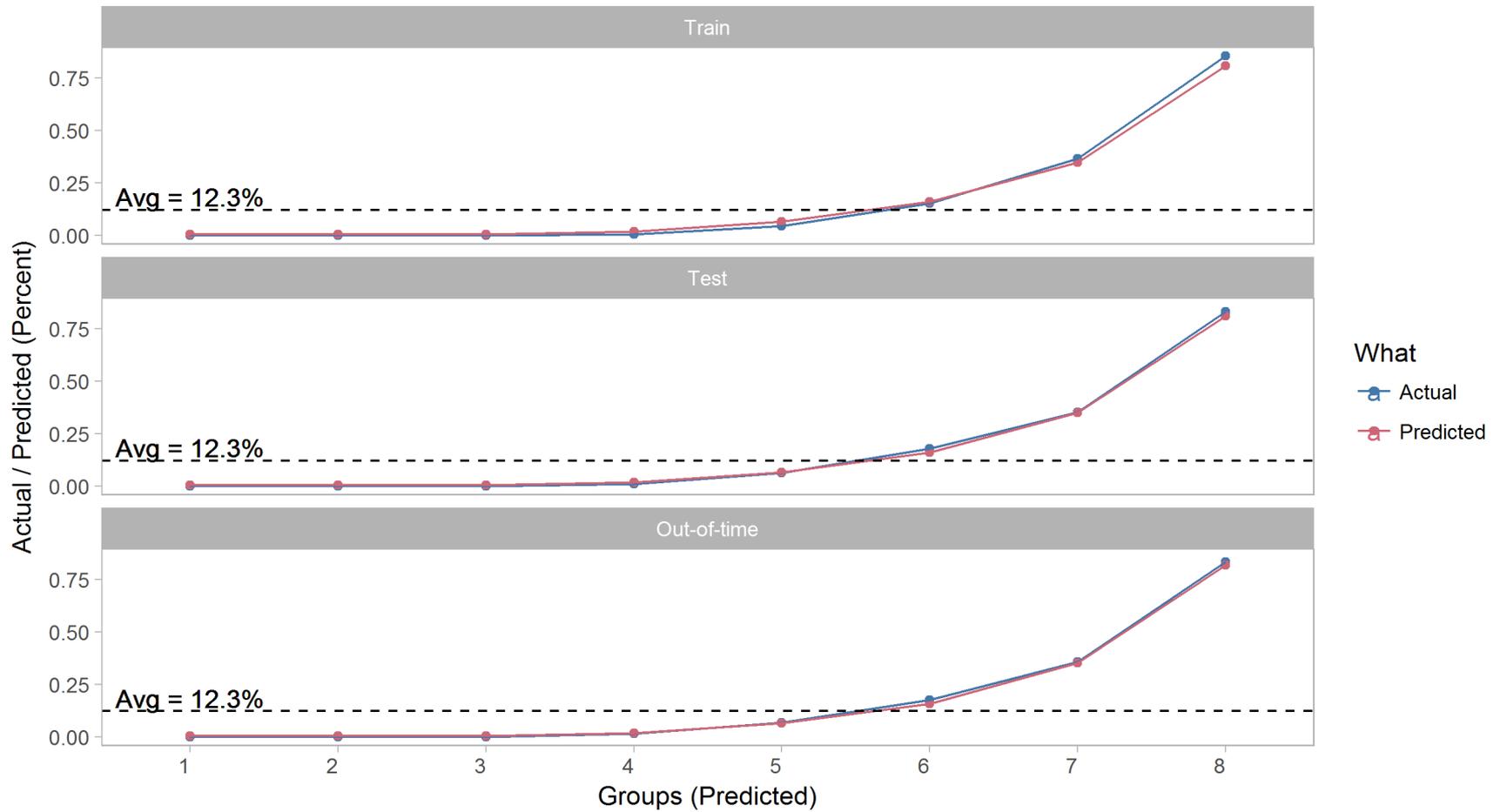
Build model using “Train” set, and validate on “Test” and “Out-of-time” samples
Method: Gradient Boosted Trees

Model Performance

Student ID	Risk Score	Other Variables
123456	80 %	
987654	79 %	
963852	77 %	
999999	75 %	
...		

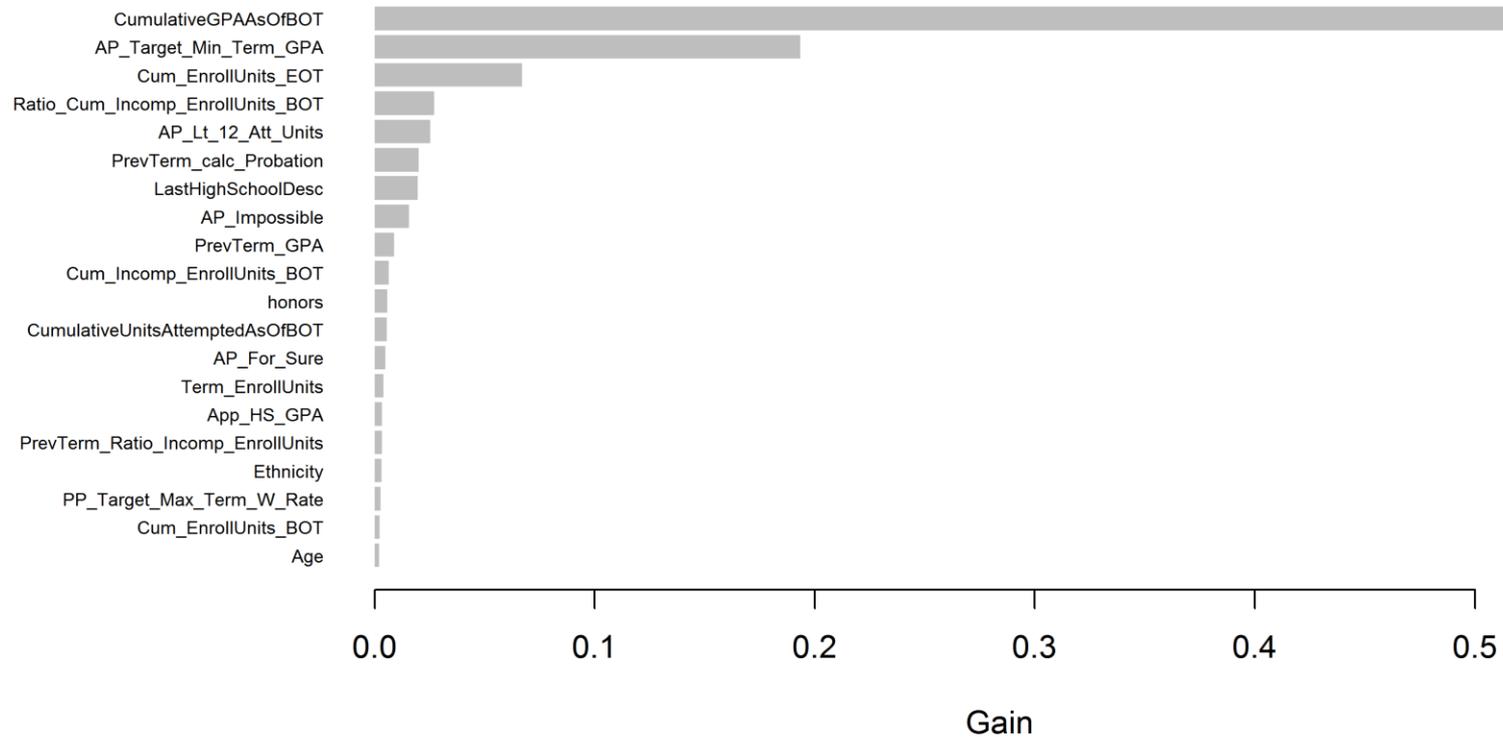
1. Sort students by risk
2. Group students into buckets of risk
3. Compare: average risk score vs. actual probation
4. Repeat for: Train, Test, and Out-of-time sets

Model Performance



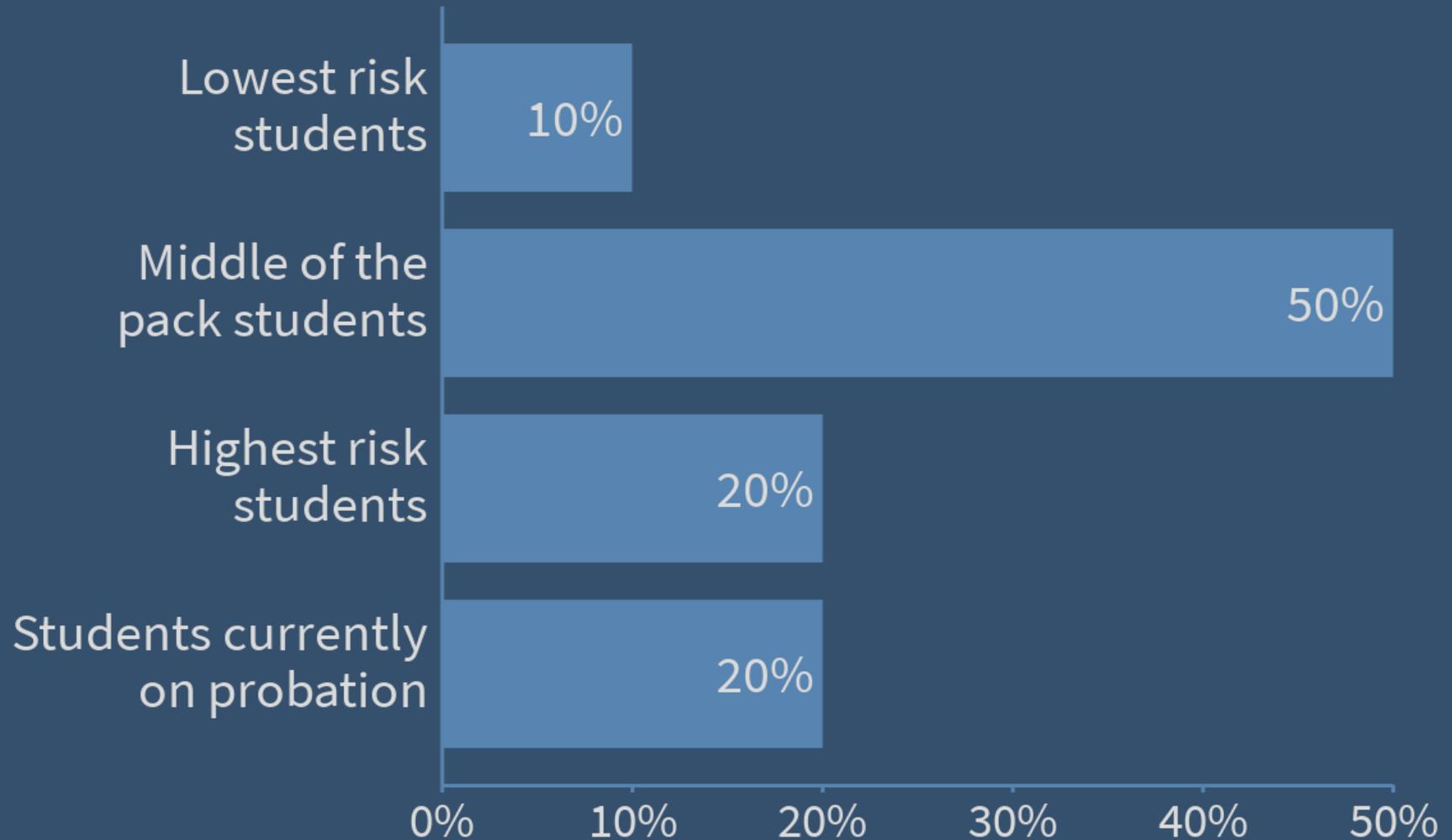
Model appears to validate well!

Feature Importance



GPA-, units-, and probation-related variables dominate!

With a probation risk model, who would you focus your case management efforts on?

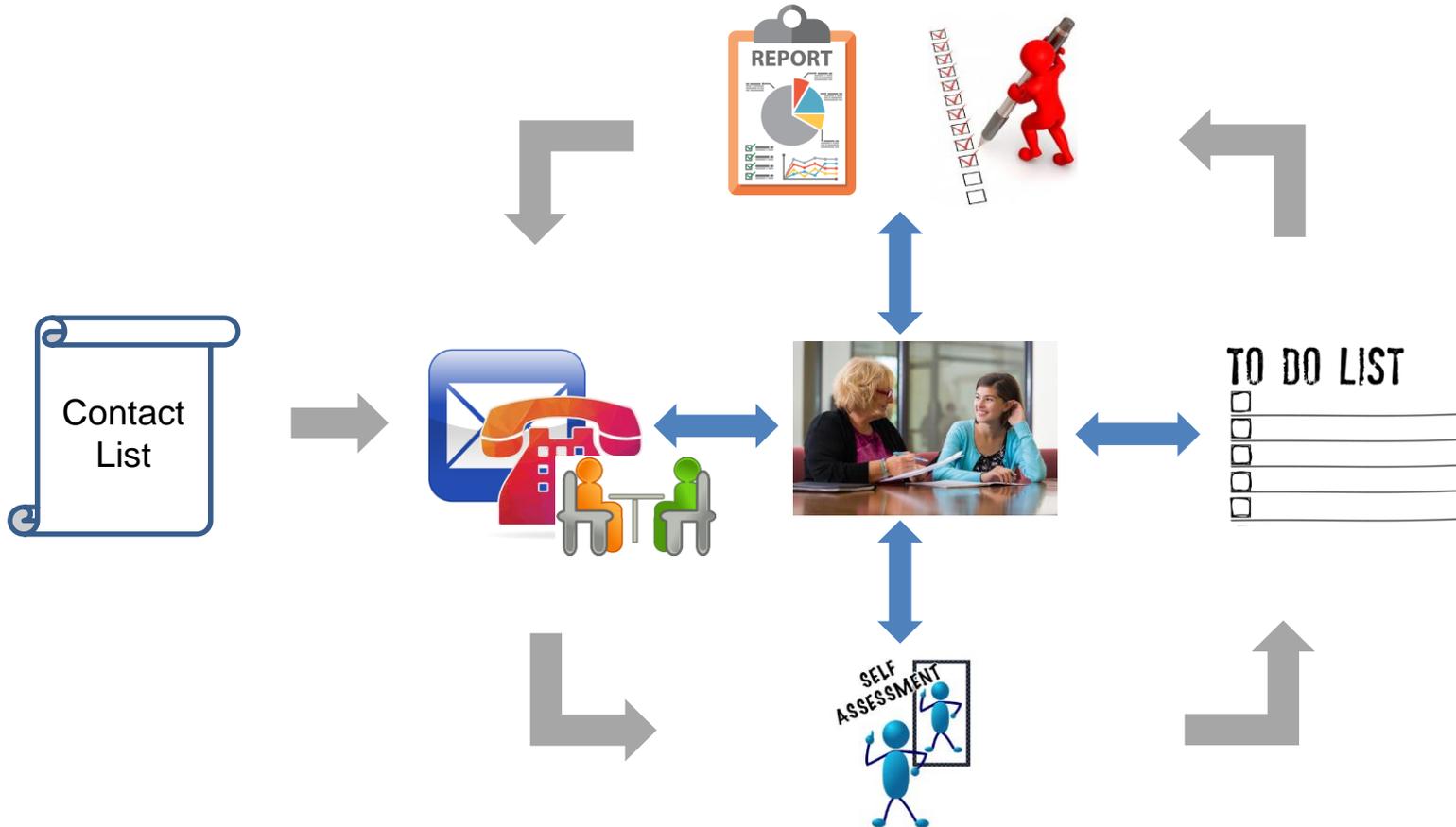


Spring 2019 Pilot

Focus: students *currently* on academic probation with a minimum target GPA of **2.0 – 3.0**

- Within “reach” of altering trajectory
- ~ 500 students
- Pilot with 133 students

Spring 2019 Pilot



Questionnaire: challenges -> resources

Daily Email/Report

Daily report to counselors

- Student action items -> Yes/No -> Follow-up via phone/email

	Event_Name	N_Students	N_Complete	Pct_Complete
1	Can't track: Online Probation Workshop	133	0	0.00
2	Probation Counseling Team	133	0	0.00
3	Counseling - Probation	133	6	4.51
4	Self-assessment	133	19	14.29
5	Success Workshop	133	31	23.31
6	Counseling - Personal	10	0	0.00
7	Time Management Workshop	10	0	0.00
8	Counseling - Academic Planning	8	0	0.00
9	Counseling - Academic/Career/Transfer	8	2	25.00
10	Student Success Center	7	1	14.29
11	Math/Writing Center	7	2	28.57
12	Health Center Counseling	4	0	0.00
13	Choosing a Major Workshop	3	0	0.00
14	Study Skills Workshop	3	0	0.00

Next Steps

- Spring 2019: Feasibility / testing pilot
- Fall 2019: Modify logistics (what works, what doesn't), modify target students, and create a more formal program
- Spring 2020 / RP 2020: Evaluation - reduce number of students on probation (???)

Thank You!

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