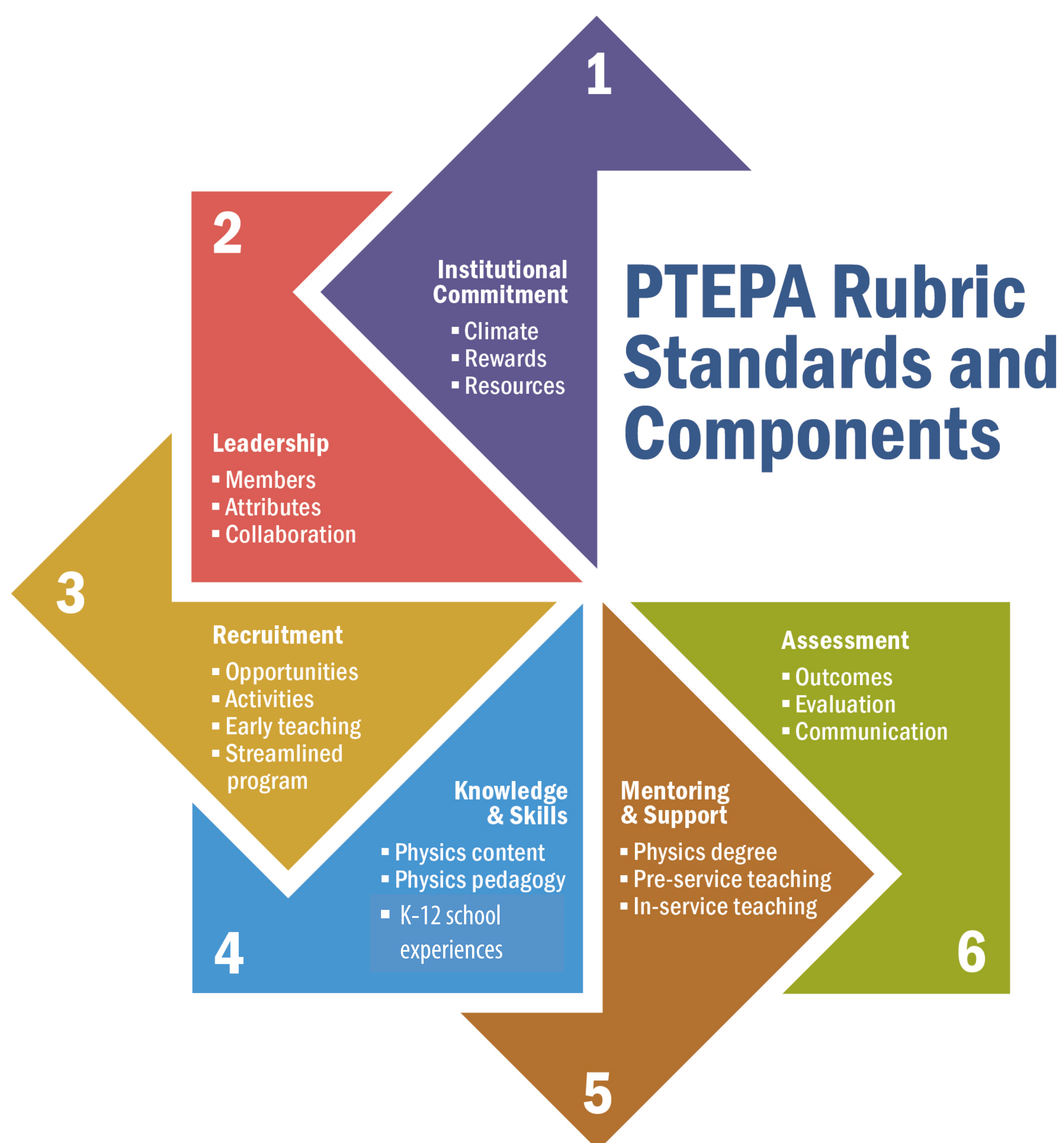


# The Physics Teacher Education Program Analysis (PTEPA) Rubric

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- **Characterizes the practices and structures** observed at thriving physics teacher education programs.\*
- **Provides a specific, objective, and reliable guide** for physics teacher educators seeking to improve their programs.
- **Supports research** on physics teacher education programs.

[phystec.org/thriving](http://phystec.org/thriving)

## Sample from PTEPA Rubric – fixed version

**Standard 2 Leadership and Collaboration**  
The program has an effective leadership team, including effective collaboration between physics and education.

	NP	Possible attributes at Developing Level	Possible attributes at Benchmark Level	Possible attributes at Exemplary Level
<b>2A: Program Team Members</b> The program consists of a team <sup>1</sup> whose members are in positions that enable effective leadership.				
2A.1 PTE program leaders <sup>1</sup>	<input type="checkbox"/>	Program leaders include at least one faculty member.	Program leaders include two or more faculty members.	Program leaders include three or more faculty members.
2A.2 PTE program team <sup>2</sup>	<input type="checkbox"/>	Team consists of one person in addition to the leadership.	Team consists of two people in addition to the leadership.	Team consists of at least two people in addition to the leadership, at least one of whom is a faculty member.
2A.3 Teacher in Residence (TIR) <sup>3</sup>	<input type="checkbox"/>	There is a part-time physics TIR, or there is a science TIR (at any TIR).	There is one FTE physics TIR.	There is more than one FTE physics TIR.
2A.4 Teacher Advisory Group (TAG) <sup>4</sup>	<input type="checkbox"/>	There is a science TAG.	There is a physics TAG (significant physics teacher membership).	There is a physics TAG that is readily available for consultation by the PTE team.

## Sample from PTEPA Rubric – interactive version

**Standard 2 Leadership and Collaboration**  
The program has an effective leadership team, including effective collaboration between physics and education.

	NP	Possible attributes at Developing Level	Possible attributes at Benchmark Level	Possible attributes at Exemplary Level	Item Information
2A.1 PTE program leaders <sup>1</sup>	<input type="checkbox"/>	Program leaders include at least one faculty member.	Program leaders include two or more faculty members.	Program leaders include three or more faculty members.	
2A.2 PTE program team <sup>2</sup>	<input type="checkbox"/>	Team consists of one person in addition to the leadership.	Team consists of two people in addition to the leadership.	Team consists of at least two people in addition to the leadership, at least one of whom is a faculty member.	
2A.3 Teacher in Residence (TIR) <sup>3</sup>	<input type="checkbox"/>	There is a part-time physics TIR, or there is a science TIR (at any TIR).	There is one FTE physics TIR.	There is more than one FTE physics TIR.	
2A.4 Teacher Advisory Group (TAG) <sup>4</sup>	<input type="checkbox"/>	There is a science TAG.	There is a physics TAG (significant physics teacher membership).	There is a physics TAG that is readily available for consultation by the PTE team.	

### Explanation of item levels

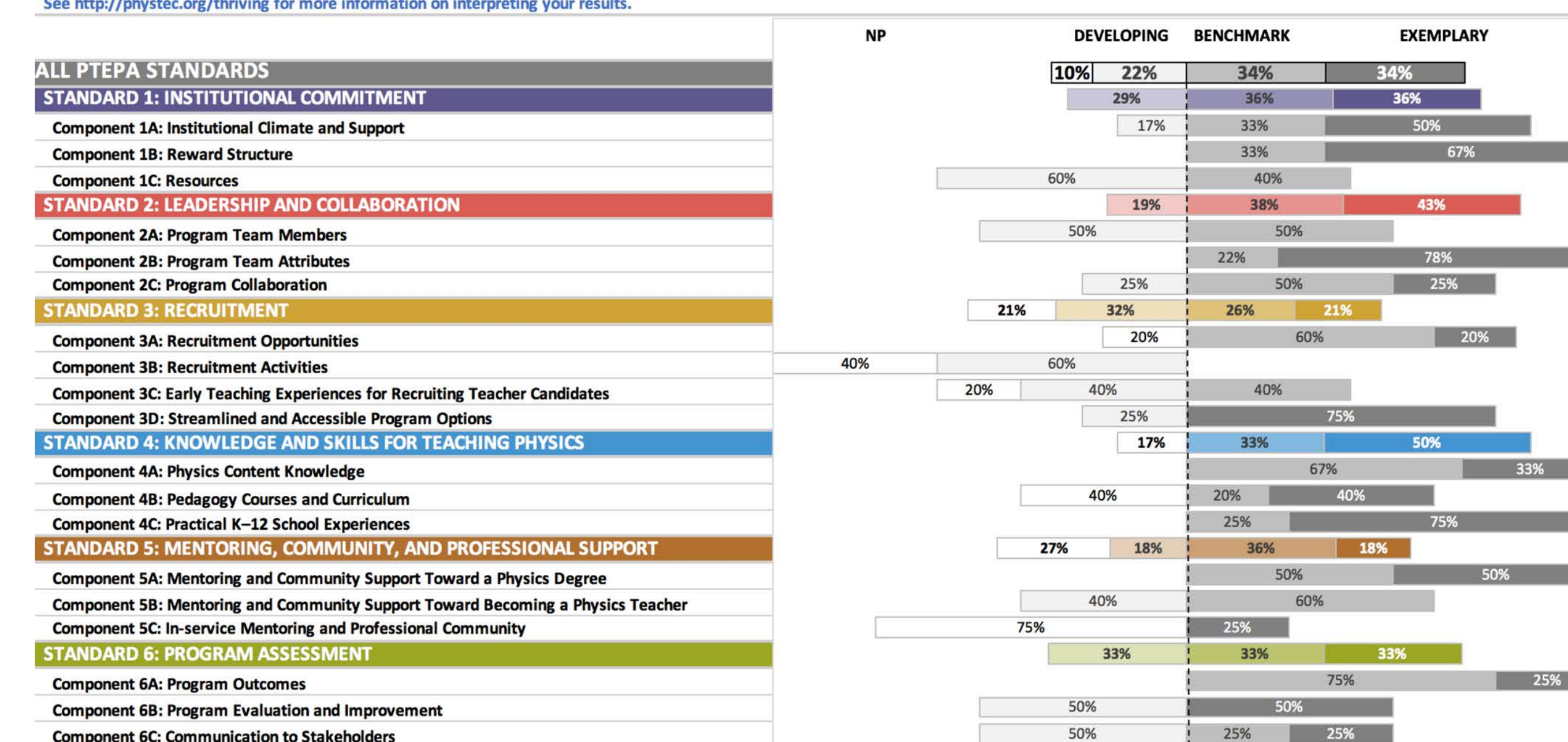
- Not present:** Item is not present in the program.
- Developing:** The program performs better than a typical US institution of higher education on that item.
- Benchmark:** The program performs at a recommended level on that item.
- Exemplary:** The program is among the best-performing on that item.

\* **Thriving programs** are defined as large-university programs that frequently graduate five or more physics teachers per year.

## Sample PTEPA Rubric results report

### Your PTEPA Rubric Results

The length of each bar represents the percentage of items falling at the given level (NP/Developing/Benchmark/Exemplary) for that Standard or Component. The shading represents the level achieved, with the lightest shade representing NP, and the darkest shade Exemplary. The center line represents the division between Developing and Benchmark, to aid you in identifying areas where your program does not meet Benchmark status. See <http://phystec.org/thriving> for more information on interpreting your results.



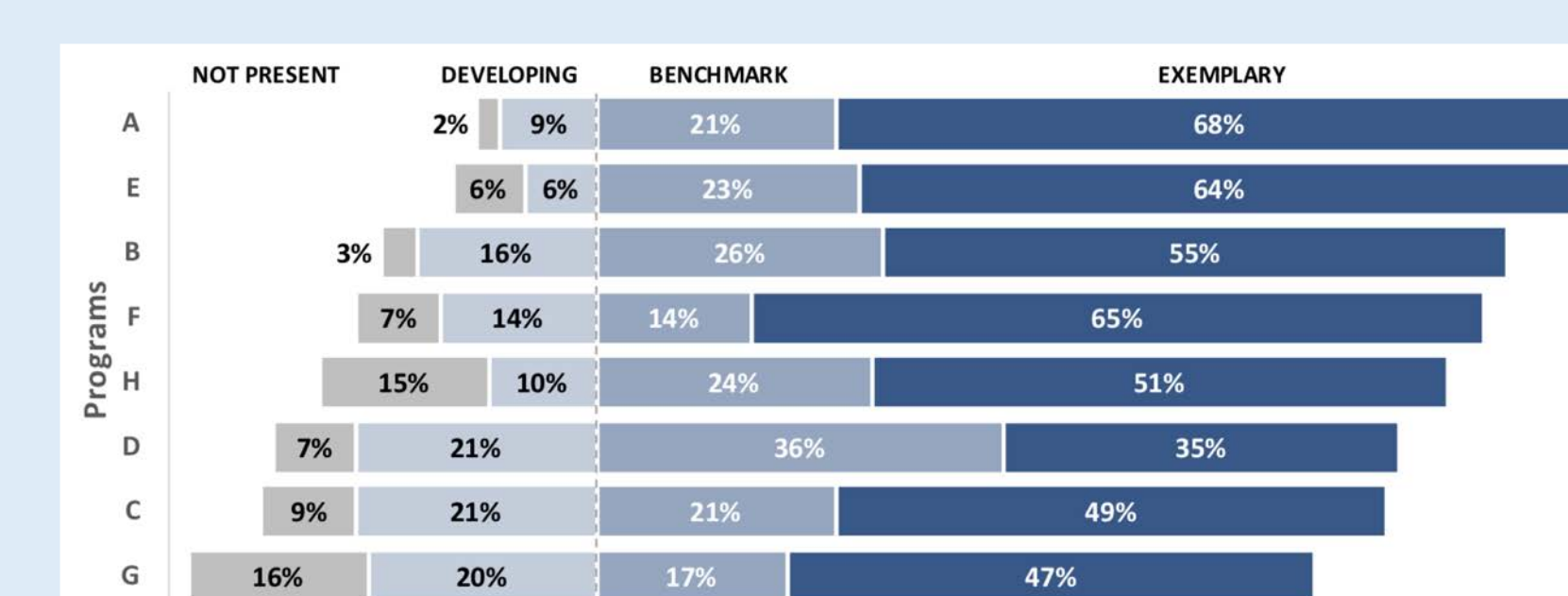
## RECOMMENDATIONS FOR PHYSICS TEACHER EDUCATION PROGRAMS

- Complete the PTEPA Rubric
- Consider aligning features with thriving programs
- Engage in continuous improvement

## QUESTIONS FOR RESEARCHERS

- Are different PTEPA Rubric results associated with different rates of physics teacher production?
- Does improving a program's PTEPA Rubric results lead to an increase in its number of teacher graduates?
- Are there missing elements in the PTEPA Rubric?
- Do certain elements of the PTEPA Rubric tend to appear together?
- Are there common patterns of PTEPA Rubric results?
- What should particular physics teacher education programs prioritize in order to support the highest possible teacher graduation rate?

## Thriving programs are not strong on all items



## DEVELOPMENT OVERVIEW

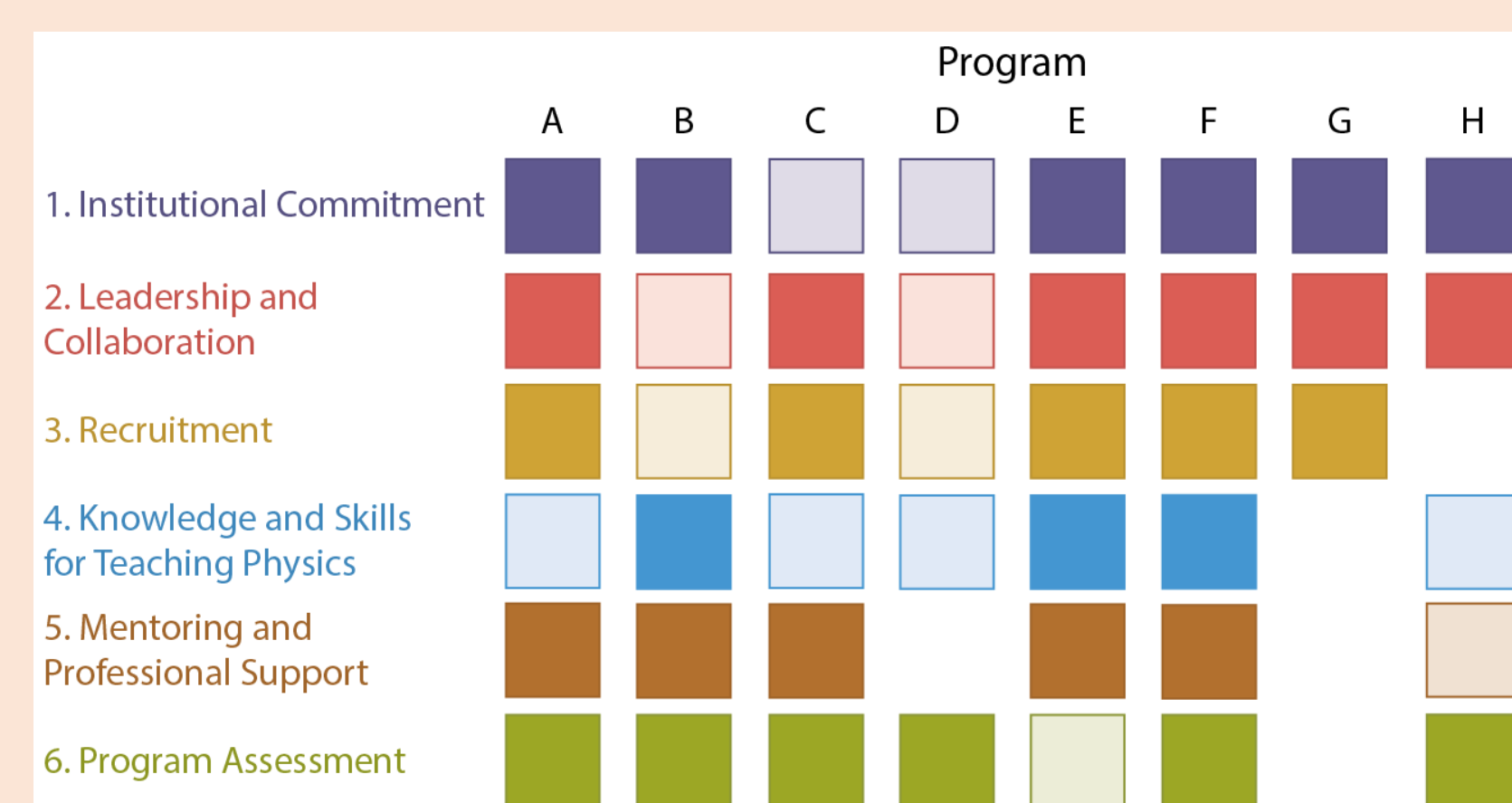
Early drafts informed by existing instruments, especially:

- the Teacher Education Program Assessment (Coble et al, 2012)
- the PhysTEC Key Components ([phystec.org/keycomponents](http://phystec.org/keycomponents))
- the report of the Task Force on Teacher Education in Physics (T-TEP) (Meltzer, Plisch, & Vokos, 2012)
- several reports on strong physics programs and career preparation

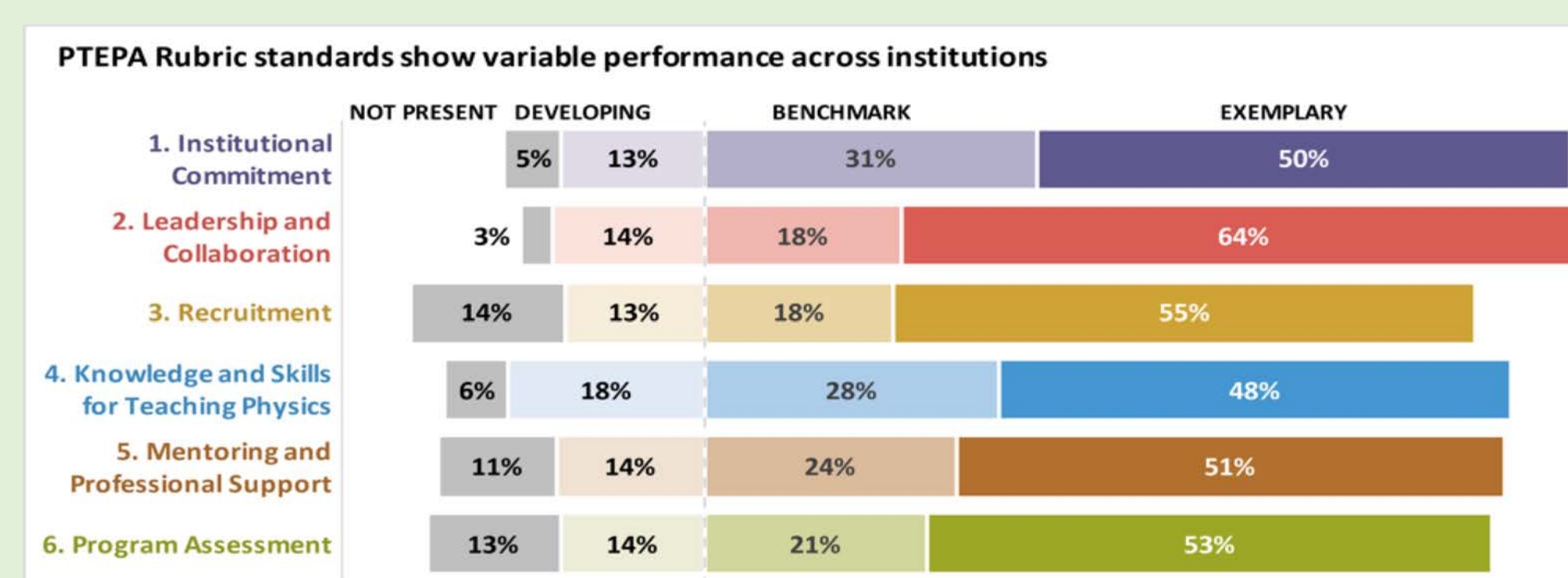
Shaped to represent what researchers observed at the eight diverse thriving\* programs in the study:



## Thriving programs are strong in multiple PTEPA Rubric standards



## Thriving programs are most consistently strong in the first two PTEPA Rubric standards



## What research questions could the PTEPA Rubric help YOU answer?

