

# Student Momentum—Transfer

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*SAGE 2YC: FACULTY AS CHANGE AGENTS:  
CULMINATING WORKSHOP*

JUNE 20, 2019

# TRANSFER | MOMENTUM | GEOSCIENCE | CHANGE

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*What comes to mind?*

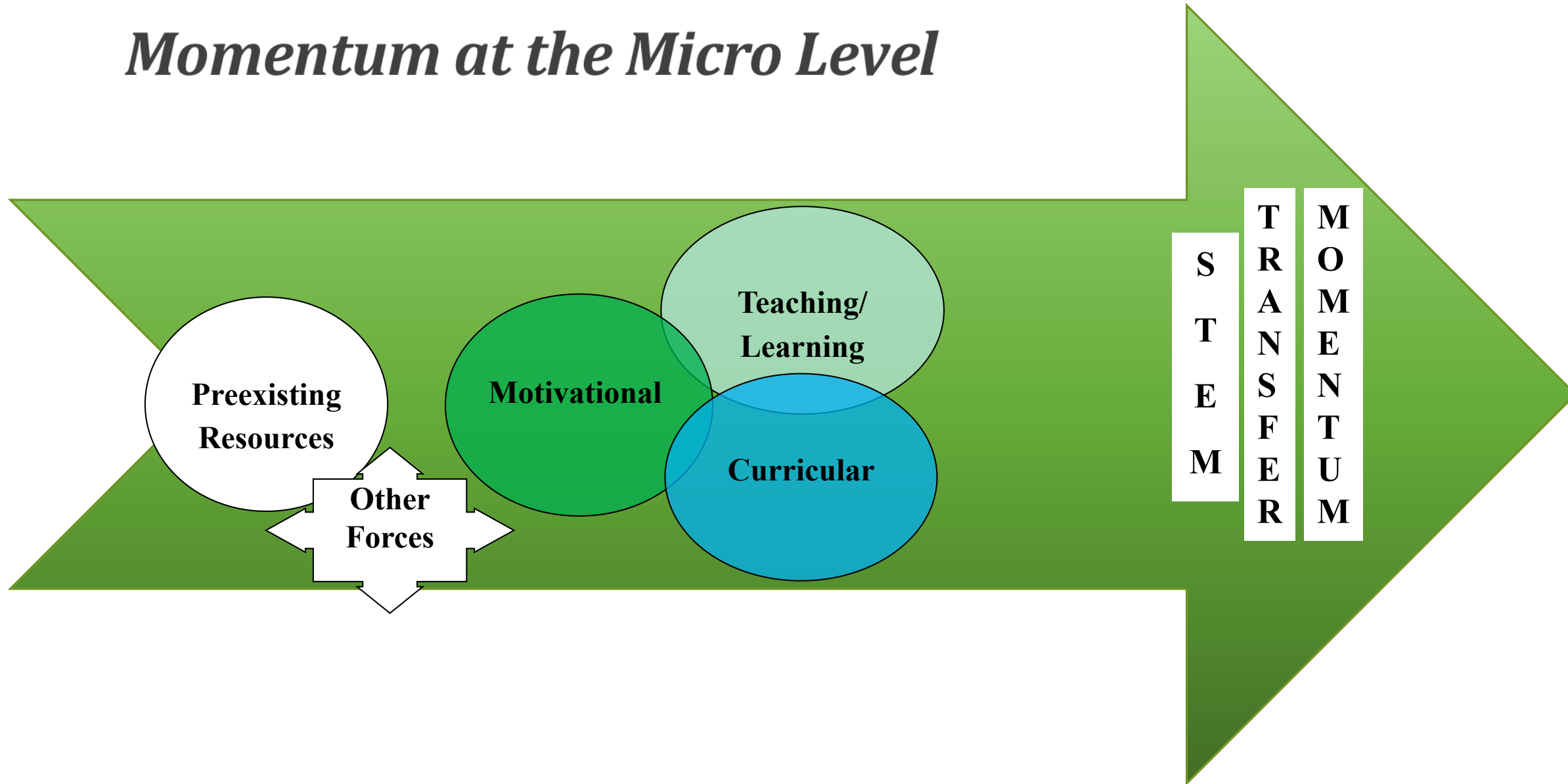
*What concerns you the most?*

## **Momentum Matters for Transfer**

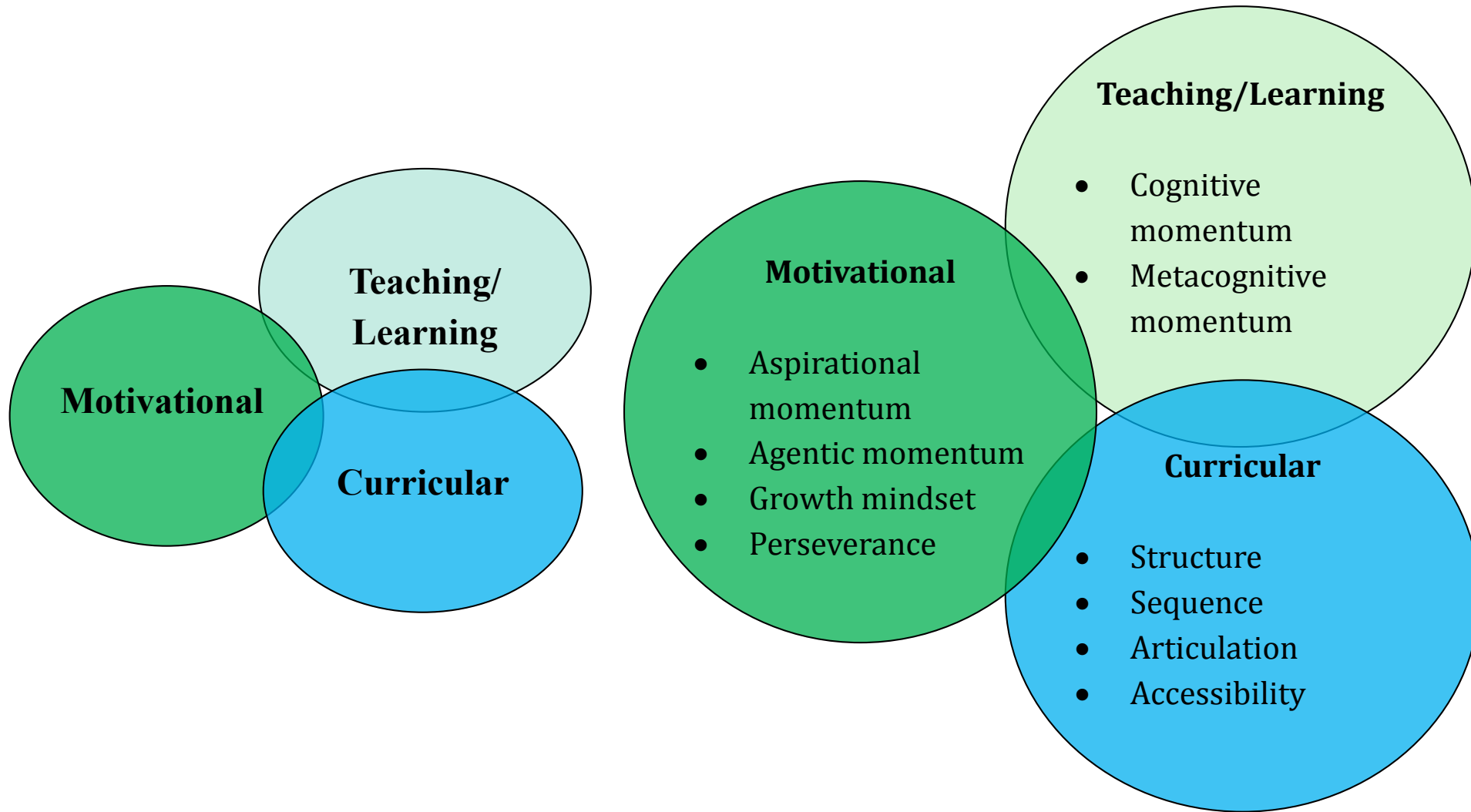
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- Impetus to progress toward transfer
- Premises underlying momentum:
  - (1) Momentum has multiple aspects (aligning with the mass, velocity, and direction of classical mechanics);
  - (2) Momentum is changeable and can be shaped by internal and external forces that exert mutual influence on each other;
  - (3) Force is either positive/parallel helping build momentum or negative/non-parallel deterring or redirecting momentum.

# *Momentum at the Micro Level*

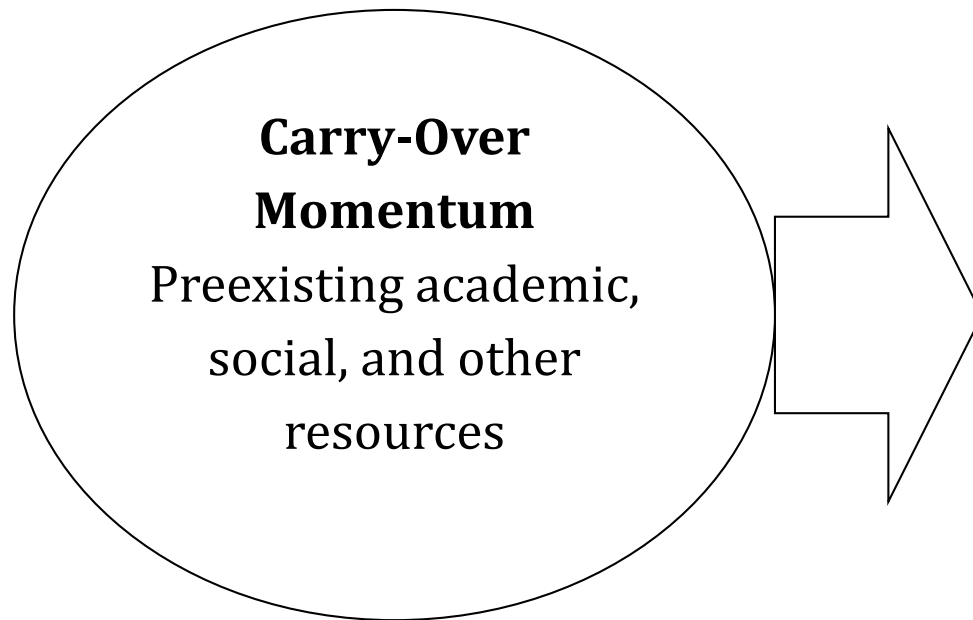


# *Momentum at the Micro Level*



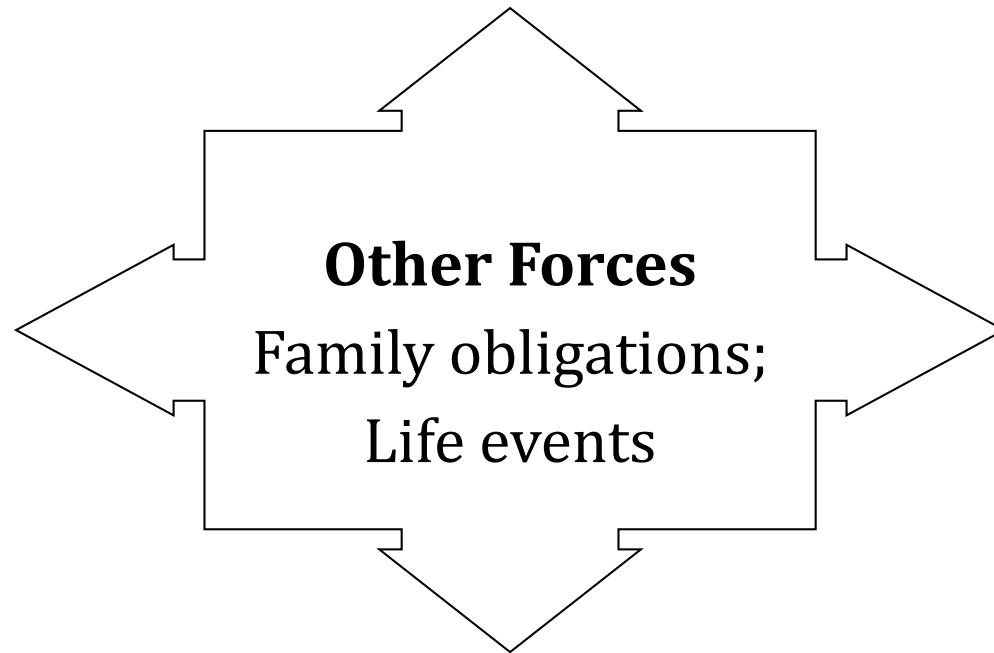
# ***Carry-Over Momentum Prior to College Entry***

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# ***Other Forces***

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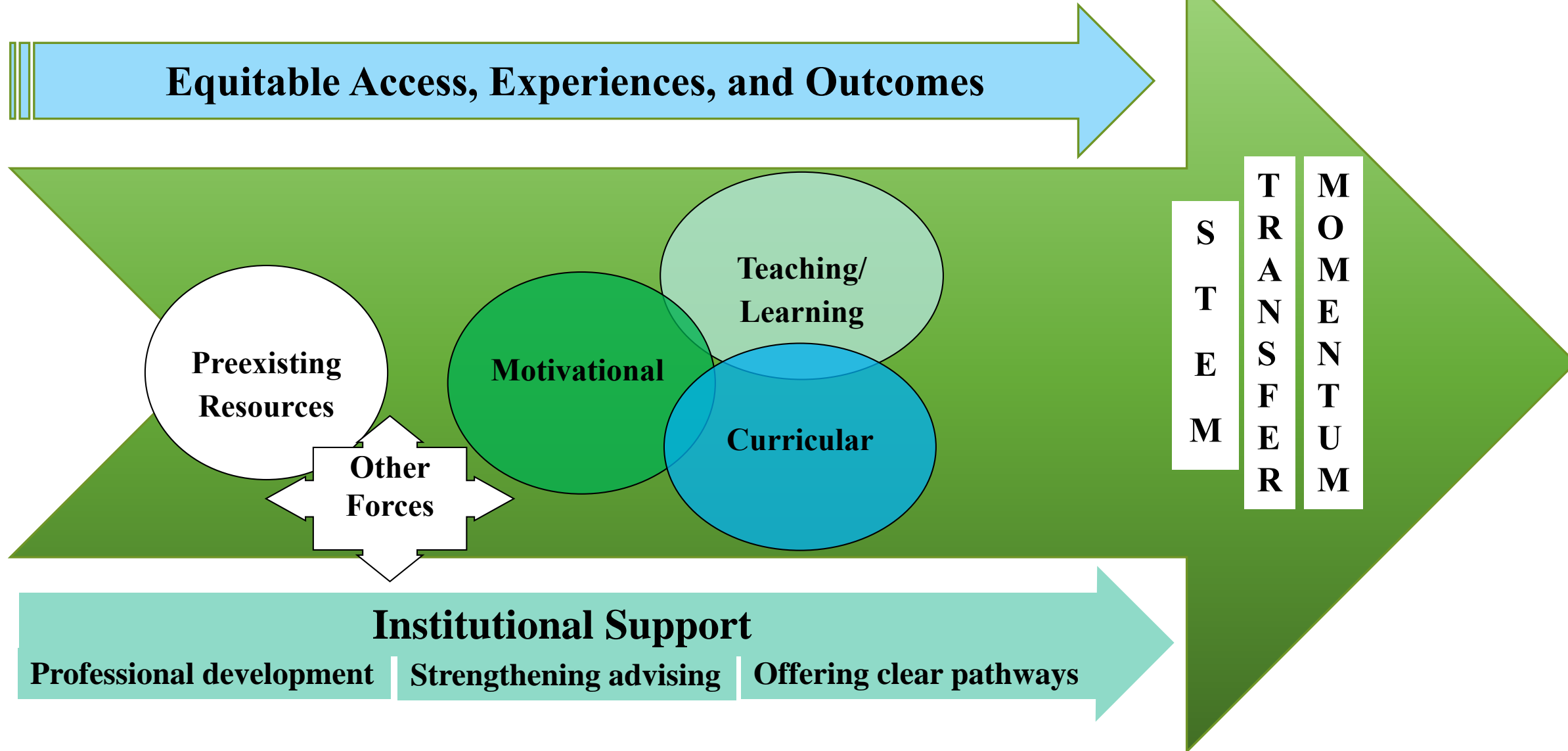
## *Counter-Momentum Frictions*

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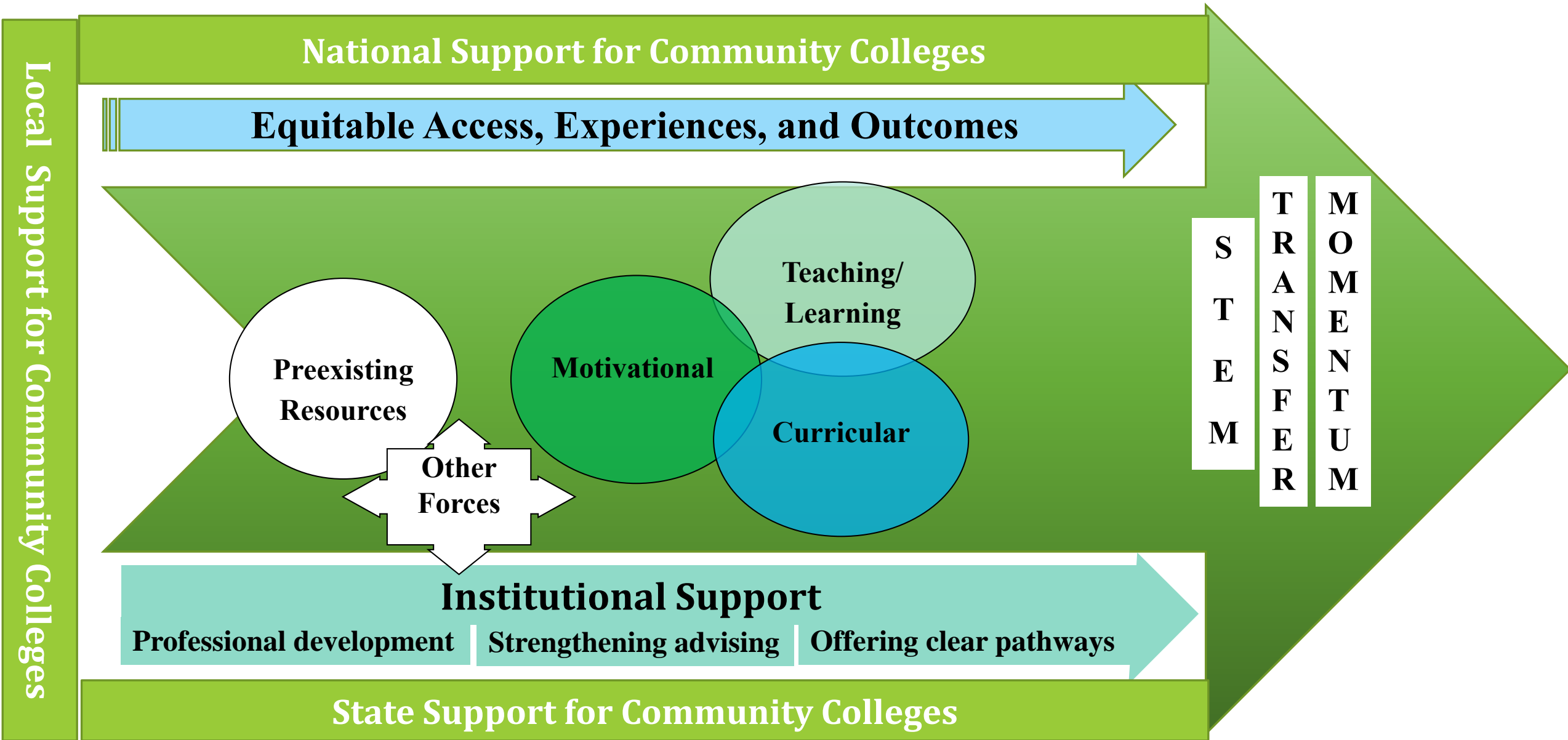
- Financial barriers
- Lack of clear pathways aligned with student intent
- Insufficient, inaccurate, or lack of advising
- Lack of professional development
- *Inequitable access, experiences, and outcomes*



# *Momentum at the Micro and Meso Level*



# *Momentum at the Micro, Meso, and Macro Level*



# Setting up the cases—

A longitudinal (2014-2019), sequential explanatory mixed methods study

**Two-year colleges with a transfer mission in a midwestern state**

**Students beginning in STEM programs or courses**

**•Data sources**

- Survey data: *Expanding STEM Talent Survey*
- Administrative and transcript records
- Student interviews

# ***“On My Own”*: The Challenge and Promise of Building an Equitable STEM Transfer Pathway for Two-Year College Students**

## **Key Findings**

*Four momentum trajectories*

*Left to their own devices*

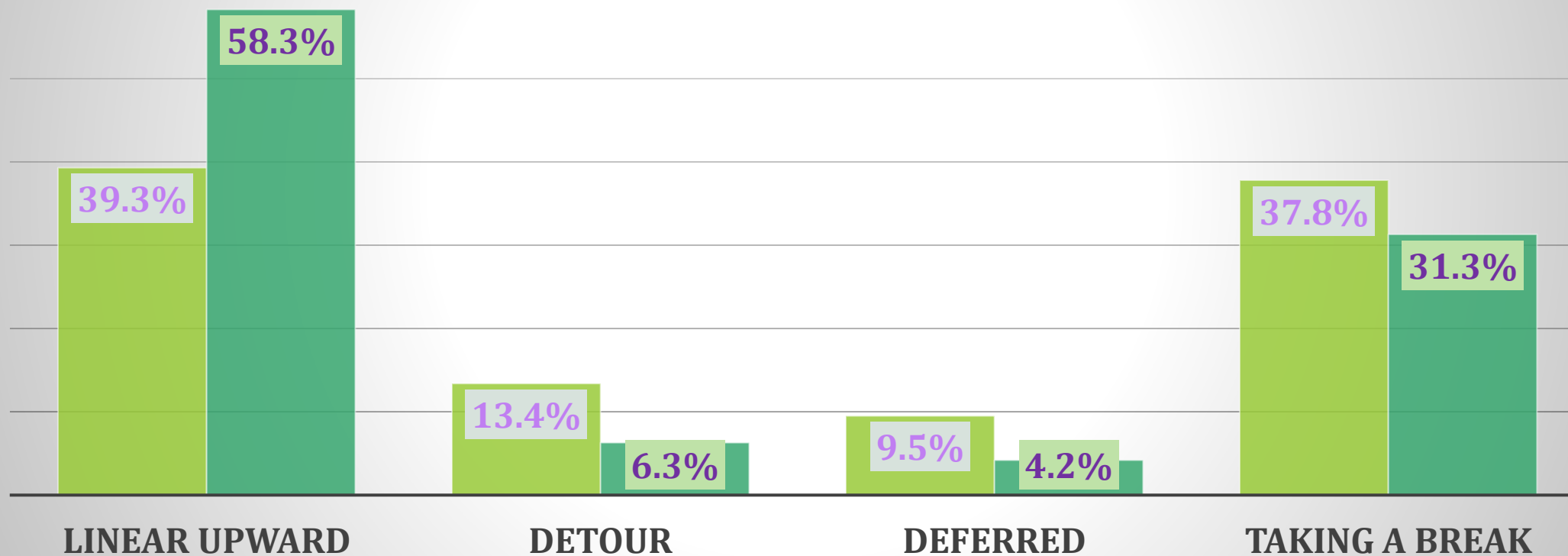
*The centrality of math and active learning as a double-edged sword*

*Underrepresented and Underserved*

*Tempered aspirations: Is transfer who I am?*

# Momentum Trajectories among Transfer Aspiring Students

■ Non-Geoscience   ■ Geoscience



# Workshop Activity: Case Discussion



*"You do have to search for it yourself."*

*—Jordan [Linear Upward]*



*"I've already wasted the last six years trying to figure out what I want to do."*

*—Seamus [Detoured]*



*"I have to get a job first."*

*—Kanda [Deferred]*



*"I can't make this decision on my own."*

*—Katy [Taking a Break]*

# Workshop Activity

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- 1. Individually, read the case AND complete the worksheet on the reverse side. (5 min)**
- 2. Small group discussion of the case, building on your response per step 1. (10 min)**

# Final reflection: When thinking about student transfer....

