

Trends in Early Momentum Metrics Ohio Community Colleges

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Metrics for Improvement: Student Momentum as Leading Indicator

- Leading indicators: Actionable and timely, predictive of longer-term (lagging) outcomes
 - Important for multi-year college reforms; if leading indicators do not improve, it is unlikely that longer-term outcomes improve
- **If equity gaps do not close in the short-term, it is unlikely that they will close in the long-term**



Early Momentum Metrics Leading Indicators for Community College Improvement

By Clive R. Bejfeld, Davis Jenkins, and John Fink

As community colleges across the country implement large-scale reforms to improve student success, they need timely and actionable metrics to determine if the changes they are making in a given year or term will likely improve student outcomes in the long run. In this brief, we examine how well nine measures of students' progress in their first year predict student completion in subsequent years and thus how suitable these early momentum metrics, or EMMs, are as leading indicators of the effectiveness of institutional reforms.

Based on analysis of student data from all community colleges in three states, we find that EMMs do predict longer term success for students. We also find that a key factor in low completion rates, as well as in equity gaps in completion rates, is that many students do not gain early momentum in their first year. College outcomes would be substantially higher if more students met EMMs. Our findings indicate the need for comprehensive reforms to community college organization and practice to help more students gain early momentum on their way to earning a credential.

Based on analysis in three states, we find that measures of student progress in the first year predict student completion in subsequent years.

First-Year Indicators of Longer-Term Success

Throughout the nation, two-year and four-year colleges are recognizing that to "move the needle" on collegewide measures of success (e.g., completion rates) major redesign across the entire institution may be required to ensure that its programs, policies, and practices are well designed and aligned to promote student success. Hundreds of community colleges across the country are adopting whole-college reforms commonly referred to as "guided pathways" (Bailey, Jaggars, & Jenkins, 2015). As part of these reforms, colleges are mapping requirements and options for programs of study so that they are aligned with desired employment and transfer outcomes, redesigning the onboarding process to help new students explore options and interests and develop an academic completion plan, and revamping advising to better support students in making timely progress toward completion of a credential. Faculty are also working together across disciplines to ensure that curricula and teaching prepare students to succeed in employment and transfer in their field of study.

Because they involve a redesign of college practices at scale, guided pathways reforms take several years to implement (Jenkins, Lahr, Fink, & Ganga, 2018, pp. 2-3). Given that whole-college

Early Momentum Metrics

a) **Credit momentum:**

1. Earned 6+ credits in 1st term
2. Earned 12+ credits in 1st term
3. Earned 15+ credits in Year 1
4. Earned 24+ credits in Year 1
5. Earned 30+ credits in Year 1

b) **Gateway Course momentum:**

6. Passed college English in year 1
7. Passed college math in year 1
8. Passed college English & math in year 1

c) **Persistence and College Course Completion KPIs**

9. Persisted from term 1 to term 2
10. Total college credits attempted per student
11. Total college credits completed per student
12. College-level Credit pass rate

Early Momentum Metrics

First-time-ever-in-college (FTEIC) fall student cohorts, tracked from entering fall through following summer terms

Includes:

- All students who attempted at least 1 credit course
- Full-time and part-time students
- Degree- and non-degree seeking students

Excludes:

- Students currently enrolled in dual enrollment/CCP
- Students who formerly participated in dual enrollment/CCP

February 2020 Early Momentum Reports

Materials

- PDF/Paper Report (10 Pages)
- Excel file including full, disaggregated results with statewide comparisons
- Tableau dashboard showing college improvements across the EMMs and in comparison to other, deidentified OACC colleges

Student Cohort Composition

The following chart show trends in student characteristics across the cohorts used in calculating the EMMs. Substantial changes in the cohort composition could account for changes in outcomes over time.

Filter by 2018 Cohort Size

(All) ▼

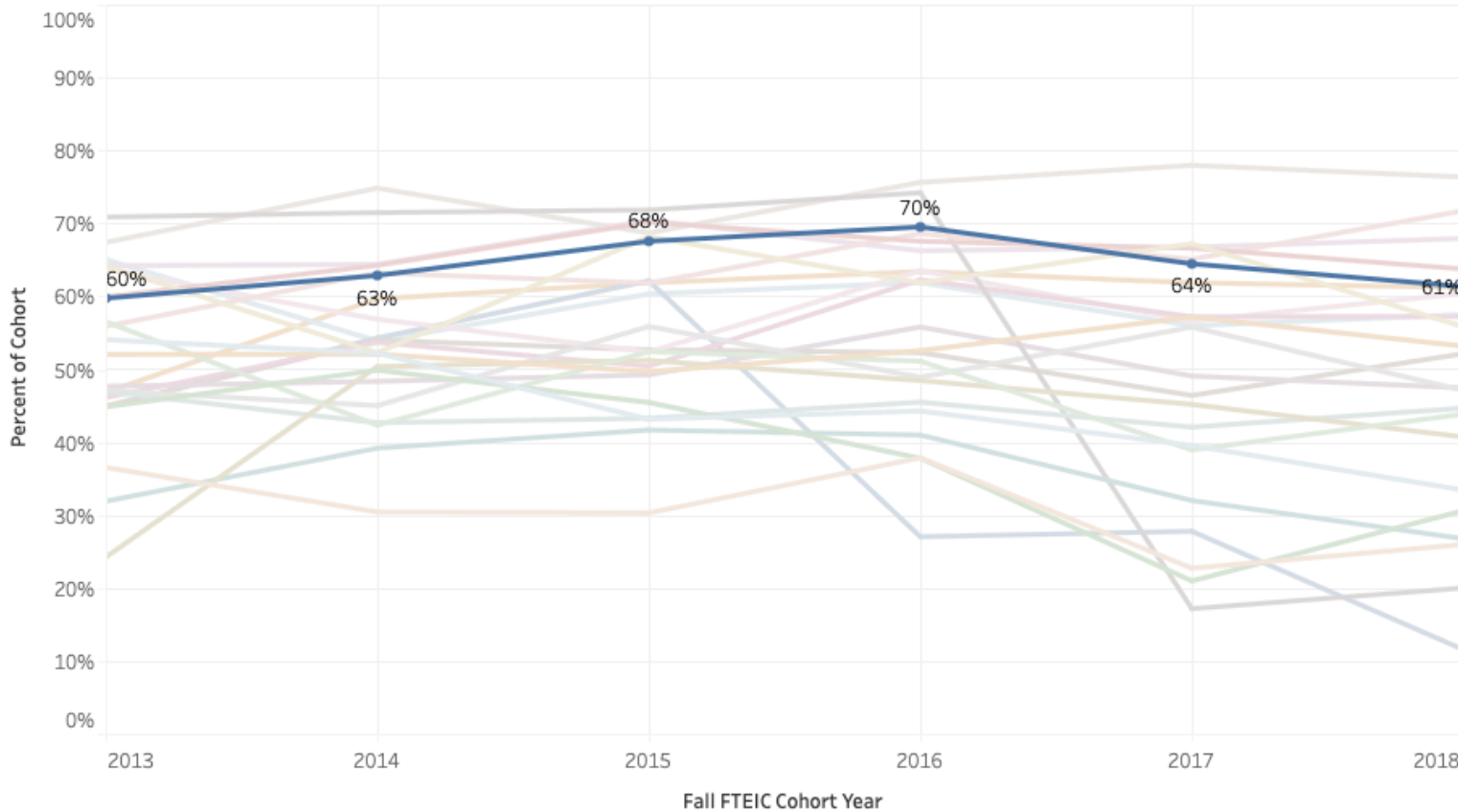
Student Characteristics

- Enrolled in 1 subject of dev ed
- Enrolled in 2 subjects of dev ed
- Full time
- Age: 18-19
- Age: 20-24
- Age: 25 and above
- Female
- Race/ethnicity: Black
- Race/ethnicity: Hispanic
- Race/ethnicity: Other
- Race/ethnicity: White
- Did not enroll in dev ed

Highlight Your College

- College 1
- College 2
- College 3
- College 4
- College 5
- College 6
- College 7
- College 8
- College 9
- College 10
- College 11
- College 12
- College 13
- College 14
- College 15
- College 16
- College 17
- College 18
- College 19
- College 20
- College 21
- College 22
- College 23
- OACC Colleges

Cohort Composition: Percent Age: 18-19



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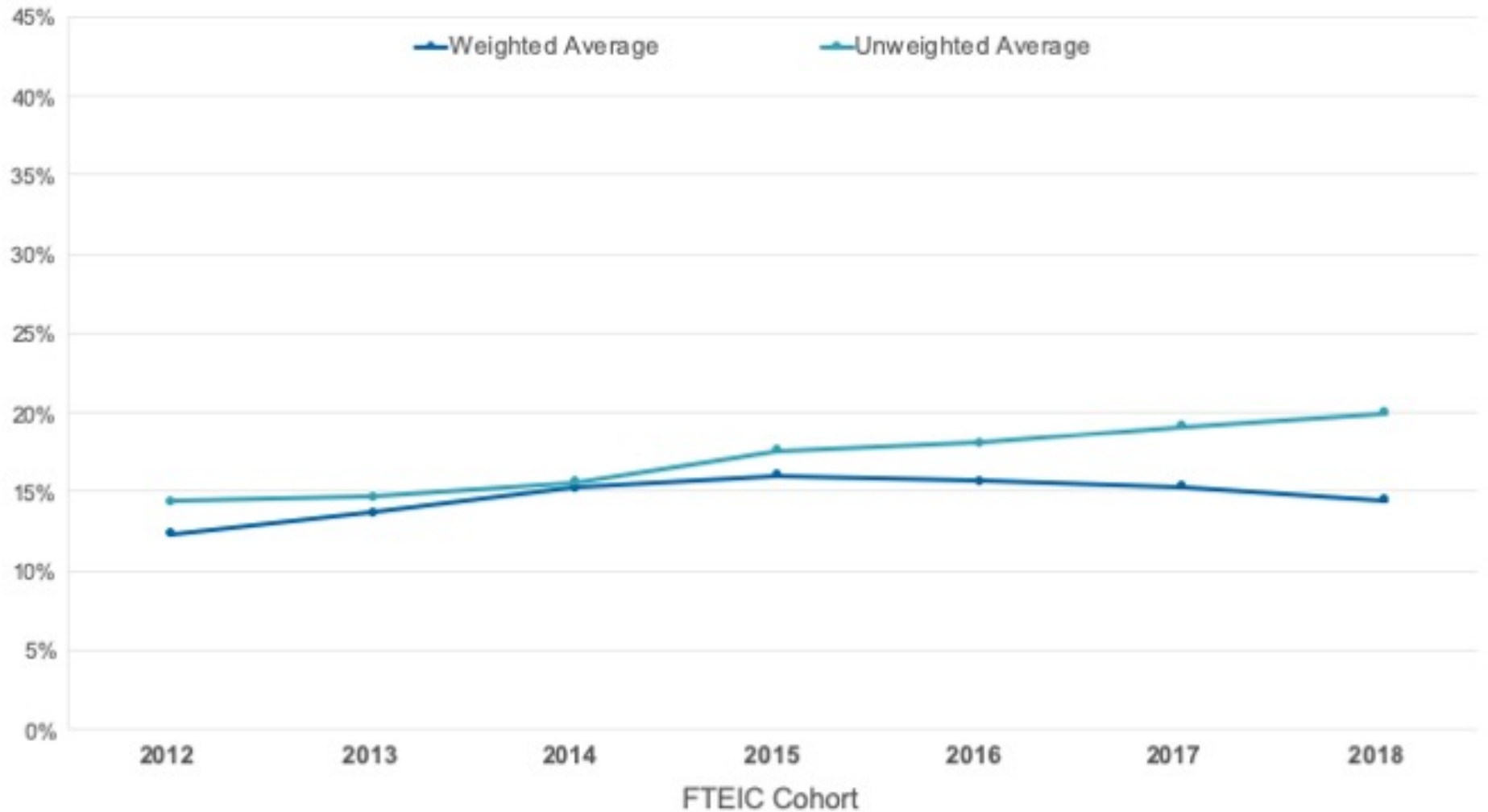
Caveats

- Fall 2017 Cohort Data Update
 - Additional summer 2018 course data
 - Updated HEI system crosswalk → excluded more students identified as former dual enrollment/CCP participants
 - Updated race/ethnicity file → more Hispanic students (fewer students in 'other race')
 - Most college metrics change ~1-3pp, some cases larger
- Given exclusion of former DE students in the FTEIC cohorts and expansion of CCP, be mindful of changing cohort composition over time (e.g., decrease in younger students)

OACC Trends: Early Momentum Metrics

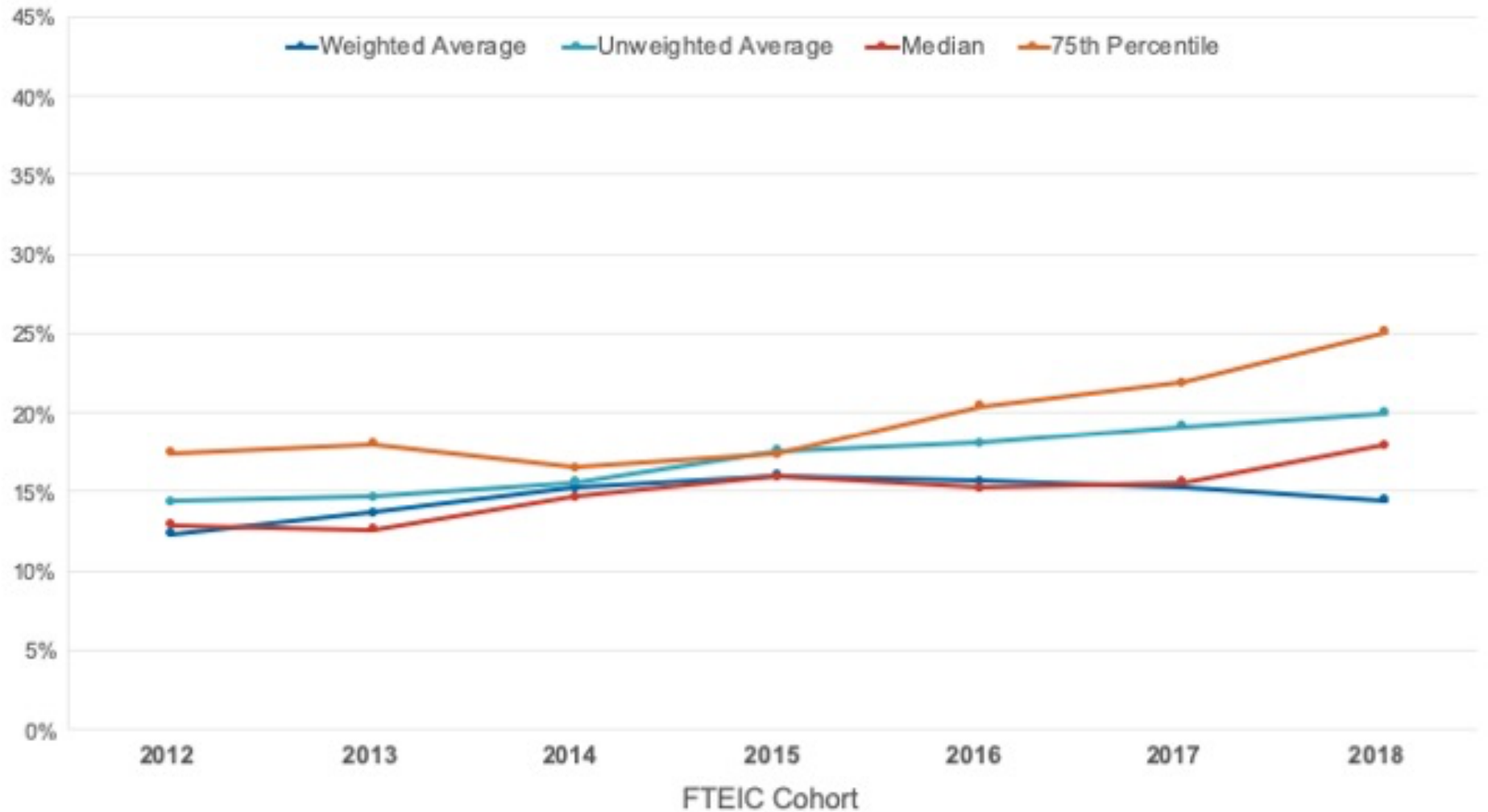
OACC Early Momentum Trends

Earned 12+ College Credits in Term 1



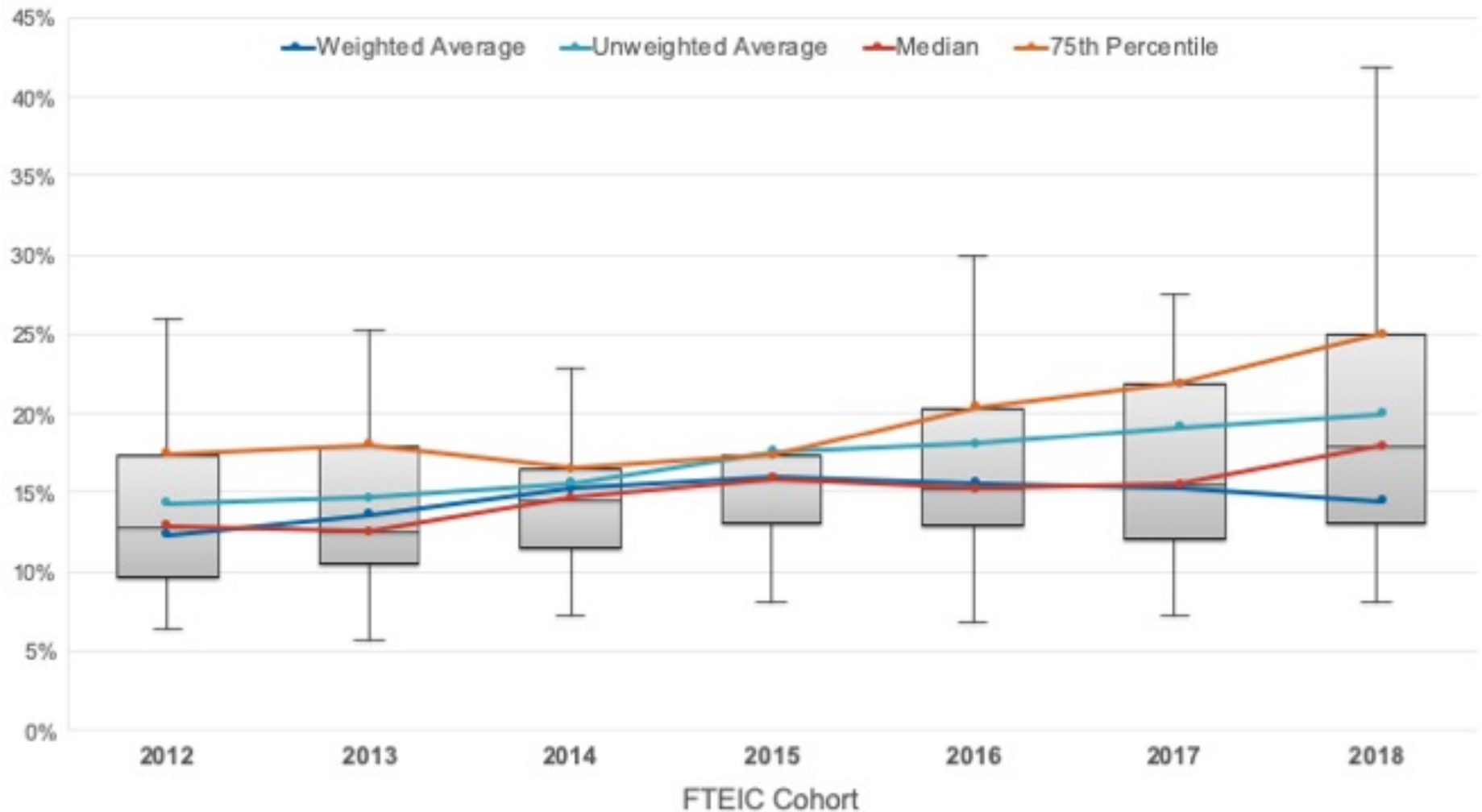
OACC Early Momentum Trends

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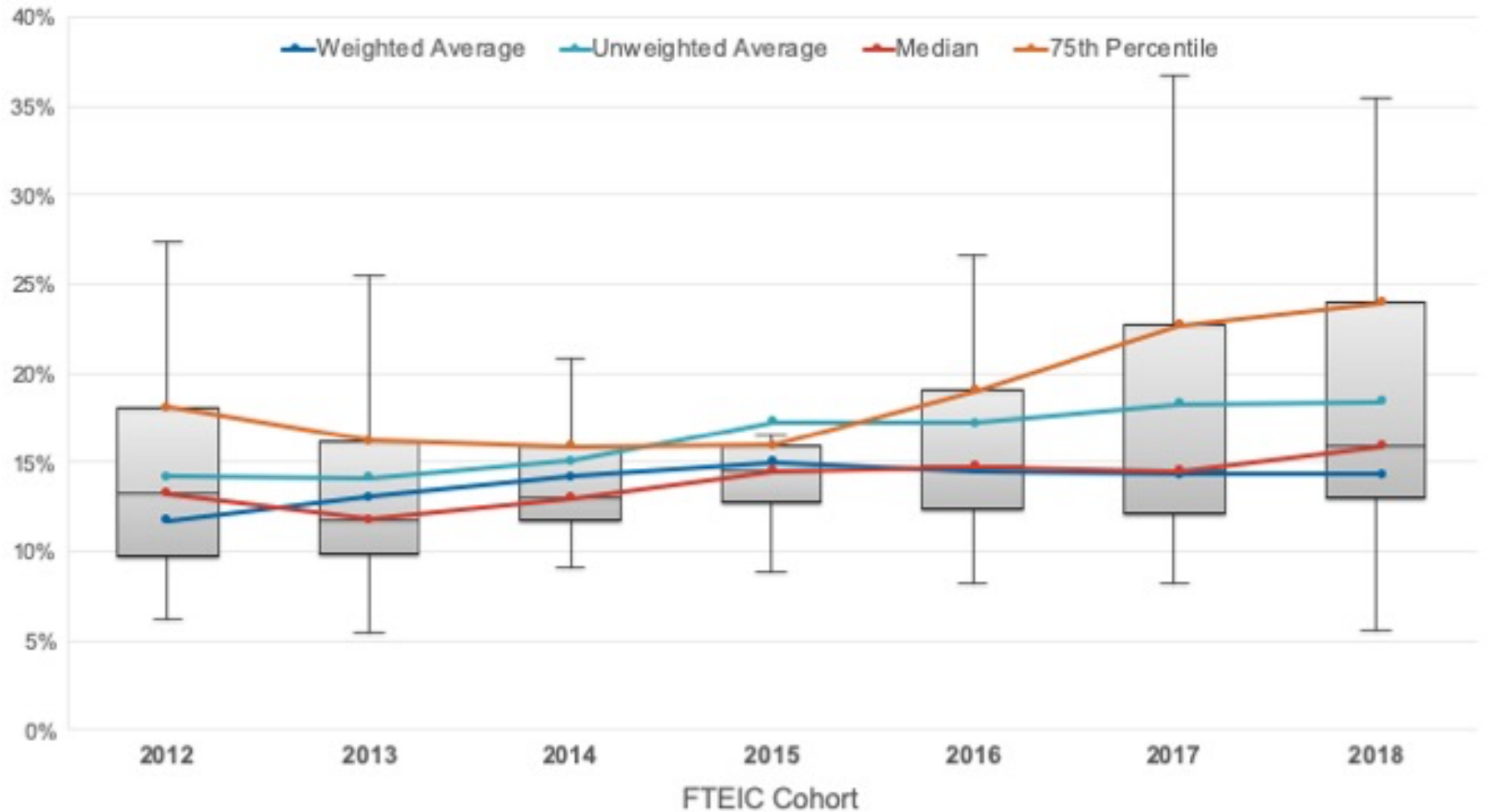
OACC Early Momentum Trends

Earned 12+ College Credits in Term 1



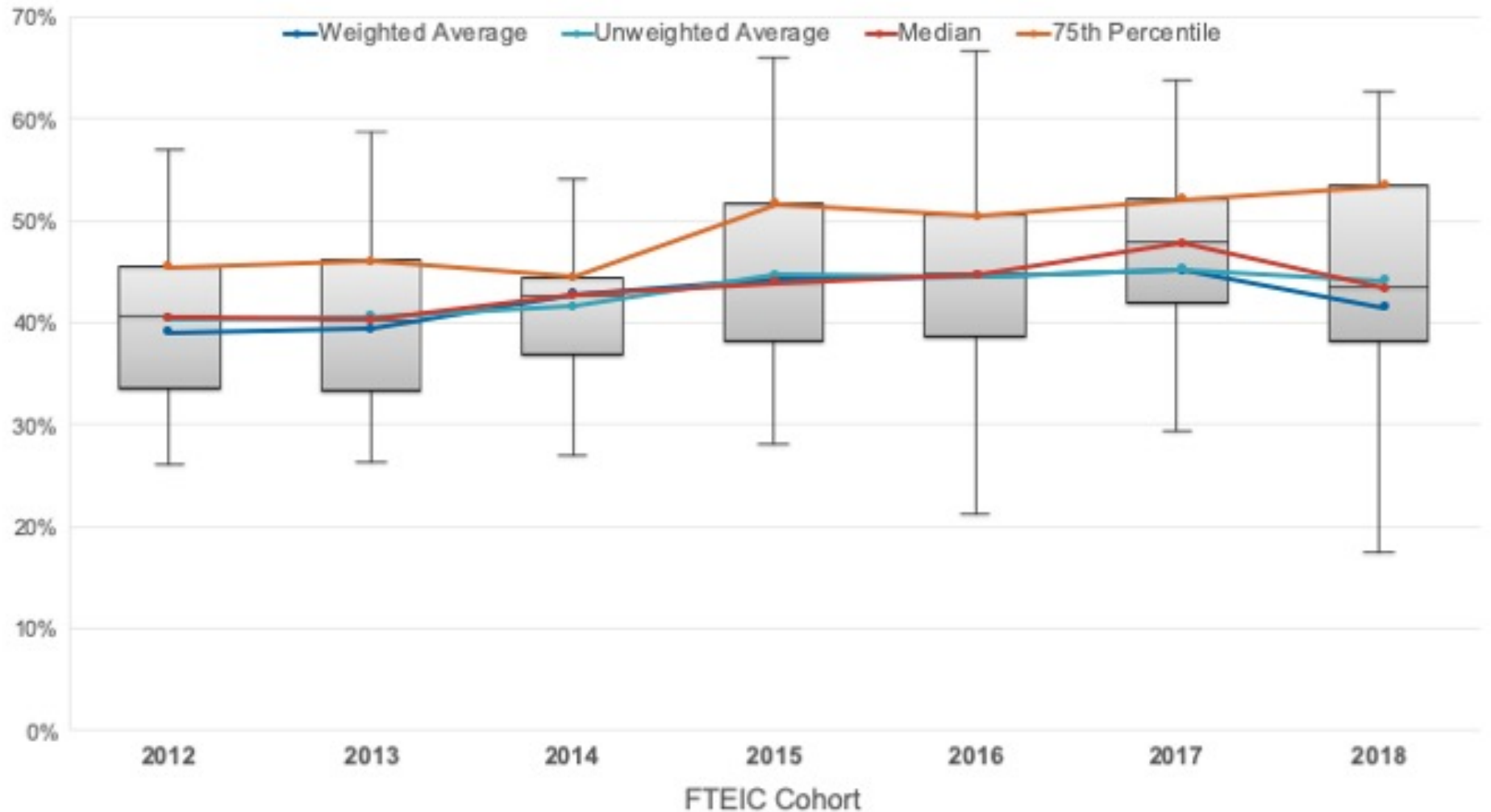
OACC Early Momentum Trends

Earned 24+ College Credits in Year 1



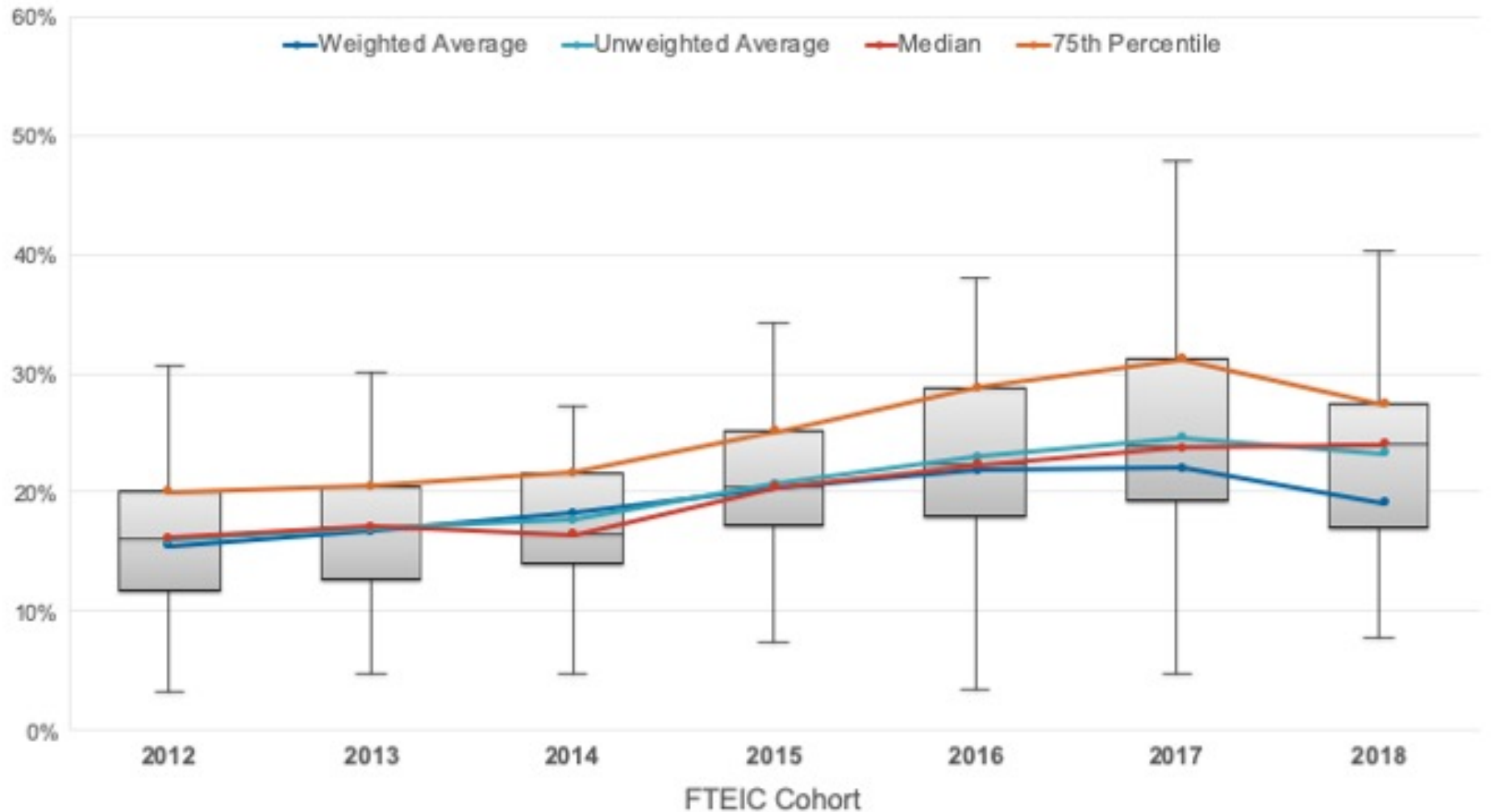
OACC Early Momentum Trends

Passed College English in Year 1



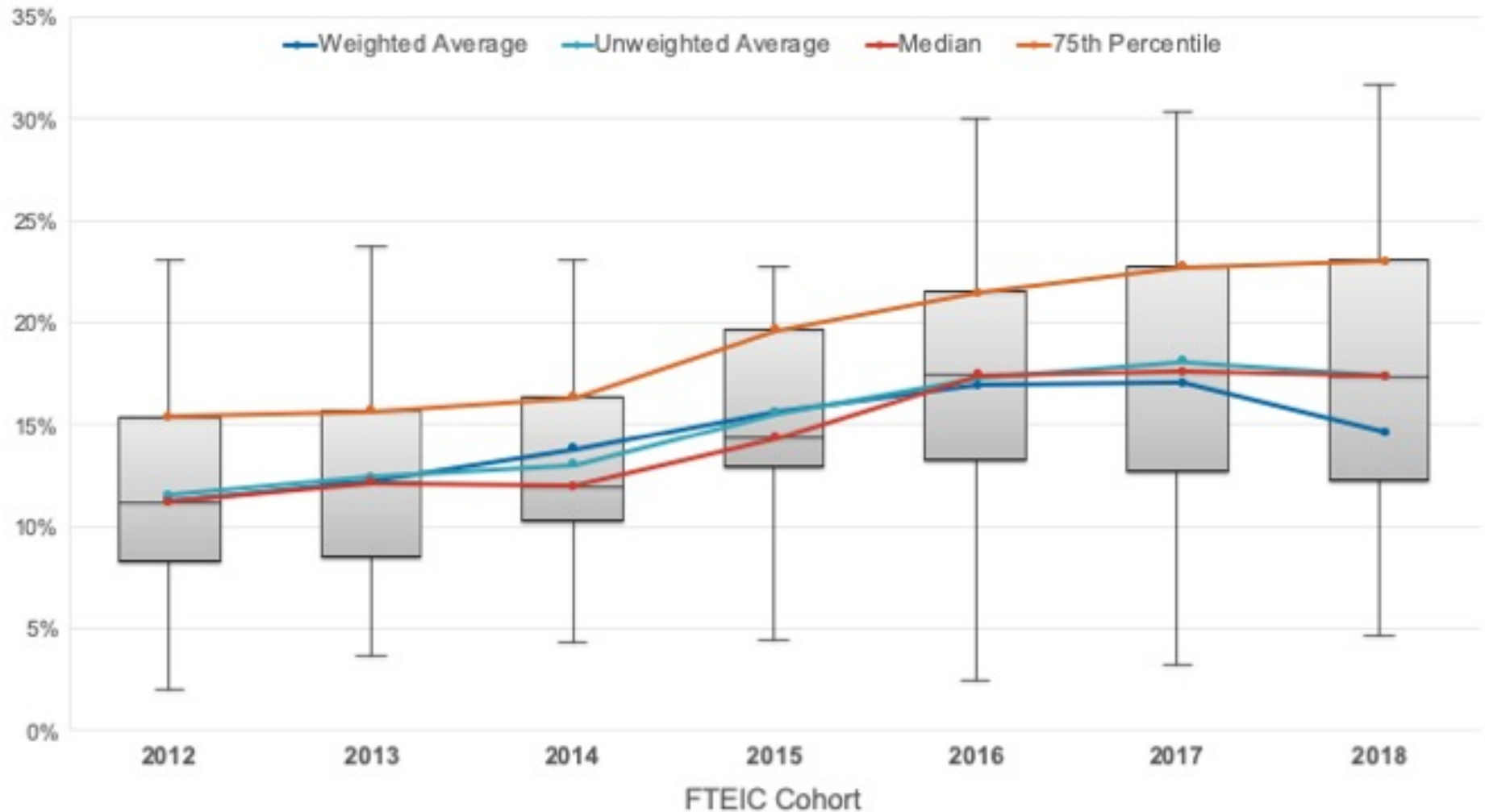
OACC Early Momentum Trends

Passed College Math in Year 1



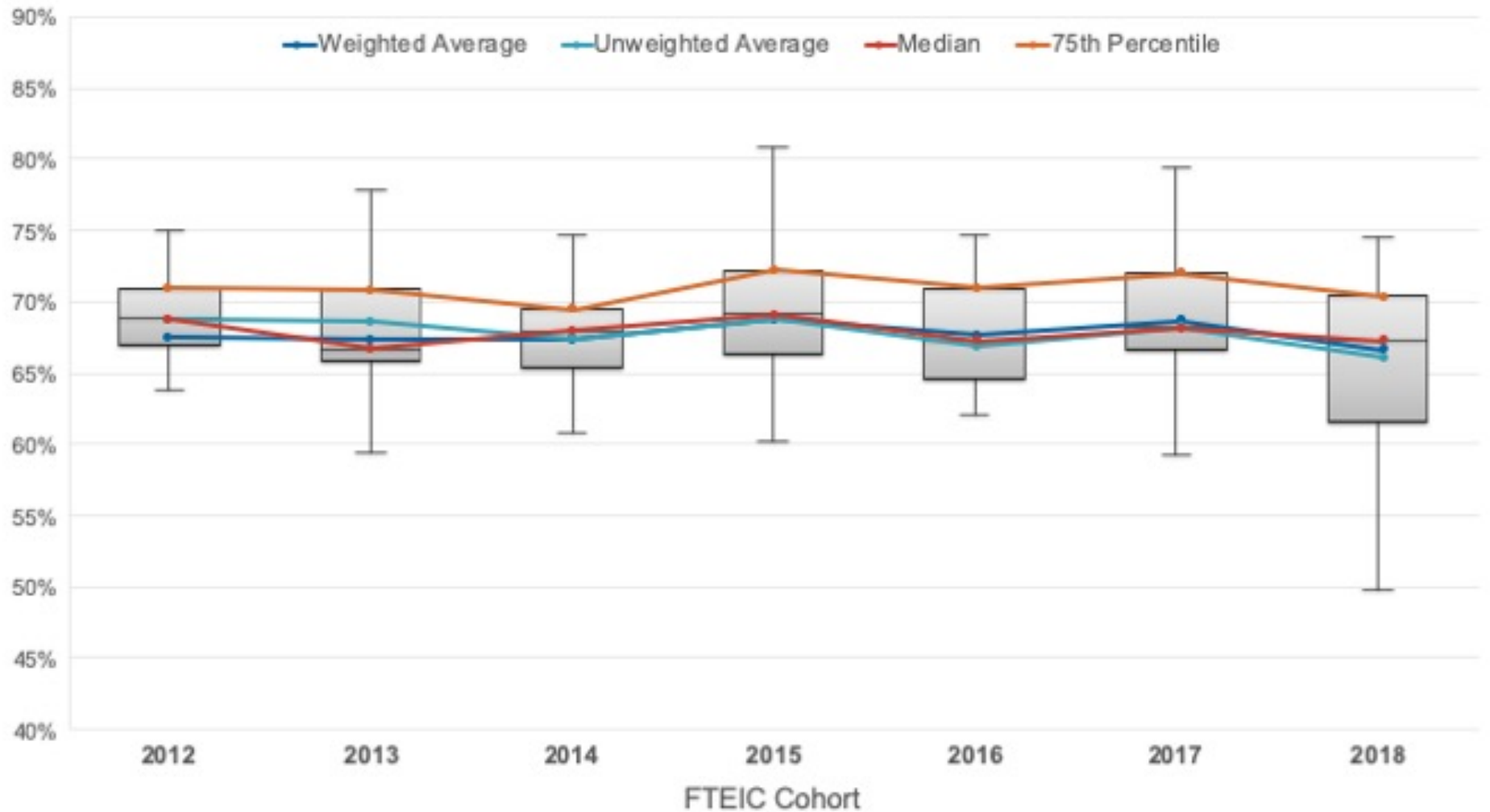
OACC Early Momentum Trends

Passed both College Math and English in Year 1



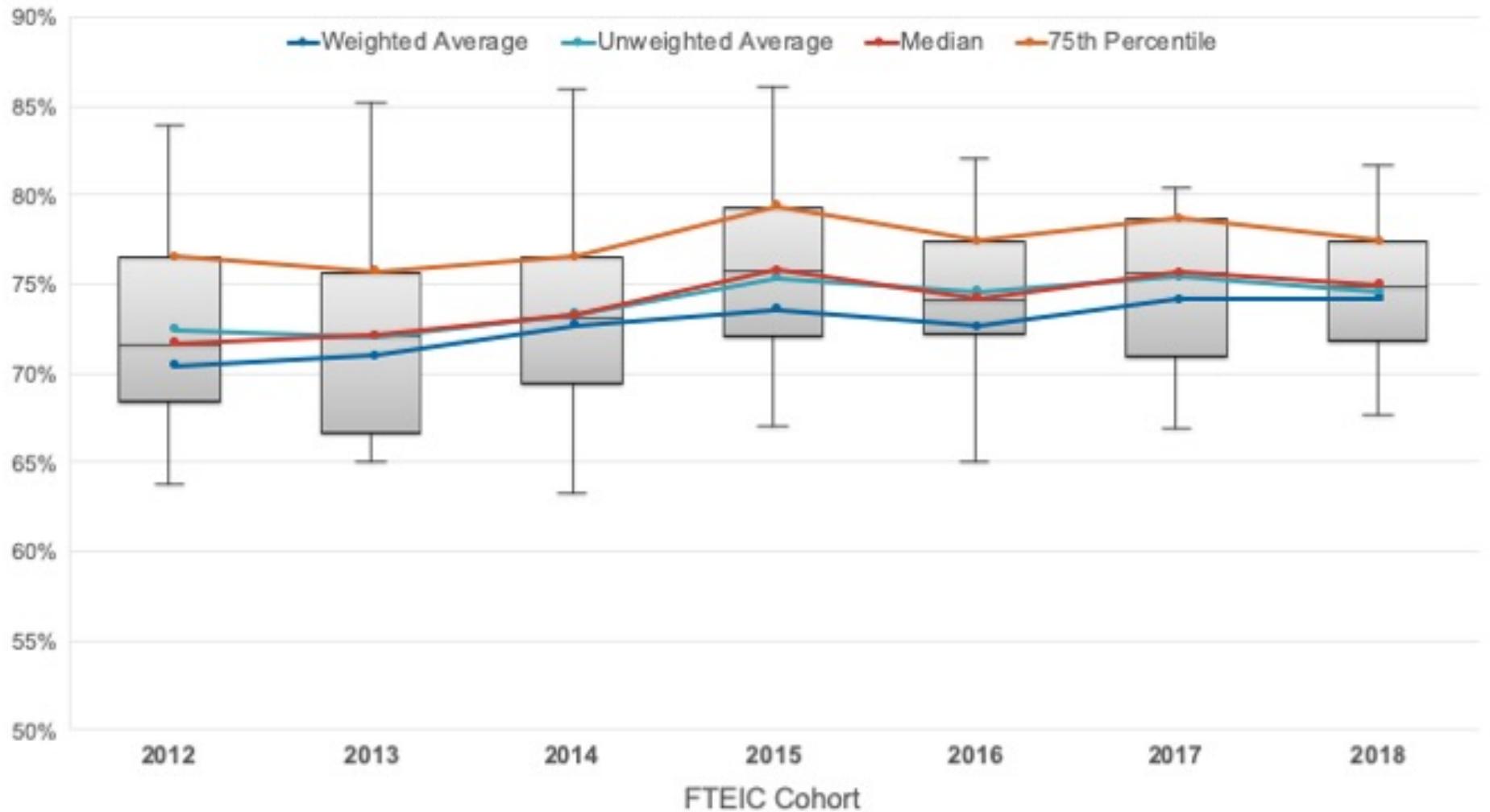
OACC Early Momentum Trends

Fall to Spring Persistence



OACC Early Momentum Trends

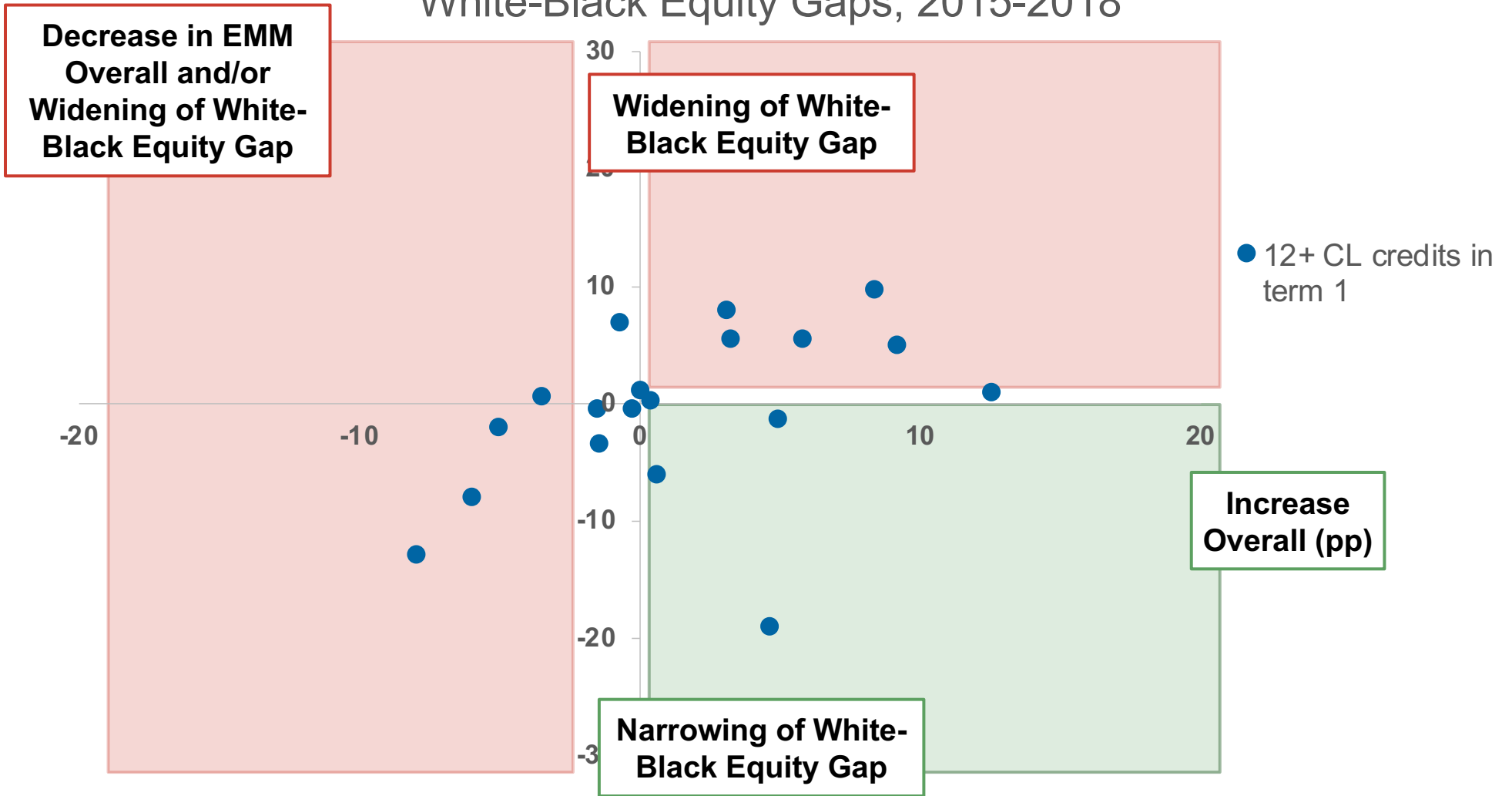
College Level Credit Pass Rate



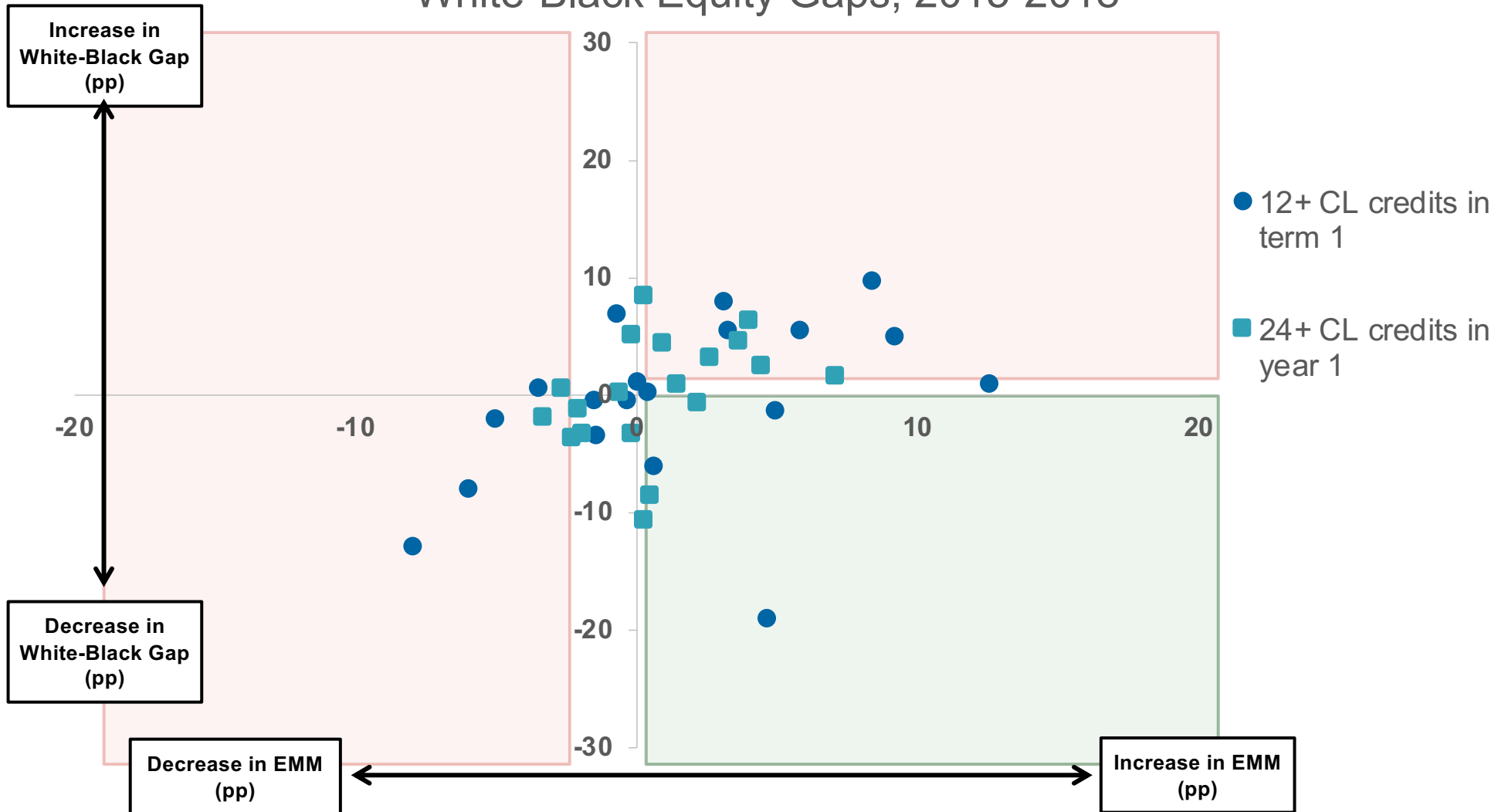
Many Colleges Are Improving on the EMMs

Early Momentum Metric	Number of Colleges with Positive Gains (Average Gain)		
	1-year Change	3-year Change	5-year Change
6+ CL Credits in Term 1	14 (4.2pp)	12 (8.6pp)	19 (11.9pp)
12+ CL Credits in Term 1	15 (3.6pp)	15 (5.5pp)	17 (8.0pp)
15+ CL Credits in Year 1	11 (3.4pp)	15 (4.1pp)	19 (7.0pp)
24+ CL Credits in Year 1	11 (3.1pp)	13 (3.5pp)	19 (5.7pp)
30+ CL Credits in Year 1	13 (2.1pp)	13 (2.5pp)	17 (3.4pp)
CL Math in Year 1	9 (3.0pp)	16 (5.6pp)	20 (7.8pp)
CL English in Year 1	10 (2.4pp)	11 (5.4pp)	16 (8.8pp)
Fall-Spring Persistence	5 (2.9pp)	7 (3.8pp)	8 (4.3pp)
CL Credit Completion Rate	10 (1.6pp)	10 (2.5pp)	17 (4.3pp)

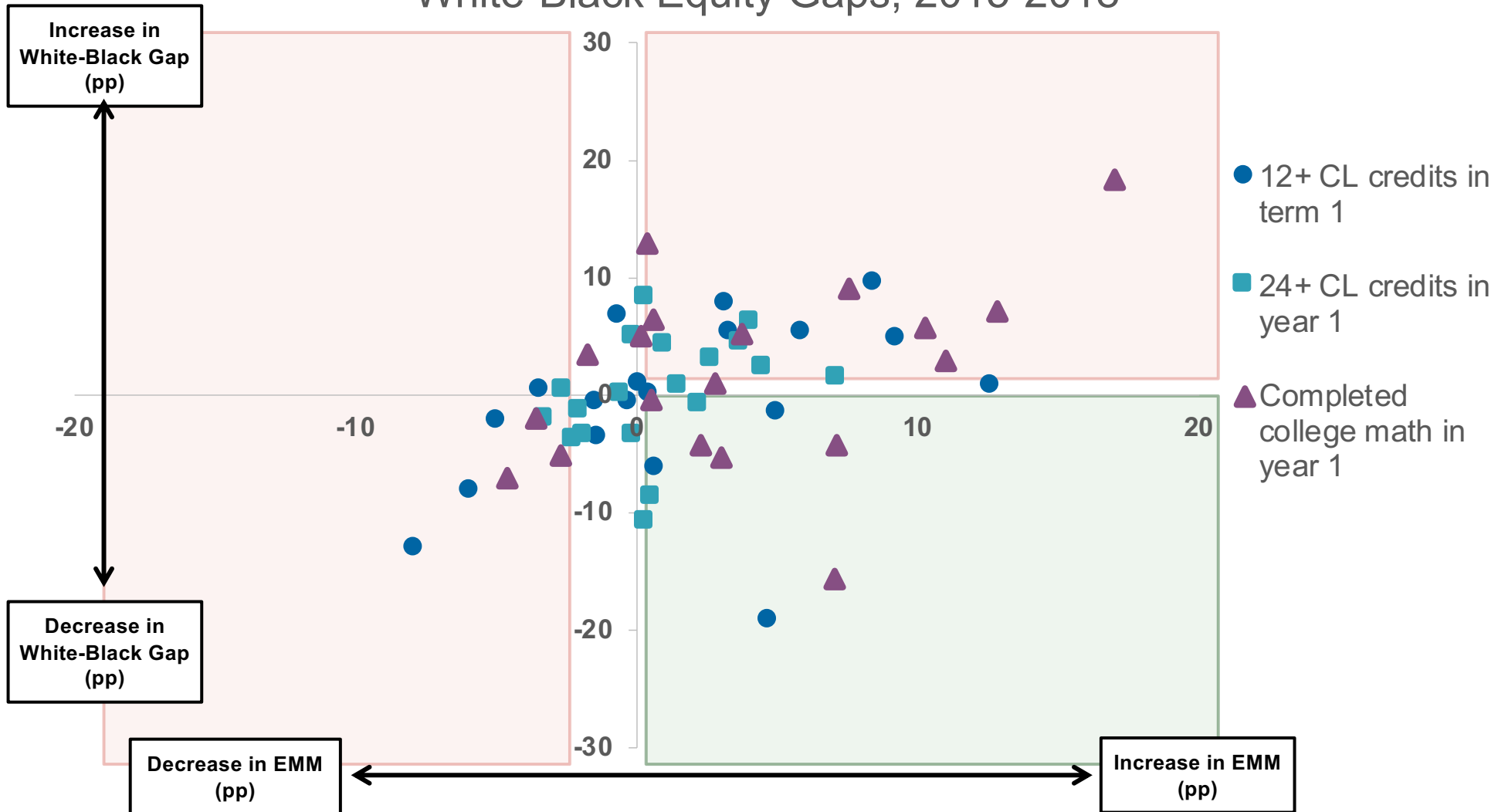
OACC Colleges EMM Improvement Overall and Change in White-Black Equity Gaps, 2015-2018



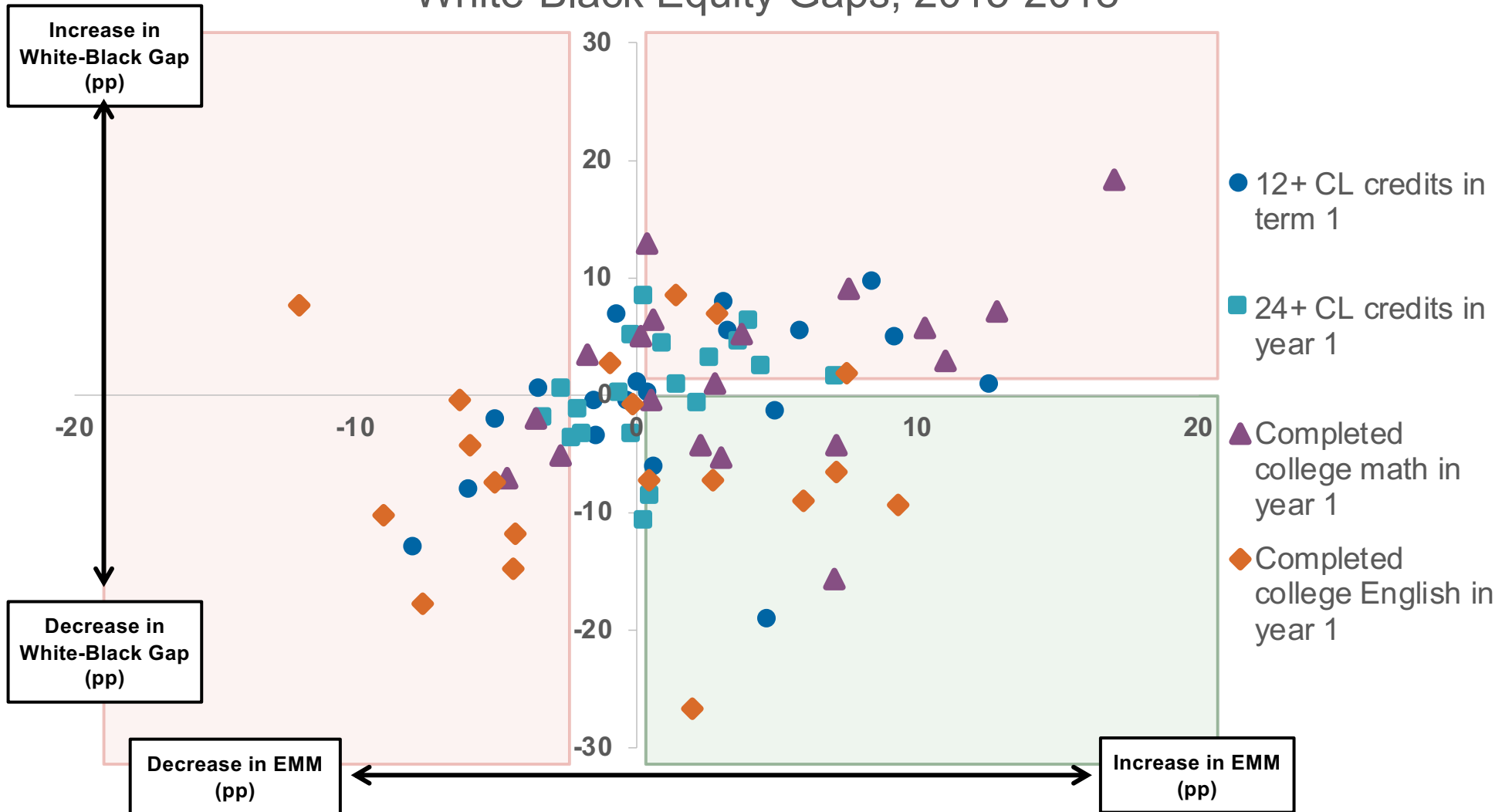
OACC Colleges EMM Improvement Overall and Change in White-Black Equity Gaps, 2015-2018



OACC Colleges EMM Improvement Overall and Change in White-Black Equity Gaps, 2015-2018



OACC Colleges EMM Improvement Overall and Change in White-Black Equity Gaps, 2015-2018



Equity Gaps: Some Improvement, More Needed

Early Momentum Metric	White-Black Gaps: 3-year Change (N=19 Colleges)			
	Colleges w/ White Student Gains	Colleges w/ Black Student Gains	Colleges Closing Gap	Colleges w/ 2018 Gap (Avg. Gap)
6+ CL Credits in Term 1	10 (7pp)	13 (10pp)	12	19 (17pp)
12+ CL Credits in Term 1	12 (6pp)	11 (6pp)	9	18 (12pp)
15+ CL Credits in Year 1	12 (6pp)	12 (10pp)	11	17 (20pp)
24+ CL Credits in Year 1	11 (4pp)	12 (3pp)	8	19 (12pp)
30+ CL Credits in Year 1	11 (3pp)	11 (2pp)	8	19 (6pp)
CL Math in Year 1	16 (7pp)	13 (6pp)	8	18 (14pp)
CL English in Year 1	8 (5pp)	12 (11pp)	14	16 (14pp)
Fall-Spring Persistence	9 (5pp)	8 (8pp)	8	16 (13pp)
CL Credit Completion Rate	10 (3pp)	12 (6pp)	10	19 (14pp)

Equity Gaps: Some Improvement, More Needed

White-Hispanic Gaps: 3-year Change (N=11 Colleges)

Early Momentum Metric	White-Hispanic Gaps: 3-year Change (N=11 Colleges)			
	Colleges w/ White Student Gains	Colleges w/ Hispanic Student Gains	Colleges Closing Gap	Colleges w/ 2018 Gap (Avg. Gap)
6+ CL Credits in Term 1	5 (7pp)	7 (12pp)	6	8 (9pp)
12+ CL Credits in Term 1	6 (3pp)	4 (6pp)	5	10 (7pp)
15+ CL Credits in Year 1	7 (5pp)	6 (17pp)	7	8 (7pp)
24+ CL Credits in Year 1	6 (3pp)	5 (10pp)	6	10 (6pp)
30+ CL Credits in Year 1	6 (3pp)	9 (1pp)	6	11 (3pp)
CL Math in Year 1	9 (5pp)	8 (13pp)	5	6 (8pp)
CL English in Year 1	4 (4pp)	7 (12pp)	7	4 (7pp)
Fall-Spring Persistence	7 (5pp)	7 (11pp)	8	7 (7pp)
CL Credit Completion Rate	6 (3pp)	5 (12pp)	5	9 (8pp)

Equity Gaps: Some Improvement, More Needed

Age 18/19-25+ Gaps: 3-year Change (N=23 Colleges)

Early Momentum Metric	Colleges w/ Age 18-19 Student Gains	Colleges w/ Age 25+ Student Gains	Colleges Closing Gap	Colleges w/ 2018 Gap (Avg. Gap)
6+ CL Credits in Term 1	14 (7pp)	13 (11pp)	9	19 (20pp)
12+ CL Credits in Term 1	14 (7pp)	15 (6pp)	9	22 (15pp)
15+ CL Credits in Year 1	14 (7pp)	10 (7pp)	10	22 (16pp)
24+ CL Credits in Year 1	14 (7pp)	11 (5pp)	12	22 (12pp)
30+ CL Credits in Year 1	14 (7pp)	10 (3pp)	13	19 (6pp)
CL Math in Year 1	14 (7pp)	16 (7pp)	10	22 (15pp)
CL English in Year 1	14 (7pp)	14 (7pp)	9	22 (23pp)
Fall-Spring Persistence	14 (7pp)	10 (7pp)	17	18 (14pp)
CL Credit Completion Rate	14 (7pp)	10 (4pp)	8	7 (5pp)

Key Takeaways

- Most colleges have made improvements on most EMMs in the past 5 years
- More recently only about half of colleges have shown sustained improvement
- 14 different colleges were in the top 3 for improvement on at least 1 of the EMMs
- Many colleges have also improved on EMMs specifically for Black, Hispanic, and adult students, but **equity gaps remain large and widespread**

College Discussion

Which metrics have we made progress on, and what might explain these gains?

For metrics with gains overall, are equity gaps closing, staying the same, or widening? What might explain this?

Where are the biggest needs for improvement? What will it take to make progress?