Career/Vocational Technical Education – Update to the Board of Elementary and Secondary Education

February 22, 2021

MASSACHUSETTS DEPARTMENT OF
ELEMENTARY AND SECONDARY
EDUCATION

OBJECTIVES

1. Understand the CVTE Landscape

2. Review CVTE Admissions Regulations

3. Review Enrollment Trends

4. Present Waitlist Data

5. Provide Stakeholder Engagement

6. Update and Next Steps

CONTENTS

01 CVTE Background

1. CVTE in MA

- MA has a long history of Career Vocational Technical Education programs as a part of public education.

- CVTE programs prepare students for positive postsecondary transition

- Funding: Perkins federal grant + state Ch. 70 funding

- Governed by: MGL Ch 74 and 603 CMR 4.00 VTE Regulations

- Two major shifts: Increase in the **range** of CTE programs and the **popularity** of CTE programs.

1. Pathways in Massachusetts

- **Innovation Pathways - 99** programs at **42** high schools

- **Early College - 23** designated programs at **35** high schools in partnership with **19** institutes of higher ed

- **Career Technical Initiative (3 shifts)**
  - CTE Partnership "After Dark" - **25** programs **6** HS partnerships
  - Adult Technical Training programs –**7** programs **23** pathways
  - Expansion of Ch.74 programs - over **70** programs added in last **5** years

Pathways offer

- Advising
- Labor Market Demand
- Integrated Instruction
- Work-based Learning
- Credential Preparation
- Postsecondary Linkages

ADVISING LABOR MARKET DEMAND INTEGRATED INSTRUCTION WORK BASED LEARNING CREDENTIAL PREPARATION POST SECONDARY LINKAGES
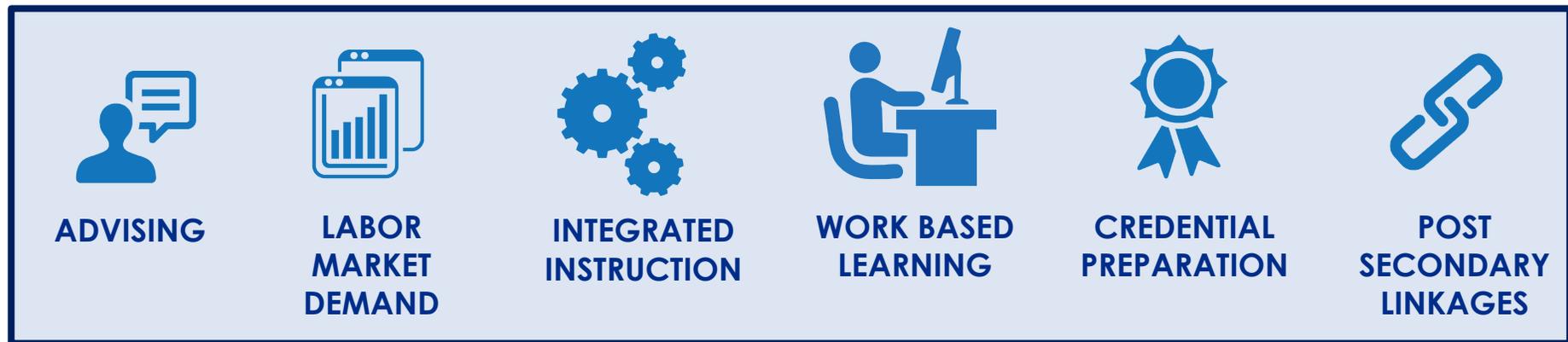
# 1. Why Career Vocational Technical Education?

Students in CVTE benefit from

- **Choice** in their programs of studies

- **Strengthened** academics with academic/technical integration

- **Engagement** in "Deeper Learning"

- **Belonging** to a community of learners

- **Opportunity** of expanded options

1. Overview Chapter 74 Programs in Massachusetts

- Chapter 74 programs are offered in **90** districts
  - **26** standalone regional vocational-technical districts
  - **58** local/academic regional districts (including 5 municipal vocational schools)
  - **2** charter districts
  - **2** county agricultural schools
  - **1** independent vocational and agricultural school
  - **1** educational collaborative

- **44** programs in **11** clusters

- Tied to Business and Industry Demands

# 1. Chapter 74 Frameworks – The Foundation

- Overview of Frameworks
  - **Strand 1**: Safety and Health Knowledge and Skills
  - **Strand 2**: Technical Knowledge and Skills
  - **Strand 3**: Embedded Academic Knowledge and Skills
  - **Strand 4**: Employability and Career Readiness Knowledge and Skills
  - **Strand 5**: Management and Entrepreneurship Knowledge and Skills
  - **Strand 6**: Technological Knowledge and Skills
- Framework Development
  - Subject-Matter Experts
  - Regional Blueprints
  - Advisory Boards
  - EOWLD

1. CVTE Student Experience
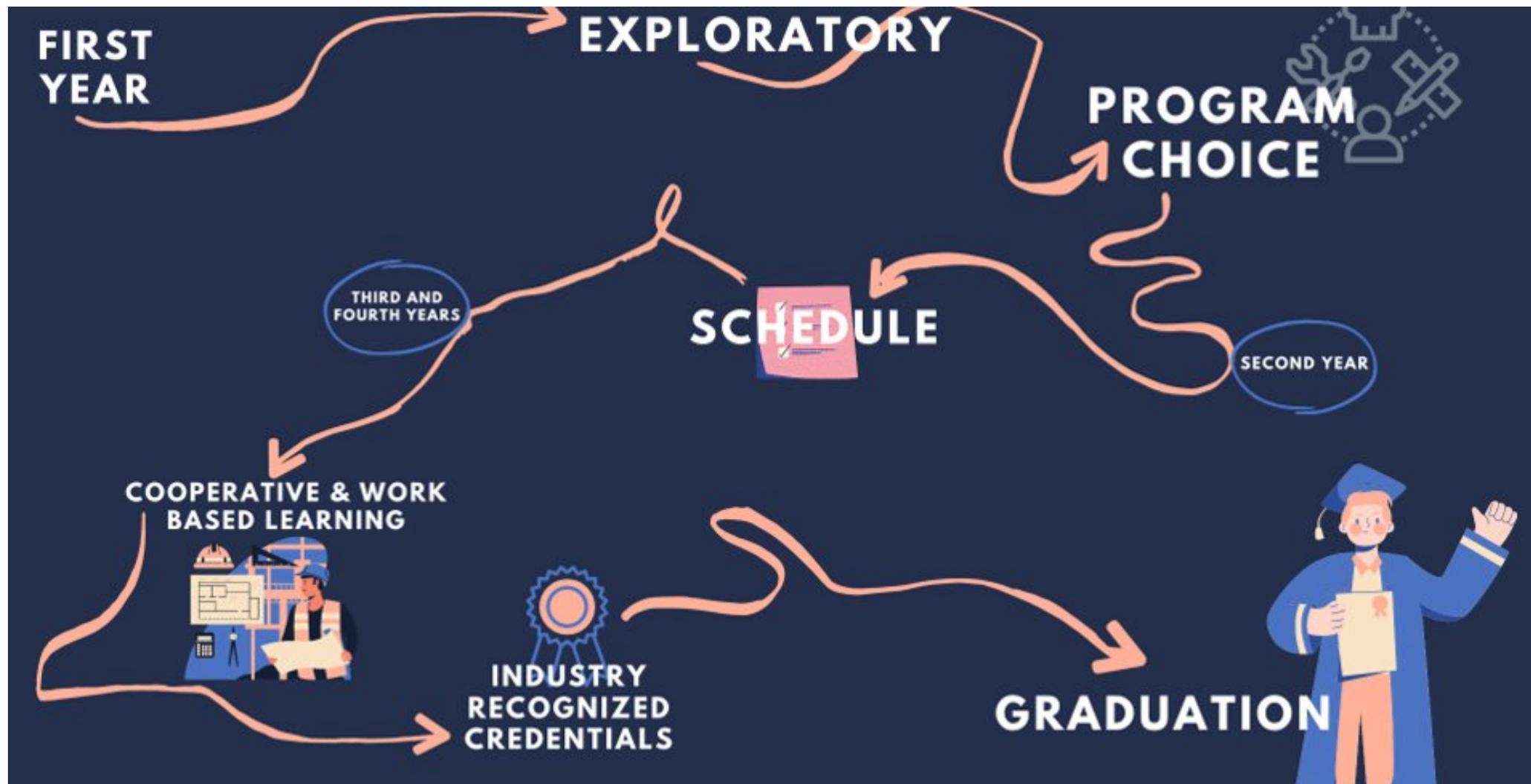
Our 9th grade student…

o Explores programs

o Chooses Electricity

o Follows academic/technical schedule

o Engages in cooperative education

o Participates in community-service learning

o Graduates with both career/college options

EXPLORATORY

PROG
CHOI

SCHEDULE

THIRD AND
FOURTH YEARS

& WORK
RNING

INDUSTRY
RECOGNIZED
CREDENTIALS

GRADUA

02

CVTE Admissions Regulations

2. CVTE Defined

Two types of vocational programs in Massachusetts

- "Chapter 74" programs

  o Receive state and federal funding

  o Must comply with federal and state vocational laws

    ▪ Including DESE's regulations at 603 CMR 4.00

  o These programs are the focus of DESE's waitlist analysis

- "Perkins" programs

  o Receive only federal funds

  o Outside the scope of state vocational laws

2. Statutory Language

M.G.L. c. 74 sec. 1:

- The following words, as used in this chapter, shall have the following meanings unless the context otherwise requires:
  - o "Commissioner", the commissioner of education.
  - o "Approved", the approval of specific vocational-technical programs by the commissioner of education, acting through the division of occupational education, following investigation and determining the appropriateness of programs as to organization, control, location, equipment, courses of study, qualifications of teachers, methods of instruction, conditions of admissions of student, employment of students and expenditures.

2. Current Admission Regulations

Chapter 74 vocational programs must comply with DESE's admissions regulations:

603 CMR 4.03: Program Approval Criteria and Operational Requirements

Each school district requesting full approval of a vocational technical education program shall demonstrate that the program meets the following approval criteria:

(6) Admission of Students.

(a) Each vocational technical school and comprehensive school which is selective in terms of admission to its secondary vocational technical programs shall develop and implement an admission policy that is consistent with the Department's "Guidelines for Admission Policies of Vocational Technical Secondary Schools and Comprehensive Secondary Schools" that are incorporated into 603 CMR 4.00 by reference. The policy must be approved by the Department prior to implementation. The policy shall be published in the Program of Studies and a copy shall be provided to each student applicant and their parent/guardian. The policy must include the following:

1. The criteria to be used in selecting students and the process for application and admission to the school. Each selective vocational technical secondary school in Massachusetts shall use a combination of selection criteria to determine which applicants have an ability to benefit, and therefore be admitted to the school unless the school opts to use first come-first served or a lottery for admissions. The criteria used shall include academic grades, attendance record, discipline/conduct record, recommendations from the sending-school counselor and may include a student interview, provided however, that no one criterion exceeds 50% of the total. Resident students who meet the minimum requirements for admission shall be admitted prior to acceptance of any nonresident students seeking the same course of study. Schools shall condition admission on a student having been promoted to the grade that they have been admitted to enter. Schools may condition admission on a student having passed courses in English Language Arts or its equivalent and mathematics for the school year immediately preceding their enrollment in a selective vocational technical school or program;

2. A description of the Exploratory Program;

3. The criteria and process to be used in selecting students for admission to particular vocational technical education programs commonly referred to as vocational technical majors within the selective vocational technical secondary school or comprehensive secondary school; and

4. A Review Process and an Appeal Process. A process at the school district level for students and parents/guardians to review and appeal the decision to deny the student admission to the school or program shall be included. The district shall maintain documentation as to the specific admission requirements that were not met, and must provide such documentation to the Department or to the student's parent/guardian upon request.

2. Current Admission Regulations

- Each selective vocational technical secondary school in Massachusetts shall use a combination of selection criteria to determine which applicants have an ability to benefit, and therefore be admitted to the school unless the school opts to use first come-first served or a lottery for admissions.

- The criteria used shall include

  o academic **grades**

  o **attendance** record

  o **discipline**/conduct record

  o **recommendations** from the sending-school counselor

- and may include a student **interview**,

  ➢ provided however, that no one criterion exceeds 50% of the total.

2. CVTE Admissions Regulatory Changes

Phase 1 changes adopted by BESE in February 2020, to

1. Support creation of new VTE programs and expand access to full range of programs for students;
2. Strengthen program quality; and
3. Streamline vocational educator licensure process and create more pathways to licensure.

Phase 2 this year: adopt necessary changes to the CVTE admissions regulations to promote **equitable access** to CVTE programs, effective for students starting high school in Fall 2022

2. CVTE Admissions Regulatory Changes – Proposed Timeline

Department Provides Waitlist Data Collection & Analysis Update to BESE

The Commissioner Proposes Chapter 74 CVTE Admissions Regulatory Amendments to BESE

The Commissioner Brings Proposed Chapter 74 CVTE Admissions Regulatory Amendments to BESE for Adoption

| Feb '21 | Mar '21 | Apr '21 | May '21 | Jun '21 |

Department Analyzes Waitlist Data

Department Drafts Proposed Regulatory Changes

Public Comment Period

Department Revises Proposed Regulatory Changes

2. Q&A

03 CVTE Enrollment Analysis

3. Enrollment Analysis - Background

- In 2019, DESE examined overall enrollment
  - statewide and at schools
  - for student subgroups

- Compared vocational school enrollments to their catchment area (member regions) and to individual municipalities

- Findings illuminated statewide trends and areas to monitor or manage

- DESE identified high demand schools using gap analyses

3. Enrollment Analysis - Findings

- Previously shared with BESE:
  - Statewide, enrollment trends over the last few years show student populations in vocational schools and programs generally reflect the communities in their sending districts.
  - There is room for improvement in how vocational schools and programs – particularly in Gateway Cities - attract, admit, and retain students from their communities.

3. State Grade 9 Enrollment Trends

Year	Eco. Disadvantaged		Students with Disabilities	
	Statewide	Attend Voc. School	Statewide	Attend Voc. School
2016	27%	33%	17%	23%
2017	30%	36%	17%	22%
2018	31%	36%	17%	23%
2019	30%	34%	17%	22%
2020	33%	36%	18%	21%
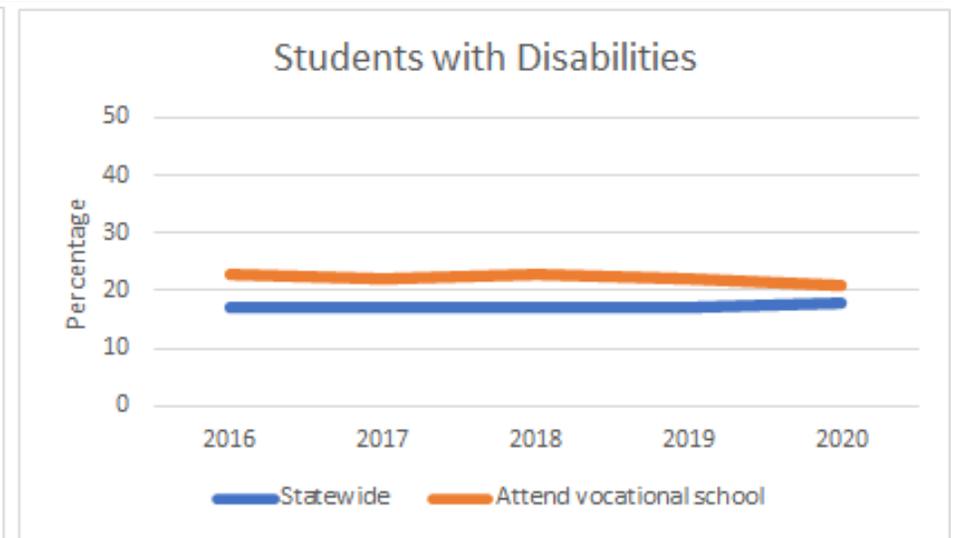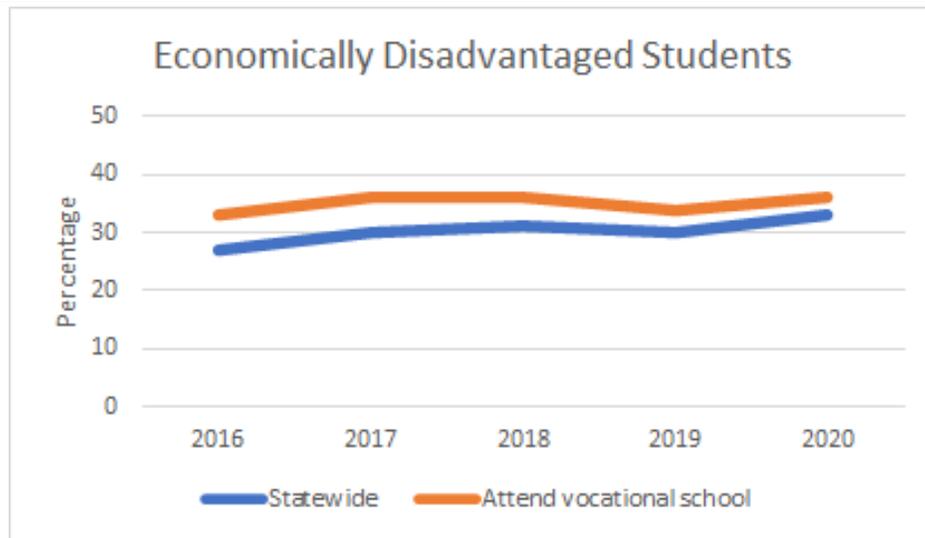
3. State Grade 9 Enrollment Trends

Year	Students of Color		English Learner Students	
	Statewide	Attend Voc. School	Statewide	Attend Voc. School
2016	37%	34%	8%	5%
2017	39%	34%	8%	5%
2018	39%	36%	8%	5%
2019	41%	38%	8%	6%
2020	43%	39%	10%	6%

380

Students of Color
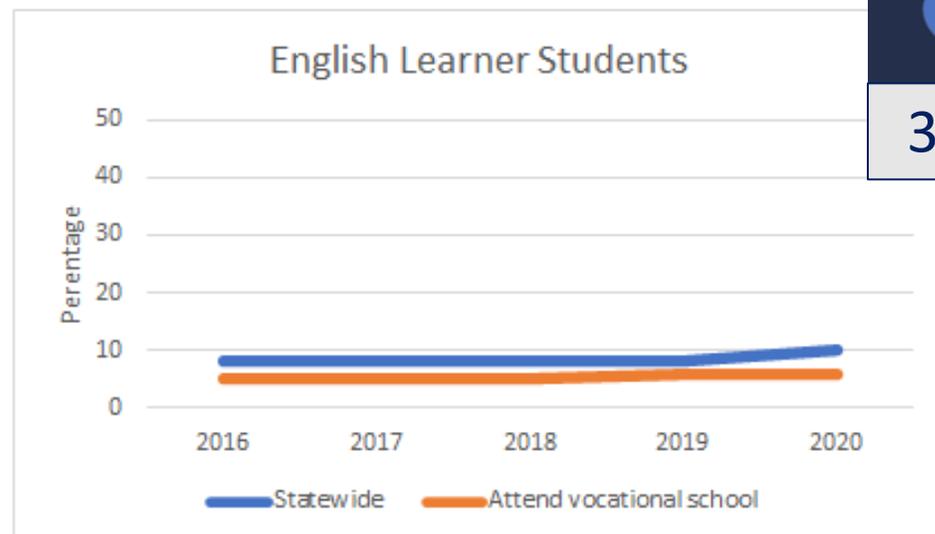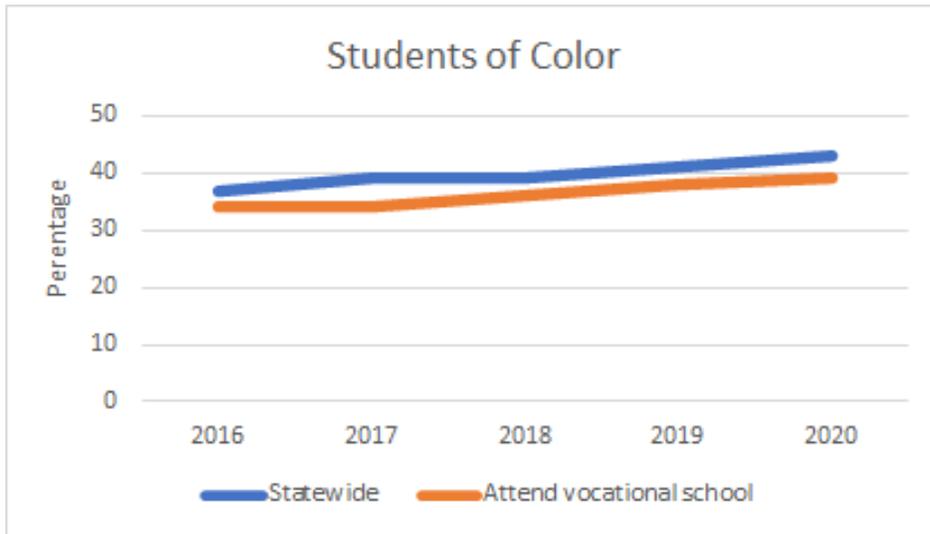
English Learner Students

This is a regional school with several member towns & cities.

Looking at the members all together, the percentage of Eco. Dis. students **eligible** to apply to and attend the school is higher than the percentage who **attend.**

36

Economically Disadvantaged Students

Eligible — Attend

Students with Disabilities

Eligible — Attend

English Learner Students

Eligible

Students of Color
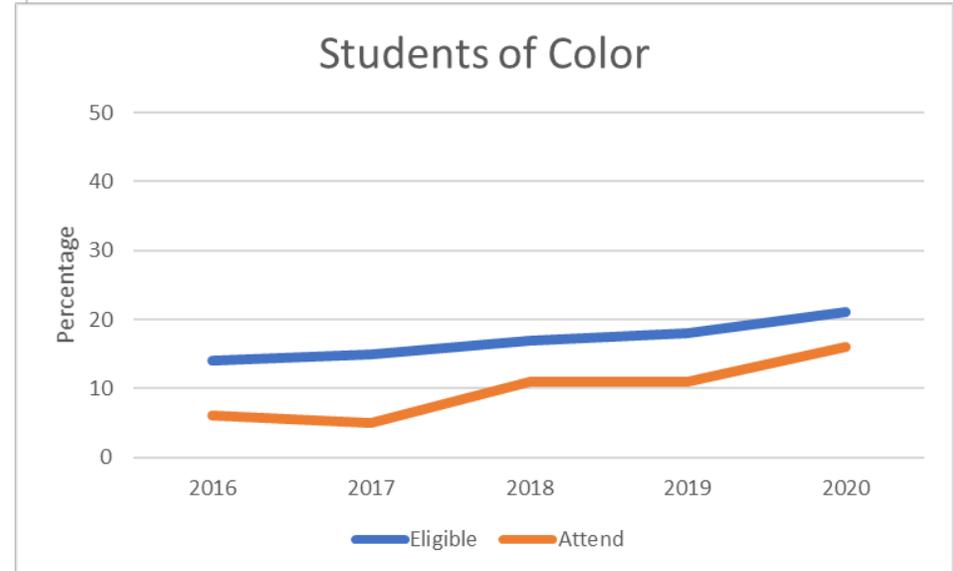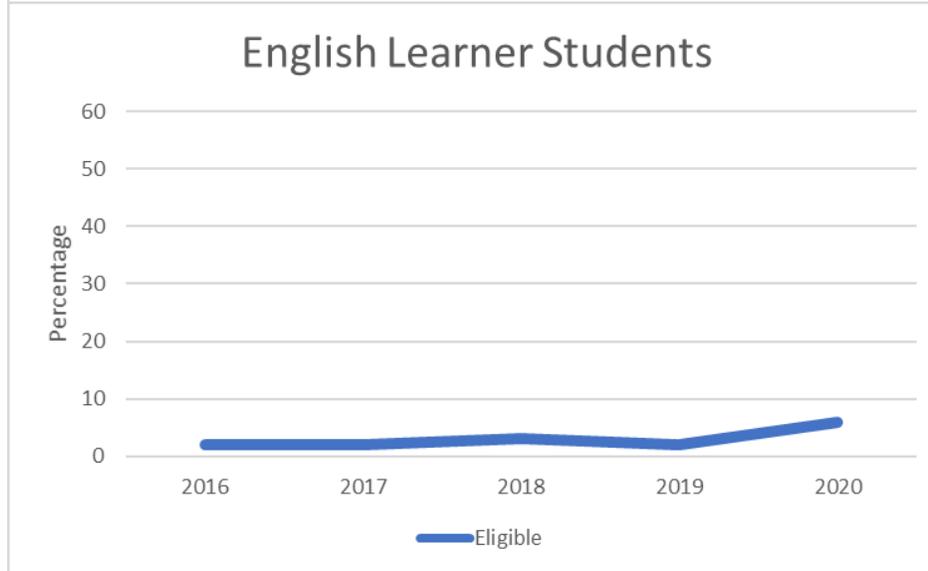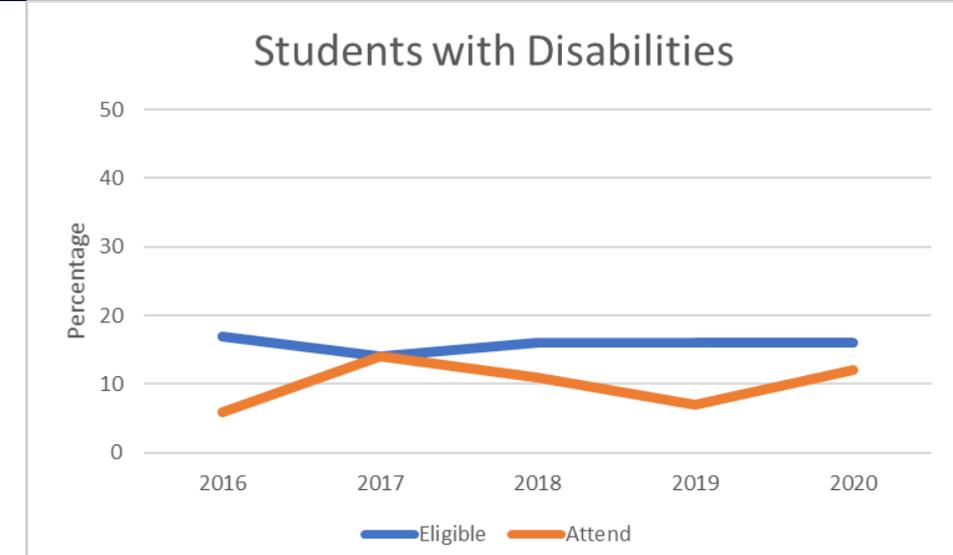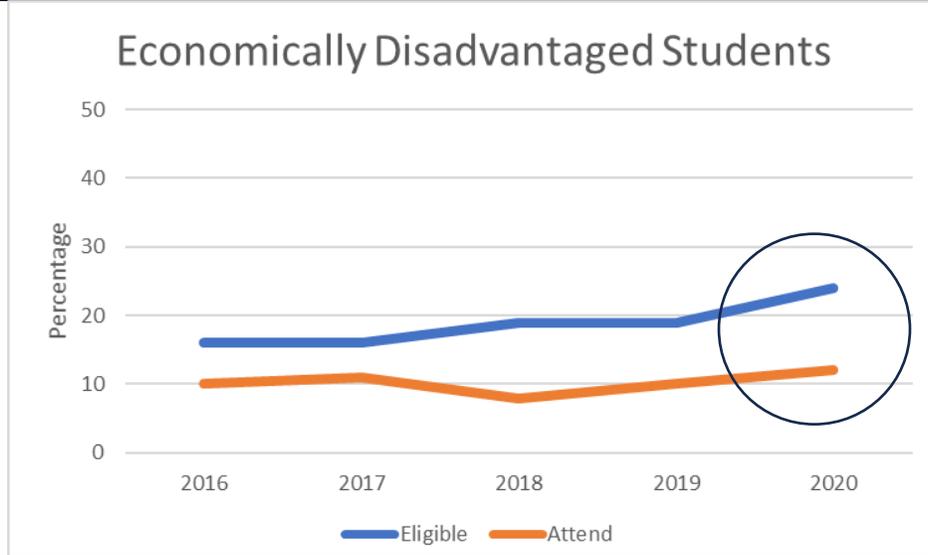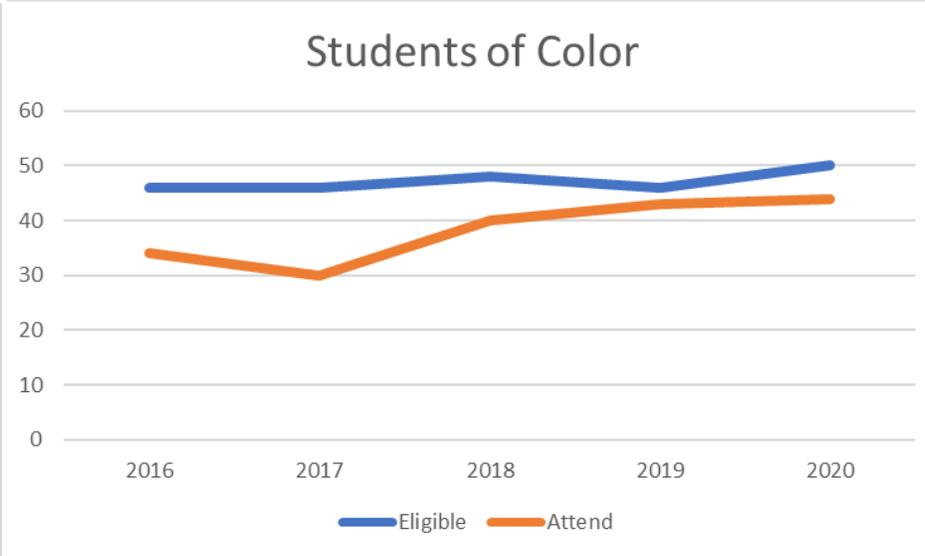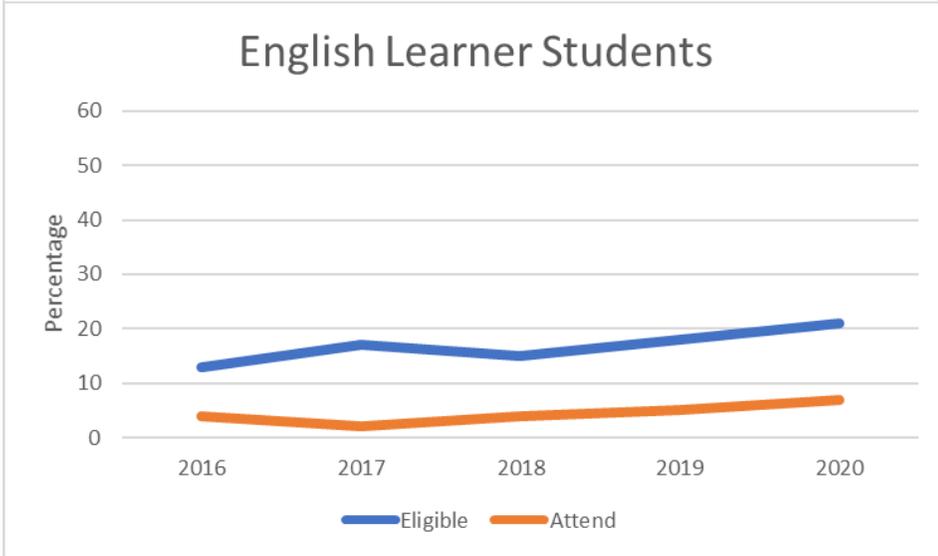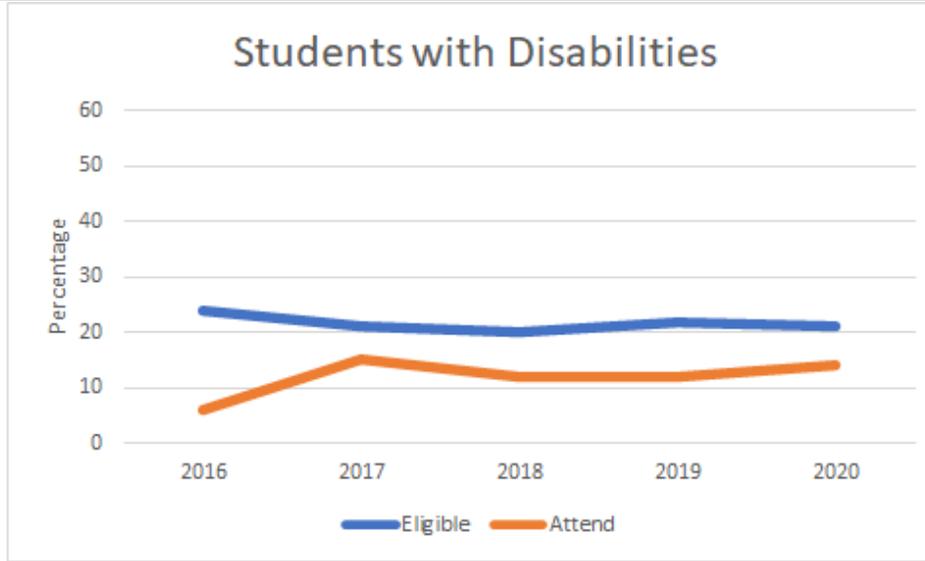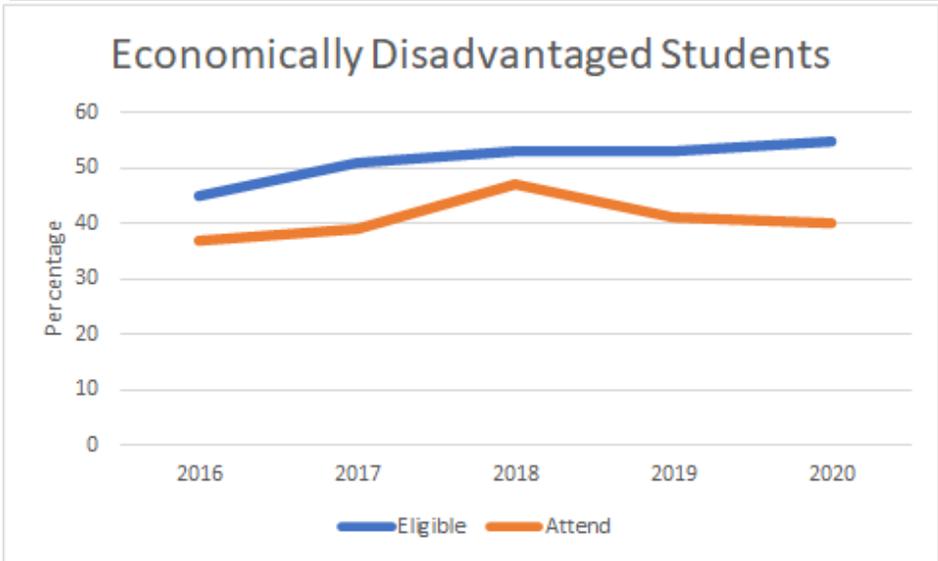
Eligible — Attend

This is another regional school with several member towns & cities.

Looking at the members all together, the percentage of students **eligible** to apply to and attend the school is higher than the percentage who **attend**, for several student groups.

3. Q&A

04   Waitlist Data Collection & Analyses

4. Waitlist Data Collection Process

- Enrollment gap analysis prompted waitlist data collection from districts

- Initially, 58 schools participated a **Waitlist Survey** in Summer 2020

- Of these, 44 schools reported having more students submitting applications than available seats (or, a waitlist)
  - DESE asked the 44 to participate in **Waitlist Data Collection** in Fall 2020

- Of these, 40 schools submitted waitlist data for Grades 9, 10, & 11
  - Grade 9 analysis is shown on the following slides.

- 4 schools had waitlist data for Grades 10 & 11 only (not for Grade 9)

4. Waitlist Data from 2020: Analysis

Awareness Gap: schools received fewer applications from students who might otherwise be expected to apply, based on their representation in sending communities

Opportunity Gap: schools admitted fewer students than might otherwise be expected from populations present in their sending communities

- Observed in several vocational schools and programs:
  - **awareness gaps** for students of color, English Learners, and students whose first language is not English
  - **opportunity gaps** for students of color, economically-disadvantaged students, students with disabilities, English Learners, and students whose first language is not English
- Though study is limited (just one year's data, affected by pandemic), it shows vocational schools and programs – particularly in Gateway Cities – can do better to attract, admit, and retain students from their communities

4. Waitlist Data Collection Summary

- ## 19,935 Grade 9 student records were submitted
  - 18,560 **complete applications** were submitted
  - 12,454 **received an offer** of admission
  - 10,414 **accepted the offer** of admission
    - 83.6% of Offers
    - 56.1% of Completed Applications
    - 52.2% of Records
  - 9,951 students were **enrolled** as of October 1, 2020
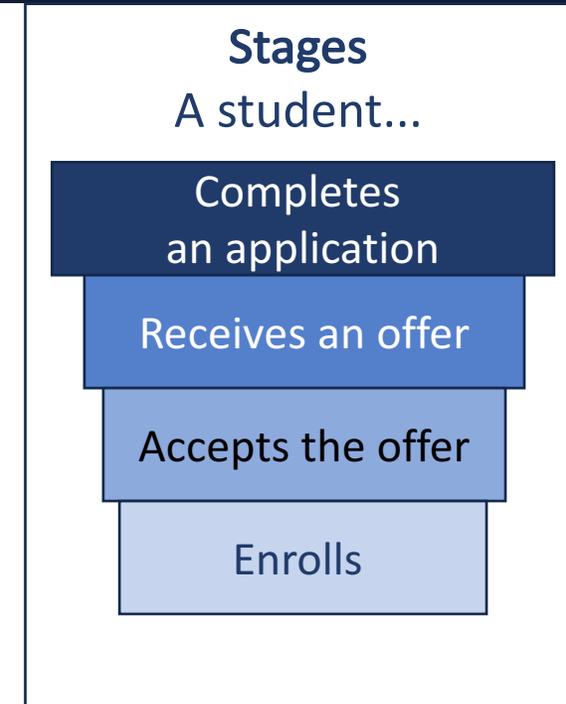
Stages
A student...

| Completes an application |
| Receives an offer |
| Accepts the offer |
| Enrolls |

'Awareness Gap'
Complete Applications for CVTE compared to Statewide Enrollment, Grade 9

		Group	Unknown	Non-Group
Students of Color	CVTE	36.7	5.6	57.5
	State	42.7		57.3
EcoDis	CVTE	40.4	5.6	54.0
	State	36.7		63.3
SWD	CVTE	21.3	5.6	73.1
	State	18.3		81.7
EL	CVTE	5.4	5.6	89.0
	State	7.6		92.4
FLNE	CVTE	17.7	5.6	76.7
	State	22.3		77.7
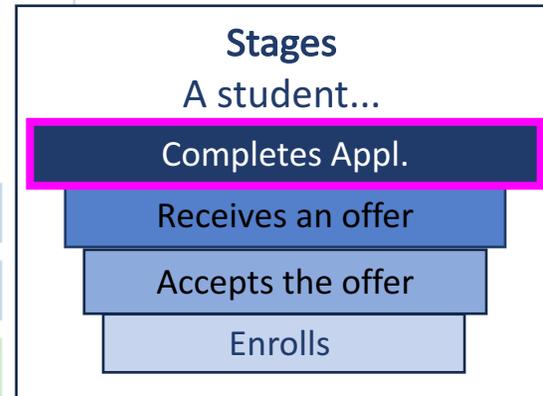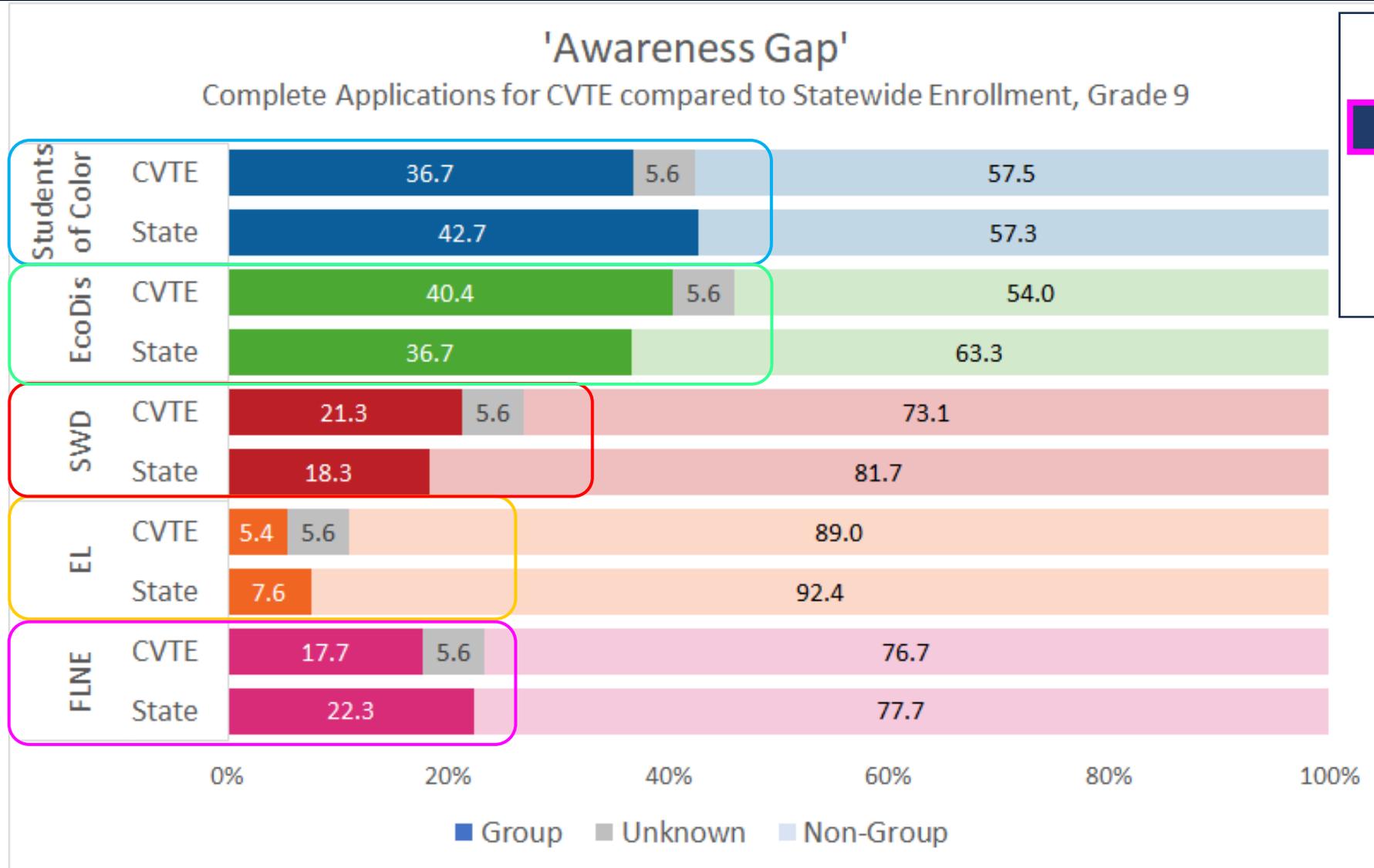
Stages
A student...
- Completes Appl.
- Receives an offer
- Accepts the offer
- Enrolls

'Opportunity Gap'

Offers of Admission Made, out of those who Applied, Grade 9
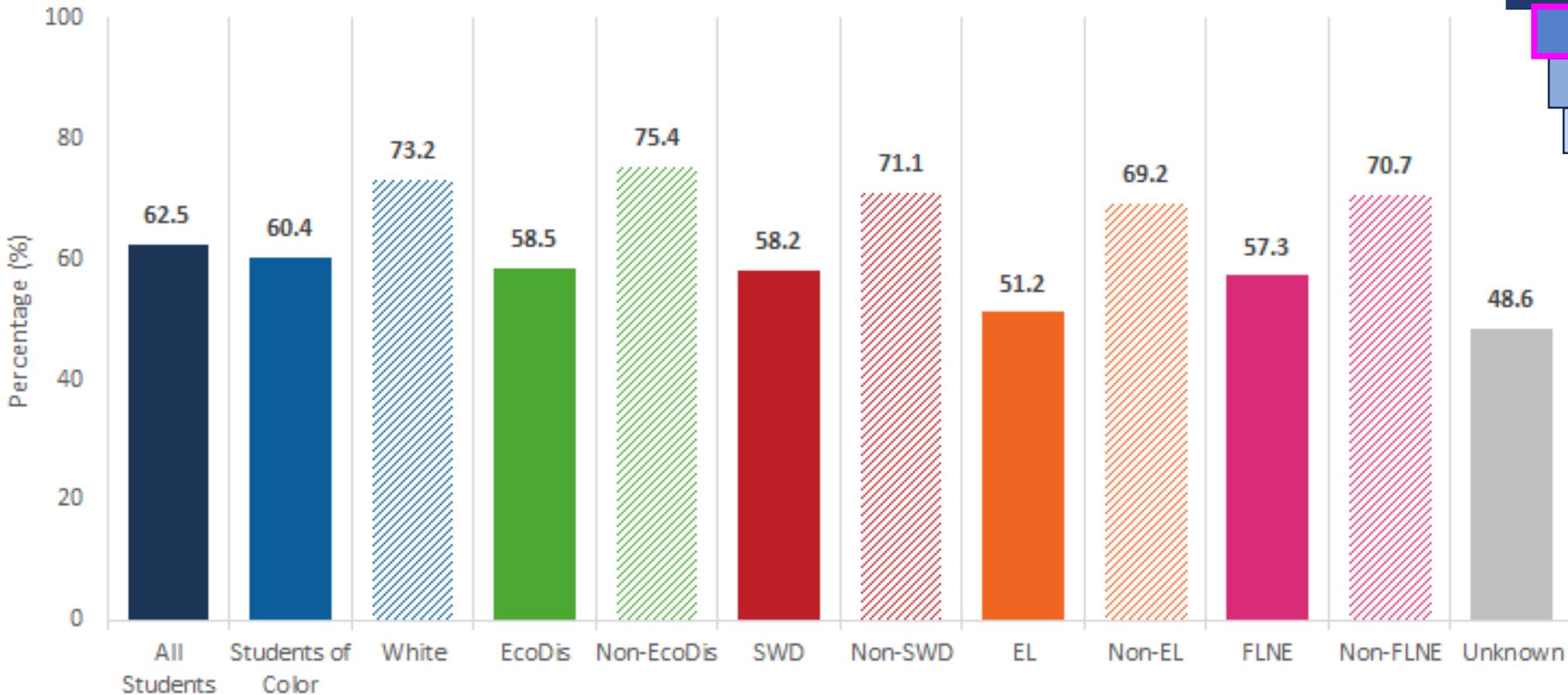
Group	Percentage (%)
All Students	62.5
Students of Color	60.4
White	73.2
EcoDis	58.5
Non-EcoDis	75.4
SWD	58.2
Non-SWD	71.1
EL	51.2
Non-EL	69.2
FLNE	57.3
Non-FLNE	70.7
Unknown	48.6

Stages
A student...

- Completes Appl.
- Receives an offer
- Accepts the offer
- Enrolls

'Yield Gap'

Student Acceptance of school's Admission Offer, Grade 9

Stages

A student...
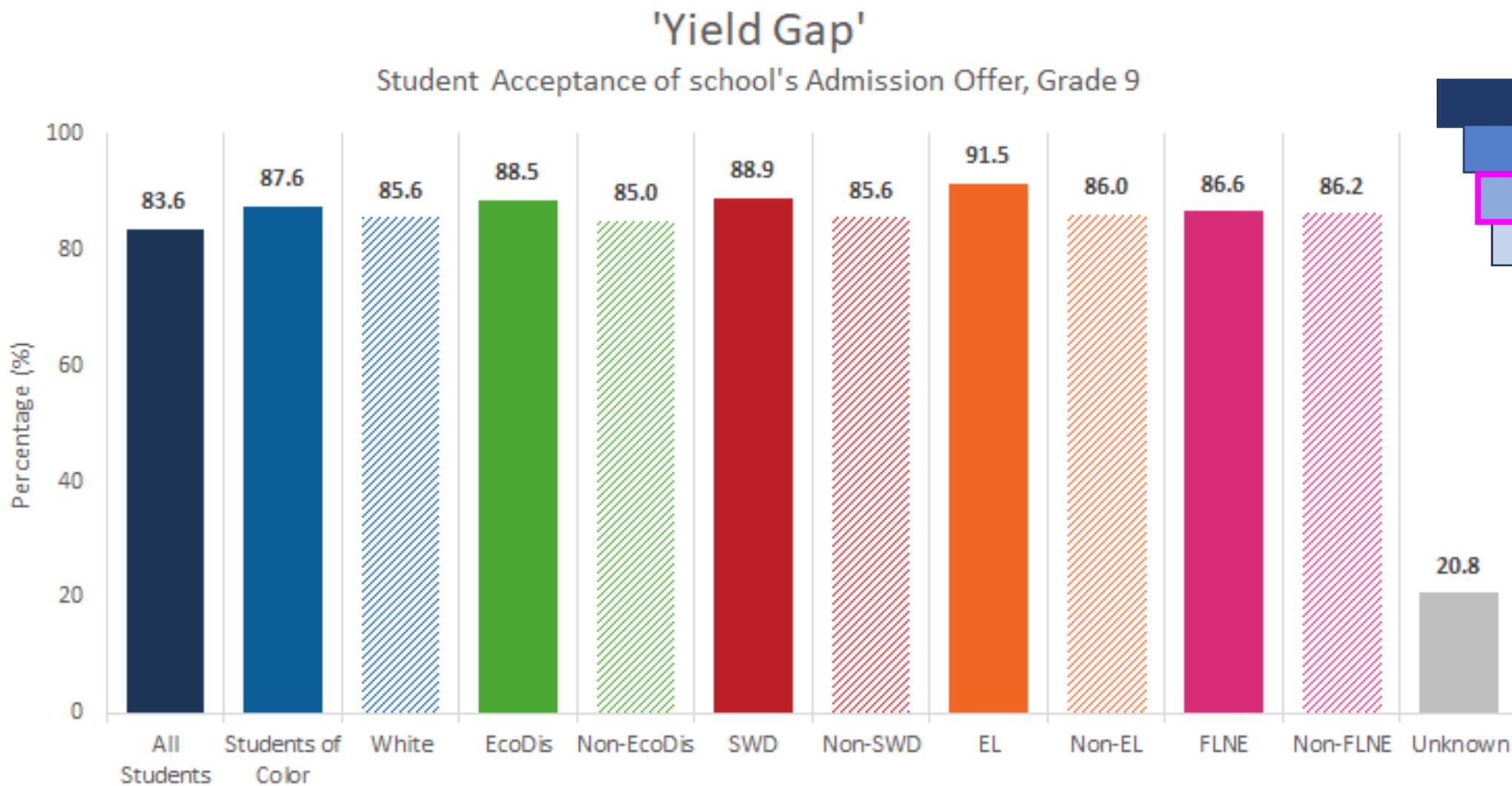
- Completes Appl.
- Receives an offer
- Accepts the offer
- Enrolls

4. Q&A

4. Admissions Stages View

- These are the same one year of data as above, presented to show the stages of the admissions process.

Stages
A student...

| Completes an application |
| Receives an offer |
| Accepts the offer |
| Enrolls |
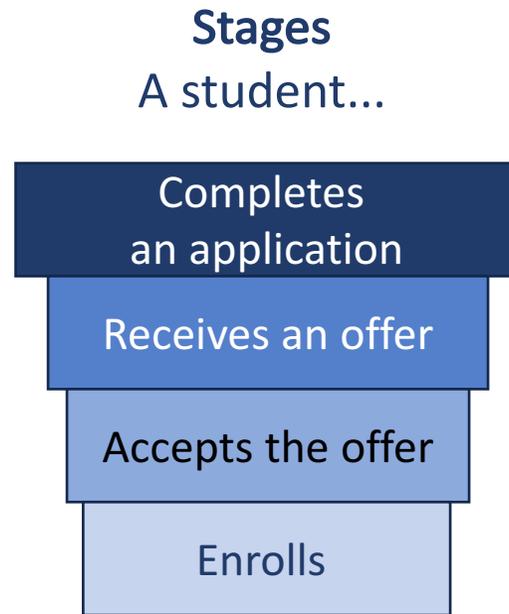
4. State Admissions Stages View

Economically disadvantaged students apply at higher rates than their counterparts...

Stages
A student...

| Completes Appl. |
| Receives an offer |
| Accepts the offer |
| Enrolls |
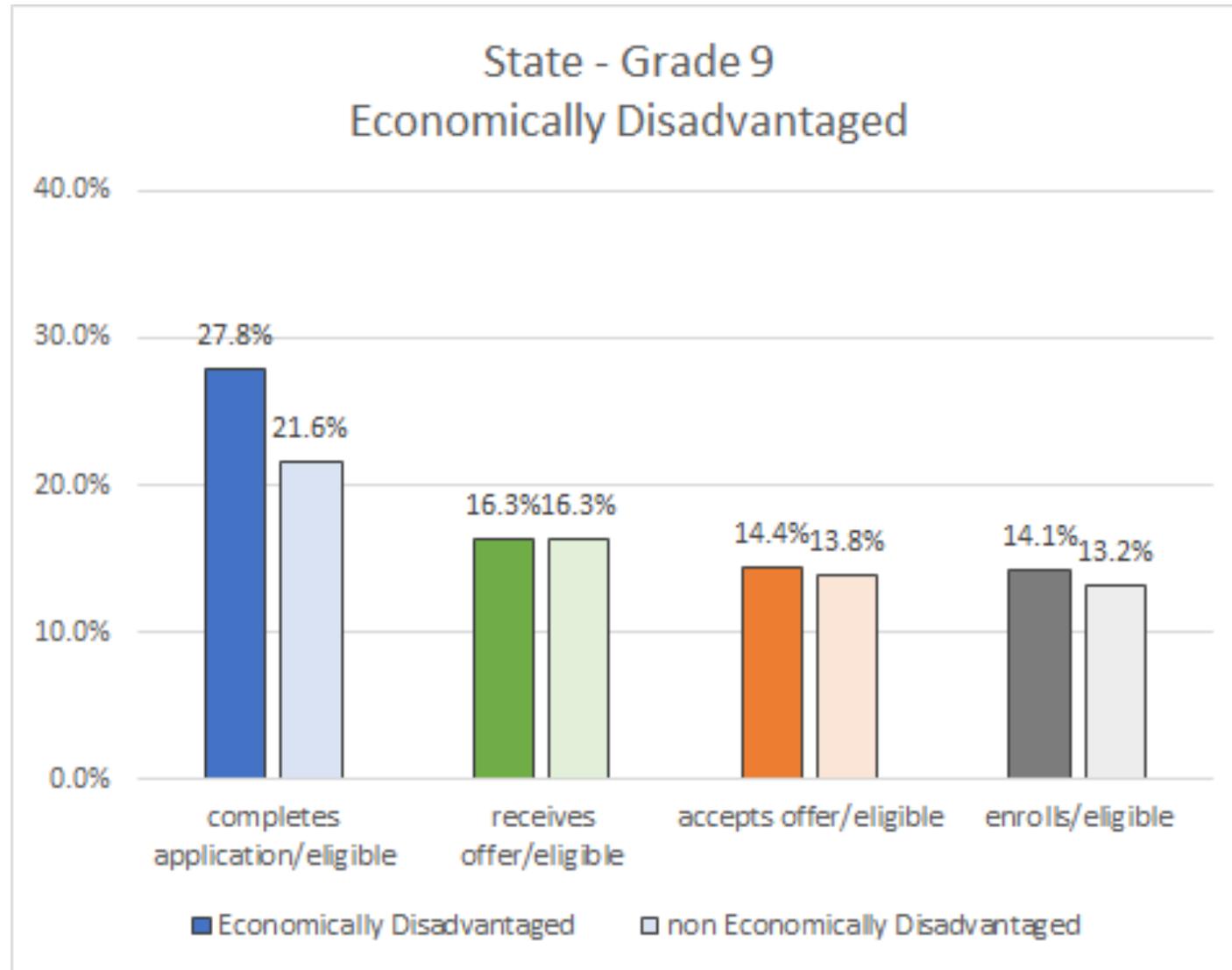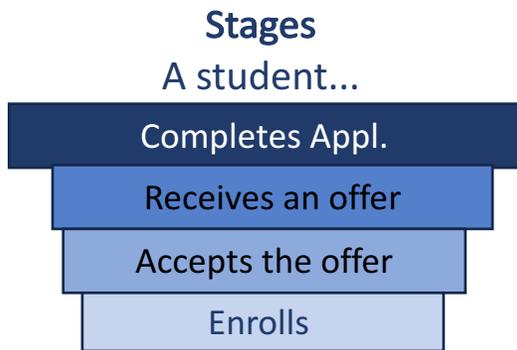
... and go through the process at comparable rates.

State - Grade 9
Economically Disadvantaged

- completes application/eligible: Economically Disadvantaged 27.8%, non Economically Disadvantaged 21.6%
- receives offer/eligible: 16.3% / 16.3%
- accepts offer/eligible: 14.4% / 13.8%
- enrolls/eligible: 14.1% / 13.2%

■ Economically Disadvantaged   □ non Economically Disadvantaged

4. State Admissions Stages View

Students with disabilities also apply at higher rates than their counterparts…

Stages

A student…

| Completes Appl. |
| Receives an offer |
| Accepts the offer |
| Enrolls |

State - Grade 9 only
Students with Disabilities

- completes application/eligible: 29.3% / 22.7%
- receives offer/eligible: 17.1% / 16.1%
- accepts offer/eligible: 15.2% / 13.8%
- enrolls/eligible: 14.8% / 13.3%

■ Students with Disabilities   □ non Students with Disabilities
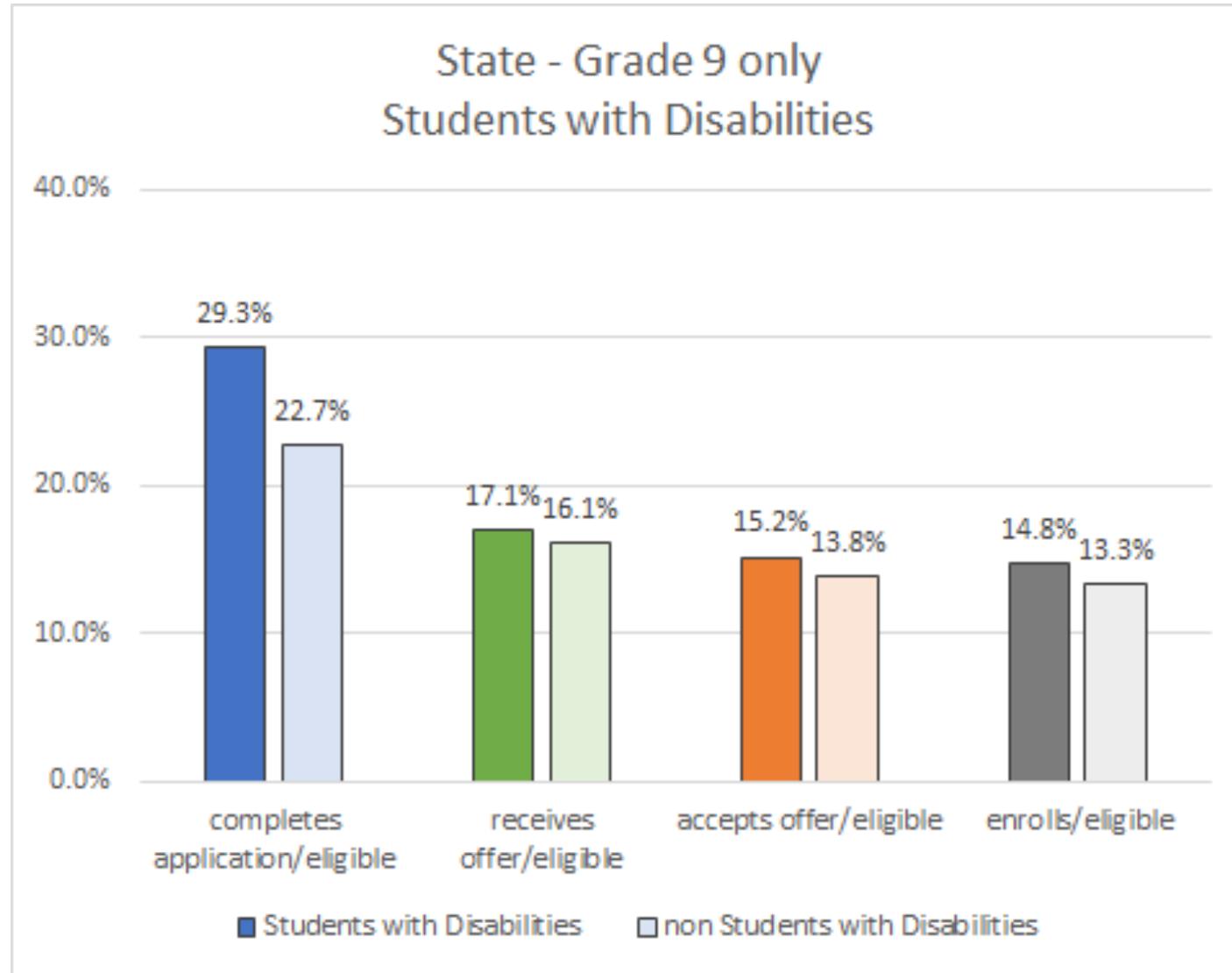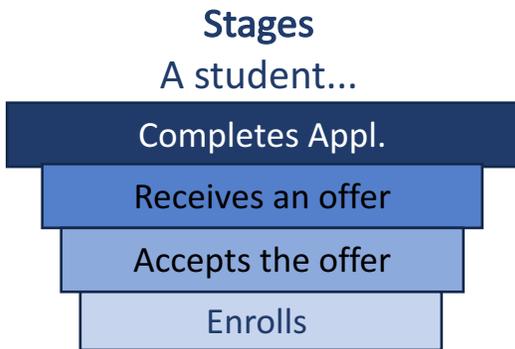
… and go through the process at close-to-comparable rates.

4. State Admissions Stages View

Students of color apply at lower rates than their counterparts..
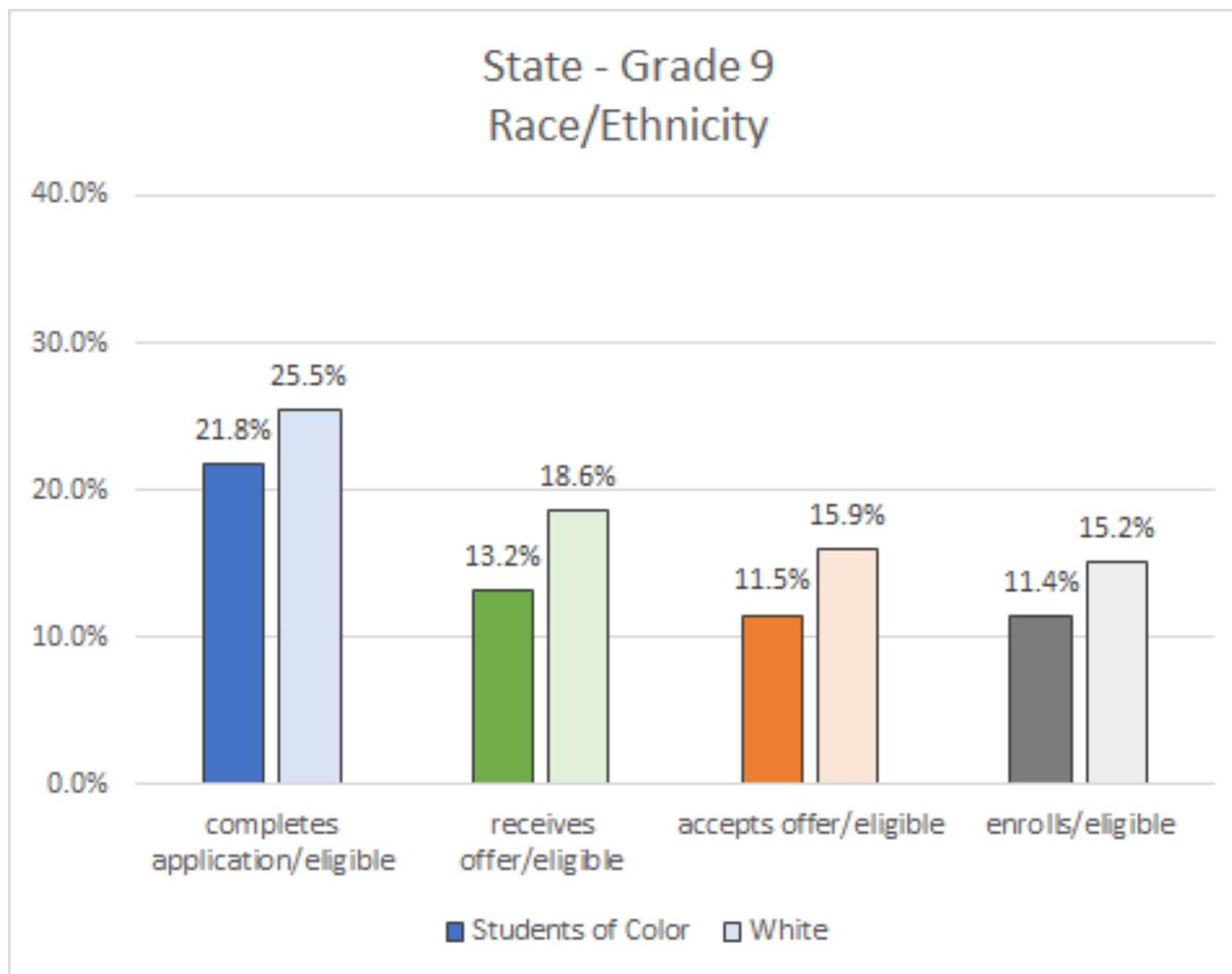
... and go through the process at different rates than their counterparts.

Stages
A student...

| Completes Appl. |
| Receives an offer |
| Accepts the offer |
| Enrolls |

State - Grade 9
Race/Ethnicity

- completes application/eligible: 21.8% (Students of Color), 25.5% (White)
- receives offer/eligible: 13.2% (Students of Color), 18.6% (White)
- accepts offer/eligible: 11.5% (Students of Color), 15.9% (White)
- enrolls/eligible: 11.4% (Students of Color), 15.2% (White)

■ Students of Color   □ White
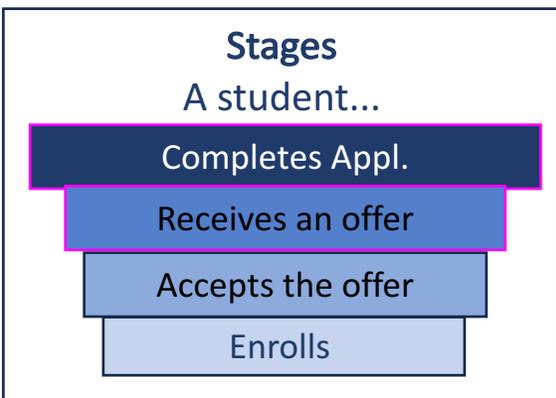
English Learner students apply at lower rates than their counterparts...

Stages
A student...

Completes Appl.
Receives an offer
Accepts the offer
Enrolls

... and go through the process at different rates than their counterparts.

State - Grade 9 only
English Learners

Stage	English Learners	non English Learners
completes application/eligible	18.0%	24.4%
receives offer/eligible	9.2%	16.9%
accepts offer/eligible	8.4%	14.5%
enrolls/eligible	8.4%	14.0%
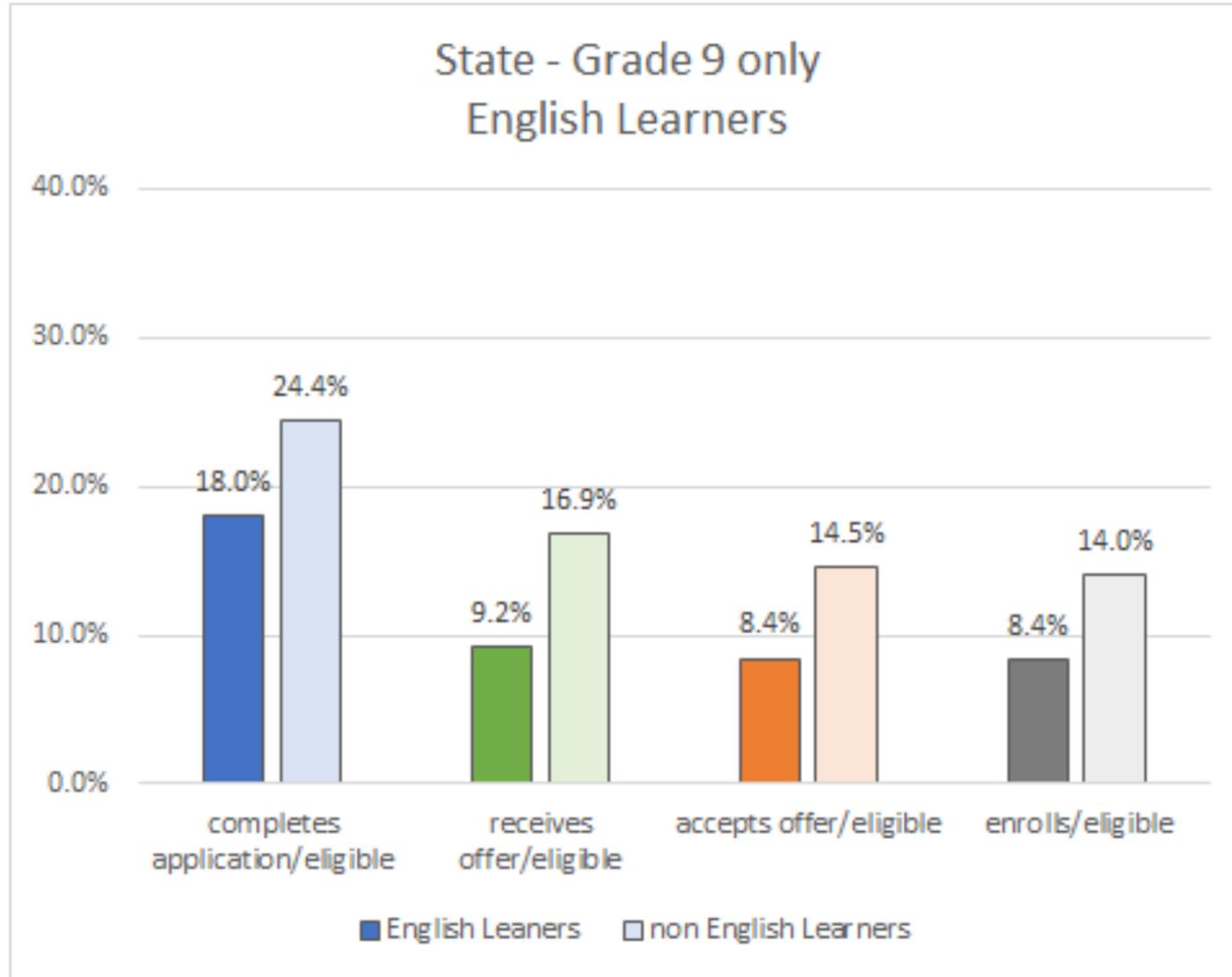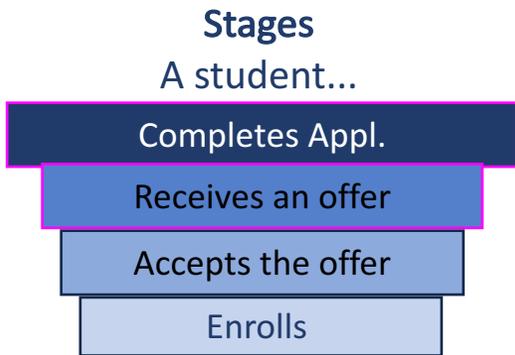
■ English Leaners □ non English Learners

4. School X: Grade 9 Admissions Stages View

School 1 - Grade 9 only
Students with Disabilities
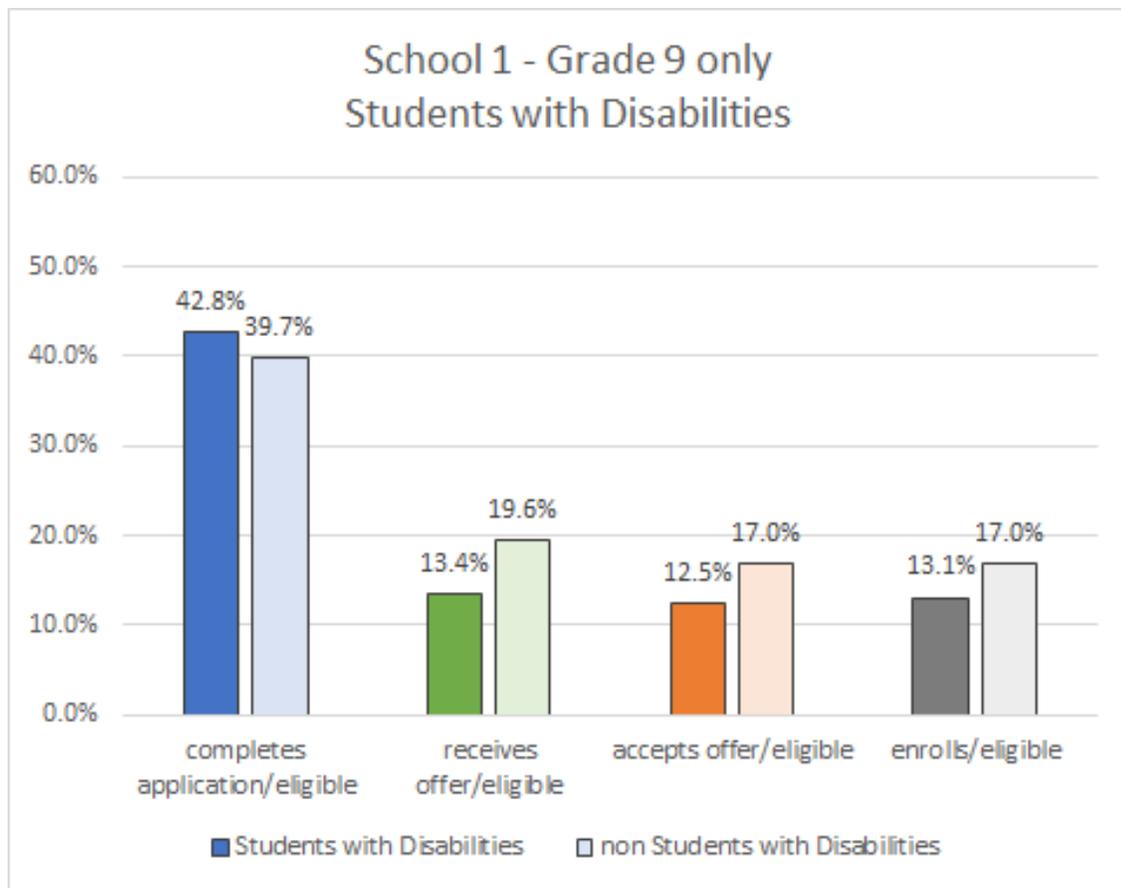
Although the percentage of students with disabilities who apply is comparable to their counterparts, there is a gap in the percentage who are **offered admission**.


School 1 - Grade 9 only
Race/Ethnicity
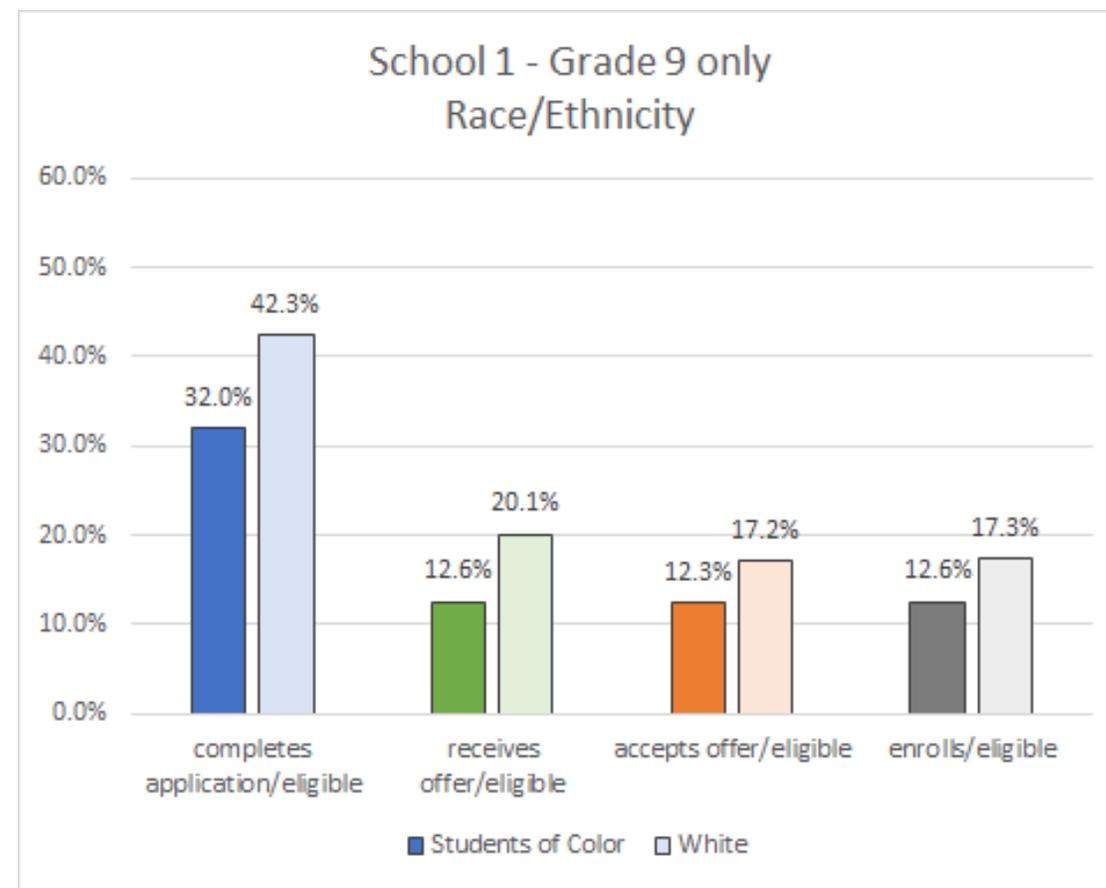
There is a gap in percentage of students of color who **apply.** The gap is reduced through stages of admission.
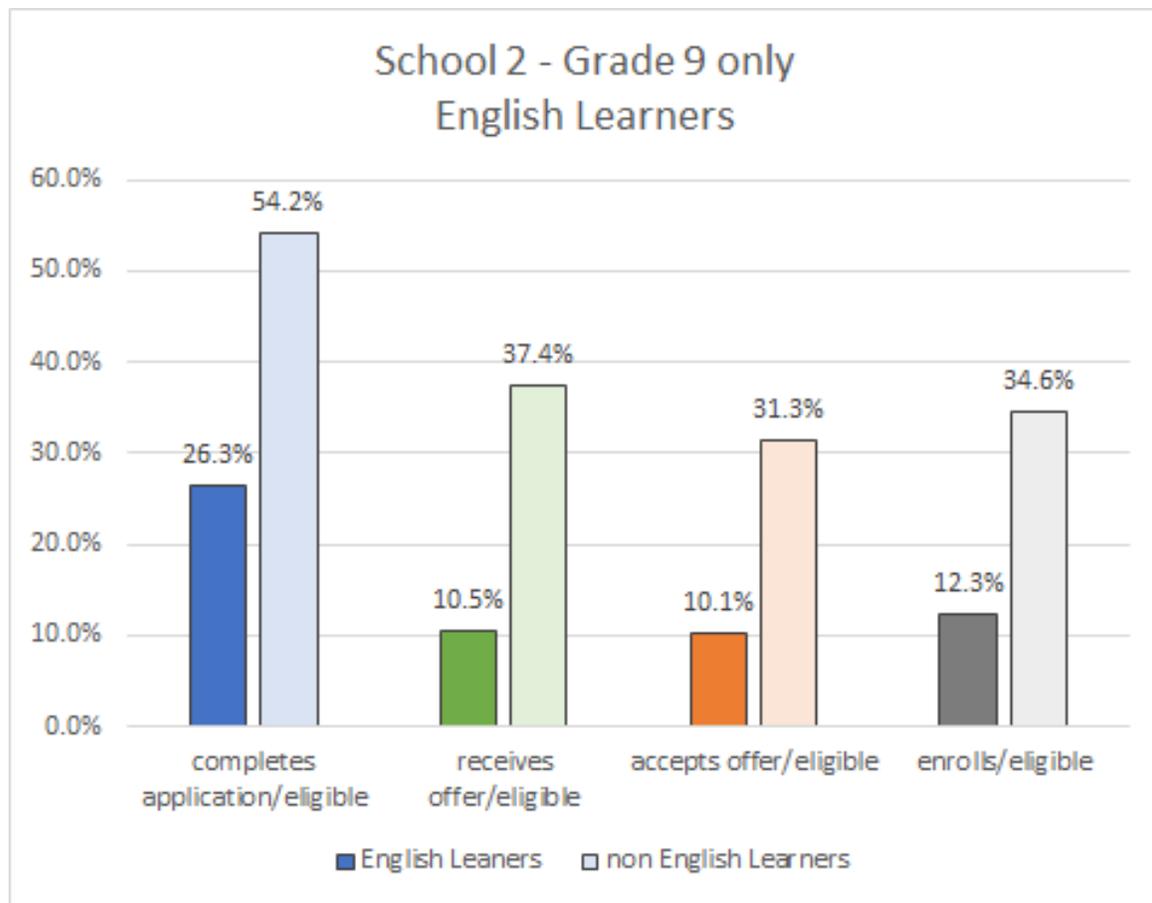
There is a gap in the percentage of English Learner students who **apply;** much of it remains through stages of admission.
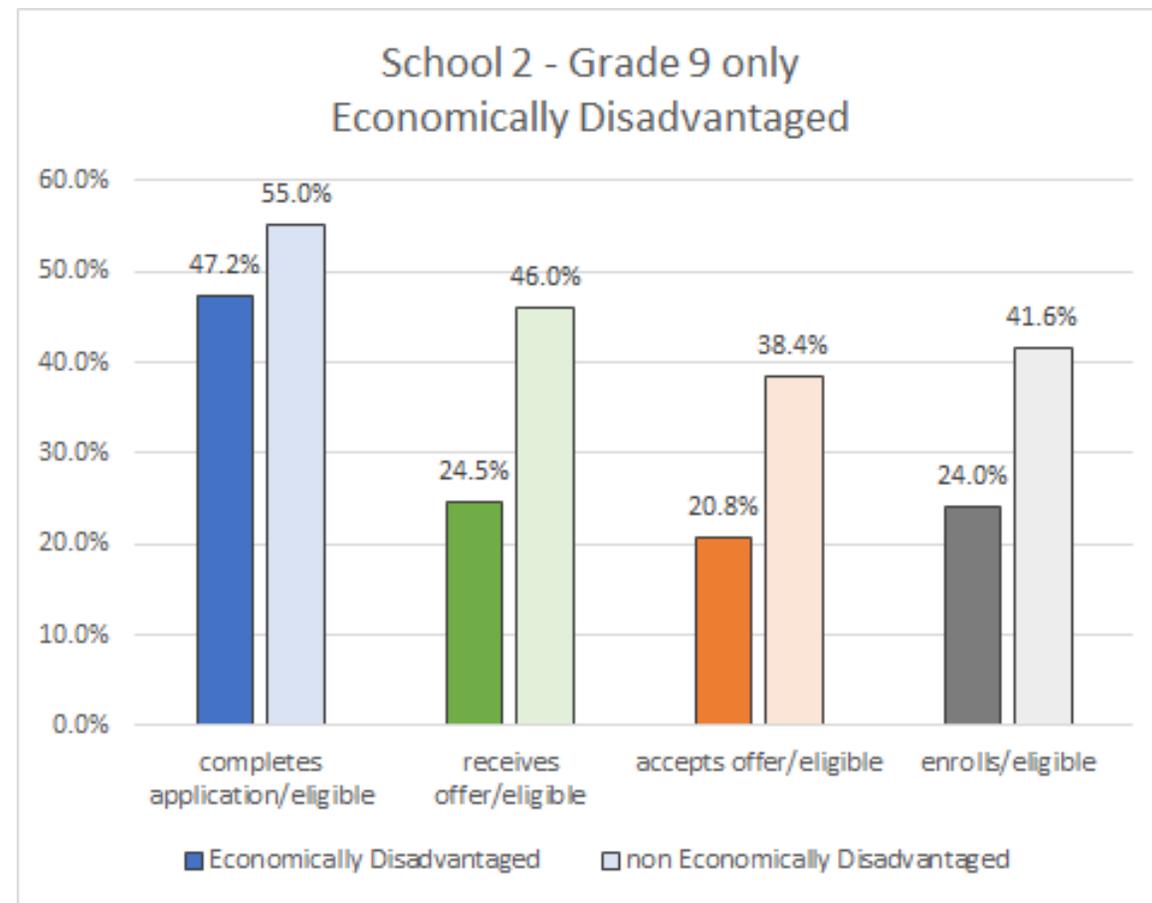
There is a gap in percentage of economically disadvantaged students who apply; this increases at the **offer** stage.

4. Q&A

05 Field Engagement & Next Steps

5. Field Engagement

- **Started** conversations with high demand districts in Fall 2019

- **Continue** to collaborate with the field

- **Ongoing** support provided to field with technical assistance webinars

5. Next steps

○ **Draft regulatory language**

○ **Develop guidance**

○ **Conduct simulations**

○ **Develop statewide supports**

THANK YOU

MASSACHUSETTS DEPARTMENT OF
ELEMENTARY AND SECONDARY
EDUCATION