### **Executive Summary**

This report summarizes a review by the Department of Elementary and Secondary Education (Department) of data on student admissions and waitlists submitted by Massachusetts vocational technical schools and programs. Although statewide, enrollment trends over the last few years have shown vocational schools and programs are comprised of student populations that generally reflect the communities in their sending districts, the Department's waitlist review found two kinds of gaps: "awareness gaps" and "opportunity gaps."

Awareness gaps occurred where vocational schools received fewer applications from students who might otherwise be expected to apply, based on their representation in sending communities. The Department observed awareness gaps for students of color, English Learners, and students whose first language is not English in several Massachusetts vocational schools and programs. By contrast, opportunity gaps occurred where vocational schools admitted fewer students than might otherwise be expected from populations present in their sending communities. The Department observed opportunity gaps in data submitted for students of color, economically-disadvantaged students, students with disabilities, English Learners, and students whose first language is not English in several Massachusetts vocational schools and programs.

It is important to recognize this waitlist data collection is the first of its kind, limited to one school year, and may be impacted by the effects of COVID-19. However, the Department believes that there is room for improvement in the ways that some vocational schools and programs – particularly in Gateway Cities - attract, admit, and retain students from their communities.

The Department has already begun engaging with these schools and programs, and their sending communities, to collaborate to improve both these policies and family access to information about vocational education.

#### Waitlist Data Collection

On February 25, 2020, the Board of Elementary and Secondary Education voted to amend the Vocational Technical Education regulations (603 CMR 4.00). The amended regulations include a new requirement for vocational schools and programs to report to the Department data concerning students waitlisted for admission.

The Department requested that 58 career/vocational technical education (CVTE) schools and programs participate in a survey for this data collection effort by July 10, 2020. The purpose of the survey was to gather information about policies and procedures related to school enrollment, admissions, and waitlists. The Department solicited additional feedback from schools, as well as other stakeholders, including the Massachusetts Association of Vocational Administrators (MAVA), to create a CVTE waitlist data collection template. To reduce potential burdens on schools and programs and consistent with stakeholder feedback, the Department streamlined the data collection template, made several requested variables optional, and extended the collection deadline to mid-November 2020.

<sup>1</sup> Please note that a few fields included in the collection template were considered optional unless a school had that information easily accessible and readily available. While many schools utilize an online application platform, making data reporting easier, some schools utilize hard copy records, making data collection more difficult.

Out of 58 schools and programs the Department contacted, 44 reported having waitlists for admission in school year 2020-2021. The Department provided each school with its own collection template, and schools submitted their responses via Security Portal Dropbox. To support the Department's matching process and subsequent analyses, the collection template requested that schools provide information for each student identified for inclusion in their submission.

Once the Department received the completed data collection templates, it performed its own internal verification procedures, matching the provided data with corresponding data the Department already collects through various school reporting mechanisms. The matching process aimed to identify demographic, attendance, discipline, and MCAS performance data for each student included in the collection. Additionally, the Department conducted data sensitivity analyses to assess the generalizability, robustness, and validity of the data the schools reported, to help inform its policy discussions with the vocational schools and programs.

### Waitlist Data Analysis

While a total of 22,668 students were included in school submissions for grades 9-12, the Department focused its attention on grade 9. Schools provided a total of 19,935 student records for grade 9, of which the Department was unable to identify through its matching process the student demographic information for 1,352 students (6.8%).<sup>2</sup>

The Department found, based on conversations with individual schools, MAVA, and the vocational sector as a whole, that overall, only students who submitted a "complete" application received admission offers, and schools varied in their determination of completeness.<sup>3</sup> The Department found that, of the data provided for grade 9, schools identified 18,560 applications as complete, 1,267 as incomplete, and 108 applications had no complete status identified.

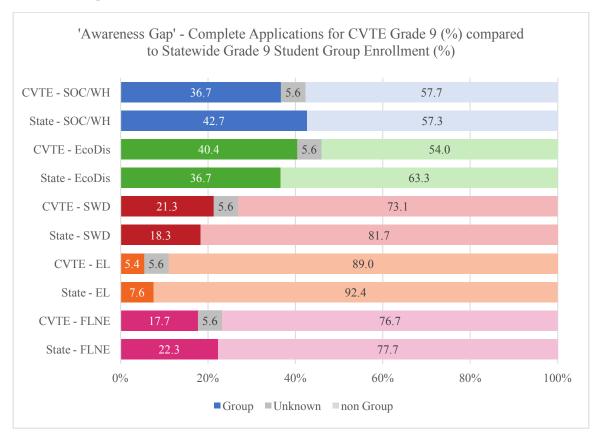
Statewide, demand for vocational education exceeded available seats: there were 1.75 completed student applications for every vocational program seat.<sup>4</sup> And in some communities, that number rose to twice as many applications as available seats. It is therefore clear that demand for vocational education in Massachusetts remains high.

<sup>&</sup>lt;sup>2</sup> The Department also investigated the number of students who applied to a CVTE school and who were not enrolled in a Massachusetts public school at the time of application (e.g., private school). The Department found that 1,535 students who applied for grade 9 vocational programs were not enrolled in a Massachusetts public school at the end of the 2020 school year. Of those students, 811 were not enrolled in a Massachusetts public school as of October 1, 2020 and were either enrolled in a private school, parochial school, homeschooled, or moved out of Massachusetts. 503 of these students ended up enrolling at the CVTE school that they applied to for the 2020-2021 school year. The remaining 221 students enrolled elsewhere in a different Massachusetts public school for the 2020-2021 school year.

<sup>&</sup>lt;sup>3</sup> The Department is working on standardizing this determination, as well as improving its data collection efforts with vocational schools and programs.

<sup>&</sup>lt;sup>4</sup> Schools reported 10,616 available seats for grade 9 vocational programs.

### Awareness Gap



To help interpret the collected vocational data, the Department identified a comparison group comprised of all students enrolled in grade 9 at any Massachusetts public school, totaling 73,353 students. The Department chose to use this group as a comparison point because all of these students were promoted to ninth grade (a condition<sup>5</sup> of admission to CVTE schools and programs). The comparison group contained the following student populations:

- 31,299 (42.7%) students of color and 42,054 (57.3%) white students.
- 26,904 (36.7%) economically-disadvantaged students and 46,449 (63.3%) not economically-disadvantaged.
- 13,445 (18.3%) students with disabilities and 59,908 (81.7%) students without disabilities.
- 5,602 (7.6%) English Learners and 67,751 (92.4%) not English Learners.
- 16,365 (22.3%) students whose first language is not English and 56,988 (77.7%) students whose first language is English.

<sup>&</sup>lt;sup>5</sup> Vocational schools and programs may also condition admission on students passing courses in English Language Arts (or its equivalent) and mathematics. Because this condition is permissive and may vary from program to program, it introduces some level of uncertainty that the data collection cannot address at this stage.

For the 18,560 grade 9 students with complete vocational applications, the Department determined the following<sup>6</sup> regarding student populations represented:

- 6,816 (36.7%) students of color and 10,704 (57.7%) white students.
- 7,490 (40.4%) economically-disadvantaged and 10,030 (54.0%) not economically-disadvantaged.
- 3,944 (21.3%) students with disabilities and 13,576 (73.1%) students without disabilities.
- 1,009 (5.4%) English Learners and 16,511 (89.0%) not English Learners.
- 3,289 (17.7%) students whose first language is not English and 14,231 (76.7%) students whose first language is English.

While students identified as economically-disadvantaged and students with disabilities applied to CVTE schools or programs at a greater rate than the statewide comparison group, students of color, English Learners, and students who first language is not English applied at a lesser rate than the statewide comparison group. This disparity in application submission rates indicates an awareness gap for these student subgroups.

### Opportunity Gap

'Opportunity Gap' - Offers of Admission Made (rate %) by Student Subgroup 100 75.480 71.1 70.7 69.2 62.5 60.4 58.5 58.2 57.3 60 51.2 48.6 40 20 ■ All Students ■ Stu. of Color ■ White ■ EcoDis ■ non EcoDis ■SWD ■non SWD ■EL non EL **■**FLNE ■ non FLNE ■ unknown

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<sup>&</sup>lt;sup>6</sup> In alignment with other Department accountability analyses, this report acknowledges that students may be identified in multiple subgroup categories, for example, English Learner and first language not English. The matching process identifies non-group categories as well. This identification of a subgroup of interest and its "non" counterpart help facilitate the interpretation of data outcomes. Any interpretation of subgroup data should be considered separate and distinct from the interpretation of other subgroup data. Additionally, the Department was unable to identify through its matching process student demographic information for 1,040 students (5.6%).

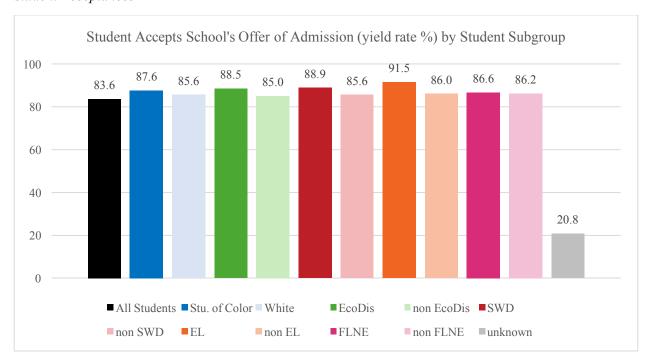
<sup>&</sup>lt;sup>7</sup> It is, however, important to note that economically-disadvantaged students and students with disabilities make up a greater proportion of students applying to CVTE programs than other student subgroups, such as English Learners.

The Department also analyzed the number of admission offers made across the subgroups of student populations described above. A total of 12,454 students (62.5% of those who applied) for grade 9 received an admission offer.

- 4,116 students of color (60.4% of those who applied) and 7,832 white students (73.2% of those who applied).
- 4,384 economically-disadvantaged students (58.5% of those who applied), and 7,564 not economically-disadvantaged students (75.4% of those who applied).
- 2,294 students with disabilities (58.2% of those who applied) and 9,654 students without disabilities (71.1% of those who applied).
- 517 English Learners (51.2% of those who applied) and 11,431 not English Learners (69.2% of those who applied).
- 1,886 students whose first language is not English (57.3% of those who applied), and 10,062 students whose first language is English (70.7% of those who applied).
- Of the students whose demographic data was not identified, 505 (48.6% of those who applied) received an admission offer.

Students of color, students identified as economically-disadvantaged, students with disabilities, English Learners, and students who first language is not English received fewer offers of admission. This disparity in the offer of admission rates indicates an opportunity gap for these student subgroups.

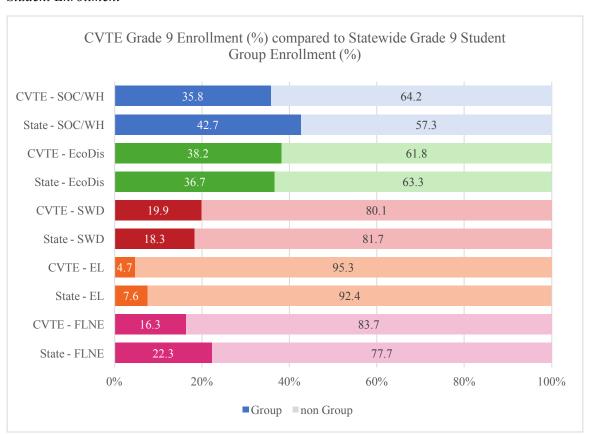
#### Student Acceptances



Of the 12,454 applicants who received an offer of admission, 10,414 accepted their offer of admission (83.6%).

- 3,606 students of color (87.6%) accepted compared with 6,702 white students (85.6%).
- 3,879 economically-disadvantaged students (88.5%) accepted compared with 6,429 not economically-disadvantaged students (85.0%).
- 2,040 students with disabilities (88.9%) accepted compared with 8,268 students without disabilities (85.6%).
- 473 English Learners (91.5%) accepted compared with 9,835 not English Learners (86.0%).
- 1,634 students whose first language is not English (86.6%) accepted compared with 8,674 students whose first language is English (86.2%).
- 105 students whose demographic information was not identified (20.8%) accepted.

#### Student Enrollment



As of the October 1, 2020 data collection, 9,951 students were reported as enrolled in a CVTE program at one of the 40 schools that provided grade 9 application data.

- 3,567 (35.8%) are students of color and 6,384 (64.2%) are white students.
- 3,803 (38.2%) are students identified as economically-disadvantaged.
- 1,985 (19.9%) are students with disabilities.
- 470 (4.7%) are English Learners.
- 1,625 (16.3%) are students whose first language is not English.

CVTE schools typically plan and prepare for an upcoming school year at least one year prior to the start of the school year, in this case the end of summer/early fall 2019. Because CVTE schools planned for the 2020-2021 school year prior to COVID-19, offers of admissions were made on time. However, students did not enroll at a CVTE school at the same rate as projected, leading to lower enrollment than anticipated (potentially for reasons related to COVID-19). Additionally, two schools miscoded students enrolled in a Massachusetts vocational program for the October 1, 2020 collection. The Department believes the total grade 9 sector enrollment to be closer to 10,145 students. While several schools enrolled more students than they anticipated serving, most served fewer students. This sector-wide decline is consistent with the overall decline in Massachusetts public school enrollment for the 2020-2021 school year. It also demonstrates that demand for CVTE seats is not evenly distributed across the Commonwealth, and that there may be additional capacity for some schools to accommodate more students, despite long waitlists at other schools. Additional follow-up with each school to investigate demand trends over time is warranted.

To see CVTE enrollment trends over time, please refer to the <u>Interactive CVTE Population Trends</u> visualization tool.

### Conclusion

It is important to note the limits of the Department's data collection and analysis. The Department relies on the data as it is reported by vocational schools and programs, and has already identified some minor issues with misreporting. Furthermore, it can be difficult to draw conclusions at the statewide level, because vocational schools apply a variety of admissions policies. Under the Department's current regulations, all selective vocational schools must consider the same four criteria (academic performance, discipline, attendance, and recommendation), but they may assign differing weights to each criterion. Furthermore, schools may consider a fifth criterion – a student interview. It is therefore unsurprising that some schools have wider gaps in student subgroup populations than others, and encouraging that some schools have even narrower gaps than expected. The same can also be said for student applicant pools.

The Department looks forward to collaborating with individual schools and programs to examine their data, run simulations on potential changes to admissions policies, and assist these schools as they work to improve equity in their admissions.

For more information regarding this report, please contact Brenton Stewart or Elizabeth Bennett.