Fast Track to College & Careers: Evaluator Report for Perkins I&M Grant

Prepared For:

City University of New York (CUNY)
NYC Department of Education’s Office of Postsecondary Readiness – Career & Technical Education (OPR CTE)
United States Department of Education (USDOE)

Presented on April 3, 2023, by:
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EXECUTIVE SUMMARY

The City University of New York (CUNY) and NYC Department of Education’s Office of Postsecondary Readiness, Career & Technical Education (OPR CTE) received a United States Department of Education Perkins Innovation and Modernization Grant in the fall of 2019. The grant funded the creation and implementation of the Fast Track to College & Careers (FTCC) program, with the goal of helping students successfully transition from secondary to postsecondary career-focused education. As initially designed, the FTCC program featured the following:

- A dual enrollment First Year Seminar (FYS) course for rising 10th graders that prepares and puts students on an early track to matriculating college credits at partner CUNY schools;
- Access to college campus facilities and college faculty;
- Expanded access to work-based learning (WBL) activities;
- Increased advisement and professional development opportunities;
- A streamlined and improved articulation agreement for participating schools.

Applied Curiosity Research (ACR) was hired to conduct an independent evaluation of FTCC to measure program impact and provide ongoing performance feedback to ensure program fidelity and increase the potential to impact key outcomes. ACR conducted one formative study each grant year and a final assessment of the FTCC schools compared to a control group of similar schools. This memo provides an overview of the extent to which grant activities were implemented through the lens of three formative research studies and our participation in regular meetings, and a description of the summative assessment of program outcomes. Please note that this report only covers the first cohort of students that began the program in SY 2019-2020. There is an additional cohort for whom complete data is not yet available.

Findings Summary

First, it is impossible not to mention the massive disruption to program implementation caused by COVID-19. For example:

- All FYS courses were remote for the first two years, and the initial transition to remote in 2020 resulted in a drastic loss of participants. Further, remote courses limited campus interactions.
- All summer-youth employment activities were cancelled or remote for two years, severely limiting meaningful interactions with the private sector.
- Remote learning also limited recruitment and onboarding activities.
- All NYS Regents exam were cancelled from March 2020 to June 2022, severely limiting our analysis and impacting graduation requirements for students.

That said, there was a lack of clarity among participating schools about the unifying vision of the “intervention” from the beginning. In the first year, school staff generally viewed FTCC as a series of discreet components, primarily just the first year seminar (FYS). While COVID exacerbated this, there were other controllable implementation challenges as well, including:
• The grant was awarded by US DOE after the school year began, giving CN and school staff a contracted period to recruit and organize program components.
• Several schools were selected to be part of the intervention group without a clear sense of participation requirements.
• Recruitment and communication materials did not clearly connect the program components, focusing largely on recruiting for FYS.
• The program name, *Fast Track to College and Careers*, was not clear to school staff, parents, or students.

As is discussed in the *Overview of Program Implementation*, many core components of FTCC were not implemented as intended, which had the effect of suppressing changes to key program outcomes (see *Summative Assessment*):

• A higher percentage of eligible students attending control group schools (11.6%) obtained at least one College Now credit compared to students attending FTCC schools (6.9%). No students received credit for computer science CN credits.
• There was no meaningful difference in graduation rates between students in the FTCC (96.0%) or control schools (95.2%), which may have been driven by revised requirements considering COVID 19.
• Math College Readiness was low for both the control () and FTCC students (), though after controlling for ELL and baseline GPA, FTCC students were 1.434 time more likely to be Mach College Ready.
• ELA College Readiness was low for both the control and FTCC students, though a logistic regression suggests that FTCC students were 1.468 more likely to be college ready after controlling for ELL and baseline GPA.

Put simply, the findings are disappointing but not unexpected given the implementation conditions. The report provides several recommendations to consider, including:

• **Program framing is critically important!** Framing programs so they are easily understood by participating school staff, students, and their parents/guardians is critically important.

• **Review best practices from improvement science¹ when designing future interventions.** For example, the field makes several assumptions that may help address some of the challenges described in this report: 1) schools are complicated systems in which to create change; 2) a clear program plan for how activities drive short-, medium-, and long-term outcomes, and how specific stakeholders carry out activities is necessary for success; and 3) collaboration between diverse stakeholders, focused on well-defined challenges can drive successful innovations.

• **Can the US DOE provide funding for programs that is more convenient for school schedules?** Awarding programs after school has already started puts considerable and avoidable stress on grantees.

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**Formative Research**

**Year 1 Formative – Perceptions of FTCC**

Grant year one was interrupted by COVID-19 as the program was being rolled out. Schools were closed during the first two weeks of the inaugural First Year Seminar courses, forcing the course online, and all summer work-based learning activities were cancelled. This caused a massive disruptions to the centerpiece activities in the program’s theory of change at the start of the program. This also disrupted the formative research. ACR had planned student focus groups and surveys to assess awareness and understanding of the FTCC program, available supports for CTE and postsecondary study, and articulation agreements. Instead, we pivoted to qualitative interviews with staff from participating schools and College Now (CN) to understand barriers to and perceptions towards FTCC.

Beyond the disruptions caused by COVID, there were several other implementation challenges that were observed and confirmed in our qualitative research:

- The grant was awarded after the 2019-2020 school year began, which meant project and school staff had a short window to onboard and recruit students to participate in the program activities.

- There was a change in CUNY leadership at the start of the grant, which was left vacant for much of the grant period and led to additional staff shortages.

We conducted 15 virtual, in-depth interviews (IDIs) with principals (N=3), assistant principals (n=4), school staff (N=4) and CUNY College Now staff (n=4). Interviews were audio recorded, transcribed, and coded by the ACR research team for relevant insights. We created and distributed a report for the project team, that included the following key insights and several recommendations that were presented in the report:

- **School stakeholders were confused about the long-term goals and processes for FTCC.** Participants believed that the First Year Seminar (FYS) was a great opportunity, but there was little clarity about FTCC’s overall vision and the next steps for students and families beyond FYS.

- **Confusion about FTCC’s overall goals among school staff trickled down to students and families.** Staff had difficulties selling FTCC to students and families without a strong sense of the program’s goals and next steps, and a few said the students began FYS with unclear expectations. This confusion manifested in recruiting and enrollment challenges, as many schools didn’t feel that they had engaging materials to explain the program to students and families.

- **School staff were unclear about the articulation agreements, and many had questions about how the CN credits could be applied.** This was not unexpected, since the articulation agreements were proposed to be developed after grant year one. However, this was another example of staff lacking key details they feel are necessary for promoting and recruiting the program.
• Many school staff did not understand the program was specifically designed for CTE students. Again, this was indicative of the larger confusion about the program.

Following this report, the project team rebranded the program to College Now for CTE to leverage the strong name recognition of College Now and help clarify who the program was intended to serve. The project team developed and tested new communication materials for students and their parents/guardians that helped explain the theory of change in more user-friendly ways (see Appendix A), and a FAQ document for school staff about the program, and materials that school staff could use to advise students on how they could integrate CTE and CN courses offerings in their schools. These materials were developed for use by the summer of 2020, in time for grant year two, but there was not any strong evidence that these materials were used in subsequent years.

Year 2 Formative – Student Survey of FTCC

In grant year two, our research options were again limited by the ongoing disruptions caused by COVID-19. Our planned student focus groups and interviews with school staff were cancelled as we determined with the principals and project team that additional demands on school staff and students were not appropriate. Instead, we conducted a survey with a convenience sample of 45 students that had taken the first year seminar from program schools. Since the survey had such a small sample and we were not permitted to follow up with qualitative interviews, we framed the report as a snapshot of program perceptions that could help corroborate previous findings.

We wrote up the results in a brief memo, that contained the following:

• In general, most students knew what they wanted to do after high school (80%), have set some career goals (84%).

• There was mixed feedback about the FYS course. Most students (81%) reported having a clear understanding of what FYS was going to be and believed FYS helped them understand what college courses would be like (89%). However, fewer (59%) reported that FYS changed their course planning, few students would recommend FYS to a peer, and 12 students were dropped from the analysis because they couldn’t remember taking FYS.

• Half of the participating students (55%) had not yet taken an additional College Now course.

Given the mixed feedback, we provided recommendations that mirrored the year one report and were raised by the project team, such as leveraging the revised communication materials to build support at the schools among CTE and counseling staff.

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2Percentages are based on the 45 students that completed a survey. Students were presented with a series of statements and asked to indicate their agreement on a 4-point scale from “strongly disagree” to “strongly agree.” For this report, we collapsed the responses to % agree for simplicity.
Year 3 Formative – Lessons Learned

Once again, our opportunities to connect with educators and students was greatly diminished by COVID and we concluded that substantive requests on educators’ and students’ time was more burdensome than valuable. Instead, we interviewed a sample of 10 stakeholders across NYC DOE and CUNY to hear broad perspectives about this project and related initiatives during the final year of the grant. We also integrated our observations as program participants since the start of the project. We created a report to summarize key themes and progress made towards a more effective implementation of related cross-agency collaborations.

The report included the following recommendations:

Collaboratively develop a detailed communication plan for outreach to school staff, caregivers, and students. School staff, caregivers, and students are constantly inundated with emails and messages about a range of educational programs and a constant flow of digital advertising and social media. Agencies generally lack a marketing budget to compete in such a cluttered communication environment. As such, it’s critical to be intentional about communicating and reinforcing program details and opportunities to schools and families, leveraging potential partners and existing communication channels.

Early in the project, teams should collaboratively develop a detailed communication plan that identifies and documents the key program information for each audience, the timeline for delivering key information, potential barriers for delivering information, the relevant team members, project partners, or relevant external teams to deliver and reinforce the information, and existing channels to leverage.

Continue to identify stakeholders and partners that could support and reinforce program outreach and engagement. Over the 3-year program implementation, additional relevant teams and partners have been engaged to support outreach. However, engaging school staff, caregivers, and students is still a challenge that may benefit from support from additional partners engaged in adjacent work, including several mentioned by our participants: Superintendent offices, CUNY Presidents, the CTE Advisory Board, DYCD. When more partners are aware of programs like this, it is easier to identify opportunities to leverage outreach channels, reinforce program information and implementation, and align resources.

Consider strategies to shift the focus from recruiting individual students to empowering and supporting counselors, schools, and districts. Funding opportunities like the Perkins Innovation Grant can create incentives to approach outreach and recruitment as filling required program slots. When this framing is applied, it can create an environment which prioritizes the students most likely to attend or the schools most likely to deliver students. There are a few byproducts of this approach that may follow:

- Schools with less infrastructure/awareness to support recruitment are excluded;
- Less effort is dedicated to increasing capacity at schools to support program continuity.
Schools will likely always need some support to recruit students, but additional efforts to build capacity and empower school counselors and staff to engage students in CN (or related programs) may streamline recruitment over time and increase the number of schools that can participate. For this to work, it’s imperative to also consider the first three recommendations around collaboration, as well as the following.

**Consider ways to embed programs like this into the broader school cycle and existing DOE/CUNY structures.** Programs are often more successful at engaging schools and families when the programs are viewed as embedded into the broader school cycle, rather than as an extracurricular, appendage, or enrichment program. We heard about and observed several biases, misconceptions, and challenges related to the current project that suggest it was perceived more as enrichment, and in each case, it caused unnecessary barriers to student participation:

- Some school staff perceived CN as something only for the highest academically performing students, when in reality there are options for all students that are successfully on track to graduate high school;
- Teaching CN courses is perceived negatively by some CUNY professors;
- Students in CTE schools had difficulty attending CN courses because they had other CTE obligations during the times courses were offered.

A deeper integration of CN into the broader school cycle, supported and reinforced by project stakeholders and their partners, could reduce or eliminate the barriers listed above. But the solution can’t just be asking CUNY to include different CN course times or asking NYC DOE to help CTE schools to prioritize CTE. All partners need to collaboratively work towards building the program components into their cycle of work.

**Carefully consider how programs and initiatives are named to avoid confusion among school staff, parents, and schools.** The program funded by this grant was named *Fast Track to College and Careers* to match the title of the grant application. However, through early research we learned that the name was confusing for school staff, caregivers, and students as it didn’t relate to any of the program components. The program was rebranded after year one to *CollegeNow for CTE* to describe the goal of the program more clearly for participants. While it is sometimes necessary to name and distinguish programs and “interventions” for funders and internal bureaucratic distinctions (e.g., SYEP Older Youth, SYEP Younger Youth), it’s important to consider how naming/branding can also obfuscate the goal of a program. In our case, it was clearer to simply evoke two known brands together - CollegeNow and CTE – than create a newly branded program.
OVERVIEW OF PROGRAM IMPLEMENTATION

The formative research presented previously highlights the ways in which program implementation was impacted by COVID-19 and other internal and external factors. We will briefly summarize which aspects of the initial *Theory of Change* were implemented before we provide a brief description of our summative evaluation.

Figure 1 below shows the logic model that was initially developed for the grant proposal, and Table O.1 briefly summarizes which components took place as planned with limited narrative describing the challenges.

Fast Track to College & Careers: Logic Model

<table>
<thead>
<tr>
<th>Resources</th>
<th>Activities</th>
<th>Outputs</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUNY &amp; CUNY CC</td>
<td>ACCESS TO DUAL ENROLLMENT • First Year Summer (FYS) available to all 10th grade students in relevant IT programs in CTE schools</td>
<td>COLLEGE READINESS • Increased # of students eligible to take CN courses</td>
<td>HEAD START IN COLLEGE • Students start college without remission</td>
</tr>
<tr>
<td>NYC DOE</td>
<td>• Delhi District Office CTE staff • Delhi District Office HS staff • Delhi District Office HS expertise in CTE</td>
<td>• Students who increased knowledge in CTE articulation agreements, CN courses, and how to claim earned credit</td>
<td>• Increase the # of CTE HS graduates who start college with CN credits</td>
</tr>
<tr>
<td>SUPPORTS • Campus &amp; School facilities • Evaluation Resources • Data Management Resources</td>
<td>• Workshops for students and parents about benefits of CTE in CN pathways</td>
<td>• Accelerated learning available to FYS completers</td>
<td>• Restrict the cost of a degree</td>
</tr>
<tr>
<td></td>
<td>• College credit courses • Access to college campus facilities for students • Interact with college faculty</td>
<td>• Dual enrollment participants gain</td>
<td>• Increased GPA in college</td>
</tr>
<tr>
<td></td>
<td>• Access to college campus facilities for students • Interact with college faculty</td>
<td>• Co-requisite math courses for FYS completers who have not reached college level proficiency</td>
<td>• Increased college retention</td>
</tr>
<tr>
<td></td>
<td>• Access to college campus facilities for students</td>
<td>SCHOOL-BASED SUPPORTS • Informational workshops for students and parents about benefits of CTE &amp; CN pathways • College visits in 10th &amp; 11th grades • 1:1 advising session from industry college partner Gr 12 • Summer services w/ industry/CEG partner Gr 10 &amp; 11</td>
<td>STEM/C.S.GRADUATES • Increased student participation in CTE/CN/STEM programming</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PROFESSIONAL DEVELOPMENT • E-Integration of CN &amp; CTE with DOE and HS administrators</td>
<td>• Increased likelihood of students selecting STEM/C.S major</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Develop clear informational materials outlining degree pathways for postsecondary articulation agreements</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Streamline IT and CN admissions process on advising students about the benefits of co-requisite CTE articulation and dual enrollment</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• CUNY/NYC DOE COORDINATION • CTE college advising curriculum and CUNY admissions advising will include postsecondary articulation agreements and CN benefits</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• CTE and college admissions will increase collaboration on curricula and WIB</td>
<td></td>
</tr>
</tbody>
</table>

Figure 1 Proposed program logic model.

Table O.1 - Overview of implementation of program components

<table>
<thead>
<tr>
<th>Activity Areas and Specific Activities</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Access to Dual Enrollment</strong></td>
<td></td>
</tr>
<tr>
<td>FYS Available to all 10th grade students in relevant programs</td>
<td>Strong Evidence: Generally took place as planned, but modified to be a remote experience</td>
</tr>
<tr>
<td>Full-day summer CN program combining college credit and experiential learning available to FYS completers</td>
<td>No Evidence: This did not take place as planned</td>
</tr>
<tr>
<td>Dual enrollment participants gain:</td>
<td></td>
</tr>
<tr>
<td>College credit courses</td>
<td>Mixed Evidence: see Summative Assessment</td>
</tr>
<tr>
<td>Access to college campus facilities for students</td>
<td>Limited Evidence: Most CN courses were remote and tours did not take place.</td>
</tr>
<tr>
<td>Interact with college faculty</td>
<td>Modest Evidence: Most CN courses were remote, and not all courses led by college faculty</td>
</tr>
<tr>
<td>Co-requisite math courses for FYS completers who have not reached college level proficiency</td>
<td>No Evidence: Students did not participate</td>
</tr>
</tbody>
</table>
**School-Based Supports**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Evidence Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informational workshops for students and parents about benefits of integrated CTE and CN pathways</td>
<td>Moderate Evidence: Generally took place, but without a clear communication strategy</td>
</tr>
<tr>
<td>College visits in 10th &amp; 11th grades</td>
<td>No Evidence: Students did not participate</td>
</tr>
<tr>
<td>1:1 advisement session from industry/college partner GR 12</td>
<td>No Evidence: Students did not participate</td>
</tr>
<tr>
<td>Summer service w/ industry/CBO partners GR10 &amp; 11</td>
<td>Limited Evidence: Most WBL and summer learning experiences were cancelled due to COVID</td>
</tr>
</tbody>
</table>

**Professional Development**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Evidence Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan integration of CN and CTE with DOE and HS administrators</td>
<td>Limited Evidence: Inconsistent depending on the school</td>
</tr>
<tr>
<td>Develop clear informational materials outlining degree pathways for postsecondary articulation agreements</td>
<td>Modest Evidence: Materials were developed, but their use was inconsistent</td>
</tr>
<tr>
<td>Train CTE HS and CUNY admissions staff on advising students about the benefits of combining CTE articulated credit and dual enrollment</td>
<td>No Evidence</td>
</tr>
</tbody>
</table>

**SUMMATIVE ASSESSMENT**

We will briefly summarize our study design before providing an outline of the findings. We are not presenting a detailed technical report because there were significant variations in the proposed program implementation that resulted in a lower-than-expected dosage for participating students. This lower-than-expected dosage resulted in the intervention group performing similarly on all outcomes of interest.

**Study Design**

We used an intent-to-treat design comparing all students in the 11 intervention schools against a sample of 10 control schools that met the following criteria:

1. Were enrolled at their current school in 9th grade (2018-19);
2. Enrolled in a CTE program by the 10th grade (2019-2020);
3. Enter 10th grade with a 70 GPA or higher.

These criteria were the same as eligibility requirements for participation in the FTCC intervention. The control schools were selected with input from the project team to be similar in terms of borough and populations served. Scrambled and de-identified student data was provided by the NYC DOE through a series of data requests once the data was available. We merged all of the data from NYC and applied the inclusion criteria for all 10th grade data and ended with an analysis sample of 654 intervention students and 562 control students.

Table S.1 below shows that the sample was similar in terms of the percentage of students with disabilities, the NYC's student poverty index, and the distribution of male and female students. However, the intervention schools had a higher percentage of English-Language Learners and Hispanic students, while the control schools had a higher percentage of Asian students.
Since the two groups differed by both ELL and race/ethnicity, we ran a series of t-tests and ANOVAs to look for differences in key outcomes by these demographic variables. There was no clear, consistent relationship between race/ethnicity and our outcomes of interest, but ELL students consistently scored lower on the outcomes of interest. We included ELL as a dichotomous variable in subsequent analysis.

**Measures & Analysis**

**College Readiness.** Initially, we planned to measure college readiness as the percentage of students that obtain scores on the NYS ELA and Algebra Regents exams that are considered college ready by CUNY schools. However, the Regents were cancelled from March 2020 until June 2022 and was not required for graduation, so participation was extremely low. Only 187 (15.4%) students across the sample completed the ELA Regents with a passing score of 75, and 560 (46.1%) completed the Math Regents with a passing score of 70, and participation was low.

Given this, we compared if students had a cumulative ELA and Math GPA of 75 or higher at the end of the 12th grade year using a simple, logistic regression with 9th grade GPA, ELL, and experimental condition as predictors. Table S.2 below shows a simple
comparison of Mean GPA and %75+ for both the Control and FTCC conditions at the end of grade 12 before we control for any differences in ELL and baseline GPA. The table also presents the 9th grade overall GPA.

The 9th grade overall GPA was higher among control students (M=82.46) than FTCC students (M=79.85) at a statistically significant level (p<.001). Since the control group had higher baseline GPA, we’ve included GPA in subsequent regression analysis.

There is also one statistically significant difference in 12th grade GPA, with the control group (M=71.01) having a higher mean grade 12 ELA GPA than the FTCC (70.36).

Table S.2 - Simple differences in GPA by condition

<table>
<thead>
<tr>
<th></th>
<th>Control (n=562)</th>
<th>FTCC (n=654)</th>
<th>Diff</th>
<th>t-value</th>
<th>p (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Grade ELA GPA: Mean</td>
<td>71.01</td>
<td>70.36</td>
<td>-0.643</td>
<td>2.78</td>
<td>0.006</td>
</tr>
<tr>
<td>12 Grade ELA GPA: %75+</td>
<td>34.3%</td>
<td>30.1%</td>
<td>-4.22%</td>
<td>1.481</td>
<td>0.139</td>
</tr>
<tr>
<td>12 Grade Math GPA Mean</td>
<td>70.29</td>
<td>68.86</td>
<td>-1.433</td>
<td>1.568</td>
<td>0.117</td>
</tr>
<tr>
<td>12 Grade Math GPA: %75+</td>
<td>28.3%</td>
<td>23.6%</td>
<td>-4.74%</td>
<td>1.879</td>
<td>0.060</td>
</tr>
<tr>
<td>9th Grade Overall GPA Mean</td>
<td>82.46</td>
<td>79.85</td>
<td>-2.614</td>
<td>6.602</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Table S.3 presents findings from a simple logistic analysis predicting students’ ELA college readiness as measured by a cumulative ELA GPA of 75 or more. After controlling for baseline GPA and ELL status, the FTCC condition was 1.468 times more likely to be college ready. It should be noted, however, that the average percentage of college ready students is still low across both conditions (see Table S.2). Also, the model explains between 23% and 33% of the variance, so there is clearly additional data that is not available that could help explain the findings.

Table S.3 - Logistic regression predicting ELA GPA readiness (ELA GPA 75+)

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>Wald X2</th>
<th>Sig.</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELL (1=ELL)</td>
<td>-0.346</td>
<td>3.201</td>
<td>0.074</td>
<td>0.707</td>
</tr>
<tr>
<td>Baseline GPA</td>
<td>0.187</td>
<td>232.244</td>
<td>0.001</td>
<td>1.206</td>
</tr>
<tr>
<td>Condition (1=FTCC)</td>
<td>0.384</td>
<td>6.333</td>
<td>0.012</td>
<td>1.468</td>
</tr>
</tbody>
</table>

Table S.4 presents findings from a simple logistic analysis predicting students’ Math college readiness as measured by a cumulative Math GPA of 75 or more. After controlling for baseline GPA and ELL status, the FTCC condition was 1.434 times more likely to be Math college ready. Again, the percentage of students that were Math College Ready was low in both groups. This model explains between 27% and 40% of the variance.

Table S.4 - Logistic regression predicting Math GPA readiness (Math GPA 75+)

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>Wald X2</th>
<th>Sig.</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELL (1=ELL)</td>
<td>0.112</td>
<td>0.278</td>
<td>0.598</td>
<td>1.118</td>
</tr>
<tr>
<td>Baseline GPA</td>
<td>0.233</td>
<td>247.38</td>
<td>0.001</td>
<td>1.226</td>
</tr>
<tr>
<td>Condition (1=FTCC)</td>
<td>0.36</td>
<td>4.453</td>
<td>0.035</td>
<td>1.434</td>
</tr>
</tbody>
</table>
High School Graduation. We obtained August 2022 graduation data for all students in both conditions from the NYC DOE. A simple t-test suggested that there was no statistically significant difference between the graduation rate for the FTCC (96.0%) and control groups (95.2%). The graduation percentages were similar and very high, which makes further analysis challenging, but we still ran an exploratory logistic regression.

Table S.5 below shows that after controlling for baseline GPA and ELL status, condition was not a statistically significant predictor of graduation, and the logistic regression model only explained 3% and 10% of the variance. It may be that with Regents and other requirements loosened due to COVID that the graduation variable is not a meaningful outcome.

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>Wald X2</th>
<th>Sig.</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELL (1=ELL)</td>
<td>-0.638</td>
<td>3.746</td>
<td>0.053</td>
<td>0.528</td>
</tr>
<tr>
<td>Baseline GPA</td>
<td>0.143</td>
<td>24.981</td>
<td>0.001</td>
<td>1.153</td>
</tr>
<tr>
<td>Condition (1=FTCC)</td>
<td>0.560</td>
<td>3.451</td>
<td>0.063</td>
<td>1.750</td>
</tr>
</tbody>
</table>

College Now (CN) Credits. We obtained CN credit accumulation data from the NYC DOE through a data request. We counted any course that was marked as “credit obtained” by the NYC DOE, indicating courses for which the academic requirements were met. According to the data from the NYC DOE’s official records, 65 students (11.6%) from the control group completed at least one College Now course compared to 50 students (6.9%) from the FTCC group. This difference is statistically significant at t=2.47, p<.002. None of the students in either group complete a Computer Science College Now course. It’s possible that some of the earned credits have not been credited for students. No additional analysis was run given this difference.
Appendix A: Program Flyers and Communication Tools

**COLLEGENOW for CTE: a Fast Track to college and career**

**COLLEGENOW for CTE** gives you options for the future.

- Enroll in First year seminar
- Meet college professors and career counselors
- Learn college & career skills
- Priority access to take COLLEGENOW courses in 11th and 12th grade
- Earn 3-6 FREE credits towards a related college major
- Enter college with up to 20 FREE credits (worth $5K+)

**COLLEGENOW students start college with up to a full semester of FREE credits. Save time & save money!**

**Enroll in 1st Year Seminar NOW for courses starting January 2021! Contact:**
**COLLEGENOW for CTE:**

**a Fast Track to college and career**

**KATIE’S JOURNEY TO ENROLL IN A COMPUTER NETWORK TECHNOLOGY DEGREE AT BOROUGH OF MANHATTAN COMMUNITY COLLEGE (BMCC)**

Who is Katie? Katie’s in 10th grade, has an 84 high school GPA, scored a 67 on the Algebra I Regents, and an 88 on the ELA Regents. | Katie’s high school is partnered with SMCC for COLLEGENOW

Completes First Year Seminar (FYS I) = 1 Free College Credit

**ROADBLOCK:** Katie needs a 70 or higher on Algebra I Regents to be college-ready in math

**SOLUTION:** Katie takes Intro to Statistics with Algebra (MAT 150.5), 4 Free college credits

Katie takes three more COLLEGENOW courses:

- Intro to Business (BUS 104) = 3 free college credits
- Intensive English Composition (ENG 100.5) = 3 free credits
- Intro to Sociology (SOC 100) = 3 free college credits

Enrolls in BMCC’s Computer Network Technology program w/ 20 Free Credits

Katie passes AP Computer Science and scores a 3 on the AP exam = 3 free college credits

Katie passes 3 high school CTE course:

- Intro to Web Design | IT Fundamentals
- Intro to Computer Systems

Passes the BMCC Challenge Exam = 3 Free college credits

**NYCCTE**

**JAYDEN’S JOURNEY TO ENROLL IN A DIGITAL DESIGN AND ANIMATION DEGREE AT HOSTOS COMMUNITY COLLEGE**

Who is Jayden? 10th grade Jayden has an 81 high school GPA, scored a 77 on the Algebra I Regents, an 68 on the ELA Regents. | Jayden’s high school is partnered with Hostos Community College for COLLEGENOW

Completes First Year Seminar (FYS I) = 1 Free College Credit

**ROADBLOCK:** Jayden needs a 75 or higher on the ELA Regents to be college-ready.

**SOLUTION:** Hostos offers courses for students who earned a 65 or higher on the ELA regents

Jayden takes three more COLLEGENOW courses:

- Visual Narrative (DD 108) = 3 free college credits
- Intro to Probability & Statistics (MAT 120) = 3 free credits
- Fundamentals of Public Speaking (VPA 192) = 3 free credits

Enrolls in Hostos’ Digital Design and Animation program w/ 16 Free Credits

Jayden completes high school CTE course:

- Intro to Graphic Design | Intro to Photoshop
- Intro to Design Principles

Jayden maintains a portfolio of work = 6 free college credits

**NYCCTE**
Program Overview: Schools

Goal of College Now for CTE
College Now for CTE gives 10th grade CTE students a head start towards successful degree completion through college credit-bearing courses taught by CUNY College Now professors. It is also expanding resources for school counselors and students to easily apply CTE and CollegeNow (CN) credits to students’ college studies.

For Students
First Year Seminar (FYS). An afterschool course (~30 hours) for 10th graders led by a CUNY professor covers critical thinking, college applications, and exposure to college expectations (1 college credit).

• College Now Priority. Completing FYS gives students priority status to take additional CN courses.

• Flexible College Credits. Students can earn up to 14 college credits to use for gen-ed requirements or a specific degree at any CUNY college.

For Schools
Expand Access to College Now. FYS allows students that may not otherwise qualify to participate in CN and gives them an early start.

• College Credits for CTE Courses. NYC DOE has agreements that give students free college credit for their CTE courses.

• Work-Based Learning (WBL). Students that complete FYS get priority access summer WBL.

Advantages:
• 10th graders eligible for CN before the Regents
• FYS prepares students to be successful in college and helps them chart a path
• Research shows CN students earn more college credits and are more likely to complete college

Potential Financial Benefits
3-6 HS CTE Credits + 1 Credit for First Year Seminar + Up to 14 CollegeNow Credits
up to 21 Credits ~ $5K+
Program Components

- First Year Seminar prepares students for college success
- School/student support from College Now Coordinators
- Training/support for College/Career Teams
- Increased support for students selecting CN courses
- Priority access for students to take CN courses
- Priority access for students to participate in summer WBL activities
- Access to College Campus (potentially post-COVID)
- Advisement in 12th Grade from CUNY College Bridge coach

College Now for CTE Timeline for 2020-2021

October-December: Recruitment 10th graders
  - CN Coordinators will support student/family workshops
  - CN will create flyers and supporting documents
  - Schools will recruit students

January-May: FYS for 10th Graders
  - Professor will lead course
  - HS staff will support retention through reminders and additional support as needed

April-May: Supporting students next steps
  - Professors & CN staff help students:
    - Select summer CollegeNow courses and WBL experiences
    - Plan fall CollegeNow courses

Ongoing
  - CN staff support college & career planning teams & WBL staff
  - NYC DOE CTE Team helps schools get the full benefits of agreements that give free college level credit for CTE courses

CTE Question: Jessica Kemper: JKemper@schools.nyc.gov

Folder with training and overviews:
https://bit.ly/3oTwL0g
### Student Information

- **Student Name:** [Name]
- **EMPLID #:** [Number]
- **High School:** [Name]
- **College Now Program:** [Program]

### Spring 10th Grade

- **Course:** [Course Name]
- **Grade:** [Grade]
- **Credits:** [Credits]

### Fall 11th Grade

- **Course:** [Course Name]
- **Grade:** [Grade]
- **Credits:** [Credits]

### Spring 11th Grade

- **Course:** [Course Name]
- **Grade:** [Grade]
- **Credits:** [Credits]

### Fall 12th Grade

- **Course:** [Course Name]
- **Grade:** [Grade]
- **Credits:** [Credits]

### Summer Courses & CTE Articulation Courses

- **Course:** [Course Name]
- **Grade:** [Grade]
- **Credits:** [Credits]

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**You've FINISHED**

**TOTAL CREDITS:** [Number]