Connecticut's Unspoken Crisis Supplemental Analysis: Fact pack for Education Leaders

## Context for these materials

BCG was commissioned by Dalio Education and the Connecticut Opportunity Project to conduct a set of supplemental analyses to the BCG report, Connecticut's Unspoken Crisis: Getting Young People Back on Track. These analyses aim to dive deeper into some of the factors most strongly associated with disconnection to help point stakeholders to the specific young people (aged 14-26) who are most vulnerable and enable them to develop targeted interventions to better support them. This package of materials is focused on addressing a selection of questions that we think will be of particular interest to some education leaders.

Our analysis utilizes an individual-level, integrated, longitudinal database made possible by Connecticut's P20 WIN system and data from the following entities: Connecticut Coalition to End Homelessness (CCEH), Department of Children and Families (DCF), Department of Labor (DOL), Department of Mental Health and Addiction Services (DMHAS), State Department of Education (SDE). The findings of this study do not necessarily reflect the opinions of the State of Connecticut or the organizations and agencies contributing data; the views and opinions expressed are those of the authors.

In addition, this analysis is meant to inform future efforts to better identify and support vulnerable young people; it is not meant to:

- Be a judgment of the individuals themselves or determinative of their educational or employment outcomes
- Make a claim about the level of need in this population, given data captures only a portion of young people in need of support services (e.g., mental health issues often go undiagnosed or untreated; DMHAS provides less than half of the state's mental health services)
- Make a claim about the effectiveness of services provided, given the data does not capture young people who need services but do not receive it (e.g., data does not show the association with disconnection for young people with untreated mental health issues)

The factors listed in the following pages are only a selection of those that influence disconnection, so future studies should explore other relevant factors, such as justice involvement, exposure to violence, multilingual status, childcare responsibilities, disability status, and immigration status.

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## Methodology

## High-level overview of longitudinal analyses:

- For longitudinal analyses, identify relevant sub-groups by looking at which factors they were involved in from ages 14-22 (note: this is distinct from our report analyses which identified flags from age 14 to 1 -year following high school exit)
- Follow journeys of these sub-groups by looking at (1) their educational outcomes, including high school graduation, postsecondary enrollment and completion (2) their employment outcomes 1-year after high school graduation
- For grade 9 analyses, identify relevant sub-groups and determine what proportion of groups were off-track vs. on-track in Grade 9


## Scope of populations studied:

- To understand the factors that impacted our population during high school and track longer-term outcomes, we primarily studied two longitudinal cohorts across 2013-2022; these struck a balance between providing enough data on their high school years and tracking them longer term
- Young people aged 14 years-old in 2013, through 22 years-old in 2022 ( $\mathrm{N}=42,096$ individuals)
- Young people aged 15 years-old in 2013, through 22 years-old in 2021 ( $\mathrm{N}=43,159$ individuals)
- Note: $9^{\text {th }}$ grade credits data is partially missing for these cohorts, limiting ability to compare across attendance, behavior, and credit flags by grade. Due to this, we also ran select longitudinal analyses for those who attended 9th grade for the first-time in 2014 and 2017
- For our analyses of the off-track Grade 9 population, we used $9^{\text {th }}$ graders in 2021-2022 for population descriptors and 9th graders in 2016-2017 for a view into outcomes immediately after high school


## Data considerations:

- These analyses should be used for relative comparisons between sub-groups and not interpreted as exact figures due to the various data considerations listed below and nuances in our scope of data (e.g., high school graduation rates will not exactly match those reported by SDE)
- The oldest age that most of our analysis was able to extend to was age 22, an age at which many young people have not yet finished their postsecondary program and more broadly are still maturing into adulthood
- The data allows for more precise measurement of educational attainment and wage level outcomes, but does not allow for a very precise measurement of labor participation (because often difficult to glean whether a young person is unemployed or left CT)
- The cohorts studied in our analyses are not "representative" in the sense that they had their education / employment journeys impacted by the COVID-19 pandemic (though this will not impact relative comparisons of sub-groups within these cohorts)
- All reported data had an N of 10 individuals or greater


## Importance of Grade 9

## Percentage of off-track Grade 9 and demographic breakdown by race/ethnicity

In 2021-2022 school year, 19\% of Grade 9 population was off-track


Off-track Grade 9 population is disproportionately Black and Hispanic/Latino ( $68 \%$ of population)


## Percentage of students of color, students attending high poverty school, students enrolled in special education off-track in Grade 9

In 2021-2022 school year, 19\% of Grade 9 population was off-track


Students of color, students attending high poverty schools, and those enrolled in special edu all more likely to be off-track vs. overall pop.


## Off-track Grade 9 high school graduation outcomes

Students in $9^{\text {th }}$ grade for the first-time in 2016-2017
Excludes students who were repeating 9th grade that year


## Key takeaways

45\% of off-track first-time $9^{\text {th }}$ graders do not graduate high school vs. only $3 \%$ of on-track $9^{\text {th }}$ graders

Off-track first-time $9^{\text {th }}$ graders are also more likely to take more than 4 years to graduate high school vs. ontrack $9^{\text {th }}$ graders (11\% vs. $0 \%$, respectively)

## Percentage of disconnected young people and non-graduates who were off-track in Grade 9

$26 \%$ of disconnected young people were offtrack in Grade 9 vs. $3 \%$ of connected population

57\% of non-graduate population were off-track in Grade $9 \mathrm{vs} .5 \%$ of high school graduates


Note: Data captures students who were in Grade 9 for the first time in 2016-2017, excluding those who repeated $9^{\text {th }}$ grade

# Deep-dive on attendance, behavior, and credit flags 

## Incidence of attendance, behavior, and credit flags, including overlaps



## Key takeaways

Attendance flags are the most prevalent among the at-risk population, both when comparing amongst single flags, and when comparing flag combinations
$19 \%$ of at-risk students have more than one flag vs. $23 \%$ of students who have a single risk flag

7\% of students are flagged for all three risks at some point in their high school career

## Educational outcomes for attendance, behavior, and credits

\% of cohort in $9^{\text {th }}$ grade for first-time in $2014{ }^{1}$


## Key takeaways

Young people who had any atrisk flags in high school have lower educational attainment than those who were not at-risk, particularly when it comes to postsecondary enrollment

Those who were flagged for attendance have the slightly lower outcomes across levels vs. those flagged for behavior and credits

Educational Attainment by school year '21-'22

1. Sum of those who ever graduated high school and those who attained an adult education diploma; 2 . Sum of those who ever graduated, and those who have enrolled but have not graduated; 3. Students represented are generally 21 years old, which may lead to lower graduation rates in postsecondary; 4 . Population includes those who previously graduated and are currently enrolled in a new program; Note: Metrics should be understood more for the relative comparison across categories vs. exact figures (e.g., "graduated

## Educational outcomes for on-track vs. off-track (i.e., credits flag)



## Key takeaways

Those who were ever off-track in high school have lower educational attainment than their on-track counterparts

While this gap begins with the rate of high school diploma attainment, and become more severe with postsecondary enrollment, going from a -25pp gap to a -36pp gap

1. Sum of those who ever graduated high school and those who attained an adult education diploma; 2. Sum of those who ever graduated, and those who have enrolled but have not graduated; 3. Students represented are generally 21 years old, which may lead to lower graduation rates in postsecondary; 4 . Population includes those who but have not graduated; 3 . Students represented are generally 21 years old, which may lead to lower graduation rates in postsecondary; 4 . Population includes those who
previously graduated and are currently enrolled in a new program; Note: Metrics should be understood more for the relative comparison across categories vs. exact figures

## Educational outcomes for attendance, behavior, and credits by grade

Cohort in 9th grade for first-time in 2014

| Grade | Flag | \% Graduated high school | \% Enrolled in postsecondary |
| :---: | :---: | :---: | :---: |
| $9{ }^{\text {th }}$ | Attendance | 57\% | 28\% |
|  | Behavior | 64\% | 31\% |
|  | Credits ${ }^{1}$ | 68\% | 39\% |
| $10^{\text {th }}$ | Attendance | 67\% | 33\% |
|  | Behavior | 73\% | 35\% |
|  | Credits | 70\% | 36\% |
| $11^{\text {th }}$ | Attendance | 69\% | 29\% |
|  | Behavior | 81\% | 41\% |
|  | Credits | 72\% | 32\% |
| $12^{\text {th }}$ | Attendance | 89\% | 41\% |
|  | Behavior | 92\% | 49\% |
|  | Credits | 84\% | 34\% |

Indicates, within a grade, which flag results in the lowest attainment

## Key takeaways

For those who were at risk in 9th, $10^{\text {th }}$ or $11^{\text {th }}$ grade, attendance is the most impactful on long-term educational outcomes, emphasizing the need to address the root causes of chronic absenteeism in Connecticut high schools

For $12^{\text {th }}$ graders, credits lead to slightly more severe educational outcomes as compared to other flags

Educational x employment outcomes 1-year after high school graduation

Education and employment outcomes for high school graduates 1year after high school graduation


Cohort in 9th grade for the first-time in 2017, 1-year after high school graduation

## Outcomes for High School Graduates One-Year After Graduation: Race/Ethnicity



## Key takeaways

Black and Hispanic high school graduates have higher rates of moderate disconnection despite having higher rates of employment; key driver affecting disconnection is lower rates of postsecondary enrollment, particularly enrollment in postsecondary without employment

Asian young people most likely to be involved in postsecondary and/or employment one-year after high school graduation

## Outcomes for High School Graduates One-Year After Graduation: At-Risk Flags



## Key takeaways

High school graduates who experienced attendance, behavior, or credits flag are $20-40 \%$ more likely to be neither enrolled in postsecondary nor employed oneyear after high school graduation vs. those with no flags

Of at-risk high school graduates, those with credit flags have the most severe outcomes, with more than half not employed or enrolled in postsecondary within one-year of high school graduation

## Outcomes for High School Graduates One-Year After Graduation: In-School Factors

## Key takeaways

High school graduates who were involved in alternative education are the most likely to be neither employed nor enrolled in postsecondary a year out of school (63\%), followed by transient students (54\%)

For students who were involved in special education or who attended a high poverty school, about 1/3 are neither employed nor enrolled in postsecondary a year after graduating high school vs. $13 \%$ of those who never experienced an in-school factor in high school

## Long-term educational outcomes

## On-time high school graduation by sub-group



## Postsecondary outcomes by sub-group



Note: Metrics should be understood more for the relative comparison across categories vs. exact figures (e.g., "attained high school diploma / equivalent"

## Postsecondary enrollment timing: Differences by at-risk status among HS grads

\% of high school graduates who enroll in postsecondary education


Of the high school graduates who enroll in postsecondary education, distribution of enrollment timing


## Key takeaways

Those who are at-risk in high school are less likely to enroll in postsecondary, even if they graduated high school

At-risk population also more likely to delay postsecondary enrollment vs. those never at-risk (89\% enroll within 1 -year of graduation vs. $95 \%$ of never at-risk population)

Those at-risk in 9th grade least likely to enroll in postsecondary, with only $53 \%$ ever enrolling, $15 \%$ of whom enroll after the first year

## Postsecondary enrollment timing: Differences by out-of-school risk status among HS grads

\% of high school graduates who enroll
in postsecondary education


Of the high school graduates who enroll in postsecondary education, distribution of enrollment timing


DMHAS and DCF affected populations see similar trends and are more likely to take longer than 1-year to enroll in postsecondary vs. those never affected by an out-of-school factor

CTHRS population most likely to experience delays, with $19 \%$ enrolling more than 1-year after high school graduation vs. $6 \%$ of those never involved in a factor

## Postsecondary enrollment timing: Differences by in-school risk status among HS grads

\% of high school graduates who enroll in postsecondary education


Of the high school graduates who enroll in postsecondary education, distribution of enrollment timing


## Key takeaways

Trends in postsecondary enrollment mirror those of disconnection, with alternative education population experiencing the lowest postsecondary enrollment rate

Even among those who do enroll, those who experienced alternative education in high school see the most severe enrollment delays (27\% take longer than 1-year after HS graduation to enroll in postsecondary vs $6 \%$ of population not in any risk group)

## Postsecondary enrollment timing: Differences by race/ethnicity among HS grads

\% of high school graduates who enroll in postsecondary education


Of the high school graduates who enroll in postsecondary education, distribution of enrollment timing


## Key takeaways

Hispanic high school graduates have the lowest rate of postsecondary enrollment within 1-year of graduating high school (89\%)

Black and Hispanic high school graduates are also more likely to not enroll in postsecondary than White peers - about $1 / 3$ never enroll in postsecondary vs. 1/5 White young people

Postsecondary enrollment timing: Differences by sex among HS grads
\% of high school graduates who enroll in postsecondary education


Of the high school graduates who enroll in postsecondary education, distribution of enrollment timing


Appendix

## Definitional framework for at-risk and disconnected young people



Young people aged 14-26 who are engaged
Young people aged 14-26 who are engaged in prosocial institutions and on-track for gainful employment

High school students who are at risk of not graduating and, therefore, also at risk for eventual disconnection. Category has three sub-populations:

- Off-track ${ }^{1}$ : Students who do not meet state credit attainment requirements
- At-risk due to other factors: Students who exhibit concerning rates of absenteeism and/or behavioral issues
- Severely off-track: Students who are both off-track and at risk due to other factors
Note: Though framework focuses on education and workforce, important to recognize that other factors and systems also play a role in connection and disconnection

Young people aged 14-26 who are not engaged in prosocial institutions and/or not on-track for gainful employment. Category has two sub-populations:

- Moderately disconnected: (1) High school diploma holders who are neither employed nor in postsecondary and (2) high school non-graduates who are employed
- Severely disconnected: Young people who are not employed, have not attained a high school diploma/equivalent and/or are incarcerated

[^0]
## Descriptions of data fields used: At-risk and disconnected (I/III)

## Notes

At-risk At-risk young people are the population of high school students who are at heightened risk of not graduating, combines students who are off-track, severely off track, and at-risk due to other factors:

- Off-track: Students not on track to graduate due to low credit attainment (as defined by the Connecticut State Department of Education)
- Severely off-track: Students off-track due to low credit attainment and displaying additional risk factors of absenteeism and/or behavioral incidents
- At-risk due to other factors: Students on-track with credit attainment, but displaying concerning trends in attendance and/or behavioral incidents


## Attendance Attendance is defined as the percentage of available days a student attends school;

 Students are considered chronically absent if their attendance is below $90 \%$ for 9 th and 10th grade, and below $85 \%$ for 11th and 12th gradeBehavior flag Whether a student has been suspended one or more times and/or expelled

Off-track / Each student's cumulative credit attainment compared with what they need to
credits flag graduate, as defined by the Connecticut State Department of Education (CSDE); If a student is not on-track to graduate from a credit perspective, they are considered "off-track." All students who repeated a grade in high school were also characterized as "off-track"

The analysis was conducted in line with the state's evolving graduation requirements-setting graduation requirement at 20 credits for classes prior to class of 2023, and then increasing graduation requirement to 25 credits starting with class of 2023

This analysis segments at-risk in a few different ways:

- Ever at-risk in high school - individual qualifies as at-risk during any year of their high school journey
- At-risk in X grade - individual qualifies as at-risk for a given grade, independent of whether they were at-risk in prior years
- First-time at-risk in X grade - individual becomes at-risk for the first-time in a given grade and was not at-risk in prior years

The analysis where possible looked at credit accumulation at each grade level and set the on-track threshold as: 5 credits at 9th grade, 10 credits at 10th grade, 15 credits at 11th grade, and 20 credits at 12th grade (for classes prior to the class of 2023), and as 6 credits at 9th grade, 12 credits at 10th grade, 18 credits at 11th grade, and 25 credits at 12th grade (for the class of 2023 onward)

For students for whom the data set did not have credit data for all grades (e.g., students who have transferred in from out of state), the analysis defined on-track/off-track by whether the student had earned 5 credits that year (prior to class of 2023) and 6 credits that year (class of 2023 onward)

This analysis does not account for district-level credit requirements, which vary by district and are often higher than the state requirements

## Descriptions of data fields used: Out-of-school factors (II/III)

## Term

Ever involved with CTHRS - Whether a young person ever received services from Connecticut's Connecticut's Homeless
Response System

Ever involved with DCF Department of Children $\mathbb{\&}$ Families

Definition Homeless Response System from ages 14-22 (e.g., shelter, housing, street outreach)

Whether a young person ever received services from DCF, including Children in Placement data (such as foster care placements), allegations data (data capturing allegations of abuse and neglect directed to DCF), and Provider Information Exchange (PIE) services data (services offered or contracted by DCF such as mental health and family supports), from ages 14-22

Ever involved with DMHAS - Whether a young person ever received services from DMHAS, including Department of Mental Health participation in inpatient programs, residential services, outpatient \& Addiction Services programs, and outreach and engagement services, from ages 18-22

## Notes

Data set does not capture the actual count of Connecticut's homeless population, but instead serves as a close proxy; namely, who/how many individuals have received homelessness support services from Connecticut Coalition to End Homelessness members

The PIE dataset does not cover all possible contracted services available from DCF. Further, DCF offers many other direct services not captured by being present in the allegations or placements data, though almost all children receiving some form of child protective service will be captured in those datasets

The data includes only programs and services affiliated with DMHAS, meaning it does not provide a full window into the mental health and addiction services offered across the state, but instead provides a window into the subset offered by DMHAS, which tends to be the more vulnerable populations.

The data does not capture the full set of individuals incarcerated from ages 14-22, just those who were enrolled in Unified School District \#1

## Descriptions of data fields used: In-school factors / other (III/III)

| Category | Term | Definition | Notes |
| :---: | :---: | :---: | :---: |
| In-school factors | Has ever attended a high poverty school in high school | Whether an individual attends a high school where more than $75 \%$ of its students are eligible for a free/reduced-price lunch | Definition used widely in education research, including at the National Center for Education Statistics (NCES) |
|  | Has ever been enrolled in special education in high school | Whether an individual has ever participated in a special education high school program since age 14 |  |
|  | Has ever been enrolled in alternative education in high school | Whether an individual has ever participated in an alternative education program in high school (e.g., alternative, dropout diversion/credit recovery, expulsion program, public transition program) or an alternative school |  |
|  | Transient | Whether an individual has moved high schools more than two times |  |
| Other | Wages earned | Includes data on wages recorded by the Department of Labor's unemployment insurance data set for the target age range and years. To keep the data set size manageable, the research team received wage data only for individuals who were captured in one of the other data sets <br> Employment was defined for this analysis as having wages earned equal to or greater than $\$ 7,000$ in a given year (roughly equivalent to working full-time at ALICE wages for one-quarter of the year) | Due to data limitations, wage data does not include self-employment, independent contractor work (e.g., gig economy), or informal economy work |
|  | Disconnected | Combined population of 14 - to 26 -year olds who are experiencing either moderate or severe disconnection, defined as: <br> - Moderately disconnected: Includes high school diploma holders, both traditional graduates and those who have attained an adult education diploma/ equivalent, who are neither employed nor enrolled in postsecondary education, as well as high school non-graduates who are employed <br> - Severely disconnected: Includes individuals neither employed nor holding a high school diploma, as well as incarcerated individuals | 31 |

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[^0]:    1. Inclusive of severely off-track population
