Credit Recovery In Kentucky: Advantages And Drawbacks

Research Report No. 479

Office Of Education Accountability

Kentucky Legislative Research Commission

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Credit Recovery In Kentucky: Advantages And Drawbacks

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Foreword

In November 2021, the Education Assessment and Accountability Review Subcommittee approved a research agenda for the Office of Education Accountability that included a study of credit recovery in Kentucky.

This study examines the use of credit recovery in Kentucky schools and districts and the extent to which credit recovery is used at the state and district level. An examination of the types of credit recovery methods used, the impact of credit recovery on graduation rates, and which students are most impacted by credit recovery are included. The study also examines the role of digital learning in credit recovery and policy concerns for digital learning credit recovery courses.

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Contents

Tables

Figures

Summary

Credit recovery enables students who fail courses to recover the credits they need to graduate from high school. There is no commonly accepted definition of *credit recovery* in the commonwealth or the nation, but it is usually associated with flexible course methods that focus more on content mastery than on seat time and have advantages over traditional course retakes in accommodating students' schedules and particular learning needs. Credit recovery has been a subject of national debate. Proponents consider it a critical tool in helping students persist to graduation, but critics have raised concerns about the quality of learning in credit recovery courses.

This study uses data from the Kentucky Department of Education (KDE), an Office of Education Accountability (OEA) 2022 survey of Kentucky high schools, and eight OEA site visits to report

- rates at which students recovered credits for failed courses by any method through the 2019 school year[a];
- rates at which students were enrolled in specific types of credit recovery courses in the 2022 school year;
- credit recovery practices and policies; and
- Kentucky educators' views of the strengths and drawbacks of credit recovery.

Digital courses—in which students receive instruction entirely or primarily through software—are now the most prevalent method by which students recover credits in the commonwealth. Compared with teacher-taught, direct instruction courses, digital courses are relatively less understood by policymakers and administrators, and they are less regulated.[b]

The study finds that credit recovery offers advantages and drawbacks, both of which are most likely to affect students who must recover multiple credits. Drawbacks can be addressed through local supports and strong state and local policies. Credit recovery policies do not exist at the state level or in most Kentucky districts and schools. Administrator support and monitoring of credit recovery programs varies among schools and districts.

Recommendations of the study focus on strengthening state-level credit recovery policies and data standards generally, developing a regulation for digital learning courses, and incorporating audits of districts' digital learning programs into KDE's cyclical audits.

Prevalence

Credit recovery affects a substantial minority of Kentucky students. Almost one-quarter of 2019 on-time graduates in Kentucky recovered one or more credits over their 4 years in high school, and almost 10 percent recovered three or more credits. Students who recovered credits—and

[a] To examine typical rates of credit recovery, the study analyzed student-level data from 2019 because it is likely to be more representative than data from subsequent years, when course failure increased greatly during the COVID-19 pandemic.
[b] Digital courses are sometimes referred to as online or virtual courses.

especially those who recovered multiple credits—were disproportionately from traditionally lower-achieving student groups and were disproportionately enrolled in schools with low graduation rates. According to the OEA 2022 credit recovery survey, rates at which students recovered credits have increased since 2019 as a result of student course failure during the COVID-19 pandemic.

Use of digital learning courses for credit recovery has been increasing in Kentucky and the nation, and they are now the most common way that Kentucky students recover credits. As reported in OEA's 2022 credit recovery survey, all Kentucky high schools offered digital courses, compared with 85 percent that offered traditional direct instruction course retakes and less than half that offered abbreviated direct instruction classes (such as have been traditionally offered in summer school). Students recovering three or more credits in 2022 enrolled in digital classes at over 2.5 times the rate at which they enrolled in any direct instruction options to recover credits.

Variation In Credit Recovery Practices Generally

Districts and schools vary widely in their credit recovery practices, including

- adjustment of content in credit recovery courses,
- limits in the grades that can be earned in a credit recovery course versus entire course retake,
- whether initial failing grades are included in student grade point averages (GPAs),
- eligibility of students to recover credits through credit recovery versus course retakes, and
- whether students may take a credit recovery class in a course they have not yet failed.

These variations can affect the comparability of student GPAs among districts and schools and can undermine the validity and reliability of credit recovery data collected by KDE. As noted in the report, current data collection methods are also limited by the way districts indicate credit recovery in student course data versus transcript data.

Variation in credit recovery practices reflects, in part, lack of state-level credit recovery policies in Kentucky and in most districts and schools. Other states have addressed these concerns by requiring districts to have local credit recovery policies and, in some states, by setting state-level guidelines for credit recovery.

Recommendations For Credit Recovery Generally

The report makes three recommendations related to credit recovery generally.

Recommendation 3.1

The Kentucky Board of Education should consider addressing the following elements of credit recovery in regulation: definition of *credit recovery*; permitted modes of credit recovery (that is, digital learning, online classes, direct instruction); and under what conditions, if any, courses for initial credit can be taken through credit recovery.

Recommendation 3.2

The Kentucky Department of Education should consider adding two coding fields to transcript data in the student information system, in order to identify a course as credit recovery and the mode by which the student earned the credit.

Recommendation 3.3

The Kentucky Board of Education should consider addressing in regulation the following issues related to credit recovery: when and how course content can be adjusted; student eligibility for credit recovery; how credit recovery is recorded in transcripts and calculated in grade point averages; and any limits to the total number of credits that can be earned through credit recovery.

These issues could be addressed through statewide requirements or by requiring that the issues be addressed through local board policies.

Digital Courses For Credit Recovery

As with credit recovery generally, implementation of digital learning credit recovery courses varies substantially among schools. In some districts and schools, students in digital learning credit recovery courses are closely monitored and actively supported; content coverage may be similar to that of traditionally taught classes. In others schools, policies and supports are lacking and instructional expectations can be extremely low. No specific policy safeguards exist to guard against low-quality classes.

Digital Learning Policies And Guidance

No state policies directly address digital learning courses. KDE's Digital Learning Guidelines recommend guiding principles and best practices for digital courses in areas such as content; technology readiness; staffing; leadership and governance; and assessment systems. Because they are not incorporated into regulation, the guidelines do not have the force of law.

School districts are operating under informal guidance from KDE in understanding staffing requirements and other requirements for digital courses. For example, the guidelines note that content-area teachers should review and endorse digital courses and that building-level "course stewards" may oversee implementation of a course if it is provided in the school building and assigned to a content-certified teacher. The guidelines recommend that digital learning students have access to content-area teachers for assistance.

Advantages

Views of Kentucky educators responding to OEA's 2022 credit recovery survey are consistent with national research in identifying both advantages and drawbacks of digital credit recovery courses. The overwhelming majority of survey respondents agreed that digital credit recovery

courses are flexible in meeting student scheduling constraints; allow students to recover multiple credits simultaneously; permit students to learn anytime, anywhere; provide diagnostic data to target unmastered content; are adaptable for a variety of learners; and are cost effective. In addition, almost half of survey respondents reported that, for some students, digital learning courses are more effective than direct instruction options. Students who may learn better in digital courses than in traditional direct instruction courses include those with social anxiety or those who prefer working at their own pace. Survey respondents' comments noted the critical role of digital courses in providing credit-deficient students with hope and a viable path to graduation.

Drawbacks

The overwhelming majority of survey respondents identified drawbacks related to the quality of learning in digital credit recovery classes. For example, 70 percent of respondents agreed that digital courses may be less rigorous than direct instruction courses. Just under half (49 percent) agreed that digital credit recovery courses prepare students for subsequent course work, less than those who agreed that abbreviated direct instruction (57 percent) or entire course retakes (84 percent) do so.

Survey respondents also agreed that students taking digital credit recovery classes might

- click through content without engaging (81 percent) or
- cheat by obtaining answers to assessments from answer websites or other individuals (85 percent).

Despite widely acknowledged risks of student cheating, less than one-third of schools require supervised settings for all students taking assessments for digital credit recovery courses.

Perceptions of lower academic standards in credit recovery classes may also undermine teachers' abilities to hold students to high standards in regular classes. Most (70 percent) of OEA survey respondents agree that "the perception of digital learning courses as an easy option may undermine some students' motivation to work in regular class."

Instructional Support From Content-Area Teachers

Although school practices vary, most credit recovery digital learning students complete digital courses in virtual labs or other in-person settings, supervised by school staff who are not necessarily certified in the content area of the course a student is completing.[c] Credit recovery teachers in these types of non-subject-specific classes do not typically provide content-related academic support to students. Lack of academic support may be especially concerning for the many credit recovery students with low reading abilities.

Schools can provide supplemental academic support for students in digital learning credit recovery courses by assigning duties to content-area teachers who are not credit recovery teachers. For example, content-area teachers may be regularly assigned to check in with students,

[c] In contrast, 16 percent of survey respondents reported that most or all students in their schools were in subject-specific credit recovery classes, supervised by teachers certified in the content area of the course being recovered.

to assist students in person or remotely, or to grade assignments (such as projects or essays) that cannot be graded by software. More than 40 percent of survey respondents, however, reported that content-area teachers who are not credit recovery teachers have no regularly assigned duties to assist with credit recovery classes. In such schools, students may have limited access to content-area teachers for instructional support.[d]

Instructional Expectations

OEA site visit data showed extreme variation among schools in the instructional expectations for students in digital credit recovery courses. In one school and one alternative program, digital courses may have rivaled direct instruction courses in the amount and range of content covered. In two schools, some students earned credit in digital courses in less than 5 hours, having participated in little or no instruction. In one of these schools, all student records analyzed indicated that students received credit without participating in any instruction.[e]

Importance Of Local Leaders In Course Quality Control

Local leaders play critical roles in maximizing benefits and minimizing drawbacks of digital learning courses. Roughly half of survey respondents answered a survey question requesting examples of school practices that address drawbacks of digital credit recovery courses. Strategies that were reported included

- scheduling regular check-ins or tutoring sessions for content-area teachers and digital credit recovery students,
- requiring students to take notes on instructional units before they are permitted to take a test,
- installing software that blocks answer websites on school computers,
- checking for plagiarized text, and
- identifying students who appear to be guessing at answers.

Some districts and schools have well-developed credit recovery policies that address digital learning credit recovery issues such as student and course eligibility, grading practices, test security, and data review processes, but most districts and schools lack written policies.

Importance Of Digital Learning Beyond Credit Recovery

Digital learning courses are used beyond credit recovery. An estimated 5 percent of students took digital courses for initial credit in 2019, and digital courses may be used in some of the state's new district-developed, full-time virtual schools. In addition, more than one-quarter of survey respondents reported that students in regular classes are permitted to use digital learning software to replace failed unit grades.

[d] In addition, digital course content that cannot be graded by machine might be entirely eliminated in these schools. In most OEA site visit schools, students taking digital credit recovery English courses were not required to produce any written work.

[e] In this school, raw student data recorded no minutes associated with instruction. Grading weights were concentrated entirely on assessments. The credit recovery teacher in this school reported encouraging students to skip instructional videos, in the interest of time. Students in the class were permitted to look up answers on the internet and were assisted by the credit recovery teacher when they struggled to answer questions correctly.

Recommendations For Digital Learning Courses

The study provides three recommendations aimed at clarifying state-level digital learning policies generally and requiring that local boards develop and implement policies that address the quality of digital learning courses. By incorporating districts' digital learning programs in the department's regular audits, KDE can increase the likelihood that local policies are developed and enforced.

Recommendation 4.1

The Kentucky Department of Education should consider updating its Digital Learning Guidelines to incorporate additional requirements related to staffing definitions and duties, local board policies, and evaluation of digital learning courses.

Recommendation 4.2

The Kentucky Board of Education should consider promulgating a regulation that incorporates an updated version of the Kentucky Department of Education Digital Learning Guidelines by reference.

Recommendation 4.3

The Kentucky Department of Education should consider including audits of districts' digital learning programs in its cyclical audits of local school districts.

Chapter 1

Introduction And Overview

Credit recovery is a key strategy used by schools to help students persist to graduation after they fail classes.

Credit recovery is a key strategy used by schools to help students persist to graduation after they fail classes.[a] Research shows that, on indicators such as income, health, and other social outcomes, students who earn a high school diploma are likely to be more successful than those who drop out.[1]

Credit recovery is most commonly associated with digital software and other course methods that flexibly accommodate students' schedules and particular learning needs.

There is no commonly accepted definition of *credit recovery* in the nation or the commonwealth, but it is most often associated with flexible course methods—especially digital learning software—that allow students to recover credits for failed classes. Compared with entire course retakes, credit recovery focuses more on content mastery than on seat time, and it more easily accommodates students' schedules and particular learning needs.

This study reports rates at which all students recovered credits by any method in 2019 and the prevalence of particular credit recovery methods in 2022.

This study reports the prevalence of credit recovery in Kentucky, using student-level data from the Kentucky Department of Education (KDE) to report rates at which students recover credits by any method and using Office of Education Accountability (OEA) survey data to report the prevalence, by school, of particular methods of recovering credits.

The study describes variation among schools in credit recovery. It provides additional detail on digital learning credit recovery courses.

The study describes variation among schools in credit recovery practices that affect course quality. It provides additional detail on implementation of digital learning credit recovery courses in which students receive instruction entirely or primarily through software. Digital learning courses are now the most common way that Kentucky students recover credits, they are less regulated and understood than traditionally taught classes, and they have been the subject of numerous national reports that raise concerns about course quality.

The study's findings are consistent with national research that suggests potential advantages and drawbacks of credit recovery.

Overall, the study's findings are consistent with national research that suggests potential advantages and drawbacks of credit recovery. Both the advantages and the drawbacks

[a] As explained in this report, credit recovery is also sometimes used to assist students in earning initial credits. In most Kentucky schools, students who are severely behind their peers in accumulating the credits needed to graduate may take credit recovery classes to simultaneously recover credits for failed classes and earn initial credit.

disproportionately affect students in traditionally lower-achieving student groups and in high schools with low graduation rates. Drawbacks of credit recovery can be addressed through strong policies, instructional supports for academically struggling students, and increased state and local oversight of credit recovery courses.

Description Of This Study

Study Request

The Education Assessment and Accountability Review Subcommittee requested that the Office of Education Accountability (OEA) examine use and types of credit recovery, its impact on graduation rates, and which students are most affected.

In November 2021, the Education Assessment and Accountability Review Subcommittee requested that OEA study credit recovery in Kentucky schools and districts. The subcommittee asked that the report examine the extent to which credit recovery is used at the state, regional, and district levels; the types of credit recovery methods used; the impact of credit recovery on graduation rates; and which students are most affected by credit recovery.

Major Conclusions

Credit recovery affects a substantial minority of Kentucky high school students. Rates of credit recovery have increased as a result of the COVID-19 pandemic.

- Credit recovery affects a substantial minority of Kentucky high school students. In 2019, roughly 9 percent of all students recovered credit for at least one class. Rates at which students recovered credits increased as a result of student course failure during the COVID-19 pandemic. In 2022, at least 15 percent of students enrolled in courses to recover credits.

Almost one-quarter of the 2019 graduating class recovered at least one credit, and 4 percent recovered five or more.

- Over the course of 4 years in high school, 24 percent of the graduating class of 2019 recovered at least one credit and 4 percent of the class recovered five or more credits.

Digital learning software is the primary mode of credit recovery in the commonwealth.

- Digital learning software is the primary mode of credit recovery in the commonwealth. In 2022, approximately 15 percent of high school students enrolled in one or more digital courses for credit recovery, compared with a combined 9 percent who enrolled in either of the more traditional direct instruction options. Relative to other methods of course recovery, use of digital learning courses has increased in the last decade and especially following the COVID-19 pandemic.

Kentucky and national data suggest benefits and drawbacks of digital learning courses. They let students recover credits, but educators express concerns related to student learning.

- OEA credit recovery survey data reflect national data in identifying both benefits and drawbacks of digital learning courses for credit recovery. Respondents overwhelmingly agreed that benefits of digital credit recovery courses are that

they permit students to recover multiple credits simultaneously, they easily accommodate students' scheduling constraints, and they allow students to learn any time, anywhere. Respondents also overwhelmingly agreed that digital learning credit recovery courses have drawbacks for student learning. Digital credit recovery courses may be less rigorous than direct instruction courses, and students might click through content without engaging, or they might obtain answers from the internet or from other individuals.

In some schools, digital credit recovery courses cover a breadth of material. In others, students obtained credits—even in advanced classes—with little or no instruction.

- OEA observed a range of instructional expectations among digital credit recovery courses in site-visit schools. In some schools, courses cover a breadth of content and instructional tasks. In other schools, students obtained credits—even in advanced classes—despite having completed little or no instruction.

Digital courses likely affect students in lower-performing groups and in schools with low graduation rates more than all students.

- Students in academically lower-performing groups, in schools with lower graduation rates, and in alternative programs are likely disproportionately affected by digital learning courses. These students recover multiple credits prior to high school graduation at much higher rates than all students. Survey data suggest that students who are severely behind in credits are more likely to recover credits through digital courses than through direct instruction.

OEA found moderate to weak credit recovery policies in most schools and districts.

- Kentucky regulation requires local district and school leaders to promote and monitor course quality by developing and enforcing policies related to course content, performance expectations, and evaluation. OEA site-visit and survey data indicate strong credit recovery policies in some districts and schools, but moderate to weak policies in most. Site-visit data suggest that district and school administrators often lack detailed knowledge of credit recovery implementation at the classroom level.

Kentucky does not directly monitor or regulate credit recovery or digital courses at the state level. In recent years, some states have enacted policies in response to concerns about credit recovery.

- In Kentucky, as in most states, neither credit recovery nor digital courses are directly regulated or monitored at the state level. In response to audits and quality concerns, a handful of states have enacted state policies in recent years aimed at addressing quality concerns about credit recovery generally and digital learning courses in particular.

Digital learning courses are also used to award initial credit and were the primary mode of instruction in some district-developed virtual schools.

- Digital learning courses are also used to award initial credits and, as of 2022, were the primary mode of instruction in some of Kentucky's new district-developed virtual schools. Concerns

identified about digital learning courses in this report likely apply to digital learning courses in those contexts as well.

Organization Of The Report

The remainder of this chapter reports graduation rates and describes national literature and Kentucky policies relevant to credit recovery.

The remainder of Chapter 1 describes the data used for the report, findings of national literature on credit recovery, graduation and course failure rates, and the policy context for credit recovery in Kentucky.

Chapter 2 describes credit recovery rates and the prevalence of different credit recovery methods.

Chapter 2 describes rates at which students recovered credits in 2019 and the total number of credits recovered by graduates in the class of 2019. It also describes the prevalence of various credit recovery models in 2022, including differences among schools in the degree to which each model is used. Finally, the chapter shows relationships between successful course recovery and on-time graduation.

Chapter 3 reports variation in credit recovery practices and local policies. It recommends state policies that would promote greater consistency.

Chapter 3 reports variation among schools in credit recovery practices. It also analyzes existing local policies and offers recommendations for state and local credit recovery policies that would promote greater consistency in credit recovery practices and data.

Chapter 4 examines implementation of digital learning courses, describing advantages and drawbacks in detail. It concludes with policy recommendations for digital learning courses generally.

Chapter 4 examines in greater detail the implementation of digital courses for credit recovery. It reports advantages and drawbacks of digital learning courses and describes staffing and other implementation issues that may affect course quality. The chapter concludes with a review of policy concerns for digital learning credit recovery courses and recommendations for state regulation of digital courses.

Data Used For The Report

Data analyzed for this study are primarily from the Kentucky Department of Education (KDE), an OEA survey, and OEA site visits.

Data used for this report were obtained from

- student-level course, enrollment, demographic and transcript data from KDE as reported by districts in the student information system, Infinite Campus (IC);
- KDE student-level achievement data from the Kentucky Performance Rating for Educational Progress (K-PREP) and the ACT;
- staff analysis of local board policies on the website of the Kentucky School Boards Association and as requested by OEA in a separate email to superintendents;

- a statewide survey including data from 90 percent of Kentucky A1 high schools (see Appendix A for survey questions);[b] [c] and
- OEA site visits to eight Kentucky high schools of various sizes, demographic characteristics, and geographical locations.

Site visits included observations of credit recovery classrooms and interviews with at least one principal, counselor, credit recovery teacher, English teacher, and mathematics teacher in each high school. Over 40 educators were interviewed. In addition, staff analyzed student data in each site-visit school for students who recovered geometry and English II courses using digital learning software.[d]

Staff also reviewed research related to the prevalence, effects, and implementation of credit recovery across the nation and conducted interviews with KDE staff who provide guidance and support for instructional improvement, digital learning, counseling, and alternative programs.

Limitations

Because of limitations in data, staff were unable to report course prevalence at the student level or to analyze differences in student outcomes based on course method.

Staff were unable to use Kentucky student-level data to report the prevalence of courses recovered by particular methods or to analyze differences in student outcomes based on how courses were recovered.

Lack Of Valid And Reliable Student-Level Credit Recovery Data. Student transcript data do not indicate whether or how courses are recovered. Although KDE requires schools to indicate credit recovery classes in course enrollment data, those data do not capture all recovered courses and, due to district- and school-level coding inconsistencies, do not reliably indicate the manner of

[b] Most Kentucky schools are A1 schools—those under the administrative control of a principal or head teacher and eligible to establish a school-based decision-making council. An A1 school is not a program operated by, or as part of, another school. The majority of high school students who are not enrolled in A1 high schools are enrolled in A5 alternative programs, which KDE defines as district-operated programs "with no definable attendance boundaries designed to remediate academic performance, improve behavior or provide an enhanced learning experience."

[c] OEA distributed surveys to 117 alternative programs with student enrollments of 30 or more and received responses from 21 programs, for a response rate of 18 percent. Because of the low response rate, data from these programs are not included in aggregate survey data. Comments from survey respondents in alternative programs are reported anecdotally.

[d] The number of students whose records were analyzed in each school ranged from 1 in each course to 10, depending on the number of students who had completed digital learning courses in those subjects.

course recovery.[e] Appendix B provides additional details on limitations of IC data in identifying credit recovery classes.

Methods To Recover Credits As Reported On OEA Survey

No commonly accepted definition of *credit recovery* exists. The OEA survey collected data on three types of courses in which students commonly recover credits for previously failed courses: digital courses, abbreviated direct instruction courses, and entire direct instruction course retakes.

As noted above, no commonly accepted definition of *credit recovery* exists in Kentucky or the nation. For this reason, the OEA survey collected data not on credit recovery generally but rather on three distinct types of courses in which students commonly recover credits for previously failed courses:[f]

- Digital courses in which students are instructed primarily or exclusively through software[g] [2]
- Abbreviated direct instruction courses taught by teachers certified in the content area of the recovered course (as is often provided during summer school)
- Entire direct instruction course retakes taught by teachers certified in the content area of the recovered course

Of the methods listed above, digital courses are most commonly associated with the term *credit recovery* in national reports. Some reports consider abbreviated, direct instruction courses to be a form of credit recovery. Entire direct instruction course retakes are usually contrasted with credit recovery courses and are not included in any definitions of *credit recovery*.

Prevalence Of Credit Recovery Nationally

A 2016 federal survey indicated that credit recovery was offered in 73 percent of schools and that 6 percent of students took at least one class. At that time, 58 percent of Kentucky schools reported offering credit recovery and an estimated 3 percent of Kentucky students enrolled in at least one class.

Many reports have noted increases in use of credit recovery in the last two decades, but valid and reliable data on national trends do not exist. Federal surveys conducted in 2015 and 2016 are the only source of data on the prevalence of credit recovery nationally and in individual states.[3] A US Office of Civil Rights survey of all schools in 2016 indicated that, nationwide, 73 percent of schools offered credit recovery in at least one subject, and 6 percent of students took at least one credit recovery class. The survey defined *credit recovery* as

[e] KDE creates data standards and trains districts to correctly enter data, but it must ultimately rely on school districts to use the correct codes when entering transcript data.

[f] Appendix A contains the definition of each method as provided by OEA to survey respondents in the credit recovery survey conducted for this study.

[g] The Michigan Department of Education defines *digital learning* as "a course of study that is capable of generating a credit or a grade that is provided in an interactive internet-connected learning environment that does not contain an instructor within the online environment itself."

> a strategy that encourages at-risk students to re-take a previously failed course required for high school graduation and earn credit if the student successfully completes the course requirements. … Credit recovery courses may be available online or in alternative settings and can be scheduled at different times to suit the needs of the student.[4]

Credit recovery rates ranged broadly among schools, from 0 percent to 39 percent of students.[h] At that time, Kentucky ranked lower than the nation and surrounding states in credit recovery rates—58 percent of schools offered credit recovery courses, and an estimated 3 percent of students took at least one class.[5] The 2016 survey data did not distinguish among methods of credit recovery, but a national US Department of Education survey administered the previous year indicated that online credit recovery classes were more common than traditional, direct instruction classes.[i 6]

COVID-19-Associated Increases In Credit Recovery

Use of digital software for credit recovery is reported to have increased nationally as a result of the COVID-19 pandemic.

Current national data on credit recovery rates are not available, but many reports note recent increases, as a result of the COVID-19 pandemic, in the percentages of students failing classes and requiring credit recovery. In addition, due to the large influx of federal funds, many more districts acquired access to digital programs offering credit recovery.[7]

Courses For Credit Recovery

National-level literature has highlighted benefits and drawbacks of digital courses for credit recovery.

Literature on digital learning courses has consistently highlighted potential advantages as well as drawbacks of these courses. Few rigorous studies exist, however, and those that do are not generalizable to digital learning courses as they are most frequently implemented in the commonwealth.

[h] Credit recovery rates were higher in urban areas, in schools with higher percentages of students living in poverty, and in schools with higher percentages of nonwhite students.

[i] A US Department of Education survey administered to a sample of high schools in 2015 indicated that credit recovery classes were most commonly provided online entirely (71 percent) or online with an in-person facilitator (46 percent), and less commonly in a traditional classroom (42 percent). That survey also estimated higher overall rates of credit recovery than did the 2016 Office of Civil Rights study; 89 percent of schools surveyed offered credit recovery, and an average of 15 percent of students participated.

Academically Struggling Students

Initial research on online education generally indicated that students using it were more likely to be successful if they were self-motivated, independent learners who were not academically struggling.

Initial research on online education generally indicated that students using it were more likely to be successful if they were self-motivated, independent learners who were not academically struggling. Academic outcomes for students in online classes generally are worse for students who struggle academically or who have failed classes.[8]

Academic Outcomes With Digital Learning Credit Recovery

A variety of studies have found that students who took online credit recovery classes were more likely to graduate on time than students who retook failed classes.

A variety of studies have found that students who took online (usually digital) credit recovery classes were more likely to graduate on time than students who retook failed classes.[j] [9] Many of these studies have suggested that online credit recovery is associated with lower academic performance on assessments or subsequent courses in the content area of course recovery than are traditionally taught recovery courses or entire course retakes.[k] [10]

Research on the effects of credit recovery programs has produced sometimes conflicting results and has generally lacked the rigor necessary to draw definitive conclusions about the impact of credit recovery.

Methodological Challenges. Research on the effects of credit recovery programs has produced sometimes conflicting results and has generally lacked the rigor necessary to draw definitive conclusions about the impact of credit recovery. Research quality is limited by study design and lack of consistent measures in student data systems to identify students recovering credits with different methods.[11] In addition, great differences among the characteristics and quality of credit recovery programs implemented in different locations mean that findings related to credit recovery in one state, district, or school may not apply to others.

In studies that controlled for differences in implementation of abbreviated, direct instruction versus digital credit recovery courses, researchers found few or no statistically significant long-term academic differences for students using one method versus the other.

Outcomes Of Digital Learning And Abbreviated, Direct Instruction Credit Recovery Courses Under Controlled Conditions. In studies that controlled for differences in implementation of abbreviated, direct instruction versus digital credit recovery courses, researchers found few or no statistically significant long-term academic differences for students using

[j] At least one of these studies (Heinrich) suggested positive effects for 11th- and 12th-graders only; 9th-graders taking credit recovery courses actually experienced negative effects. Educators interviewed for the study reported that younger students lack the discipline and experience to be successful in those courses.

[k] One study found that while credit recovery classes were associated with on-time graduation, credit recovery was negatively associated with enrollment in 4-year and higher-quality colleges. Another found positive association between credit recovery courses and on-time graduation but negative associations with content-area tests.

one method versus the other. Conditions of implementation were controlled by randomly assigning students to each method, requiring that students in each class were limited to a single subject being recovered (such as Algebra I), ensuring that each class was taught or mentored by an appropriately certified teacher, and requiring similar levels of student attendance for the direct instruction versus digital models. In one study, each group ultimately graduated and accumulated additional credits at similar rates.[l] [12] In another study, students assigned to Algebra I or English I performed similarly in each type of course on end-of-course tests.[m] [13]

Unlike digital credit recovery classes in the controlled studies, digital credit recovery classes in Kentucky are not usually limited to a single subject area and are usually not necessarily facilitated exclusively by a teacher certified in the content area of the course.

As shown in Chapter 3, the conditions under which digital courses in the controlled studies were implemented differ from those under which most Kentucky students take digital courses. Unlike digital credit recovery classes in the controlled studies, digital credit recovery classes in the commonwealth are not usually limited to a single subject area and are usually not necessarily facilitated exclusively by a teacher certified in the content area of the course being recovered.

Course Quality Concerns

In many instances, standards and accountability in digital learning credit recovery classes are low.

Researchers, policy makers, and journalists have documented many instances in which standards and accountability—including minimum requirements for passing or safeguards against cheating—in digital learning credit recovery classes are low.

Analysis of student course data shows large proportions of log-in time as "idle time" in which students are not engaging with the material. Classroom observations also provide evidence of lack of student engagement.

Lack Of Engagement. Analysis of student course data shows large proportions of log-in time as "idle time" in which students are not engaging with the material. Classroom observations also provide evidence of lack of student engagement in learning processes and attempts to obtain answers through cellphone internet searches or guessing and correcting answers.[14] Students may lack the instructional support that they need to master content.

[l] This study was more rigorous than others in that students who failed Algebra I were randomly assigned to online or in-person recovery course. Unlike many credit recovery courses, the online courses required 60 hours of attendance and were directly facilitated by a certified teacher, with a content-certified teacher available for online assistance. Although this study did show math performance differences between online and in-person credit recovery students on Algebra I end-of-course exams, it did not show significant differences in graduation rates. In addition, a follow-up study showed that academic differences were not sustained in future math coursework.

[m] In this study, both the digital credit recovery classes and the abbreviated, direct instruction credit recovery classes were limited to single-course subject areas and were taught or supervised by an appropriately certified content-area teacher.

This may be especially true for struggling readers and English language learners.[15]

When students do not progress adequately on software, academic standards might be lowered to allow students to graduate on time and ensure schools meet graduation rate targets.

Low Standards. When students do not progress adequately on software, academic standards might be lowered to allow students to graduate on time and ensure schools meet graduation rate targets.[16] Students might be permitted to repeatedly retake assessments until they pass, regardless of whether the coursework has been completed.[17] Administrators might change course grades or pressure teachers to give minimum passing grades, regardless of whether students are even in attendance in a class.[18]

Potential Erosion In General Curriculum Standards And Value Of Diploma

Some critics have suggested that by increasing graduation rates without ensuring course quality, digital learning credit recovery courses may lead to reductions in the value of a high school diploma.

Some critics have suggested that by increasing graduation rates without ensuring course quality, digital learning credit recovery courses may lead to reductions in the value of a high school diploma:

> When used excessively, credit recovery can turn into a well-trod path around high expectations for graduates and can become a second track for low-performing students, one that leads to watered-down diplomas that do not prepare students for college or a career.[19]

One longitudinal study of students taking digital learning classes for credit recovery showed that apparent initial gains for these students in graduation rates were not sustained in salaries earned several years after graduation.[20]

The existence of perceived easy options to accumulate credits after failing regular classes may also reduce accountability for students in regular coursework and undermine teachers' authority in those classes.[21]

Importance Of Local Policies

A survey of 200 districts found that district policies offered little evidence of standards or monitoring of credit recovery programs.

District leaders are in the best position to ensure that digital learning credit recovery classes are implemented responsibly, that they focus on rigor rather than just flexibility, and that they do more good than harm. A survey of 200 districts found that district policies offered little evidence of standards or monitoring of credit recovery programs.[22]

Graduation Rates

Nationally, high school graduation rates have risen steeply since 2002, when implementation began for federal No Child Left Behind (NCLB) legislation.

Nationally, high school graduation rates have risen steeply since 2002, when implementation began for federal No Child Left Behind (NCLB) legislation. NCLB required high school graduation rates to be included in state accountability systems for districts and schools.

Kentucky And Nation, 2019

Kentucky's graduation rate exceeds the nation's overall and in every student subgroup; as of 2019, 91 percent of Kentucky high school students graduated on time, compared with 86 percent in the nation. In Kentucky, high schools' graduation rates ranged from 74 percent to 100 percent.

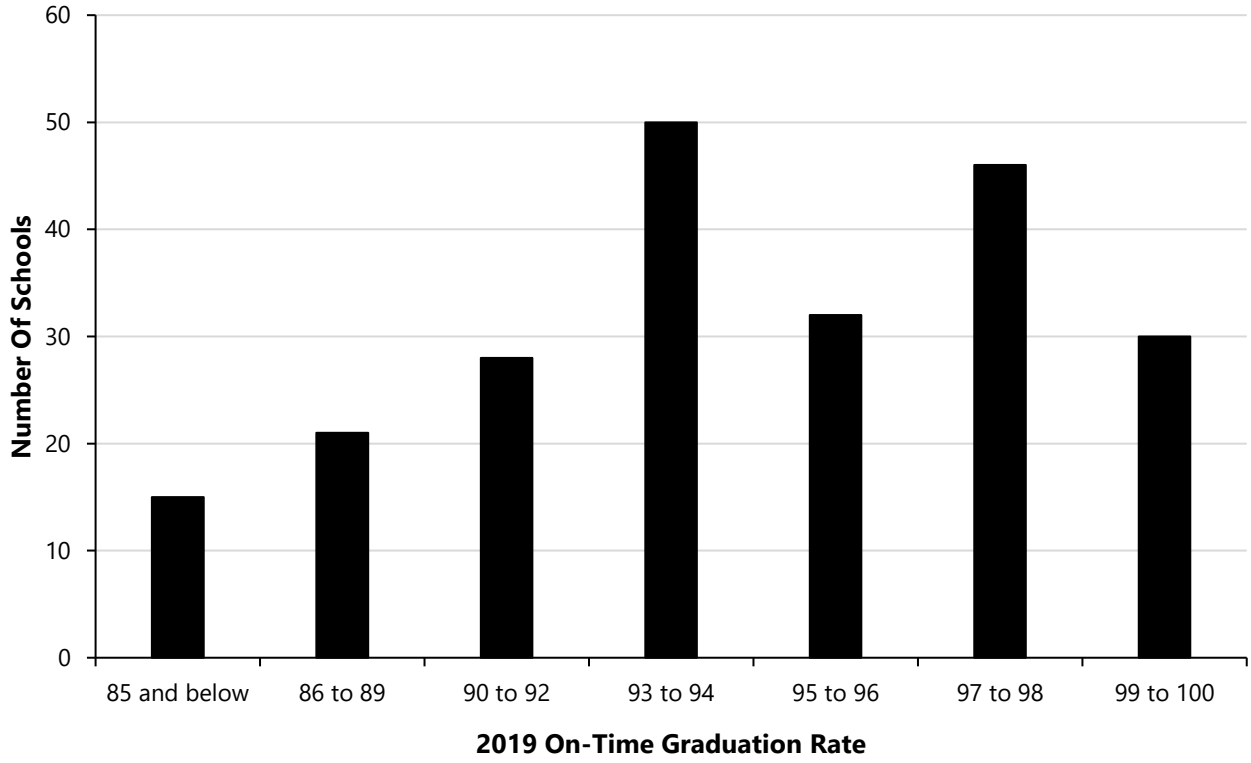
Kentucky's graduation rate exceeds the nation's overall and in every student subgroup; as of 2019, 91 percent of Kentucky high school students graduated on time, compared with 86 percent in the nation. Between 2013 and 2019, graduation rates increased in Kentucky and the nation by 5 percentage points.[n]

Kentucky Graduation Rates By School, 2019

Figure 1.A shows the distribution of Kentucky high schools based on the on-time graduation rates for a cohort of students who were first-time freshmen during the 2016 school year.[o] OEA-computed on-time graduation rates for these schools ranged from 62 percent to 100 percent.[p]

[n] Kentucky's graduation rate dropped from 91 percent in 2019 to 90 percent in 2021. National data for 2021 were not available for this report.
[o] This cohort is referred to as the 2019 OEA Graduating Cohort. It includes students who were first-time freshmen in 2016, and who were in IC data for all 4 years for 2016 through 2019.
[p] These graduation rates were computed for all students in the 2019 OEA Graduating Cohort. These graduation rates are only for the students who were in IC data all 4 years between 2016 and 2019, and these graduation rates do not include students who enrolled after 2016.

Figure 1.A
4-Year Graduation Rate By School
2019



Note: The figure contains data for the 2019 OEA Graduating Cohort for A1 high schools.
Source: Staff analysis of data from the Kentucky Department of Education.

As the graduation rates of schools decrease, the percentage of students living in poverty and from minority groups increases, and the attendance rate and reading and math proficiency rates of incoming freshmen decrease.

High School Graduation Rates And Student Demographic Characteristics. Appendix C shows demographic characteristics of schools based on their graduation rates. The appendix shows that, as the graduation rates of schools decrease, the percentage of students living in poverty and from minority groups increases, and the attendance rate and reading and math proficiency rates of incoming freshmen decrease.

Course Failure And High School Graduation

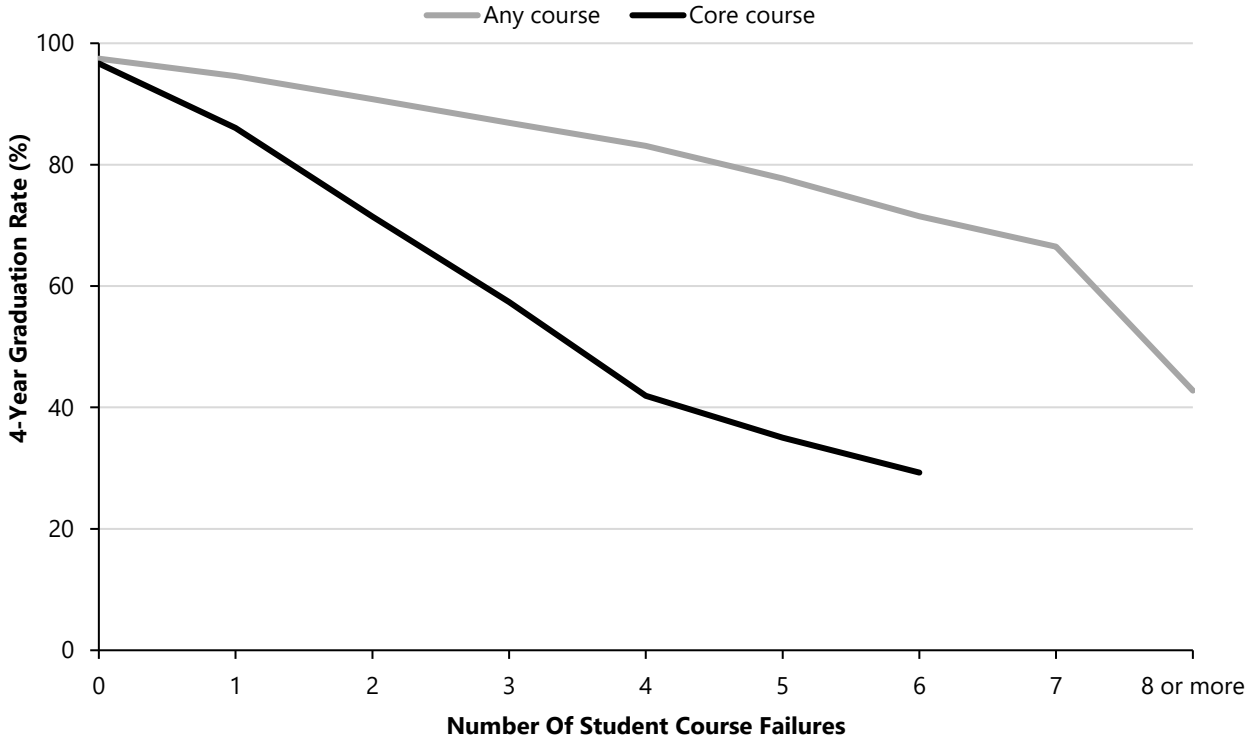
Although academic failure is not considered the primary reason that students drop out of high school, course failure is a strong predictor that a student will drop out of high school.[q 23]

[q] The majority of students who drop out of school do so for reasons other than academic challenges. These include external pressures from work or family as well as lack of motivation for or engagement with schoolwork. In addition to credit recovery, policy proposals to prevent students from dropping out of high school have included early warning systems; smaller class sizes; higher-quality teachers and curricula; and increased mentoring, tutoring, and other support.

There is a strong association between the number of courses failed by the 2019 OEA Graduating Cohort and the likelihood of on-time graduation. There is an even stronger association between core courses failed and on-time graduation.

Figure 1.B shows a strong association between the number of courses failed by the 2019 graduating cohort and the likelihood of on-time graduation, and an even stronger association between core courses failed and on-time graduation. This report uses the term *core academic courses* to refer to specifically named foundational courses that will be discussed later in this chapter. These core courses may be more difficult to schedule for recovery because they are less flexible than other courses in terms of course content and staffing possibilities.

Figure 1.B
Average 4-Year Graduation Rate By Number Of Courses Failed
2019 OEA Graduating Cohort



Note: Members of the 2019 OEA Graduating Cohort were first-time freshmen in the 2016 school year and were enrolled in Kentucky public schools for each year between 2016 and 2019, the year they would need to graduate to be considered on-time graduates. This group is not identical to the cohort used by KDE to calculate on-time graduation rates as it does not include students who transferred into Kentucky public schools after 9th grade.
Source: Staff analysis of data from the Kentucky Department of Education.

As the number of course failures increases, the average graduation rate decreases. Students with eight or more course failures had an average on-time graduation rate of 43 percent. For students failing four or more core courses, the rate was 42 percent.

As the number of course failures increases, the average graduation rate decreases. Students with eight or more course failures had an average on-time graduation rate of 43 percent. Average on-time graduation rates drop steeply with the number of core courses failed. Students who failed four or more core courses had an average on-time graduation rate of 42 percent.

As shown in previous OEA reports, students who failed classes in 2019 were disproportionately likely to be male and from traditionally lower-achieving student groups.[r] [24]

Almost all of the educators interviewed on OEA site visits cited poor student attendance—along with all of the economic and emotional challenges typically associated with poor attendance—as the root cause of academic failure for students in their schools.

Factors Associated With Course Failure. Credit recovery is a strategy used to mitigate the negative impact of course failure on high school graduation, but it does not address course failure itself. Almost all of the educators interviewed on OEA site visits cited poor student attendance—along with all of the economic and emotional challenges typically associated with poor attendance—as the root cause of academic failure for students in their schools.[s] Appendix D analyzes the relationship between student attendance, reading and math performance, student demographic characteristics, and course failure for the 2019 OEA Graduation Cohort. Findings support educators' observations about the strong relationship between attendance and course failure. The analysis also suggests, however, that students who enter high school at the novice level are more likely than other students to fail courses, regardless of attendance patterns.

Kentucky State-Level Policies

Credit Recovery Not Defined Or Directly Addressed

As noted by KDE staff, Kentucky has no statewide definition of *credit recovery*, and there are no data standards that require credit recovery courses to be denoted as such.

Kentucky policies do not directly define or address credit recovery. As noted by KDE staff:

> Kentucky has no statewide definition of "credit recovery" and there are no data standards that require credit recovery courses to be denoted as such. "Credit recovery" is being implemented in A1 schools as a concept—with local value and local context—not a formally defined and structured statewide standard practice. Therefore, there should be little confidence that the term means the same thing from district to district, or even school to school, in terms of student learning experience design.[25]

Credit recovery is mentioned as an instructional strategy in only two Kentucky regulations and in various KDE guidance documents

[r] Especially homeless, Black, limited English proficiency, and economically disadvantaged students.

[s] Almost 100 percent of the principals, counselors, credit recovery teachers, and English teachers interviewed on site visits cited poor attendance as the root cause of failure; almost all the math teachers cited student character issues such as lack of motivation, unwillingness to complete problem sets, or poor attitude.

and data standards.[t] None of those documents, however, contain a consistent definition of the term.

Alternative Programs

Regulation lists credit recovery as a key program that can be provided within alternative programs. The rate of credit recovery is higher for students in alternative programs than for all students.

Regulation lists credit recovery as a key program that can be provided within alternative programs.[26] Alternative programs exist "to meet the needs of students that cannot be addressed in a traditional classroom setting."[27] KDE guidance for alternative programs defines *credit recovery programs* as those that "aim to help schools graduate more students by giving students who have fallen behind the chance to 'recover' credits through a variety of different strategies, often online."[u] [28] As shown in Chapter 2, the rate of credit recovery is higher for students in alternative programs than for all students.

High School Graduation Requirements

Though not directly addressed there, credit recovery is subject to statutes and regulations.

Though not directly addressed there, credit recovery is subject to statutes and regulations related to high school graduation requirements, core content standards, and local leaders' responsibilities to promote and monitor course quality.

Regulation requires that students graduating from high school earn 22 credits, including classes specified as "foundational credits" and personalized credits that link Kentucky's academic standard with students' personal interests.

Under 704 KAR 3:305, sec. 4, a student graduating from high school must have earned 22 credits that include classes specified as "foundational credits" and personalized credits that link Kentucky's academic standard with students' personal interests.[v] The regulation specifies that students must also demonstrate competency in the foundational credits.

Table 1.1 shows the foundational and other courses needed to graduate in Kentucky for all students who entered grade 9 in 2020 or after.[w]

[t] Credit recovery is mentioned directly in 704 KAR 19:002, sec. 2, and indirectly in 704 KAR 3:305, sec. 7, as an allowable type of performance-based credit.
[u] The guidance also clarifies that credit recovery "is an authentic learning opportunity with rigor and relevance, where academic progress is measured and assessed by the assigned classroom teacher."
[v] In addition to the required credits, 704 KAR 3:305, sec. 4(5), requires students to demonstrate performance-based competency in technology; pass a civics test as required by KRS 158.141, and (beginning with the 2021 school year) complete a course or program in financial literacy pursuant to KRS 158.1411.
[w] Local boards may add other required credits to those required for a district diploma, and they also have the authority to remove those additional local requirements in individual cases.

Table 1.1
Credits Required For High School Graduation In Kentucky
Beginning With Students Who Enter Grade 9, 2020

Type Of Credit	English	Math	Social Studies	Science	Other
Foundational	English I; English II	Algebra I; Geometry	Two credits	Two lab-based credits	½ health; ½ physical education; 1 visual/performing arts
Additional personalized	1	1	1	1	6 academic or career-based, including 4 that are standards-based per a student's individual learning plan

Source: 704 KAR 3:305, sec. 4.

Graduation requirements include only four specifically named core academic courses: English I, English II, Algebra I, and Geometry.

Core Courses. Current graduation requirements include only four specifically named core academic courses: English I, English II, Algebra I, and Geometry. Students entering high school prior to 2020 were also required to complete three additional specifically named core academic courses: English III, English IV, and Algebra II.

Beginning in the 2023 school year, students enrolled in a district-operated alternative program are eligible to seek a high school equivalency diploma if they are at least 17 years old, they are not on track to graduate, and they have passed the GED test.

High School Equivalency Diploma. Beginning in the 2023 school year, students enrolled in a district-operated alternative program are eligible to seek attainment of a high school equivalency diploma if they are at least 17 years old; they are not on track to graduate, as defined by local board policies; and they have previously attained a passing score on "an official readiness test for a High School Equivalency Diploma program authorized by the Office of Adult Education."[29] The GED is the official readiness test currently recognized by the Office of Adult Education.[30]

Course Types

Local boards are permitted to award credit toward high school graduation based on two course types: standards-based Carnegie unit credits and performance-based credits.

Local boards are permitted to award credit toward high school graduation based on two course types:

- Standards-based Carnegie unit credits consisting of at least 120 instructional hours in one subject
- Performance-based credits based on standards, regardless of the number of instructional hours in one subject[31]

Though not named directly in regulations, credit recovery courses are an acceptable type of performance-based credit.

Though not named directly in regulations, credit recovery courses are one of the acceptable types of performance-based credits insofar as they are "standards-based course work that constitutes satisfactory demonstration of learning in a course for which the student failed to earn credit when the course was taken previously."[32]

Local boards that implement performance-based credits must adopt policies related to course requirements and quality measures.

Specific Policies Required For Performance-Based Courses. If local boards elect to implement performance-based credits, they must adopt specific policies related to course requirements and quality measures. Appendix E contains regulatory requirements for local boards adopting performance-based classes.

There is a lack of clarity in whether credit recovery classes should be considered extensions of Carnegie unit classes or performance-based classes.

Lack Of Clarity In Course Types. Appendix F addresses the lack of clarity in whether credit recovery classes should be considered extensions of Carnegie unit classes or of performance-based classes. Use of the term *performance-based* to describe credit recovery classes may cause confusion because, in the calculation of per-pupil funding, this term has a specific connotation that might not apply to credit recovery classes.

Course Content

Regardless of course type, Kentucky students meet minimum content requirements.

Regardless of course type, regulation requires that Kentucky students "meet the minimum content requirements established in the required academic standards."[33]

The Kentucky Board of Education is statutorily charged with establishing Kentucky's academic standards.[x] KDE has established uniform course codes that outline "course codes, course titles, and course descriptions" aligned with those standards.[34] School districts are required to use these course codes to classify all courses when reporting to the department.

When awarding credits for performance-based classes, boards must establish policies that address the procedures for developing those credits.

Local boards and schools are given general statutory authority to develop and implement academic courses, consistent with administrative regulations.[y] When awarding credits for performance-based classes, boards must establish policies that address the procedures for developing those credits.[35]

[x] KRS 156.160(1)(a) requires the Kentucky Board of Education to regulate "courses of study for the different grades and kinds of common schools identifying the common curriculum content directly tied to the goals, outcomes, and assessment strategies developed under KRS 158.645, 158.6451, and 158.6453 and distributed to local school districts and schools."

[y] KRS 160.290 authorized local boards to "have general control and management" of public schools, including provision of courses "consistent with administrative regulations of the Kentucky Board of Education." KRS 160.345(2) requires local school councils to adopt policies to determine curriculum, including needs assessment and curriculum development, and "[p]rocedures, consistent with local school board policy, for determining alignment with state standards, technology utilization, and program appraisal."

Oversight Over Course Grades

Student grading policies are determined at the local district level, often by school-based decision-making councils (SBDMs).

Local boards are statutorily charged with the obligation to develop local policies related to assessment of student progress, and they have the authority to grant to school-based decision-making councils (SBDMs) any authority permitted by law. As a result, student grading policies are determined at the local district level, often by SBDMs.

When awarding credit for performance-based classes, local boards must establish policies that include "performance descriptors and assessments; objective grading and reporting procedures; content standards" and use of state-provided assessments in the system.

Local Boards And Schools. A local board may award credits for high school graduation based on "satisfactory demonstration of learning" of Kentucky academic standards and a "rigorous performance standards policy" established by the board.[36] When awarding credit for performance-based classes, a local board must establish policies that include performance descriptors and assessments; objective grading and reporting procedures; content standards; and use of state-provided assessments in the system.[37]

Schools must establish "performance descriptors and evaluation procedures to determine if the content and performance standards have been met."[38]

Regulation requires KDE to conduct annual district and school audits and "report the use or misuse of uniform academic course codes."

Kentucky Department Of Education. Regulation requires KDE to conduct annual district and school audits and "report the use or misuse of uniform academic course codes."[39] KDE currently performs this function solely through reviewing course codes reported by districts in the student information system and identifying patterns that indicate underuse or overuse of specific course codes.[40] Otherwise, KDE does not conduct any regular monitoring of course quality or content in local districts.[z]

Regulation requires specific methods for calculation of student grade point average (GPA) for purposes of reporting for the Kentucky Educational Excellence Scholarship Program (KEES).

Calculation Of Student Grade Point Average For Purposes Of The Kentucky Educational Excellence Scholarship Program. Regulation requires specific methods for calculation of student grade point average (GPA) for purposes of reporting for the Kentucky Educational Excellence Scholarship program (KEES). It specifies the use of a 4.0 grading scale for most courses but a 5.0 point grading scale for specified advanced classes. The regulation does not mention any adjustments for credit recovery courses.[41]

[z] The exception is KDE audits of schools identified for comprehensive support and improvement.

Digital Learning

Districts operate under the understanding that existing statutory and regulatory guidance related to teacher certification does not apply to digital learning software classes, yet no alternative legal guidance exists.

Kentucky law does not directly address digital learning courses. Missing, in particular, is any legal guidance on staffing required for digital learning courses.[aa] [42] As Chapter 3 makes clear, Kentucky school districts operate under the understanding that existing statutory and regulatory guidance related to teacher certification does not apply to digital learning software classes, yet no alternative legal guidance exists.

Regulation for performance-based courses does not give guidance on staffing or require local boards to develop policies related to staffing of digital learning courses.

Because they are performance-based courses, digital learning courses should be guided by local board and SBDM policies for those courses. Regulation for performance-based courses does not, however, give any guidance on staffing, nor does it require local boards to develop their own policies related to staffing of digital learning courses.

KDE guidelines for digital learning programs address staffing, content, technology readiness, leadership and governance, assessment systems, and continuous improvement planning.

KDE Digital Learning Guidelines. KDE has developed guidelines for digital learning programs. These guidelines are more comprehensive than any that OEA staff reviewed from surrounding states. They address staffing, content, technology readiness, leadership and governance, assessment systems, and continuous improvement planning. The guidelines, which were last updated in August 2020, are phrased mostly as guiding principles and best practices. They are not cited in regulation and do not have the force of law.

Under the guidelines, courses must align with Kentucky standards and be approved by a content-certified teacher. They recommend that such teachers be available for tutoring and to "steward" student learning, and that local boards develop policies for digital learning courses.

Table 1.2 summarizes key elements of the guidelines related to staffing and policy issues addressed in this report. The guidelines state that courses must align with Kentucky standards and be approved by a content-certified teacher. They recommend that content-certified teachers be available for tutoring and assistance and to "steward" student learning. The guidelines also recommend that local boards develop their own policies governing digital learning courses.

[aa] According to KDE, "Essentially, there are not any specific certification requirements for a virtual teacher. If a certified teacher oversees say a credit recovery program, then the teacher can simply be certified in any area. However, if the teacher delivers (just like a regular classroom) online instruction specific to a content area then they would need to hold a certificate for this area."

Table 1.2
Select Elements Of Kentucky Digital Learning Guidelines

Topic	Guidance
Staffing	• Content-certified teachers approve course to ensure alignment with Kentucky standards. • Building-level "course steward" may oversee implementation if the course is provided in the building and assigned to a content-certified teacher. • Students have access to content-certified teacher for tutoring and assistance. • Content-certified teacher "stewards" student learning performance and mastery.
Other	• Course must align to Kentucky standards. • Local boards and/or school-based decision-making councils establish policies "governing online course enrollment, parameters, course credits, etc." • School and district leaders evaluate instructional delivery of programs.

Note: The Digital Learning Guidelines refer to teachers certified in the content area of the course as "highly qualified teachers."
Source: Staff analysis of KDE's Digital Learning Guidelines.

Credit Recovery Policies In Other States

Until recently, most states left policy decisions about credit recovery to local leaders.

Until recently, most states left policy decisions about credit recovery to local leaders. In response to quality concerns and state audits, a handful of states have set state-level requirements addressing issues such as credit recovery definitions, transcript requirements, staffing requirements, and limits (or the lack thereof) in the number of credits that can be accumulated.[43] See Appendix G for examples in Tennessee, Louisiana, North Carolina, and South Carolina.

West Virginia has a pathway that allows a student to earn a high school diploma by completing a concentration correlated to the student's personalized education plan and passing the high school equivalency exam.

West Virginia has an "Option 1" pathway that allows students to earn a high school diploma by completing a concentration correlated to the student's personalized education plan (PEP) and passing the High School Equivalency Exam (HSEA). Students must be at least 16 and must have credit deficiencies or otherwise be at risk of dropping out.[44]

Restrictions On Credit Recovery Courses For National College Athletics Association Eligibility

The National College Athletics Association adopted rules to address concerns about athletes whose academic records reflected credit recovery and online courses.

Beginning in 2010, the National College Athletics Association (NCAA) adopted rules to address concerns about athletes whose academic records reflected credit recovery and online courses.[bb] To be approved for credit under NCAA guidelines, credit recovery

[bb] NCAA personnel had been noticing examples of poor grades replaced with high grades and had heard anecdotal data about extremely low expectations in credit recovery classes. In one case, a student earned a semester's worth of credit after completing a single 1-minute assessment.

courses must include ongoing and regular instruction initiated and provided by teachers; minimum time requirements; course content equivalent to regular course content (students may not test out of specific units); security measures to verify student identity; multiple assessments; and grade records.[45]

Kentucky does not require that credit recovery be indicated on student transcripts, though some districts do indicate credit recovery in course names.

Kentucky does not require that credit recovery be indicated on student transcripts, though some districts do indicate credit recovery in course names. Staff analysis of IC data shows inconsistency among Kentucky districts in whether credit recovery courses are indicated.

Chapter 2

Prevalence Of Credits Recovered

This chapter shows the prevalence of recovered credits for all Kentucky high school students in 2019 and for 2019 on-time graduates over their 4 years in high school. Using 2022 survey data, it also shows the proportion of credits recovered through digital versus direct instruction classes.

Credit recovery affects a substantial minority of students. Almost one-quarter of on-time graduates recovered at least one credit during high school, and 4 percent recovered five or more credits.

Credit recovery affects a substantial minority of students. Almost one-quarter of on-time graduates recovered at least one credit during high school, and 4 percent recovered five or more credits. Students recovering multiple credits likely relied more heavily on digital versus direct instruction classes to graduate on time; these students were disproportionately from traditionally lower-achieving student groups and were also disproportionately enrolled in high schools with lower graduation rates.

Digital learning courses are the most prevalent way that all Kentucky students recover credits. In 2022, digital learning courses were offered in all schools and were used at over 1.5 times the rate of direct instruction methods (full course retakes or abbreviated) for all students.

OEA 2022 survey data show that digital learning courses are the most prevalent way that all Kentucky students recover credits. In 2022, digital learning courses were offered in all schools. They were used at over 1.5 times the rate of direct instruction methods (full course retakes or abbreviated) for all students and at well over twice the rate of direct instruction methods for students recovering multiple credits. Schools' rates of credit recovery through digital courses ranged broadly—from 1 percent to 54 percent of students. In roughly 10 percent of schools, students recovered credits only through digital learning courses.

Recovered Credits For All High School Students In 2019

This section uses data from Kentucky's student information system, Infinite Campus (IC), to report the prevalence of recovered credits by high school students in the 2019 school year. Because of limitations of IC, data do not distinguish among digital learning, direct instruction course retakes, or abbreviated direct instruction classes.

This section uses data from Kentucky's student information system, Infinite Campus, to report the prevalence of recovered credits by high school students in the 2019 school year. Because of limitations of IC, data do not distinguish among digital learning, direct instruction course retakes, or abbreviated direct instruction classes. Appendix H describes methods used to identify recovered classes and limitations in the data.[a]

[a] Limitations include possible underestimation of students who recovered credits overall and the fact that OEA uses *credit* to describe recovery of any part of a course, though in some cases it may be for only half of a course (such as Algebra IA or IB).

Staff analyzed 2019 data because it provides a better estimate of typical course recovery rates than do subsequent years that reflect the almost doubled rate of course failures associated with the COVID-19 pandemic.[46]

Courses Commonly Recovered By All Students

Foundational, required courses for graduation—especially math courses—comprise all of the most commonly recovered credits.

Table 2.1 shows the percentage, by course name, of the approximately 32,000 courses that were recovered in 2019. Foundational, required courses for graduation—especially math courses—comprise all of the most commonly recovered credits; Algebra I, Geometry, and Algebra II alone make up almost one-quarter of all recovered courses.

Table 2.1
Courses Most Commonly Recovered By High School Students
2019

Course	Number Of Courses Recovered	% Of All Recovered Courses
Algebra I	2,987	9%
Geometry	2,778	9
Integrated Science I	2,112	7
Algebra II	2,049	6
English I	1,995	6
English II	1,694	5
Biology I	1,678	5
World History	1,446	5
English III	1,283	4
Survey Course Visual And Performing Arts	1,238	4
Health	1,004	3
Physical Education	812	3

Note: The table includes courses that are 3 percent or more of recovered courses. Among the remaining courses that are more than 1 percent of recovered courses, almost all can be used to fulfill foundational required courses such as Spanish, Integrated Social Studies, Chemistry, US History, or English IV.
Source: Staff analysis of data from the Kentucky Department of Education.

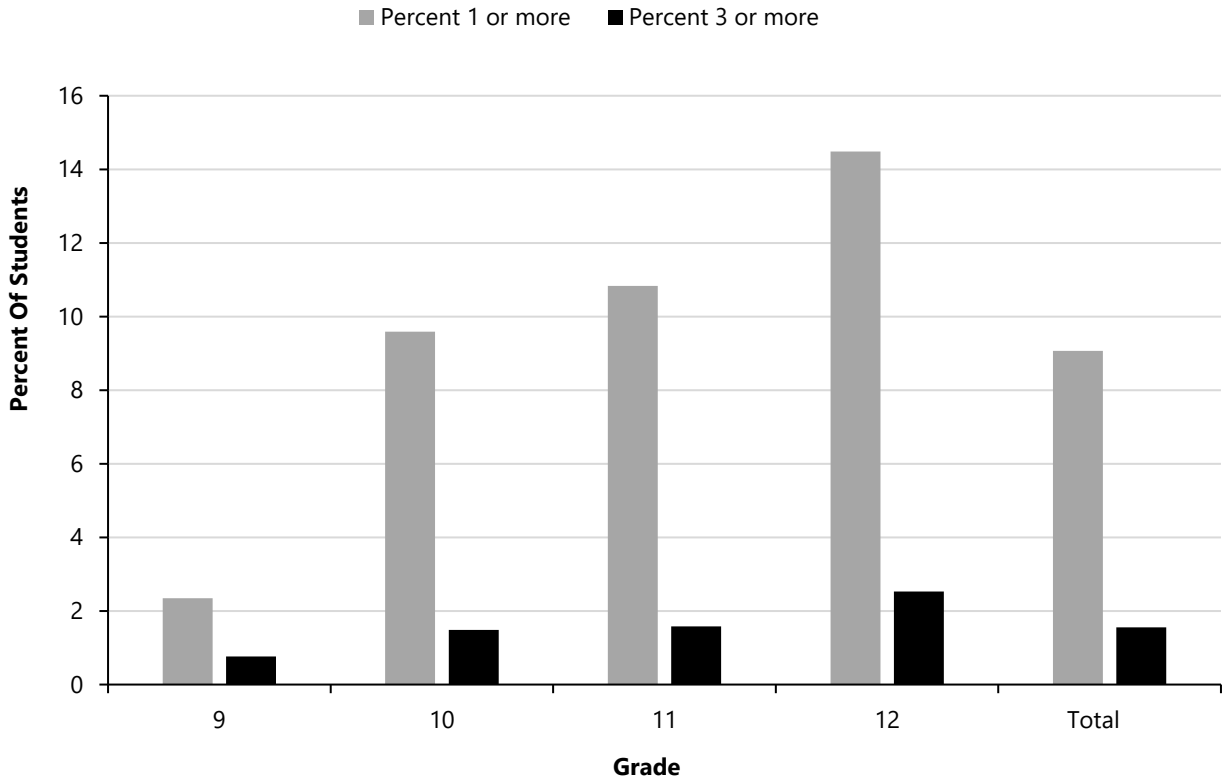
Recovered Credit Rates Of All High School Students

Approximately 9 percent of all students recovered credits for one or more courses, and 1.5 percent recovered credits for three or more courses.

Figure 2.A shows the percentage of all high school students who recovered one or more credits in 2019 and the percentage who recovered three or more. Roughly 9 percent of all students recovered credits for one or more courses, and 1.5 percent recovered credits for three or more.[b] The percentage of students in each group was greater in upper grades. In 12th grade, 14 percent of students recovered at least one course and 2.4 percent of students recovered three or more.

[b] Some students recovered far more than three credits. For example, 244 recovered seven or more credits in 2019.

Figure 2.A
Percentage Of Students Grades 9 To 12 Who Recovered Any Credits And Multiple Credits 2019



Note: Among 9th-grade students, those repeating the grade accounted for the majority of recovered credits.
Source: Staff calculations based on data from the Kentucky Department of Education.

As the number of credits recovered increases, so do average absence rates.

Appendix I shows average attendance rates for students who recovered various numbers of credits in 2019. As the number of credits recovered increases, so do average absence rates. This means that students who took classes to recover credits, in addition to classes for initial credits, spent less time in school than students who took classes only for initial credits.

Students recovering three or more credits are 17 percent of students recovering credits but account for roughly 40 percent of all courses recovered.

Students recovering three or more credits comprise only 17 percent of students recovering credits but account for roughly 40 percent of all courses recovered.

Students enrolled in non-A1 schools recovered credits at much higher rates than students in A1 schools.

Higher Percentages Of Students Recovering Credits In Non-A1 Schools. As shown in Appendix J, students enrolled in non-A1 schools recovered one or more credits at almost five times the rate as students in A1 schools. Most students enrolled in non-A1 schools are those enrolled in alternative programs. As noted in Chapter 1, credit recovery is one of the key functions that can be served by alternative programs.

Recovered Credits, 2019 On-Time Graduates

This section reports recovered credit rates for on-time graduates in the 2019 OEA Graduation Cohort.

This section reports recovered credit rates for on-time graduates in the 2019 OEA Graduation Cohort—first-time freshmen in 2016 who were enrolled in Kentucky public schools each year between 2016 and 2019 and who graduated in 2019. By federal standards, students who graduate in 4 years are considered on-time graduates. The data reflect all courses that students failed in school years 2016 to 2018 and recovered in school years 2017 to 2019. Appendix H provides additional detail on OEA's methods for identifying total recovered credits.

Recovered credit data for 2019 on-time graduates cannot be disaggregated by credit recovery method.

As with the 2019 data reported above for all students, recovered credit data for 2019 on-time graduates cannot be disaggregated by credit recovery method. It can be assumed, however, that graduates who recovered many credits over the course of their high school careers likely relied heavily on digital learning courses.[c]

A total of 24 percent of on-time graduates recovered at least one credit over their 4 years of high school.

Table 2.2 shows the number and percentages of on-time graduates who recovered various numbers of credits. The table shows that almost one-quarter (24 percent) of on-time graduates recovered at least one credit over their 4 years of high school. Most of these graduates recovered only one or two credits, but more than 1,500 students (4 percent of graduates) recovered five or more credits. Absent opportunities to recover multiple credits, on-time graduation rates in Kentucky would likely be lower.

Table 2.2
Number Of Courses Recovered By 2019 On-Time Graduates
School Years 2017 To 2019

Number Of Credits Recovered	Student Count	% Of Graduates
None	33,011	76%
1 or 2	6,587	15
3 or 4	2,322	5
5 to 7	1,215	3
8 or more	354	1
Total 1 or more recovered credits	10,478	24

Note: The total number of graduates included students who were first-time 9th-graders in 2016 who did not transfer in from another state.
Source: Staff analysis of data from the Kentucky Department of Education.

[c] Student scheduling constraints during the regular school day make it difficult to complete entire course retakes while also accumulating initial credits necessary to keep on track for graduation. Students recovering multiple credits would likely have taken advantage of more flexible options such as digital learning courses, or abbreviated direct instruction courses outside the regular school day. As 2022 survey data make clear, digital learning classes are much more prevalent than abbreviated direct instruction classes.

Districts vary greatly in the percentage of graduates who recovered five or more credits over the course of their high school careers.

Percentages Of Graduates Recovering Multiple Credits By District And School. As shown in Appendix K, districts vary greatly in the percentage of graduates who recovered five or more credits over the course of their high school careers. In 65 districts, no graduates recovered five or more credits; 17 percent of the state's graduates were enrolled in these 65 districts. In 8 districts, 10 percent or more of graduates recovered five or more credits; 11 percent of graduates were enrolled in these 8 districts.

Schools with higher percentages of graduates recovering five or more credits had, on average, substantially lower graduation rates and ACT scores, and higher absence rates.

Appendix K shows that in 75 schools (roughly one-third of all high schools), no graduates recovered five or more credits, whereas in 18 schools (roughly 8 percent of all high schools), 10 percent or more of graduates recovered five or more credits. Schools with higher percentages of graduates recovering five or more credits had, on average, substantially lower graduation rates and ACT scores than did schools with lower percentages of graduates recovering five or more credits. Schools with higher percentages of graduates recovering five or more credits also had, on average, much lower attendance rates than did schools with lower percentages of graduates recovering five or more credits.

On average, high school attendance rates decrease as the number of credits recovered increases.

Attendance And Achievement Of Graduates With Higher Numbers Of Recovered Credits. Appendix L shows that, on average, high school attendance rates decrease as the number of credits recovered increases. The appendix also shows that graduates who recovered multiple credits had, on average, very low reading and math test scores, both on the 8th-grade K-PREP and on the ACT in 11th grade.

Multiple Course Recovery By Student Group

While 4 percent of 2019 on-time graduates recovered five or more credits over the course of their high school careers, percentages of on-time graduates within some student groups were much higher.

Table 2.3 shows the percentage of on-time graduates, by student group, who recovered multiple credits. While 4 percent of 2019 on-time graduates recovered five or more credits over the course of their high school careers, percentages of on-time graduates within some student groups were much higher. For example, the percentage of graduates who recovered five or more credits was 9 percent for black students, 7 percent for homeless students, 6 percent for Hispanic students, 6 percent for students with an individualized education program (IEP), and 5 percent for students eligible for free or reduced-price lunch (FRPL).

Table 2.3
Rates Of Recovered Credits By 2019 On-Time Graduates, By Student Group
School Years 2017 To 2019

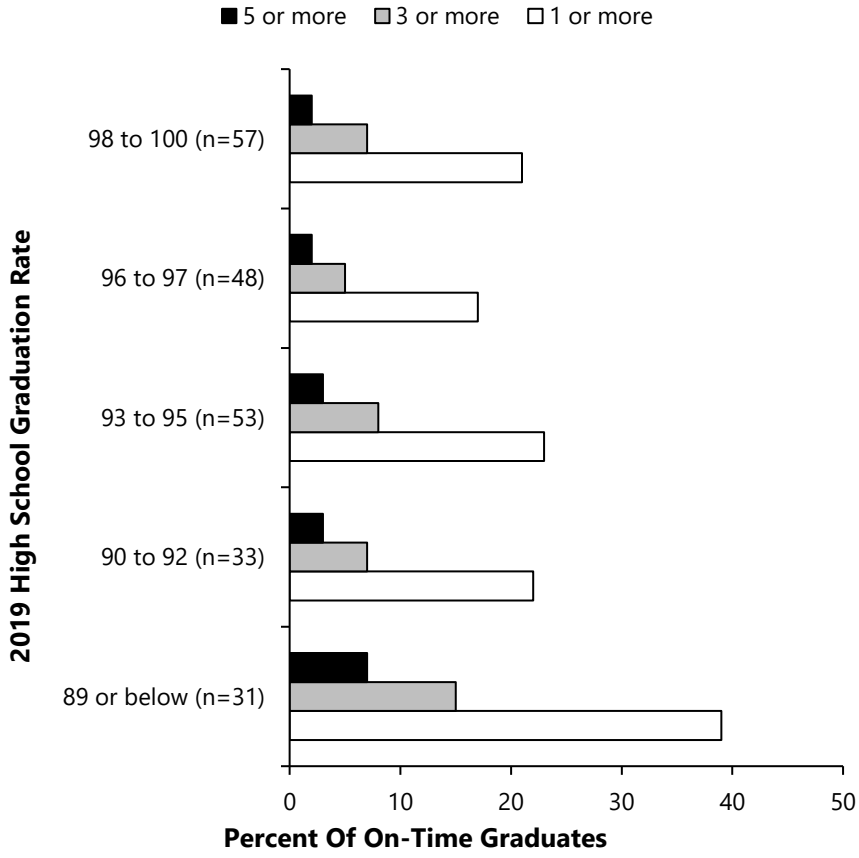
Student Group	Graduate Count	Three Or More Credits		Five Or More Credits	
		Student Count	% Of Graduates	Student Count	% Of Graduates
All	43,489	3,891	9%	1,569	4%
White	34,969	2,453	7	941	3
Female	21,320	1,348	6	510	2
Male	22,169	2,543	11	1,059	5
Black	4,462	946	21	414	9
Hispanic	2,171	318	15	141	6
FRPL	23,658	3,115	13	1,285	5
IEP	4,314	558	13	242	6
LEP	8,868	839	9	343	4
Homeless	1,104	166	15	73	7
Chronically absent	9,852	1,730	18	748	8

Note: FRPL = students eligible for free or reduced price lunch; IEP = students who have individualized education programs; LEP = students with limited English proficiency; Chronically absent = students who were absent 10 percent or more of their enrolled days.
Source: Staff analysis of data from the Kentucky Department of Education.

The percentage of graduates recovering multiple credits is much greater in schools with higher graduation rates than in schools with lower graduation rates.

Figure 2.B shows the percentage of graduates in schools with relatively high or low graduation rates who recovered one or more, three or more, or five or more credits by high school graduation. The figure shows that the percentage of graduates recovering multiple credits is much greater in schools with higher graduation rates than in schools with lower graduation rates. The percentage of students who recovered credits in the lowest graduation group (89 percent or below) versus the highest graduation group (98 percent or above) was more than double for students who recovered three or more credits (15 percent versus 7 percent) and more than triple for students who recovered five or more credits (7 percent versus 2 percent). This suggests that the relative impact of credit recovery is greater in lowest versus highest graduation rate schools.

Figure 2.B
Percentage Of 2019 On-Time Graduates By Total Credits Recovered And 2019 High School Graduation Rates
School Years 2017 To 2019



Source: Staff analysis of data from the Kentucky Department of Education.

Course Recovery And On-Time Graduation

Table 2.4 shows the percentage of the 2019 OEA Graduation Cohort who recovered the core courses they failed. For this analysis, OEA considered core courses to be the seven specifically named foundational courses that were required for graduation in 2019: Algebra I, Geometry, Algebra II, and English I-IV.

As the number of core courses failed increases, the percentage of students who recovered credits for all of their failed core courses decreases.

As the number of core courses failed increases, the percentage of students who recovered credits for all of their failed core courses decreases; 82 percent of students who failed only one core course recovered credit for that course, compared with 43 percent of students who failed four or more courses and recovered all of those courses.

Table 2.4
Percentage Of Students Recovering All Core Courses Failed,
By Number Of Courses Failed
2019 OEA Graduation Cohort

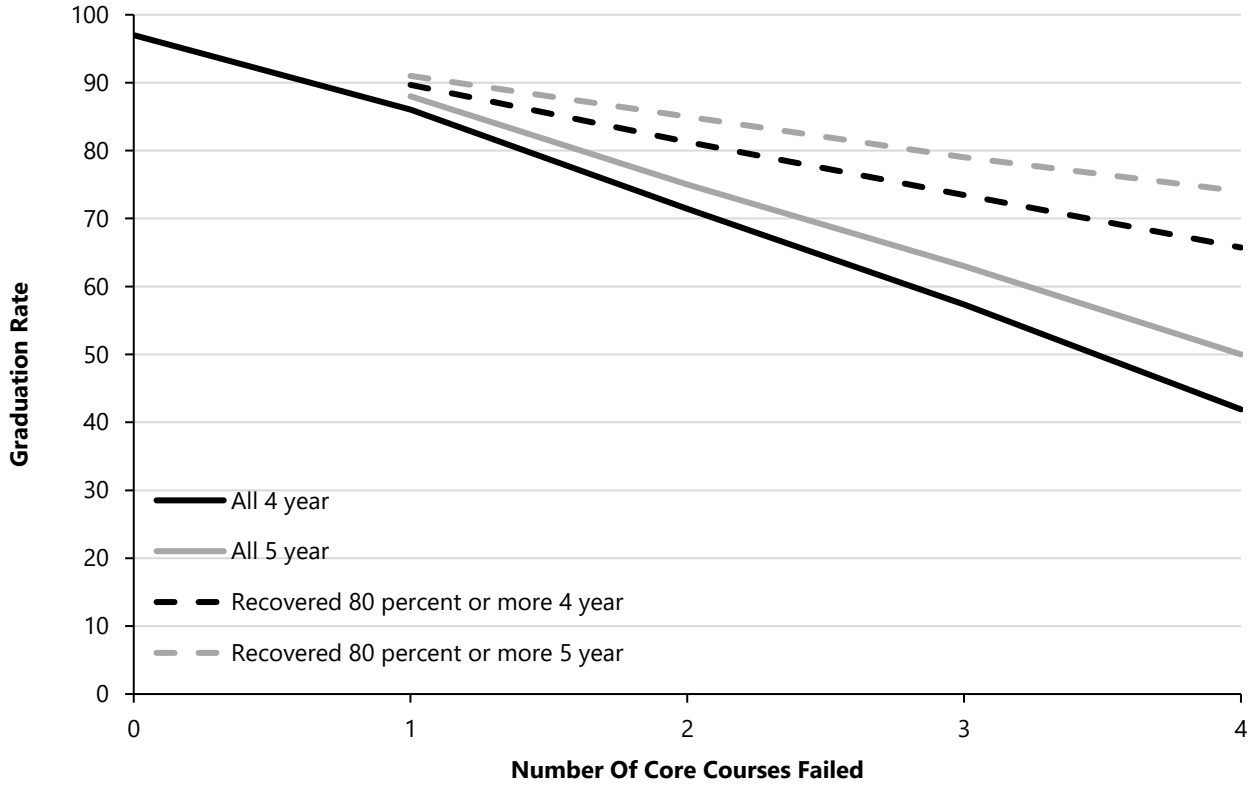
		Students Recovering All Failed Core Courses	
Number Of Core Courses Failed	Number Of Students	Number Of Students	% Of All Students Who Failed Course(s)
0	37,336	—	—
1	4,706	3,877	82%
2	2,863	1,884	66
3	1,543	886	57
4	754	321	43

Note: For this analysis, OEA considered core courses to be the seven specifically named foundational courses that were required for graduation in 2019: Algebra I, Geometry, Algebra II, and English I-IV.
Source: Staff analysis of data from the Kentucky Department of Education.

Both the 5-year graduation rate and 4-year rate show steep decreases as the number of core courses failed increases.

Figure 2.C shows the 4- and 5-year graduation rates for students in the 2019 OEA Graduation Cohort by the number of core courses that they failed. The 5-year graduation rate is slightly higher than the 4-year rate, but both show steep decreases in graduation rates as the number of core courses failed increases. For students who recovered all of the courses failed, the likelihood of graduation increases substantially for both the 4- and 5-year cohorts. For example, the average graduation rate for students who failed three core classes was 57 percent and 63 percent for 4- and 5-year graduation, respectively, but 73 percent and 79 percent for students who recovered their failed core courses.

Figure 2.C
4- And 5-Year Graduation Rate For All Students And Students Who Recovered Credits In Failed Core Classes, By Number Of Core Courses Failed
2019 OEA Graduation Cohort



Note: For this analysis, OEA considered core courses to be the seven specifically named foundational courses that were required for graduation in 2019: Algebra I, Geometry, Algebra II, and English I-IV.
Source: Staff analysis of data from the Kentucky Department of Education.

Taking other factors into account using a linear probability model, each course failure decreases the probability that a student will graduate on time by approximately 7.5 percent, and each course recovery increases it by 6.2 percent.

Relative Effect On Graduation Of Each Course Failed And Recovered. Appendix M contains a linear probability model showing the effect of individual course failures and recoveries on the probability of graduating on time, accounting for student demographic characteristics, attendance, and school characteristics. Taking other factors into account, each course failure decreases the probability that a student will graduate on time by roughly 7.5 percent and each course recovery increases it by 6.2 percent.

Course Recovery By Method, 2022

This section reports the prevalence of methods used to recover credits as indicated by student counts reported by A1 schools on OEA's 2022 credit recovery survey.

Course Types And Times Offered

All schools enrolled students in digital credit recovery courses, 85 percent enrolled students in direct instruction retakes, and 48 percent enrolled students in abbreviated direct instruction courses.

Table 2.5 shows the percentage of A1 schools that enrolled students in different types of courses to recover credits in 2022. All schools enrolled students in digital credit recovery courses, 85 percent enrolled students in direct instruction retakes, and 48 percent enrolled students in abbreviated direct instruction. Most schools enrolled students in at least two types of course options to recover credits, but approximately about 10 percent enrolled students in digital courses only.

Digital learning credit recovery classes were provided at a greater variety of times than other credit recovery classes. The overwhelming majority of schools reported that digital classes were offered during the regular school day (94 percent) and summer school (81 percent), and many schools also offered them after school (43 percent). Of the schools that enrolled students in course retakes, almost all (98 percent) offered them during the regular school day; 20 percent also offered course retakes during summer school. Schools that enrolled students in abbreviated direct instruction courses most commonly offered them during summer school (78 percent), but they were also provided during the regular school day (55 percent) and after school (24 percent). A small percentage of schools also provided options during evening school, Saturday school, and other times. These additional programs were most common for digital classes.

Table 2.5
Percentage Of Schools Offering Classes To Recovery Credits, By Method And Time Offered
2022

Class Type	Any Time	Regular School Day	Summer	After School	Evening	Saturday	Other
Digital	100%	94%	81%	43%	7%	6%	7%
Abbreviated direct	48	55	78	24	2	4	2
Course retake	85	98	20	6	2	0.5	2

Source: Staff analysis of OEA 2022 credit recovery survey.

Several respondents noted in comments that, due to the availability of COVID-19-associated federal funds, their schools were able to offer a greater variety of course recovery options than was typical prior to the pandemic.

Percentage Of Students Enrolled In Courses To Recover Credits, By Method

Digital learning classes were the most prevalent method of credit recovery. Overall, the percentage of students enrolled in one or more digital courses was more than 1.5 times the percentage of both direct instruction methods combined.

Table 2.6 shows the percentage of A1 high school students in 2022 who were enrolled in digital, abbreviated direct instruction, or direct instruction course retakes to recover a credit. Digital learning classes were the most prevalent method: 14.6 percent of students took at least one digital learning class, and 4.1 percent took three or more. Other methods were still commonly used, however: 5.3 percent of students retook at least one class, and 3.5 percent took at least one abbreviated, direct instruction class. Overall, the percentage of students enrolled in one or more digital courses was more than 1.5 times the percentage of both direct instruction methods combined.

Students recovering three or more courses were much more likely to be enrolled in digital classes than other types.

Students recovering three or more courses were much more likely to be enrolled in digital classes than other class types: 4.1 percent of these students took a digital class, far more than double the combined 1.6 percent of students that took three or more direct instruction retakes (0.9 percent) or abbreviated direct instruction classes (0.7 percent).

Table 2.6
Percentage Of High School Students In A1 Schools Enrolled In Courses To Recover Credits, By Mode Of Recovery
2022

	Percent Of Students	
	One Or More Courses	**Three Or More Courses**
Digital learning	14.6%	4.1%
Abbreviated direct instruction	3.5	0.7
Direct instruction retake	5.3	0.9

Source: Staff calculations based on OEA survey data from 2022 and Kentucky Department of Education school membership data from 2021.

Change Over Time

Most schools (75 percent) reported increases in digital learning classes in the last decade, and many also reported increases in course retakes (36 percent) and abbreviated direct instruction classes (31 percent).

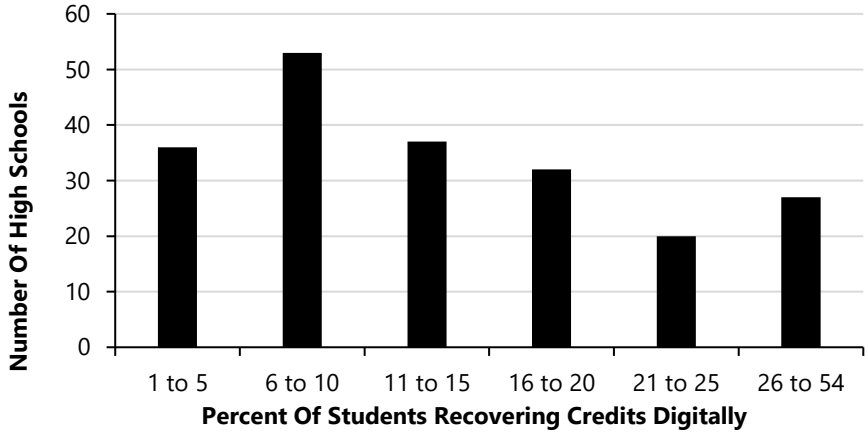
Most schools (75 percent) reported increases in digital learning classes in the last decade, and many also reported increases in course retakes (36 percent) and abbreviated direct instruction classes (31 percent). Almost half of schools reported that use of digital learning courses has "greatly increased" since 2019. By 2022, all Kentucky A1 schools offered digital learning classes, compared with 58 percent in 2016, as reported by Kentucky schools on national survey data.[47]

Variation Among Schools In Prevalence Of Digital Learning Courses

The percentage of students taking at least one digital learning credit recovery class ranged broadly among schools, from 1 percent to 54 percent.

Figure 2.D shows the number of schools in which various percentages of students were enrolled in at least one digital learning credit recovery course. The percentage of students taking at least one digital learning credit recovery class ranged broadly, from 1 percent to 54 percent. As explained in Chapter 3, some schools use these courses sparingly, requiring most students to recover credits through direct instruction options. In other schools, digital learning courses are the only option to recover credits.

Figure 2.D
Number Of A1 High Schools
By Percentage Of Students Recovering At Least One Credit Through A Digital Learning Course
2022



Source: Staff analysis of OEA 2022 survey data and Kentucky Department of Education membership data.

School Characteristics By Digital Learning Credit Recovery Enrollment Rates

The ratio of all course enrollments in digital versus direct instruction modes is roughly 0.6 to 1 in schools with the lowest percentage of students enrolled in digital learning courses, and more than 2.6 to 1 in schools with the highest percentage.

Table 2.7 shows characteristics of schools with various percentages of students enrolled in digital learning courses. It also shows the percentage of all course enrollments in a school that comprised digital courses versus either of the direct instruction options. The ratio of all course enrollments in digital versus direct instruction modes is roughly 0.6 to 1 in schools with the lowest percentage of students enrolled in digital learning courses, and more than 2.6 to 1 in schools with the highest percentage. At 3.5, the ratio of digital to direct instruction credit recovery enrollments is highest in schools with 21 percent to 25 percent of students enrolled in a digital learning class for credit recovery.

There are moderate differences among low- versus high-digital credit recovery schools in the average percentage of students living in poverty. The average percentage of minority students in highest-rate digital learning credit recovery schools is more than double the percentage in lowest-rate digital learning credit recovery schools.

Table 2.7 shows moderate differences among low- versus high-digital credit recovery schools in the average percentage of students living in poverty (53 percent in lowest-rate digital credit recovery schools, and 64 percent in highest-rate digital credit recovery schools). The average percentage of minority students is, however, more than double in highest-rate digital learning credit recovery schools (31 percent) versus lowest-rate digital learning credit recovery schools (15 percent).

Table 2.7
Characteristics Of Schools By Percentages Of Students Enrolled In Digital Learning Courses, And Average Percentage Of All Credits In Digital Versus Direct Instruction Modes
2022

Percent Of Students Enrolled In One Or More Digital Credit Recovery Classes	Number Of Schools	Ratio Digital To Direct Instruction	Average Percent		
			FRPL Students 2021	Minority Students 2021	Graduation Rate 2021
1 to 5	36	0.6	53%	15%	95%
6 to 10	53	1.0	59	22	94
11 to 15	37	1.9	58	14	93
16 to 20	32	2.9	57	16	93
21 to 25	20	3.5	61	22	92
26 to 54	27	2.6	64	31	89

Note: FRPL = free and reduced-price lunch.
Source: Staff calculations based on OEA survey data from the Kentucky Department of Education.

Chapter 3

Credit Recovery Practices And Policies

This chapter shows great variation among schools in credit recovery practices such as adjustment of course content; grading practices; and test security.

This chapter shows great variation among schools in credit recovery practices such as adjustment of course content; grading practices; and test security. In some cases, practices can vary among classrooms in the same school. Differences in these practices can lead to great differences among schools in the validity of high school graduation credits as an indication that students have learned content.

Most local boards and SBDMs lack formal written policies for credit recovery programs.

The chapter also shows that most local boards and SBDMs lack formal written policies for credit recovery programs. Although a small minority of districts and schools do address specific requirements of credit recovery programs in their policies, only a handful have comprehensive policies.

The chapter concludes with a summary of the practice and policy issues identified in the data and presents recommendations for state and local policies.

The chapter concludes with a summary of the practice and policy issues identified in the data and presents recommendations for state and local policies that would promote greater consistency in the implementation of credit recovery within schools and districts and across the state.

School Practices

This section describes school practices for course content adjustment, grading practices, and test security as reported by principals or counselors on OEA's credit recovery survey. As noted later in this chapter, however, very few schools have written policies that address these practices.

Content Adjustment

High schools reported routinely adjusting the content of digital learning courses by removing units that students passed in pretests (67 percent) or units they passed in original courses (39 percent).

As shown in Table 3.1, high schools reported routinely adjusting the content of digital learning courses by removing units that students passed in pretests (67 percent) or units they passed in original courses (39 percent). Both of these methods are also used to remove content in abbreviated direct-instruction courses, though original course data is more commonly used (59 percent of schools) than pretests (34 percent of schools). A small minority of schools reported making those types of content adjustments in course retakes as well.

Table 3.1
Percentage Of Schools That Routinely Adjust Course Curricula
Based On Student Diagnostic Or Academic Data
2022

Course Type	Individual Units Are Removed For Students Who Pass Pretests	Individual Units Passed By Student In Original Course Are Removed
Digital	67%	39%
Abbreviated direct instruction	34	59
Direct instruction retake	12	16

Note: Content adjustment categories are not mutually exclusive. In some schools, courses can be adjusted in more than one way.
Source: Staff analysis of data from the OEA 2022 credit recovery survey.

Content covered in digital courses for credit recovery varies greatly among schools. In some, the amount of content covered in a digital learning class is minimal; in others, digital courses cover at least as much as is typical of a direct instruction class.

Variation Among Schools. As discussed in Chapter 4, content covered in digital courses for credit recovery varies greatly among schools. In some schools, the amount of content covered in a digital learning class is minimal; in others, digital courses cover at least as much as is typical of a direct instruction class.[a] Further, schools can have vastly different practices for content removal. For example, the score required to pass a pretest ranged from 60 percent in one school to 90 percent in another. Schools also differ in whether pretests are monitored and whether students can attempt them more than once.[b]

The relative difficulty of credit recovery versus initial classes may influence the behavior of students in regular classes.

Student Motivation In Regular Classes. The relative difficulty of credit recovery versus initial classes may influence the behavior of students in regular classes. In one site visit school, digital courses for credit recovery were reputed to be lengthy and difficult. Teachers explained that they cited the difficulty of these courses when exhorting unmotivated students in regular classes to complete the work necessary to pass.

Almost three-quarters of survey respondents noted that the perception of digital courses as an easy option can undermine students' motivation to work in regular classes.

Conversely, as reported in Chapter 4, almost three-quarters of survey respondents noted that the perception of digital courses as an easy option can undermine students' motivation to work in regular classes. A math teacher in one site visit school noted that the relative ease of digital math courses for credit recovery in his school directly undermined some students' motivation to work in regular class. He cited one higher-achieving student who refused to complete work in his regular math class, explaining that he planned to earn his credit quickly through the digital course over

[a] In practice, digital learning courses are sometimes equated with credit recovery. When these courses cover the range and depth of direct instruction classes, they might also be considered entire course retakes.
[b] In data analyzed from one site visit school, a student had attempted the same pretest four times.

the summer. In that particular school, no limit is imposed on digital credit recovery course grades. The math teacher estimated that 30 percent of students fail initial math classes.[c]

A district administrator in one site visit district noted her observations from previous work in a state where competency-based credits were encouraged and relatively easy to attain; she observed increasing rates of students earning credits through digital courses and a decrease in motivation to work in traditional classes.

In one site visit school, the digital course grade was intentionally limited to a D in order to reduce content mastery required of students in digital courses.

Focus On Career Certificates. At one site visit school, most students failing a class must recover the credit through direct instruction. The only students who may take digital recovery classes are upperclassmen who are severely behind in credits. School administrators felt that, for upperclassmen with severe academic difficulties, time spent on content mastery could detract from the more valuable goal of earning a career certificate. For this reason, in the school's digital courses, the highest possible grade is a D; once students achieve this minimal level of mastery, they can direct their attention and time toward their career certificates.

Student Eligibility

Only approximately one-fifth of schools reported restricting student eligibility to recover credits through digital courses.

Only approximately one-fifth of schools reported restricting student eligibility to recover credits through digital courses. Table 3.2 shows the most frequent conditions mentioned by schools to restrict eligibility. The most commonly cited reason for restrictions (17 schools) was course types; for example, 9 schools specifically noted that students recovering credits in Algebra or other math courses were not eligible for credit recovery on digital courses. Of the schools restricting eligibility, many also required students to meet minimum criteria in the initial failed course in order to recover the credit through a digital course; most often the minimum criteria was achievement of a grade of 50 percent or above in the initial class. Other restrictions were associated with school grade or students' learning needs. During site visit interviews, educators noted that students could struggle in digital classes if they were not yet mature or self-directed, or if their reading levels were very low.[d]

[c] Unlike most site visit schools, this school did not build any time for additional academic support into the regular student schedule.

[d] Appendix L shows that, on average, students who recovered multiple credits over the course of their high school careers had very low levels of reading achievement on K-PREP reading in 8th grade and on the ACT in 11th grade.

Table 3.2
Number Of Schools Reporting Conditions Restricting Students From Digital Course Credit Recovery
2022

Reason	Number Of Schools	Example(s) Of Students Not Eligible For Credit Recovery
Course types	17	Students taking: Algebra I or other math (9 schools); career and technical education courses (3 schools); elective courses (4 schools); English (1 school); core classes (1 school)
Initial grade	12	Students not meeting minimum grade (such as 50) or attendance in initial course
Retake first	5	Students who have not retaken the course at least once
School grade	3	Freshmen or sophomores
Reading level or learning style	3	Students who have low reading levels or who have previously been unsuccessful in digital classes
(No restrictions cited)	190	—

Note: OEA received 205 surveys from A1 schools. Some schools are included in more than one category. Credit recovery policies often, but not always, referenced digital courses specifically. Not included in this table are schools that do not offer particular digital courses—usually elective or career and technical education courses—for the sole reason that the vendor does not offer them.
Source: Staff analysis of data from the OEA 2022 credit recovery survey.

Limits On Grades For Recovered Courses

Schools reported limiting grades to a C, a D, or "pass." Limits are most often reported for digital courses (46 percent of schools) but are sometimes applied to abbreviated direct instruction classes (30 percent).

Table 3.3 shows the percentage of schools reporting limits in the grades that can be posted to student transcripts for recovered credits. Schools reported limiting grades to a C, a D, or "pass." Limits are most often reported for digital courses (46 percent of schools) but are also sometimes applied to abbreviated direct instruction classes (30 percent). Ten percent of schools reported limits for course retakes.

Table 3.3
Percentage Of Schools Limiting Grades That Can Be Posted To Student Transcripts For Recovered Credits
2022

Course Type	Percent Of Schools
Digital courses	46%
Abbreviated direct instruction	30
Direct instruction retake	10

Note: Some schools are in more than one category.
Source: Staff analysis of data from the OEA 2022 credit recovery survey.

Inclusion Of Initial Failing Grade In Student GPA

Schools vary in whether they include initial failing grades on student transcripts and in grade point averages (GPAs). Most schools include initial failing grades on transcripts and in GPAs; roughly one-fifth of schools remove failing grades entirely; and 16 percent include initial failing grades on transcripts but not in GPAs.

Schools vary also in whether they include initial failing grades on student transcripts and in student GPAs. As shown in Table 3.4, most schools include initial failing grades on transcripts and in GPAs; roughly one-fifth of schools remove failing grades entirely; and 16 percent include initial failing grades on transcripts but not in GPAs. Approximately 6 percent of schools reported that treatment of an original failing grade varies based on how a credit is recovered. In one example, a failing grade is removed from the transcript of a student who immediately attends summer school and recovers the credit, but it remains on the transcript of a student who recovers the credit at a later date.

Table 3.4
School Practices For Inclusion Of Original Failing Grade On Transcript And In GPA
2022

Treatment Of Failing Grade	Percent Of Schools
Included in GPA and on transcript	54%
Included on transcript but not GPA	16
Removed entirely from transcript	21
Varies by course recovery type	6

Note: Percentages do not sum to 100 because some schools did not answer the question.
Source: Staff analysis of data from OEA 2022 credit recovery survey.

Permission For Unsupervised Digital Learning Course Assessments

Survey respondents overwhelmingly agreed (85 percent) that students taking digital courses might obtain answers from answer websites or other individuals.

As shown in Chapter 4, survey respondents overwhelmingly agreed (85 percent) that students taking digital courses may obtain answers from answer websites or other individuals; however, one survey respondent noted,

> We do not allow students to work outside of the supervision of a staff member on their pre-tests or tests to ensure that they are truly demonstrating their knowledge. Otherwise, they would only use apps or websites to cheat their way through a course.

More than two-thirds of schools allow students to take digital learning assessments in unsupervised settings all (28 percent) or some (42 percent) of the time.

Yet, as shown in Table 3.5, more than two-thirds of schools allow students to take digital learning assessments in unsupervised settings all (28 percent) or some (42 percent) of the time. Of the schools that reported sometimes allowing students to take assessments at home, only one offered an explanation of when

unsupervised assessments were permitted.[e] These schools most often explained that no official policy exists or that decisions are left to individual credit recovery teachers, which means practices can vary within a school. One survey respondent observed that

> Most students in our school are supervised directly by me. However, students complain that [other teachers] allow students to "skip videos" and use the internet for answers as they take exams.

Table 3.5
School Practices For Permitting Students To Take Digital Learning Assessments In Unsupervised Settings 2022

Permission For Unsupervised Assessments	Percent Of Schools
Yes	28%
Yes, sometimes	42
No	31

Note: Figures do not sum to 100 due to rounding.
Source: Staff analysis of data from OEA 2022 credit recovery survey.

Student cheating presents a significant challenge during in-person classes as well as in remote or unsupervised settings. Challenges to data integrity are greater in remote settings, where it is easier for students to access answers without detection.

Student cheating presents a significant challenge during in-person classes as well as in remote or unsupervised settings. Challenges to data integrity are greater in remote settings, where it is easier for students to access answers without detection.[f] [48] Also, teachers of direct instruction courses have access to multiple sources of formal and informal data about student learning, whereas student learning in digital classes is tracked almost exclusively through online—predominantly multiple choice—tests.

Credit Recovery For Initial Credit

Roughly 86 percent of schools allow students who are in danger of not graduating on time to use digital learning software for both credit recovery and initial credit.

Most schools (roughly 86 percent) allow students who are in danger of not graduating on time to use digital learning software for both credit recovery and initial credit. Of those respondents that offered detail, most described separately enrolled programs within A1 schools. Not clear in respondents' comments, however, is whether digital courses taken for initial credit in these programs

[e] In this school, students are permitted to take assessments at home, but they are locked out if they try and fail three times. After that, they must get assistance from a credit recovery teacher before the test will be unlocked for retake.
[f] Stephen W. Turner and Suleyman Uludag write: "Although cheating motivations in online and offline exams are not significantly different, detecting and mitigating online cheating could be more intricate. This is because, in addition to traditional cheating methods that also could be exploited in online exam cheating, there exist various technologies and tools that could be applied for cheating in online exams more easily. For example, using remote desktop and share screen, searching for solutions on Internet, using social networks, etc."

provide the same degree of content coverage as courses that are taken for credit recovery. Several site visit schools visited by OEA had credit recovery programs in which students completed credit recovery and initial credits on software, but none had written policies about course content.

Local Policies

This section shows that very few districts or schools have formal policies related to credit recovery or any of the practices described above.

Local Board Policies

Many local policies mention credit recovery as a strategy that can be used to assist various student populations, but few address program requirements in detail.

Staff analysis of local board policies shows that, although many local policies mention credit recovery as a strategy that can be used to assist various student populations, few address program requirements in detail. Credit recovery is mentioned, for example, as a strategy that can be used to assist students who receive extended school services, are homeless, or are in danger of dropping out of school. Credit recovery is rarely defined as a strategy, however, or subject to any program requirements.

Districts' performance-based policies rarely offer specific guidance for credit recovery courses.

Credit recovery courses should, in theory, be governed by board policies related to performance-based credits, but district performance-based policies rarely offer any specific guidance. When districts address regulatory requirements for "performance descriptors and assessments" or "objective grading and reporting procedures," they generally delegate responsibility to principals or SBDMs. Appendix N shows examples of these types of policies.

Most board policies are unclear on how alternative programs will meet regulatory requirements to establish standards and conduct evaluations for performance-based credits.

Alternative programs have higher rates of students recovering multiple credits than do all schools and are therefore likely to have higher rates of students receiving performance-based credits. Because these programs do not have SBDMs and sometimes do not have principals, most board policies are unclear on how alternative programs will meet regulatory requirements to establish standards and conduct evaluations for performance-based credits.

A small minority of districts (15 of those reviewed by OEA) address details of credit recovery programs in district policies.

A small minority of districts (15 of those reviewed by OEA) address details of credit recovery programs such as transcripts and grading practices; requirements for supervision of online tests; student eligibility for credit recovery; and limits in the number of courses that can be taken for credit recovery. Policies in two districts establish district-level approval or review processes for

credit recovery programs approved by SBDMs. Appendix N shows credit recovery policy in one district that addresses a variety of policy requirements for credit recovery programs.

SBDM Policies

SBDM policies are especially important in causing local boards to ensure that high school graduation credits reflect satisfactory learning of required course content.

Given districts' heavy reliance on SBDMs to develop and monitor performance-based credit systems, SBDM policies are especially important in causing local boards to meet their responsibilities to ensure that high school graduation credits reflect satisfactory learning of required course content.

A substantial minority of schools indicated having SBDM policies related to performance-based credits generally, to credit recovery specifically, or to digital/online policies. Only a small minority, however, submitted written copies.

OEA's credit recovery survey asked schools to submit copies of any written SBDM policies related to performance-based credits generally, to credit recovery specifically, or to digital/online policies. As shown in Table 3.6, a substantial minority of schools indicated that these policies were in place, but only a small minority submitted written copies as requested.

Table 3.6
A1 High Schools Reporting And Submitting Policies
For Performance-Based Credits, Credit Recovery, Or Digital/Online Courses
2022

Type Of Policy	Percent Of Schools Reporting Policies	Percent Of Schools Submitting Requested Policies
Performance-based credits generally	31%	4%
Credit recovery, specifically	43	14
Digital/online learning	26	2

Source: OEA 2022 credit recovery survey.

Table 3.7 lists elements addressed in SBDM written policies submitted to OEA as requested in its credit recovery survey. Student eligibility for credit recovery courses was the most frequently addressed issue, followed by transcript/GPA issues, which courses could be taken in credit recovery, and how content was to be adjusted. The table lists examples of requirements in each category, and Appendix O lists all of the policies in each category.

Table 3.7
Credit Recovery Program Requirements Addressed In SBDM Policies Submitted To OEA
2022

Policy Area	Number Of Schools	Examples Of Policies
Student eligibility	13	Must have first failed a course
Transcript/GPA	10	Maximum grade of C; course identified as credit recovery on transcript
Course eligibility	7	No more than three without principal approval; only core classes
Content adjustment	4	Score of 70 percent on pretest required to skip unit
Other	8	Must attend all days of summer school to pass

Note: Other issues included limits in the number of credits that can be earned through credit recovery, or types of credit recovery offered.
Source: Staff analysis of SBDM policies submitted to OEA.

Most policies submitted to OEA addressed some but not all of the following policy areas: student eligibility, transcripts/GPA, course eligibility, and content adjustment.

Most policies submitted to OEA addressed some but not all of the policy areas identified in Table 3.7. Appendix O contains an example of one of the few SBDM policies submitted to OEA that addressed multiple requirements of credit recovery programs.

Specific Requirements For Digital Courses Rarely Addressed

Few or none of the local board or SBDM policies analyzed for this report addressed policies for implementing digital learning classes such as staffing requirements, curriculum approval and adjustment, software permissions and settings, and data security/validation. Chapter 4 addresses these issues in greater detail.

Summary Of Findings

Credit recovery practices vary dramatically in the commonwealth, and most districts and schools lack policies that would promote program quality and consistency.

This chapter shows that credit recovery practices vary dramatically in the commonwealth and that most districts and schools lack policies that would promote program quality and consistency. Given this variation, credit recovery data entered in IC can indicate dramatically different types of courses.

Variation Among Districts, Schools, And Classrooms

Differences in data entry practices among districts and schools undermine the validity of data for tracking credit recovery at the state or local levels.

Design of and expectations for credit recovery courses vary dramatically among districts, schools, and even classrooms. In some schools, students may be entirely replacing failing grades after earning credit through courses in which the curriculum has been abbreviated, content may be removed based on student diagnostic data, and course assessments can be completed in unsupervised settings. In other schools, students may be required to cover all or most of the content covered in a regular class and

take supervised assessments but without the possibility of a grade higher than a C. In addition, as described in Chapter 1, differences in data entry practices among districts and schools undermine the validity of IC data for tracking credit recovery at the state or local levels.

The variation among districts and schools in practices for assigning grades for credit recovery classes, and for including original failing grades in student GPAs, has implications for the calculation of student GPAs for purposes of KEES.

Effect On Calculation Of GPA For Purposes Of KEES. The variation among districts and schools in practices for assigning grades for credit recovery classes, and for including original failing grades in student GPAs, has implications for the calculation of student GPAs for purposes of the KEES program. Students in schools and districts that limit the grades that can be obtained in credit recovery courses, or that include initial failing grades in GPAs, are at a disadvantage compared with students in schools and districts that permit higher grades in credit recovery classes or remove initial failing grades from student transcripts.

Lack Of Meaningful Policies

Kentucky regulations do not define *credit recovery* or describe acceptable course options. Regulation of credit recovery in other states most often sets expectations for local policies, but in recent years some states have included state-defined parameters.

As shown in this chapter, most districts and schools lack meaningful credit recovery policies as well as policies that are currently required for performance-based credits. As explained in Chapter 1, Kentucky regulations do not define *credit recovery* or describe acceptable course options. Regulation of credit recovery in other states most often sets expectations for local policies, but in recent years some states have included state-defined parameters for these policies.

Credit recovery policies are important to promote

- greater consistency among districts in coding of credit recovery classes to IC;
- greater consistency in transcript and grading practices; and
- strong expectations and monitoring of credit recovery by local leaders.

Recommendations

This chapter makes recommendations related to credit recovery generally. Recommendations related to digital learning courses, in particular, are addressed in Chapter 4.

Definition Of Credit Recovery

Inconsistencies in coding of credit recovery described in Chapter 1 can be mitigated by defining *credit recovery* at the state level and identifying acceptable modes of credit recovery.

Recommendation 3.1

Recommendation 3.1

The Kentucky Board of Education should consider addressing the following elements of credit recovery in regulation: definition of *credit recovery*; permitted modes of credit recovery (that is, digital learning, online classes, direct instruction); and under what conditions, if any, courses for initial credit can be taken through credit recovery.

Credit Recovery Data

KDE requires districts to indicate credit recovery in student course enrollment data. Course data do not always capture courses taken outside of the regular school day.

KDE currently requires districts to indicate credit recovery in IC student course enrollment data. IC course data do not always capture courses taken outside of the regular school day. In addition, as described in Appendix B, credit recovery classes are not always easily identifiable when they are taken in classes with broad placeholder codes.

KDE can increase the likelihood that all credit recovery data are captured and easily extracted by requiring school districts to identify credit recovery courses in IC transcript data rather than IC course data.[g] As is currently required in IC course data, transcript data should continue to identify the mode by which a credit is earned (that is, digital or direct instruction).[h]

Recommendation 3.2

Recommendation 3.2

The Kentucky Department of Education should consider adding two coding fields to transcript data in the student information system, in order to identify a course as credit recovery and the mode by which the student earned the credit.

[g] Note that this recommendation is distinct from a recommendation that credit recovery courses be identifiable in individual students' transcripts. Credit recovery course information can be included in IC without appearing on student transcripts.

[h] For the same reason, information about all courses can be more reliably extracted from transcript data. Any field reliably distinguishing between digital learning courses, other forms of virtual courses, and direct instruction is important for all types of course data, in order to allow identification and study of instructional modes generally.

Program Requirements

Credit recovery program elements that affect course quality should be addressed in policy.

This chapter outlines a number of program areas that affect course quality but vary dramatically among districts, schools, and classrooms. Credit recovery program elements that affect course quality should be addressed in policy.

Comments submitted by survey respondents help illustrate the need for credit recovery policies that address program standards. As one survey respondent noted,

> [the digital course] is a good online tool for students to use to recover a credit or earn credits to advance their individual learning plan. However, without a written policy, the administration of the program can lack uniformity from student to student. Most students are held to a high standard, but some students are allowed to skip units or take exams without being proctored.

Another respondent noted,

> [Digital courses] can be a great supplement to a comprehensive educational institution. However, rigor and standards must be in place to uphold relevancy of these types of credits. A uniform policy should be in place and audited to verify the authenticity of these [digital] credit recovery courses.

Recommendation 3.3

Recommendation 3.3

The Kentucky Board of Education should consider addressing in regulation the following issues related to credit recovery: when and how course content can be adjusted; student eligibility for credit recovery; how credit recovery is recorded in transcripts and calculated in grade point averages; and any limits to the total number of credits that can be earned through credit recovery.

The regulation should identify policies that must be set by local boards. It might also set some policy requirements at the state level, as has been done by states cited in Appendix G.

Chapter 4

Implementation Of Digital Credit Recovery Courses

Most students are enrolled in in-person classrooms that are supervised by school staff—called "credit recovery teachers." Credit recovery teachers most often supervise digital courses in a variety of content areas, not all of which they are certified to teach.

This chapter provides greater detail on implementation of digital courses for credit recovery in the commonwealth. It shows that most students are enrolled in in-person classrooms that are supervised by school staff—called "credit recovery teachers" in this report. Due to scheduling constraints, credit recovery teachers most often supervise digital courses in a variety of content areas, not all of which they are certified to teach.

Advantages of digital courses include their ability to allow recovery of multiple credits simultaneously and their flexibility. Drawbacks include the coursework's lack of rigor, as well as the possibility that will students obtain answers from the internet or other individuals, or that they will click through content without engaging.

The chapter also reports survey respondents' views of the advantages and drawbacks of digital courses for credit recovery. Digital courses are rated most highly for their ability to allow recovery of multiple credits simultaneously; their flexibility for scheduling purposes; and their capacity for students to learn any time, anywhere. Respondents are less likely to agree that digital courses prepare students for subsequent coursework, however. The overwhelming majority of respondents note as drawbacks of these courses that students may obtain answers from the internet or other individuals, that they may click through content without engaging, and that courses may be less rigorous than direct instruction classes.

OEA site visit data showed extreme variation among schools in the instructional expectations of students in digital credit recovery courses.

OEA site visit data showed extreme variation among schools in the instructional expectations of students in digital credit recovery courses and the degree to which schools addressed drawbacks of digital courses through staffing arrangements and other strategies. In some schools, digital courses rivaled direct instruction courses in the amount and range of content covered. In others, students earned credit in digital courses—even advanced courses—having received little or no instruction.

The chapter concludes with a summary of concerns about implementation of digital courses for credit recovery and recommendations for how these concerns might be addressed by state and local policies and increased monitoring of course quality.

Software

The majority of schools provide digital credit recovery courses using software purchased from one of three private vendors: Edgenuity (Imagine Learning), Edmentum, and Apex.

As shown in Table 4.1, the majority of schools provide digital credit recovery courses using software purchased from one of three private vendors: Edgenuity (Imagine Learning), Edmentum, and Apex. Jefferson County E-school—a digital course operated by the Jefferson County school district—is also used by other schools, including some outside of Jefferson County.[a]

Table 4.1
Digital Software Used By Kentucky Schools
2022

Software Vendor Or Source	Number Of Schools
Edgenuity (Imagine Learning)	104
Edmentum	51
Apex	49
Jefferson County E-school	18
Other	15

Note: Within Edmentum, some schools use Courseware (34 schools), Plato (27 schools), and Study Island (7 schools). The most commonly used software types in the "other" category are Summit (5 schools), and Schools PLP (3 schools). The following are used by one school only: Florida Virtual School, Acellus, Agilix Buzz, and Google Classroom.
Source: OEA 2022 Credit Recovery Survey.

Courses And Content Alignment

Many of the vendors of digital learning software have added a range of courses that include elective and career and technical education courses.

In addition to offering courses required for high school graduation, many of the vendors of digital learning software have added a range of courses that include elective and career and technical education courses. All of the major vendors of digital learning software report adjustment of course content to align with Kentucky standards. In addition, KDE's digital guidelines require that a content area teacher at each school review the course to ensure that it meets the particular state standards covered in the school's regular classes and add content as necessary.

Software Features

Most digital course software includes instruction in the form of videos, texts, or interactive features; assessments, including pretests, unit tests/quizzes, and summative tests; and individual and group data summary and storage.

Most digital course software includes instruction in the form of videos, texts, or interactive features; assessments, including pretests, unit tests/quizzes, and summative tests; and individual and group data summary and storage. Teachers and administrators can view

[a] Survey data indicate that all Jefferson County schools use Edmentum courses for credit recovery whereas not all schools use Jefferson County E-school.

- current and historical data on when and how long students logged into lessons;
- whether or not they appeared to be actively engaged;
- whether assignments or assessments were completed; and
- grades on individual tasks or assessments as well as ongoing and final course grades.

Depending on the digital learning software vendor and the particular packages purchased, digital learning software can include additional features such as interactive note taking; language translation; learning accommodations, such as large text or read aloud; and reteaching and additional instruction for each skill. Some digital learning software vendors also offer content-certified teachers to play a variety of teaching or support roles for additional cost.

In-Person Supervision

Because digital learning software permits students to learn any time, anywhere, students might complete digital courses entirely outside of the regular school day or without any in-person supervision by school staff.

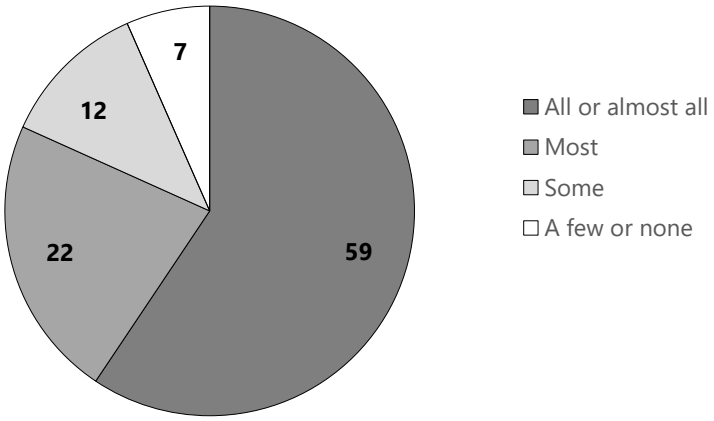
Because digital learning software permits students to learn any time, anywhere, students might, in theory, complete digital courses entirely outside of the regular school day or without any in-person supervision by school staff. OEA survey data show, however, that most digital credit recovery students in the commonwealth complete digital courses, at least in part, under the in-person supervision of school staff.

Figure 4.A shows the percentage of schools that reported various proportions of digital learning credit recovery students enrolled in digital learning classes directly supervised in person by school staff. These in-person classes, often called "virtual labs," can be scheduled during or outside the regular school day.

Approximately 60 percent of schools reported that all or almost all students were enrolled in directly supervised, in-person classes. An additional 22 percent reported that most students were enrolled in such classes.

As the figure shows, 59 percent of schools reported that all or almost all students were enrolled in directly supervised, in-person classes and an additional 22 percent reported that most students were enrolled in such classes. In 7 percent of schools, few or no students were reported as enrolled in directly supervised digital credit recovery classes, and 12 percent of schools reported that only some students were enrolled in these classes.

Figure 4.A
Percentage Of Schools Reporting That Digital Learning Credit Recovery Students Were Enrolled In Digital Learning Classes Directly Supervised In Person By School Staff, By Proportion Of Students
2022



Note: Percentages are calculated out of the 198 schools that answered this question.
Source: Staff analysis of data from OEA 2022 credit recovery survey.

Site visit data suggest that most schools permit students enrolled in directly supervised digital learning classes to also complete coursework outside of school.

Site visit data suggest that most schools permit students enrolled in directly supervised digital learning classes to also complete coursework outside of school. As shown later in this chapter, survey respondents view students' ability to learn any time, anywhere as a benefit of digital learning classes. As reported in Chapter 3, however, schools differ in whether they allow students to take digital learning course assessments at home or in other unsupervised settings.

Staffing Of Digital Learning Courses For Credit Recovery

Survey and site visit data show that credit recovery teachers are certified in a variety of content areas and that most credit recovery classes include students taking courses that may not be in the content area of the supervising teacher's certification.

Survey and site visit data reported in this section show that credit recovery teachers are certified in a variety of content areas and that in most credit recovery classrooms, the supervising teacher is not required to have certification in the content areas of courses being recovered by students. Site visit data and national literature suggest that, in most digital credit recovery classes, teachers typically monitor and support but do not instruct students taking courses outside the teacher's area of certification.

KDE guidelines recommend support roles for content area teachers who are not teaching credit recovery classes, but many of the students have no regular interaction with such teachers.

As noted in earlier chapters, credit recovery students are typically academically lower-achieving and may need additional academic support. KDE's digital learning guidelines recommend a variety of support roles for content area teachers who are not teaching credit recovery classes, but survey and site visit data suggest that many

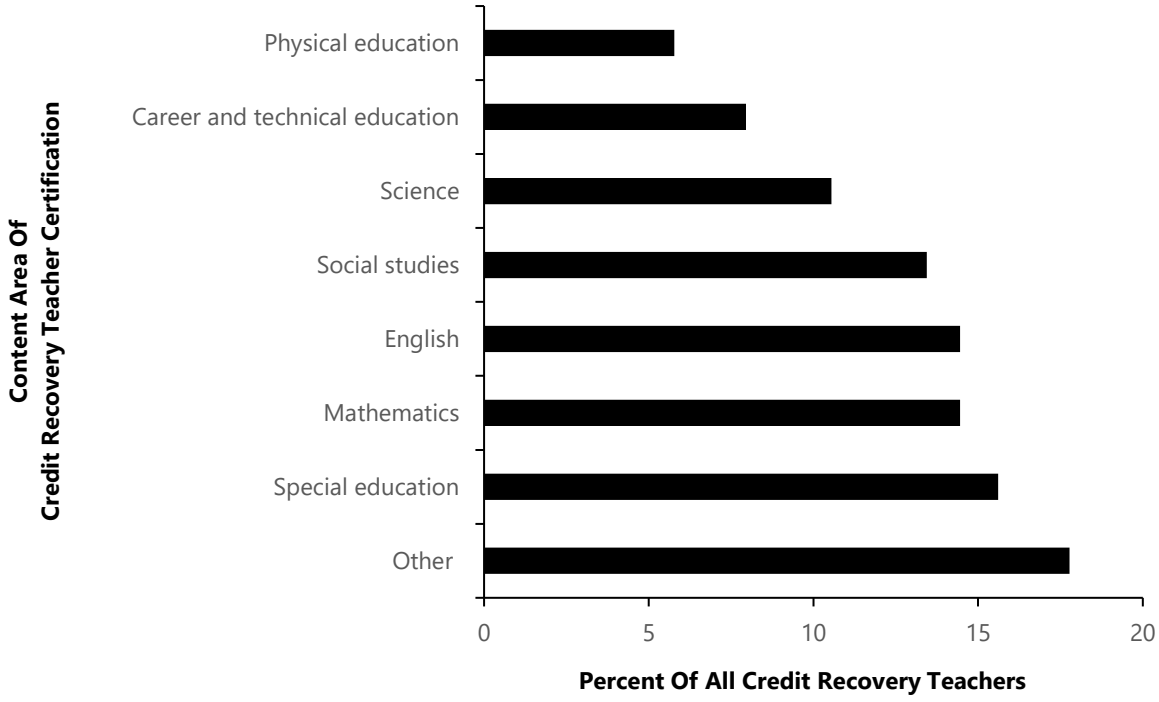
digital credit recovery students do not have regularly scheduled interactions with content area teachers who are not directly facilitating a course. In addition, when digital credit recovery classes are supervised by teachers who are not certified in the content area of the course, instructional material that cannot be digitally taught or graded may be eliminated.

Content Certification Areas Of Digital Credit Recovery Teachers

Special education was the most common area of teacher certification for credit recovery teachers (16 percent), followed by mathematics and English (15 percent each), with other core subject areas also common.

Figure 4.B shows the percentage of credit recovery teachers certified in particular content areas. The most common areas were special education (16 percent of all credit recovery teachers), followed by mathematics and English (15 percent each), with other core subject areas also common. The percentage of teachers certified in other content areas combined totaled 18 percent, including instructional aides; guidance counselors; behavior coaches; substitute teachers; and staff for library/media, world languages, and arts and humanities.

Figure 4.B
Percentage Of Digital Credit Recovery Teachers By Content Area
2022



Note: "Other" staff reported on the survey included instructional aides; guidance counselors; behavior coaches; substitute teachers; and staff for library/media, world languages, and arts and humanities.
Source: Staff analysis of data from OEA 2022 credit recovery survey.

Schools reported an average of three certification areas for credit recovery teachers. In some cases, these teachers work primarily or exclusively as credit recovery teachers.

Schools reported an average of three certification areas for credit recovery teachers. In some cases, these teachers work primarily or exclusively as credit recovery teachers. In others, teachers might supervise just one class per day or at another time outside the regular school day (summer school, after school).

Because most schools had multiple credit recovery teachers, the most common certification areas were represented in many schools. Special education, mathematics, and English teachers taught at least one credit recovery class in approximately half of schools.

Classified Staff

Approximately 40 percent of survey respondents reported using classified staff in credit recovery classes. In most cases, these staff assisted certified credit recovery teachers, but in some cases classified staff also supervised classes.

Approximately 40 percent of respondents reported using classified staff in credit recovery classes. In most cases, these staff assisted certified credit recovery teachers, but in some cases classified staff also supervised classes.[b] Some schools reported using classified staff for administrative support functions such as enrolling students in software, monitoring participation data, or communicating with parents.

Alignment Of Credit Recovery Teacher Certification And Content Area Of Digital Courses

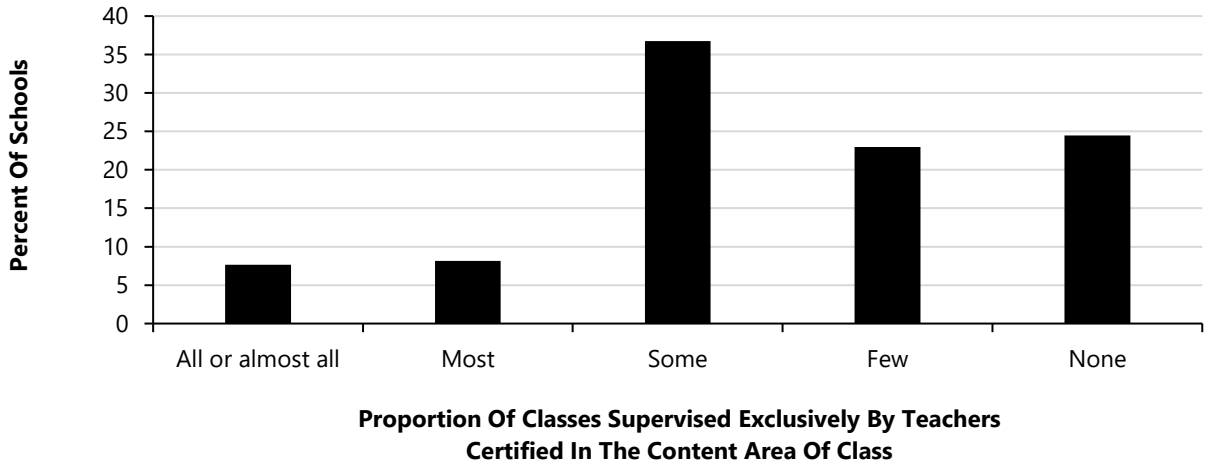
Student and staff scheduling constraints make it difficult for most schools—especially smaller schools—to ensure matches between credit recovery teacher certification and content of courses recovered.

Student and staff scheduling constraints make it difficult for most schools—especially smaller schools—to ensure matches between credit recovery teacher certification and content of courses recovered.

Figure 4.C shows that a small percentage of schools reported that all (8 percent of schools) or most (8 percent of schools) of in-person digital classes were subject-specific in that they enrolled only students recovering content in the area(s) of the supervising teacher's certification. Almost half of schools surveyed said that few (23 percent) or none (24 percent) of their credit recovery classes were subject-specific, and an additional 37 percent of schools reported that only some classes were subject-specific.

[b] In one small school, a former special education aide was the full-time credit recovery teacher. Administrators explained that, as an aide, this teacher had become familiar with curricula in almost all courses in the school and was skilled at working with students who struggled with academic content.

Figure 4.C
Proportion Of In-Person, Digital Credit Recovery Classes That Are Subject-Specific, By School
2022



Note: Percentages are calculated out of the 197 schools that answered this question.
Source: Staff analysis of data from OEA 2022 credit recovery survey.

Instructional Roles Of Credit Recovery Teachers

Credit recovery teachers actively assist and instruct students in subject-specific digital credit recovery classes.

OEA site visit data and national research suggest that credit recovery teachers play an active role in assisting and instructing students in subject-specific digital credit recovery classes. Teachers may answer content-related questions, ask students about what they are learning, or provide small-group tutoring sessions. As noted in Chapter 1, the only studies showing similar learning outcomes for students in digital versus direct instruction classes include only students in subject-specific digital credit recovery classes.[49] As shown in Figure 4.C, however, only a minority of credit recovery classes in the commonwealth are subject-specific.

OEA site visit data are consistent with national data suggesting that credit recovery teachers who supervise students taking courses outside of a teacher's area of certification do not generally instruct students.

OEA site visit data are consistent with national data suggesting that credit recovery teachers who supervise students taking courses outside of the teachers' area of certification do not generally instruct students.[50] In fact, informal guidance from KDE implies that credit recovery teachers should not be instructing students on content area outside their areas of certification.[c] [51] Credit recovery

[c] According to KDE, "Essentially, there are not any specific certification requirements for a virtual teacher. If a certified teacher oversees say a credit recovery program, then the teacher can simply be certified in any area. However, if the teacher delivers (just like a regular classroom) online instruction specific to a content area then they would need to hold a certificate for this area."

teachers in subject non-specific classes view their role primarily as encouraging students on a personal level and keeping them focused and on track to complete assignments. This role can be extremely important in assisting students who may have had difficulty completing work; however, most credit recovery students are also struggling academically and need assistance with instructional content.

Role Of Content Area Teachers Not Teaching Credit Recovery Classes

KDE's Digital Learning Guidelines recommend that content area teachers assist with digital courses by mentoring and tutoring students or stewarding classes, even when they are not directly supervising those courses.

As described in Chapter 1, KDE's Digital Learning Guidelines recommend that content area teachers assist with digital courses by mentoring and tutoring students or stewarding classes, even when they are not directly supervising those courses. OEA site visit and survey data suggest that this type of support is lacking in many schools.

Credit recovery teachers reported that content area teachers are willing to meet with students who need extra assistance, but none reported scheduled, regular, or sustained instructional relationships between credit recovery students and content area teachers.

All of the credit recovery teachers interviewed by OEA in site visit schools reported that content area teachers are willing to meet with students who need extra assistance, if time can be arranged, but none reported scheduled, regular, or sustained instructional relationships between credit recovery students and content area teachers. In site visit schools, content area teachers who were not directly teaching credit recovery classes played a limited role in these classes.

OEA survey data are consistent with OEA site visit data suggesting that interaction or contact with content area teachers is not a regular feature of students' experience in digital courses unless they are placed in the same classroom with those teachers.

Most schools (62 percent) report that content area teachers are generally available upon request, and when time can be arranged, but 42 percent report that these teachers have no regularly assigned duties.

Table 4.2 shows the percentage of schools reporting various roles for content area teachers who are not directly teaching credit recovery classes. Although most schools (62 percent) report that content area teachers are generally available upon request, and when time can be arranged, 42 percent report that these teachers have no regularly assigned duties.

In a minority of schools, content teachers had duties such as being regularly available at scheduled times to assist students (26 percent), or by Zoom (13 percent); conducting regular scheduled check-ins (20 percent); or grading credit recovery assignments (21 percent).

Table 4.2
How Content Area Teachers Are Required To Assist
With Digital Learning Credit Recovery Courses They Are Not Teaching
2022

Teacher Role	Percent Of Schools
Content area teachers are generally available to assist credit recovery students, upon request, and when time can be arranged.	62%
Content area teachers who are not credit recovery teachers have no regularly assigned duties to assist with credit recovery classes.	42
Content area teachers are available during regularly scheduled times to assist credit recovery students in person.	26
Content area teachers grade credit recovery coursework/assessments.	21
Content area teachers conduct regular, scheduled check-ins with credit recovery students.	20
Content area teachers are available during regularly scheduled times to assist credit recovery students via Zoom or other online synchronous technology.	13

Source: Staff analysis of data from OEA 2022 credit recovery survey.

Six of eight site visit schools eliminated instructional tasks that required grading by teachers.

Elimination Of Instructional Tasks Or Assessments. Six of eight site visit schools eliminated instructional tasks that required grading by teachers. For example, written assignments were eliminated from digital courses so that all assignments could be graded through software; in those schools, students could in theory earn credit for digital courses in English I-IV without producing any written work. In lab-based science courses that require students to conduct laboratory exercises, content standards may also be eliminated in schools where content area teachers play no role in digital credit recovery classes.[d] Most courses include at least some content that is difficult or impossible to teach and assess exclusively through software.

Advantages Of Digital Credit Recovery Courses

The overwhelming majority of OEA respondents agreed that each mode of credit recovery is effective at assisting students to graduate on time.

The overwhelming majority of OEA respondents agreed that each mode of credit recovery is effective at assisting students to graduate on time. As one survey respondent noted, "All options are good options. In many cases, these options keep students from checking out on their education. When they see they have options, they work towards that."

As described in the next section, digital courses may be especially effective at making on-time graduation possible for at-risk students who must recover multiple credits.

[d] In one site visit school, the counselor assigned and graded tasks that software could not cover. The software vendor in her district provided a rubric that guided teachers through designing and grading these assignments.

Facilitating Multiple Credit Recovery

Survey respondents overwhelmingly agreed that digital courses have multiple advantages, permit students to recover multiple courses simultaneously, easily accommodate students' schedules, allow students to learn any time and anywhere, and use diagnostic data to target only those skills not yet mastered.

Figure 4.D shows the percentage of survey respondents who agreed or strongly agreed with various advantages of digital courses. Respondents overwhelmingly agreed that digital courses have multiple advantages, but they were most likely to agree that these courses permit students to recover multiple courses simultaneously (94 percent). Respondents overwhelmingly agreed that digital courses easily accommodate to students' scheduling constraints (92 percent), allow students to learn any time and anywhere (90 percent), and use diagnostic data to target only those skills not yet mastered (79 percent).

Digital courses allow students who have failed multiple courses to get back on track when it otherwise may have been difficult or impossible.

Because of these advantages, digital courses provide a means for students who have failed multiple courses to get back on track when it otherwise may have been difficult or impossible for them to do so.

Many survey respondents noted that digital credit recovery courses provide hope for students who might otherwise give up or drop out. For example, one survey respondent noted, "Credit recovery is a game changer for our at-risk students." Another noted, "Credit recovery is a needed option for students to reach success. As a former principal shared with me, we are not here to judge, we are here to offer hope."

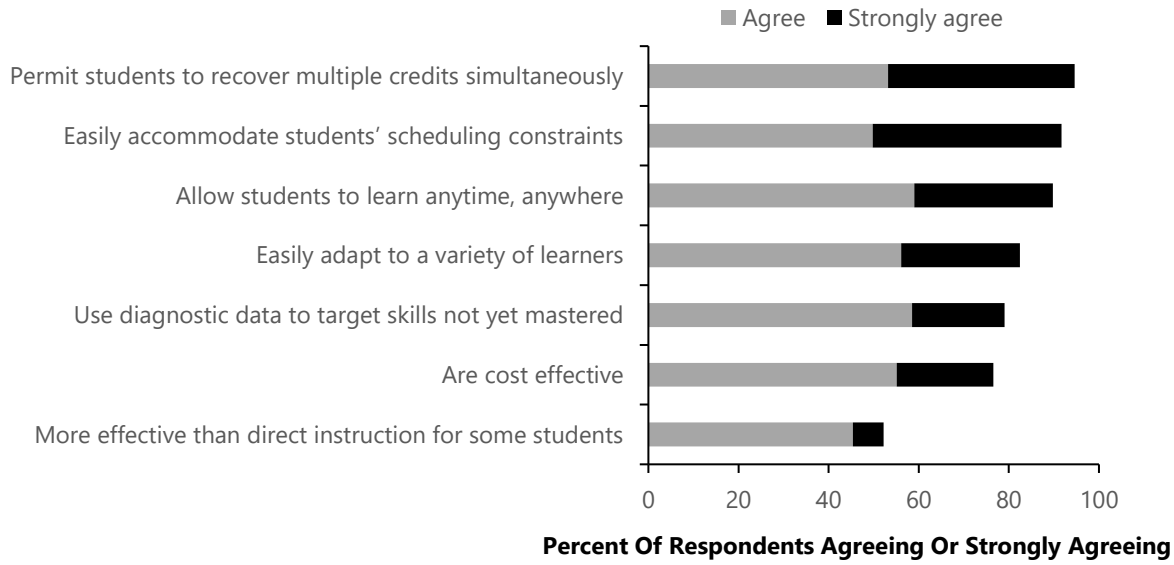
Specific Advantages

More than three-quarters of survey respondents agreed that digital software adapts easily for a variety of learners.

As seen in Figure 4.D, more than three-quarters (82 percent) of survey respondents agreed that digital software adapts easily for a variety of learners. Adaptations can include text readers, transcription, or translation into other languages.[e] Roughly half (52 percent) agreed that digital courses could be more effective than direct instruction for some students. During site visit interviews, some educators noted that students with extreme social anxieties or behavior problems experienced fewer distractions in digital courses. Digital courses can also benefit students who prefer independent work, and students who need to work or learn at odd hours because of jobs or home responsibilities.

[e] Special education teachers can also adjust assignments within the software by reducing the number of tasks or breaking tasks into manageable chunks.

Figure 4.D
Advantages Of Digital Credit Recovery Courses



Source: Staff analysis of data from OEA 2022 credit recovery survey.

Cost

Approximately three-quarters of respondents noted the cost savings advantages of digital courses, compared to direct instruction models.

Approximately three-quarters of respondents noted the cost savings advantages of digital courses, compared to direct instruction models. Although software licenses and associated technology can be costly, schools may experience savings by reducing the total number of staff needed to help students recover credits in multiple content areas.

National research on the costs of digital and direct instruction credit models found that online courses can be more costly than direct instruction when courses are facilitated exclusively by content-certified teachers.

National research on the costs of digital and direct instruction credit models found that online courses can be more costly than direct instruction when courses are facilitated exclusively by content-certified teachers. As noted earlier in this chapter, most schools in Kentucky do not follow this staffing model. Staffing costs in the analysis also included those associated with staff who perform administrative functions, such as scheduling students or monitoring data.[52]

Respondents suggested critical roles for digital courses in alternative programs.

Survey Respondents' Comments About Digital Courses
Alternative Programs. Comments from respondents in alternative programs suggested critical roles for digital courses in those programs. For example, one respondent noted:

> Credit recovery is a motivational tool for our students mainly because the majority of our students are very credit deficient and have given up. They can enroll in recovery classes and be successful and it gives them the encouragement to want to do more.

Another respondent explained:

> Credit recovery has created a space for students who have not been successful in traditional courses. With the added pressure from COVID, our students need all the attention and support that we can provide. The community of students also helps them to become familiar with teachers they may not have in their classes and they get to be part of a group of level playing field students. This additional sense of community is important for our students who are already at risk.

Drawbacks Of Digital Courses

Respondents generally expressed less confidence in the quality of student learning in digital versus direct instruction courses.

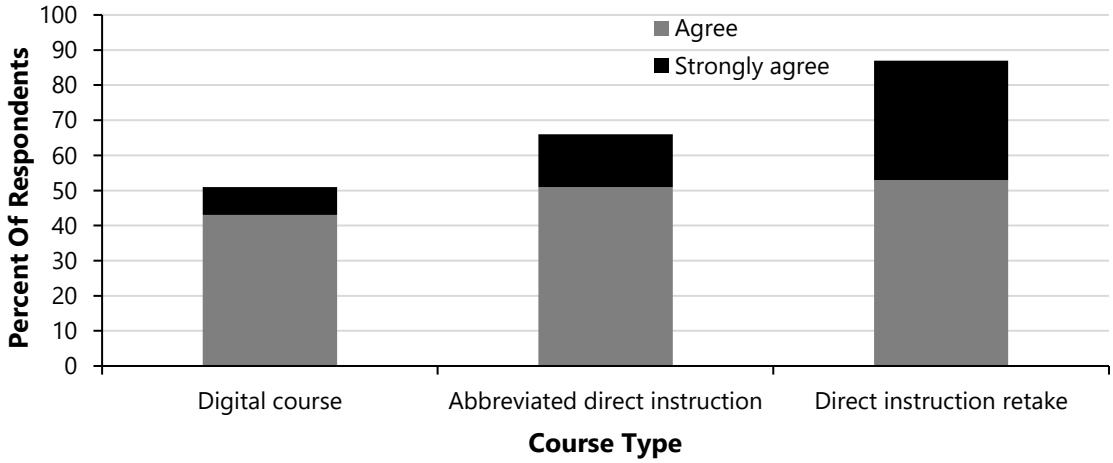
Views of digital course quality varied, but respondents generally expressed less confidence in the quality of student learning in digital versus direct instruction courses, and they noted a number of specific challenges to course quality.

Preparation For Future Coursework

Only roughly half of survey respondents agreed that digital learning courses for credit recovery prepared students for subsequent coursework.

As shown in Figure 4.E, only roughly half (51 percent) of survey respondents agreed that digital learning courses for credit recovery prepared students for subsequent coursework—less than the proportion who agreed that abbreviated direct instruction courses (66 percent) and entire course retakes (87 percent) for credit recovery prepared students.

Figure 4.E
Survey Respondents' Agreement That Various Recovery Course Methods Prepare Students For Subsequent Course Work



Note: Percentages for each course method were calculated only from schools offering that method.
Source: Staff analysis of data from the OEA 2022 credit recovery survey.

Specific Concerns

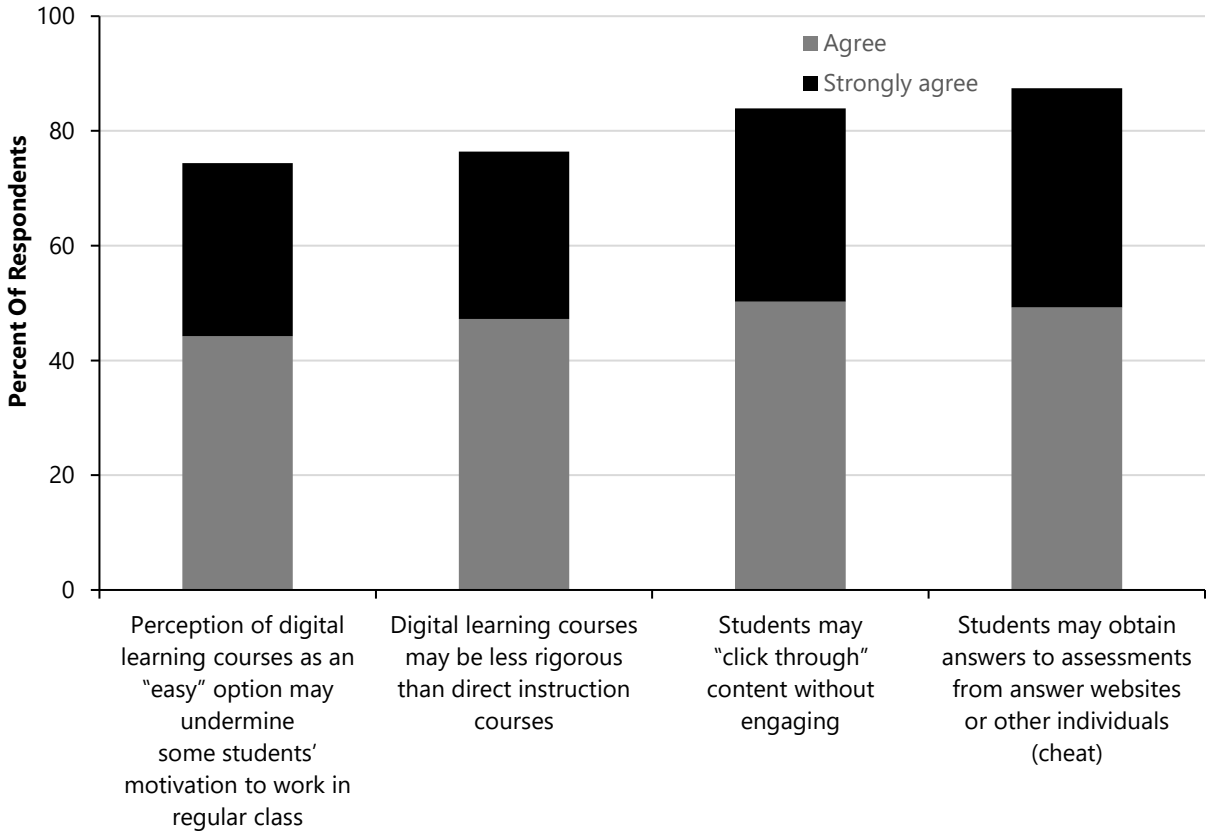
Approximately 70 percent of survey respondents agreed that digital courses might be less rigorous than direct instruction courses.

Figure 4.F shows the percentages of respondents who agreed or disagreed about potential drawbacks of digital credit recovery courses. Approximately 70 percent of respondents agreed that digital courses might be less rigorous than direct instruction courses; 81 percent agreed that students might click through content without engaging; and 85 percent agreed that students might obtain answers to assessments from answer websites or other individuals.

Perception of low academic standards in credit recovery classes might undermine teachers' ability to hold students to high standards in regular classes.

Perception of low academic standards in credit recovery classes might also undermine teachers' ability to hold students to high standards in regular classes. Most survey respondents (70 percent) agreed that "the perception of digital courses as an 'easy' option may undermine some students' motivation to work in regular class."

Figure 4.F
Drawbacks Of Digital Credit Recovery Courses



Source: Staff analysis of data from OEA 2022 credit recovery survey

Steps Taken To Address Concerns

Some schools have addressed concerns about student cheating by requiring students to take assessments in supervised settings, installing software to block answer websites on school computers, and checking for plagiarized text.

As noted in Chapter 3, some schools have addressed concerns about student cheating by requiring students to take assessments in supervised settings. Additional strategies mentioned by survey respondents included installing software that blocks answer websites on school computers and checking for plagiarized text. Related to concerns about student engagement, some respondents mentioned installing software that identifies students who appear to be guessing at answers or requiring that students take notes on instructional units before they are permitted to take the unit test.

Survey Comments

Many survey respondents acknowledged mixed feelings about digital credit recovery courses.

As shown in Appendix P, many survey respondents' comments acknowledged mixed feelings about digital credit recovery courses. Respondents cited the necessity of digital courses to address challenges faced by schools in assisting students to graduate. At the same time, educators cited reservations about the quality of student learning in digital credit recovery courses. For example, one respondent stated, "Digital courses get the students the credit, but are they learning the material?" Another respondent noted, "Instruction via [digital course vendor] is not nearly what a student may get from in-person instruction but with the sheer number of credits that needed to be recovered this was our best option to prevent a high dropout rate and low graduation percentage."

English Language Learners And Struggling Readers

Some respondents expressed strong concerns about the appropriateness of digital courses for students who struggle to read, especially recent immigrants who not only are learning English but also lack literacy in their native languages.

As noted earlier in this chapter, respondents generally agreed that digital credit recovery courses could be adapted to a variety of learners. Some survey respondents expressed strong concerns, however, about the appropriateness of digital courses for students who struggle to read, especially recent immigrants who not only are learning English but also lack literacy in their native languages. For example, one respondent noted:

> We have got to do a better job with our [English learner] populations and provide ways for them to obtain the credits necessary for them to receive a diploma in the United States. Our current methods do not meet their needs. Additionally, many of our students who get severely behind on credits have significantly low reading levels but are then expected to read on their own and teach themselves the content in digital software, which is obviously going to be very difficult, if not impossible.

Another respondent explained:

> We have many students [with limited English proficiency] who get behind or come in behind on credits. In these cases, the language barrier is too high at times for digital learning courses but then there isn't enough time for the student to retake all of the courses through direct instruction.

Achievement And Attendance Of Students Who Recover Multiple Credits

Attendance data for students recovering multiple credits support concerns about the academic expectations in some credit recovery classes.

Student-level data by credit recovery method were not available for this study, but attendance data for students recovering multiple credits support concerns about the academic expectations in some credit recovery classes. For example, as shown in Appendix I, the average 2019 absence rate of 34 percent for students who recovered seven or more credits in that year was double the rate for students who recovered one or two credits (17 percent). Students who recovered seven or more credits would have also been enrolled in classes for initial credit, yet they were absent more than one-third of the school year.

Students who recovered five credits or more had an average ACT composite score of approximately 15, compared with 19.5 for all graduates.

Appendix L shows, on average, very low academic achievement levels for 2019 graduates who recovered multiple credits. For example, students who recovered five credits or more had an average ACT composite score of approximately 15, compared with 19.5 for all graduates.[f] Previous OEA research suggests that students who score at this level are much less likely than their peers to enroll in or graduate from college.[53] As shown in Table L.2 of Appendix L, students who recovered multiple credits entered high school with proficiency rates that were, on average, much lower than the rate for all students.[g]

Instructional Expectations And Monitoring In Site Visit Schools

OEA site visits revealed great variation among schools in the academic expectations of students in digital credit recovery classes.

OEA site visits revealed great variation among schools in the academic expectations of students in digital credit recovery classes

[f] Appendix L also shows, however, that roughly 10 percent of students who recovered five credits or more had ACT composite scores that were at or above the average of 19.5 for all graduates.

[g] The available data does not clarify whether multiple credit recovery itself affects student achievement. Students take the ACT in the spring of 11th grade. Students who recover multiple credits by high school graduation may already have recovered credits at the time they took the ACT but would likely recover additional credits after taking the ACT.

and in the degree to which school and district administrators appeared to set and monitor these expectations.

Great Range In Course Quality

Based on its analysis of course data collected for students who completed digital credit recovery courses in Geometry and English II, OEA observed a range of instructional expectations in site visit schools.[h] Appendix Q contains student-level course data illustrating differences between two schools with highest and lowest instructional expectations.

In two site visit schools, the volume of work in digital credit recovery classes may have met or exceeded what is required of students in in-person classes.

In two schools, students completed dozens of instructional tasks, including performance tasks, and many quizzes and assessments. The volume of work may have met or exceeded what is required of students in in-person classes. In those two schools, administrators and credit recovery teachers described policies and practices aimed at maximizing instructional supports and minimizing drawbacks of the software. These included various forms of instructional support, limits on credits that could be earned, and test security measures.[i]

In six site visit schools, data indicated a range of course completion: Few students completed entire courses, and performance tasks such as writing assignments were mostly or entirely eliminated.

In six schools, data indicated a range of course completion: Few students completed entire courses, and performance tasks such as writing assignments were mostly or entirely eliminated.[j] In those schools, the majority of students were in virtual labs supervised by generally certified teachers. Content area teachers did not play any role in assisting digital students other than initial course approval, and schools lacked formal policies for credit recovery or digital courses.

[h] In each site visit school, OEA requested the entire digital course curriculum for Geometry and English II courses approved for use in the school, as well as detailed, individual student records for students who had completed credit recovery courses in those subjects.

[i] The administrator in one school (an alternative program) stressed that "if you want to earn a credit, it has to mean something." Policies and practices in that school included grouping digital courses into subject groups and placing a teacher with certification or related certification in each class; direct instruction "mini lessons" for students struggling to pass particular units; restrictions on unsupervised assessments; and grading weights that required students to complete instructional tasks. In the other school, the counselor worked closely with the credit recovery teacher to monitor data; due to shortages in content-certified teachers, the counselor used vendor-provided rubrics to develop and grade performance tasks such as essays, labs, and projects. Students could earn a maximum of two credits from digital courses each year. Students needing to earn more credits in order to graduate were encouraged to stay in school an additional year and graduate in 5 years.

[j] It was not possible from the data to determine whether content was skipped because students passed pretests or because they skipped content.

In two site visit schools, students completed little or no work. Entire credits could be earned in several hours.

In two schools, students completed little or no work. Entire credits could be earned in several hours. In one school, digital courses were reserved mostly for students severely behind in credits and in danger of not graduating. Administrators intentionally reduced content of digital courses in order to leave time in students' schedules to complete career certificates. In the other school, a substantial proportion of students were credit deficient and in danger of not graduating. The principal described a key advantage of digital software as "helping the school with its graduation rate." The course curriculum itself was abbreviated more than in other site visit schools, and decisions about test security, grading weights, and other internal software controls were left to individual credit recovery teachers. Practices in this school are described below.

Extremely Low Instructional Expectations In One School

In one large high school, the majority of data sampled showed students earning credits (including for advanced classes) in digital courses after completing few or no instructional tasks.

In one large high school, the majority of data sampled showed students earning credits (including for advanced classes) in digital courses after completing few or no instructional tasks. This was possible because the instructor concentrated grading weights entirely on assessments. The instructor acknowledged discouraging students from watching instructional videos because they take too much time and also acknowledged assisting students with answers in class and allowing them to take unsupervised assessments at home. Further, the instructor reported removing the summative test entirely because it had too many questions and was difficult to pass. This high school was cited as a model school by district administrators who showed OEA aggregate data on student pass rates and log-in times as evidence of district monitoring

Role Of Internal Software Controls In Course Quality

Through their decisions about course content and internal software settings, credit recovery teachers can greatly affect the amount of instruction that students receive.

In the example cited above, the credit recovery teacher made decisions about course content, as well as internal software settings, that greatly affected the amount of instruction that students received.

OEA site visit interviews and staff analysis of student data identified internal software settings that can affect the quality and integrity of digital learning courses. These include

- passing thresholds for pretests, quizzes, and summative tests;
- use of prescriptive tests that remove content for an entire course;
- the number of retakes allowed for pretests, quizzes, or summative assessments;

- relative grading weights of assessments, quizzes, and instructional tasks; and
- assessment locks to prevent students from taking assessments if they have not completed instructional tasks.

Along with credit recovery instructors, multiple administrators can have authority to make changes that affect the validity of aggregate data.

Software Permissions For Course Settings. In most site visit schools, multiple administrators as well as credit recovery instructors had administrative authority to make changes that affect the validity of aggregate data. These permissions included removing course content for particular students and making adjustments to course settings such as those described above. This means that a variety of staff may be responsible for the ultimate quality of the instruction received by students and the validity of assessment data from the digital courses. These staff can include the content area teachers who approve the digital course; counselors, administrators, credit recovery teachers or other staff who make decisions about course settings and permissions; and credit recovery teachers who supervise students while they are completing a course.[k]

Administrators Rely On Aggregate Data To Monitor Course Quality

In most site visit schools, administrators relied on aggregate data to monitor digital courses.

In most site visit schools, administrators relied on aggregate data to monitor digital courses. Aggregate data typically indicate

- student log-in time,
- student progress in course progression,
- overall course grade, and
- pass rates.

Aggregate data alone are not sufficient to monitor course quality.

Aggregate data alone are not sufficient to monitor course quality, especially in schools that allow multiple staff to adjust course content or settings that may be initially approved by content area teachers.

Administrators in site visit schools appeared to know very little about the nature of coursework completed by students or the specific practices in credit recovery classrooms.

Administrators in site visit schools appeared to know very little about the nature of coursework completed by students or the

[k] For example, course assessments must often be unlocked before students take them. Staff can unlock the assessments upon a student's request, but many review student data to ensure that students appear to have engaged with course content before taking the assessment. Practices for unlocking assessments varied in site visit schools. One teacher reported that she does not unlock assessments if students appear to have been guessing at answers during instructional tasks. In another school, a counselor who is not a credit recovery teacher reported that she unlocks assessments whenever a student asks. She reported that, earlier in the day, she had passed a student in the hall who handed her a list of assessments from multiple courses that needed to be unlocked.

specific practices in credit recovery classrooms. It was not clear whether administrators were aware of the influence that adjustments to course content or settings can have on aggregate data.

Use Of Digital Courses Beyond Credit Recovery

Many schools are allowing students to earn initial credits through digital courses.

Digital learning software can serve a variety of functions beyond credit recovery. Many schools are allowing students to earn initial credits through digital courses. Staff analysis shows that, in 2019, approximately 5 percent of students in grades 9 through 12 took at least one digital course that was not coded as credit recovery. Data from OEA site visits indicate that, as of 2022, some full-time virtual schools used digital software as the primary mode of instruction.

OEA survey data show that digital software is also used to supplement instruction or recover failed unit grades in traditionally taught direct instruction courses. Approximately 44 percent of schools use digital software to provide students additional instruction in regular classes, and more than one-quarter (27 percent) allow students to use digital software to entirely replace a failed unit grade in a regular classroom with a unit grade earned in an associated digital course.

All of the concerns described in this report might also apply to digital courses as they are being used for other purposes.

Although this study focused on implementation of digital courses for credit recovery, all of the concerns described in this chapter might also apply to digital courses as they are being used for other purposes. For example, instructional support beyond software is important for students taking digital courses for initial credit, but this support is not necessarily available. OEA interviewed a geometry teacher in one small high school who reported that, as a result of staffing shortages, half of the students in the school were earning their initial geometry credit on digital software. This teacher—the only geometry teacher in the school—had no contact with the students taking the course and no role in the course other than to approve the initial course curriculum.

Full-time virtual students are likely to need instructional support in initial classes as well as in credit recovery classes.

Instructional support may be especially important for some full-time virtual school students. According to KDE reports, virtual schools may be a means of attracting students back to public school after they have transferred to homeschool.[54] OEA staff analysis shows that students who withdrew to homeschool in the 2019 graduation cohort failed one or more classes at almost twice the rate of all students; they failed five or more classes at more

than twice the rate of all students.[1] Therefore, full-time virtual students are likely to need instructional support in initial classes as well as in credit recovery classes.

Summary Of Concerns About Digital Courses For Credit Recovery

In some schools, digital courses may rival initial course credits in the amount of content covered; in others, they allow students to earn credits toward graduation having completed little or no instruction.

This chapter documents great variation in the digital learning courses for credit recovery among schools in the commonwealth. In some schools, digital courses may rival initial course credits in the amount of content covered; in others, they allow students to earn credits toward high school graduation—even in advanced courses—having completed little or no instruction.

Educators acknowledge the utility of digital learning courses for credit recovery, but they overwhelmingly agree that these courses may be less rigorous than direct instruction courses and have additional drawbacks.

Although educators acknowledge the utility and necessity of digital learning courses for credit recovery, they overwhelmingly agree that these courses may be less rigorous than direct instruction courses and have additional drawbacks, especially in that students may click through content without engaging and obtain answers from the internet or from other individuals.

Many digital credit recovery students lack any regularly scheduled access to assistance from teachers certified to instruct them in the content of the course.

Given that many credit recovery students have low reading levels and have already struggled to pass courses, instructional support from teachers may be especially important. Yet, many digital credit recovery students lack any regularly scheduled access to assistance from teachers certified to instruct them in the content of the course.

In 2022, at least 15 percent of students were enrolled in digital learning courses for credit recovery and approximately 5 percent more earned at least one initial credit in a digital course, yet digital courses remain largely unregulated at the state level.

Use of digital learning courses is at an all-time high for credit recovery, and they may be also be increasingly used for initial credit in the commonwealth. In 2022, at least 15 percent of students were enrolled in digital learning courses for credit recovery and approximately 5 percent more earned at least one initial credit in a digital course. Digital courses remain largely unregulated at the state level, however, and are not formally addressed by district- or school-level policies in most districts,

[1] Staff analysis of KDE enrollment and transcript data from 2019 indicate that on average, more than two-thirds of students in the 2019 graduation cohort who withdrew to homeschool failed one or more courses, compared with 35 percent of the entire cohort; 40 percent of students who withdrew to homeschool failed three or more classes, compared with 18 percent of the entire cohort; and nearly 25 percent failed five or more classes, compared with 11 percent of the entire cohort.

despite a long-standing regulatory requirement that districts and schools have policies for performance-based credits.

One district administrator in an OEA site visit district called the current environment for digital courses "the wild, wild west."

The recent rise in use of digital courses—coupled with the lack of state-, district-, and school-level policies—led one district administrator in an OEA site visit district to refer to the current environment for digital courses as "the wild, wild west."

Recommendations

KDE can promote correct use of digital learning courses by updating its digital learning guidance document and clarifying which practices are required of districts.

If used correctly, digital courses may have great advantages in providing many students access to learning opportunities they would not otherwise have. The Kentucky Department of Education can promote correct use of digital learning courses by updating its digital learning guidance document and clarifying which practices are required of districts. By codifying the document in regulation, the Kentucky Board of Education can provide the guidance with the force of law.

Through regular, cyclical audits, KDE can increase the likelihood that districts

- adhere to state requirement for digital learning programs,
- audit their own digital learning courses, and
- develop and follow local policies.

Updating And Codifying Digital Learning Guidelines

This report identifies issues that should be addressed in local board policies or state regulation beyond what is currently included in the Digital Learning Guidance document.

This report identifies issues that should be addressed in local board policies or state regulation beyond what is currently included in the Digital Learning Guidance document. These areas are outlined below under the general headings of Staffing Definitions And Duties; Additional Local Board Policies; and Evaluation Procedures.

KDE should provide definitions of staff who may play a role in implementing digital courses and describe requirements for those staff.

Staffing Definitions And Duties. KDE should provide definitions of staff who may play a role in implementing digital courses and describe certification requirements of those staff. For example, the digital guidelines refer to building-level course stewards and to highly qualified teachers, content mentors, and content coaches. Guidance should clarify

- minimum requirements for the roles that particular, appropriately certified, staff must play in digital courses;
- requirements for districts to identify courses and standards that require additional regularly assigned duties from content area teachers (such as grading and tutoring); and

- requirements for districts to ensure that staff are regularly assigned to duties described in regulation and board policies.

Some aspects of digital learning courses should be addressed in local board policies.

Additional Local Board Policies. The following areas should be included in requirements for local board policies for digital learning courses:

- How the district/school will ensure the validity of student data through test security or other means
- How the district will develop and enforce general guidelines for internal software settings, including which personnel have permission to adjust settings
- How student engagement and learning will be monitored beyond summary data provided within digital software
- Conditions under which students can test out of content through pretests or prescriptive tests
- Adjustments permitted to digital courses used for credit recovery versus initial credit

KDE should clarify evaluation procedures required of districts and schools. These should include auditing and review of detailed, student-level, data to ensure that student course completion covers content in authorized courses.

Evaluation Procedures. KDE should clarify evaluation procedures required of districts and schools. These should include auditing and review of detailed, student-level, data to ensure that student course completion covers content in authorized courses. Districts and schools should be required to retain copies of evaluations, including raw student data examined in the evaluation, to be available upon request by KDE.

Recommendation 4.1

Recommendation 4.1

The Kentucky Department of Education should consider updating its Digital Learning Guidelines to incorporate additional requirements related to staffing definitions and duties, local board policies, and evaluation of digital learning courses.

Recommendation 4.2

Recommendation 4.2

The Kentucky Board of Education should consider promulgating a regulation that incorporates an updated version of the Kentucky Department of Education Digital Learning Guidelines by reference.

Kentucky Department Of Education Auditing Of District Digital Learning Programs

KRS 156.010 requires KDE to monitor student performance and implement state laws and regulations.

KRS 156.010(1)(f) lists, as part of KDE's regular duties, monitoring student performance and implementing state laws

and regulations. Digital learning software is a powerful technology that, if implemented correctly, may be able to expand the educational possibilities open to students in the commonwealth. If implemented inconsistently, digital software may also lead to unintended, negative consequences to the extent that it provides a means of educating students that is less transparent and less understood than traditional, direct instruction methods.

Through regular, cyclical audits, KDE might play an important role in monitoring and continuing to guide development of digital learning courses in Kentucky.

Through regular, cyclical audits, the Kentucky Department of Education might play an important role in monitoring and continuing to guide development of digital learning courses in the commonwealth. Monitoring might include review of local board policies and evaluations required of local boards and schools. Monitoring might also include periodic review of district practices to ensure they are consistent with digital learning guidelines and local board policies.

Recommendation 4.3

Recommendation 4.3

The Kentucky Department of Education should consider including audits of districts' digital learning programs in its cyclical audits of local school districts.

KDE staff say implementing this recommendation would require KDE to devote staff and resources beyond those currently available for regular auditing.

According to KDE staff, implementing this recommendation would require the department to devote additional staff and resources beyond those currently available for regular auditing functions.[55]

Appendix A

2022 Office Of Education Accountability
Credit Recovery Survey

Introduction

The Education Assessment and Accountability Review Subcommittee of the Kentucky General Assembly has directed the Office of Education Accountability (OEA) to study credit recovery in Kentucky. As part of this study, OEA is surveying all Kentucky public high schools. The purpose of the study is to understand the prevalence and implementation of credit recovery.

This survey should take between 30 and 45 minutes to complete. Please submit your answers no later than June 17, 2022.

The report may include district-level estimates of credit recovery rates. Otherwise, all communication, responses, and information obtained from this survey will be confidential and will not reference any one person, school, or school district.

If you have questions about the survey, please contact Deborah Nelson, Chris Riley, or Bart Liguori at the Office of Education Accountability by calling 502-564-8167 or by emailing deborah.nelson@lrc.ky.gov, chris.riley@lrc.ky.gov, or bart.liguori@lrc.ky.gov.

Thank you for participating in our survey. Your feedback is important.

Respondent Information

1. District

2. High School

3. Please enter the following information for the individual completing this survey.
   First name
   Last name
   Email
   Job title

Options For Students Who Have Previously Failed Courses To Recover Credits

This survey refers to three general ways in which students can recover credits for previously failed courses. These options are described below. Please contact OEA if you have any questions about how to report credit recovery options in your school.

General Options To Recover Credits For Previously Failed Courses:

1. Digital learning course for credit recovery
2. Abbreviated, direct (traditional) instruction course for credit recovery
3. Entire course retake; direct (traditional) instruction

Each of the options described above might be given during the regular school day, after school, during the summer, or—in the case of digital learning courses—anytime.

Digital learning courses for credit recovery are those in which students are recovering a credit for a failed course and receiving instruction primarily through digital learning software.

Direct (traditional) instruction options are those taught by a teacher certified in the content area of the recovered course using traditional teaching methods. Teachers of direct (traditional) instruction courses may use digital learning software as a resource, but direct (traditional) instruction is the primary teaching mode.

Data From 2021-2022 School Year And Summer, 2022

Throughout this survey, unless otherwise indicated, please use the current school year (2021-2022) and this summer (2022) as the reference point.

Do not include information about last summer (2021).

Note: Principals of A1 high schools should include information about all credit recovery offered in their school, including credit recovery offered in onsite alternative programs within the school. Principals of A1 schools should not include information about credit recovery offered in offsite A5, A6 or blended alternative education programs.

Credit Recovery Models

4. When was each option available in your school? (check all that apply)

	Regular school day	Summer school	After school	Evening school	Saturday school	Other (please describe)	N/A— we do not have this option
Digital learning course for credit recovery; supervised, in-person, in the school building	☐	☐	☐	☐	☐	☐	☐
Abbreviated, direct (traditional) instruction course for credit recovery	☐	☐	☐	☐	☐	☐	☐
Entire course retake; direct (traditional) instruction	☐	☐	☐	☐	☐	☐	☐

5. For students who are not on track to graduate on time, does your school offer a separate program that allows them to take multiple digital learning courses for credit recovery or initial credit?
   - ○ Yes
   - ○ No

   If yes, please describe briefly:

6. Does your school provide any credit recovery options not already described?
   - ○ Yes
   - ○ No

   If yes, please describe briefly:

Students Enrolled In Digital Learning Courses For Credit Recovery

7. Approximately how many students in your school enrolled in a digital learning course to recover a credit in a failed course?
   Number of students enrolled in one or two courses _____
   Number of students enrolled in three or more courses _____

Students Enrolled In Abbreviated, Direct (Traditional) Instruction Courses For Credit Recovery

8. Approximately how many students in your school enrolled in an abbreviated, direct (traditional) instruction course to recover a credit in a failed course?
   Number of students enrolled in one or two courses _____
   Number of students enrolled in three or more courses _____

Students Retaking Entire Courses To Recover Credits

9. Approximately how many students in your school retook an entire, direct (traditional) instruction course to recover a credit in a failed course?
   Number of students enrolled in one or two courses _____
   Number of students enrolled in three or more courses _____

Change Over Time In Credit Recovery Enrollments

10. How have the numbers of students enrolled in each option changed in your school since the 2018-2019 school year (pre COVID-19 pandemic)?

	Decreased greatly	Decreased somewhat	Stayed about the same	Increased somewhat	Increased greatly	Don't know	N/A
Digital learning course for credit recovery	○	○	○	○	○	○	○
Abbreviated, direct (traditional) instruction course for credit recovery	○	○	○	○	○	○	○
Entire course retake; direct (traditional) instruction	○	○	○	○	○	○	○

Explain reasons for change, if applicable. Please also identify any changes resulting directly from the availability of COVID-19-associated federal funds.

11. How have the numbers of students enrolled in each option changed in your school in the last decade?

	Decreased greatly	Decreased somewhat	Stayed about the same	Increased somewhat	Increased greatly	Don't know	N/A
Digital learning course for credit recovery	○	○	○	○	○	○	○
Abbreviated, direct (traditional) instruction course for credit recovery	○	○	○	○	○	○	○
Entire course retake; direct (traditional) instruction	○	○	○	○	○	○	○

Comment, if applicable:

School-Based Decision-Making Council (SBDM) Policies

12. Which of the following areas is addressed directly in a written policy of your SBDM council? (check all that apply)
    - □ Performance-based credits generally
    - □ Credit recovery, specifically
    - □ Digital/online learning
    - □ Our school does not have an SBDM council

13. Please attach any policies you indicated in the previous question.

Adjustment Of Course Content In Courses For Credit Recovery

14. In what ways is course content routinely adjusted for individual students in each course option? (check all that apply)

	Individual units removed for students who pass pretests	Individual units passed by student in original course are removed	N/A—our school does not offer this option
Digital learning course for credit recovery; supervised, in-person, in the school building	☐	☐	☐
Abbreviated, direct (traditional) instruction course for credit recovery	☐	☐	☐
Entire course retake; direct (traditional) instruction	☐	☐	☐

Comment, if applicable:

15. Does your school ever permit students who have failed a course to recover a credit solely by passing a summative assessment in a credit recovery course?
    - ○ Yes
    - ○ No

    If yes, please explain:

Effectiveness Of Courses For Credit Recovery

16. To what extent do you disagree or agree that each option is an effective means of assisting students who are behind in credits to graduate on time?

	Strongly disagree	Disagree	Do not agree or disagree	Agree	Strongly agree	Don't know
Digital learning course for credit recovery	○	○	○	○	○	○
Abbreviated, direct (traditional) instruction course for credit recovery	○	○	○	○	○	○
Entire course retake; direct (traditional) instruction	○	○	○	○	○	○

Comment, if applicable:

17. To what extent do you disagree or agree that each option prepares students to succeed academically in subsequent coursework?

	Strongly disagree	Disagree	Do not agree or disagree	Agree	Strongly agree	Don't know
Digital learning course for credit recovery	○	○	○	○	○	○
Abbreviated, direct (traditional) instruction course for credit recovery	○	○	○	○	○	○
Entire course retake; direct (traditional) instruction	○	○	○	○	○	○

Comment, if applicable:

Limits To Credit Recovery Grades On Student Transcripts

18. Does your school place any limits on the grade/score that may be posted to a student's transcript in each option for credit recovery? For example, a school might limit the grade that can be posted to a "C" or a "pass."

	Yes	No
Digital learning course for credit recovery If yes, please explain:	○	○
Abbreviated, direct (traditional) instruction course for credit recovery If yes, please explain:	○	○
Entire course retake; direct (traditional) instruction If yes, please explain:	○	○

Transcripts

19. How does your school include the original grade for a failed course on the transcript and in the grade point average (GPA) of a student who subsequently passes the course?
    - ○ The original failing grade is removed from the transcript
    - ○ The original failing grade remains on the transcript but is not included in the student's GPA
    - ○ The original failing grade remains on the transcript and is included in the student's GPA
    - ○ Other

    Please use this space to explain other methods. If your answer varies depending on the way in which a credit is recovered, please also explain.

Digital Learning Credit Recovery Courses

The following questions apply only to digital learning courses for credit recovery.

20. Which of the following types of digital learning software does your school use for credit recovery? (check all that apply)
    - □ Apex
    - □ Edgenuity (Now Imagine Learning)
    - □ Edmentum; Courseware
    - □ Edmentum; Plato
    - □ Edmentum; Study Island
    - □ Jefferson County E-school
    - □ Summit Learning
    - □ N/A
    - □ Other (please specify)

21. Are there situations in which your school does not permit students to recover a failed course grade using digital learning software?
    - ○ Yes
    - ○ No

    If yes, please explain:

22. How many of your digital learning credit recovery students were enrolled in an in-person digital learning class directly supervised by school staff? Note: In-person digital learning classes include virtual labs and any other directly supervised classes during which students are scheduled to work on digital learning courses. In-person digital learning classes can occur during the regular school day, after school, or during the summer.
    - ○ A few or none
    - ○ Some
    - ○ Most
    - ○ All or almost all

23. Which types of certified staff supervised in-person digital learning credit recovery classes in your school? (check all that apply)
    - □ Mathematics
    - □ English
    - □ Science
    - □ Social studies
    - □ Arts/humanities
    - □ Physical education
    - □ Library/media
    - □ World languages
    - □ Career and technical education
    - □ Special education
    - □ Other (please specify)

24. How many of your in-person, digital learning credit recovery classes enrolled only students recovering content in the area(s) of the supervising teacher's certification?
    - ○ None
    - ○ Few
    - ○ Some
    - ○ Most
    - ○ All or almost all

    Comment, if applicable:

25. Please enter the number of classified staff, if any, who supervised in-person digital learning credit recovery classes.

26. To what extent do you disagree or agree that the following are benefits of digital learning courses for credit recovery?

	Strongly disagree	Disagree	Agree	Strongly agree	Don't know
Use diagnostic data to focus only on skills not yet mastered by student	○	○	○	○	○
Easily adapted for a variety of learners	○	○	○	○	○
Easily accommodate students' scheduling constraints	○	○	○	○	○
More effective than direct instruction for some students	○	○	○	○	○
Allow students to learn any time, anywhere	○	○	○	○	○
Cost effective	○	○	○	○	○
Permit students to recover multiple credits simultaneously	○	○	○	○	○

Other (please specify):

27. To what extent do you disagree or agree that the following are drawbacks of digital learning courses for credit recovery?

	Strongly disagree	Disagree	Agree	Strongly agree	Don't know
Students may obtain answers to assessments from answer websites or other individuals (cheat)	○	○	○	○	○
Digital learning courses may be less rigorous than direct instruction courses	○	○	○	○	○
Perception of digital learning courses as an "easy" option may undermine some students' motivation to work in regular class	○	○	○	○	○
Students may "click through" content without engaging	○	○	○	○	○

Other (please specify):

28. Use this space to explain any steps your school has taken to address drawbacks that you identified in the previous question about digital learning courses for credit recovery:

Requirements For Supervised Settings In Digital Learning Course Assessments

29. Are digital learning credit recovery students in your school permitted to take course assessments at home or in other unsupervised settings if they choose to do so?
    - ○ Yes
    - ○ Yes, sometimes
    - ○ No

    If yes, please explain:

School Policy On Supervision Of Digital Learning Assessments

30. Please explain your school's policy on supervision of assessments for digital learning credit recovery courses:

Role Of Content Area Teachers

31. In which of the following ways are content area teachers in your school required to assist with digital learning credit recovery courses that they are not teaching? (check all that apply)
    - □ Be generally available to assist credit recovery students, upon request, and when time can be arranged.
    - □ Be available during regularly scheduled times to assist credit recovery students, in person.
    - □ Be available during regularly scheduled times to assist credit recovery students via Zoom or other online, synchronous technology.
    - □ Conduct regular, scheduled check-ins with credit recovery students.
    - □ Grade credit recovery coursework/assessments.
    - □ Content teachers who are not credit recovery teachers have no regularly assigned duties to assist with credit recovery classes.
    - □ Other (please specify): _____

Additional Staff Assisting With Credit Recovery Classes

32. Please identify additional staff, if any, who are regularly required to assist with digital learning credit recovery classes that they are not teaching. For each, briefly describe related duties.

Use Of Digital Learning Software To Assist Students Failing Regular Classes

33. In which of the following ways does your school use digital learning software to assist students who are in danger of failing a class in which they are enrolled, but for which they have not yet received a final grade? (check all that apply)
    - □ Students are provided with additional instruction through digital learning software, to reinforce weak areas.
    - □ Students are permitted to entirely replace a failed unit grade in a regular classroom with a unit grade earned in an associated digital learning course.
    - □ Other (please specify): _____

Additional Comments About Credit Recovery

34. Please use this space to add any additional comments about credit recovery in your school.

35. Please use this space to add any additional comments about credit recovery generally.

Thank you!

Thank you for completing our survey! Please submit your answers by June 17, 2022.

Appendix B

Issues With IC Data

Some observations from IC course and transcript data on locating credit recovery courses:

- The number of courses coded to credit recovery or course retakes was much lower than the number of students who need to recover credit.

- It appears that not all failing grades make it into the IC transcript data. Also it appears that schools may not record all grades for attempted courses in the IC course data, and do not always record failing grades on the transcript file if a passing grade is attained.

- Some courses—especially those with digital placeholder IC state codes such as 904010, 904020, or 909999—may appear in course data but may not appear in the transcript data.

- Students recovering courses prior to recording failing grades on transcript may not be reflected in IC data, especially if the credit recovery is taking place in a setting not recorded in course data.

- OEA staff learned from site visits that there are many ways that schools code for credit recovery in course and transcript data, and not all schools use designated credit recovery codes. For example, Jefferson County appears to be greatly underreporting the number of students enrolled in credit recovery courses.

Due to these issues, finding recovered courses was not a straightforward task. See Appendix H for information on the methods used by OEA staff to determine course recoveries and failures.

Appendix C

School Characteristics Grouped By On-Time Graduation Rate

Table C.1 shows demographic characteristics, course failure rates, and 8th-grade proficiency rates of students in schools that are grouped by average on-time graduation rates calculated by OEA for students in the 2019 OEA Graduation Cohort.

Table C.1
School Characteristics Grouped By On-Time Graduation Rate
2019 OEA Graduation Cohort

On-Time Graduation Rate	School Count	% 1 Or More Failed	% 3 Or More Failed	8th-Grade K-PREP Math Proficiency	8th-Grade K-PREP Reading Proficiency	School Minority Percent	School Percent FRPL	2019 Average Absence Rate
85 and below	15	63%	45%	20%	27%	54%	75%	18%
86 to 89	21	42	21	36	47	22	66	11
90 to 92	28	37	18	36	47	24	63	12
93 to 94	50	31	15	42	52	14	57	9
95 to 96	32	29	13	47	55	9	59	10
97 to 98	46	24	9	46	56	9	55	8
99 to 100	30	25	12	51	59	12	52	8
Total/average	222	32	16	42	52	17	59	10

Note: K-PREP = Kentucky Performance Rating for Educational Progress; FRPL = eligible for free or reduced-price lunch. This table includes only A1 schools. Percentages are relative to the total cohort count for these A1 schools, which was 45,054. Schools' graduation rates shown in this table include only students in the 2019 cohort and therefore differ from the entire cohort graduation rates calculated by the Kentucky Department of Education.
Source: Staff analysis of data provided by the Kentucky Department of Education.

Appendix D

Linear Probability Models—Three Or More Course Failures

Linear Probability Models

The sample of students included in the models were first-time freshmen from 2016 who did not withdraw in any year. The group of 47,497 students represents the 2019 graduation cohort for this analysis.[a]

Linear probability models were used to attempt to quantify the relationship between prior academic performance and absence rates on failing three or more courses. The models were structured with a binary dependent variable for students with three or more course failures from 2016 through 2018.

The explanatory variables of note are 8th-grade performance on Kentucky Performance Rating for Educational Progress (K-PREP) reading and math assessments ($\beta KPREP$) and combined absence rates for school years 2016 through 2019 ($\beta Absence$).

Student-level subgroup categories for race and ethnicity, eligibility for free or reduced-price lunch (FRPL), participation in an individualized education program (IEP), students with limited English proficiency (LEP), and whether a student was homeless are represented ($\beta DEMO$) in the equations as well.

School-level factors such as school size, minority population proportion, and proportion of students eligible for FRPL were included as well ($\beta School$), with the residual error term finishing the equations (ε).

$$\textbf{Model 1: Fail 3 or More} = \alpha + \beta KPREP + \varepsilon$$
$$\textbf{Model 2: Fail 3 or More} = \alpha + \beta KPREP + \beta DEMO + \varepsilon$$
$$\textbf{Model 3: Fail 3 or More} = \alpha + \beta KPREP + \beta DEMO + \beta Absence + \varepsilon$$
$$\textbf{Model 4: Fail 3 or More} = \alpha + \beta KPREP + \beta DEMO + \beta Absence + \beta School + \varepsilon$$

Models 1 through 4 are shown in Table D.1 as a stepwise process in order to determine the percentage of variance (represented by R-squared in the table) explained by the various categories of explanatory variables relative to the dependent variable for each model.

Model 1 shows that novice scores on the K-PREP math and reading assessments increase the probability of failing three or more courses, and prior performance on the K-PREP assessments accounts for approximately 8 percent of the explained variance between those variables and failing three or more courses during high school.

[a] Staff removed students with the following withdrawal codes: W07, W08, W20, W21, and W29. Note that, because it does not include students who transferred in after 9th grade, the 2019 OEA Graduation Cohort is not the same as the cohort used to compute on-time graduation rates by KDE.

Model 2 brings in some student demographic factors such as race, whether students receive FRPL, whether students have an IEP, and whether students are homeless. Bringing these student-level factors into the equation increases the explained variance percentage to nearly 13 percent. This model shows that prior performance on K-PREP still has a strong impact on failing three or more courses, and that student-level factors such as being eligible for FRPL also increased the probability of failing multiple courses.

Model 3 controls for absence rates during high school, and it shows that being absent 30 percent or more of the time during high school increased the probability of failing three or more courses by 20 percent. For students who missed 5 percent or less of the time during high school, the probability of failing three or more courses decreased by nearly 15 percent. Including absence rate variables increased the explained variance to 20 percent.

Model 4 brings school-level characteristics into the equation. Bringing in the school characteristics increased the magnitude of the absence rate variables, and slightly decreased the magnitude of the prior K-PREP performance variables, but the impact of the prior performance variables is still strong. Model 4 accounted for nearly 23 percent of the explained variance between the explanatory variables and failing three or more courses during high school.

From Model 4, it can be inferred that poor prior academic performance and high absence rates during high school increase the probability of failing three or more courses.

Table D.1
Regression Output For Failing Three Or More Classes
Linear Probability Models
School Year 2019

	Three Or More Failed Courses Linear Probability Models							
	Model 1		Model 2		Model 3		Model 4	
Controls	Beta Coefficient	Standard Error	Beta Coefficient	Standard Error	Beta Coefficient	Standard Error	Beta Coefficient	Standard Error
Novice on K-PREP math	**0.192**	0.006	**0.162**	0.006	**0.140**	0.006	**0.138**	0.005
Novice on K-PREP reading	**0.160**	0.006	**0.130**	0.005	**0.129**	0.005	**0.116**	0.005
Ever eligible for FRPL			**0.120**	0.004	**0.074**	0.003	**0.085**	0.004
Ever homeless			**0.047**	0.010	0.016	0.010	0.017	0.010
Ever identified as LEP			-0.002	0.004	-0.009	0.004	**-0.011**	0.004
Ever IEP			**-0.021**	0.006	**-0.025**	0.005	**-0.035**	0.005
Black			**0.137**	0.005	**0.130**	0.005	**0.081**	0.081
Hispanic			**0.082**	0.008	**0.080**	0.008	**0.044**	0.008
Two-or-more race			**0.063**	0.011	**0.056**	0.010	**0.032**	0.010
Other race			**-0.053**	0.013	-0.026	0.012	**-0.062**	0.012
Absent 30 percent or more					**0.201**	0.006	**0.220**	0.006
Absent 5 percent or less					**-0.147**	0.004	**-0.152**	0.004
Large school—1,200 or more							0.008	0.004
Small school—500 or less							**-0.013**	0.006
School minority population —30 percent or more							**0.046**	0.005
School minority population —9 percent or less							**-0.042**	0.004
School FRPL population—72 percent or more							**0.017**	0.005
School FRPL population—46 percent or less							**0.016**	0.004
Intercept (α)	**0.127**	0.002	**0.049**	0.003	**0.148**	0.004	**0.104**	0.005
R-Squared	0.081		0.127		0.204		0.225	
Number of observations	47,497		47,497		47,497		47,497	

Note: The intercept (α) represents the control group mean percent of failing three or more classes. K-PREP = Kentucky Performance Rating for Educational Progress; FRPL= students eligible for free or reduced-price lunch; LEP = students with limited English proficiency; IEP = students with an individualized education program. Beta coefficients have been rounded to the nearest one-thousandth. Bolded values represent variables that were statistically significant at the $p < 0.01$ level.
Source: Staff analysis of data from the Kentucky Department of Education.

Appendix E

Requirements For Local Policies For Performance-Based Credits

704 KAR 3:305, sec. 7

(1) A local board of education may award credit toward high school graduation for satisfactory demonstration of learning based on content standards described in the Kentucky academic standards, established in 704 KAR 3:303 and 704 KAR Chapter 8, and a rigorous performance standards policy established by the local board of education. A school shall establish performance descriptors and evaluation procedures to determine if the content and performance standards have been met.

(2) A local board of education shall award credit toward high school graduation based on:
   (a) A standards-based Carnegie unit credit that shall consist of at least 120 hours of instructional time in one (1) subject; or
   (b) A performance-based credit based on standards, regardless of the number of instructional hours in one (1) subject.

(3) A local board of education which has chosen to award performance-based credit shall award a standards-based credit earned by a student enrolled in grade 5, 6, 7, or 8 if:
   (a) The content of the course is the same as that described in the Kentucky academic standards, established in 704 KAR 3:303 and 704 KAR Chapter 8; and
   (b) The district has criteria in place to make a reasonable determination that the middle level student is capable of success in the high school course.

(4) A local board of education which has chosen to award performance-based credit shall establish a policy for a performance-based credit system that includes:
   (a) The procedures for developing performance-based credit systems and for amending the system;
   (b) The conditions under which each high school may grant performance-based credits and the related performance descriptors and assessments;
   (c) Objective grading and reporting procedures;
   (d) Content standards established in 704 KAR 3:303 and 704 KAR Chapter 8;
   (e) The extent to which state-provided assessments will be used in the local performance-based credit system;
   (f) The ability for students to demonstrate proficiency and earn credit for learning acquired outside of school or in prior learning; and
   (g) Criteria to ensure that internships, cooperative learning experiences, and other learning experiences in the school and community are:
      1. Designed to further student progress towards the individual learning plan;
      2. Supervised by qualified instructors; and
      3. Aligned with state and local content and performance standards.

(5) A board of education may award standards-based, performance-based credit toward high school graduation for:
   (a) Standards-based course work that constitutes satisfactory demonstration of learning in any high school course, consistent with Sections 3 and 4 of this administrative regulation;
   (b) Standards-based course work that constitutes satisfactory demonstration of learning in a course for which the student failed to earn credit when the course was taken previously;
   (c) Standards-based portfolios, senior year, or capstone projects;
   (d) Standards-based online or other technology mediated courses;
   (e) Standards-based dual credit or other equivalency courses; or
   (f) Standards-based internship, cooperative learning experience, or other supervised experience in the school or the community.

(6) Each local board of education shall maintain a copy of its policy on high school graduation requirements. This policy shall include a description of how the requirements address KRS 158.6451(1)(b) and 703 KAR 4:060.

Appendix F

Lack Of Clarity On Credit Recovery Course Types

Performance-Based. Because credit recovery classes generally provide less than 120 hours, they would be described most accurately as performance-based credits. These credits explicitly allow "Standards-based course work that constitutes satisfactory demonstration of learning in a course for which the student failed to earn credit when the course was taken previously."[a] As described in the "per-pupil" funding section, below, the term *performance-based* also has implications for per-pupil funding. In the case of credit recovery courses, this may create confusion.

Carnegie Unit. Credit recovery classes might also be regarded as extensions of Carnegie unit classes that have been previously failed by students. Given very low attendance rates for students who fail classes, it is likely that many credit recovery students would not have participated fully in those instructional hours. As explained in Chapter 3, some districts address this issue by requiring that students be eligible for credit recovery only if they attained a minimum of 50 percent in the class that was failed.

It is not entirely clear, however, that credit recovery classes must be for students who have already failed classes. KDE guidance for alternative programs includes the possibility of "credit recovery programs." Survey data show that most schools (about 85 percent) provide classes for course recovery as well as initial credit in those programs.

Per-Pupil Funding

Attendance-Based. OEA site visit data and staff analysis of student information data suggest that school districts commonly receive funding for credit recovery students by enrolling them in digital learning labs, study skill classes, or other placeholder courses during the regular school day and taking attendance during those course periods, as long as certified staff are monitoring those periods. This practice is permitted through guidance from the Kentucky Department of Education and seems consistent with attendance-based funding practices for study skill classes**.**

Performance-Based. It is unclear whether school districts can also receive funding for credit recovery classes through performance-based funding calculations by which districts receive full funding for the "class or block" in which students in performance-based classes are enrolled, if students pass the class.[b] Regulation does not rule out the possibility that school districts would

[a] 704 KAR 3:305, sec. 7(5)(b). Credit recovery classes might be regarded as extensions of Carnegie unit classes that have been previously failed by students. As noted in this report, however, most districts allow at least some students to take credit recovery classes for initial credit. These students would not have previously failed classes. In addition, attendance rates for credit recovery students in Carnegie unit classes may have been extremely low. Instruction may have been provided in the class, but students may have received little.

[b] 702 KAR 7:125, sec. 1(4)(g) states: "A pupil may be counted in attendance for performance-based credit for a class or block for the year or semester in which the pupil initially enrolled in the class or block if the pupil demonstrates proficiency in accordance with local policies required by 704 KAR 3:305, Section 7."

receive full funding for a student who passes a credit recovery class. If this happened, school districts may receive full per-pupil funding for an abbreviated course. OEA has not observed instances of this practice but is noting confusion in the regulatory language.

Appendix G

Examples Of Policies In Other States

The following are a selection of issues addressed in other states' policies. All of these policies require courses to be aligned with state standards.

Louisiana[56]

- Requires students earning Carnegie credit through credit recovery to have previously failed a Carnegie unit course
- Limits the number of credit recovery units that may be applied to graduation requirements to two per year and seven total
- Requires that instruction in online (digital) classes be facilitated by a certified teacher
- Requires submission of program policies to the state department of education

North Carolina[57]

- Defines *credit recovery* as "a block of instruction that is less than the entirety of the Standard Course of Study for that course. Credit recovery delivers a subset of the Standard Course of Study or blueprint of the original course in order to specifically address deficiencies in a student's mastery of the course and target specific components of a course necessary for completion"
- Requires standards aligned pre- and post-assessment
- Requires that original failing grade remain on transcript
- Requires grades of pass or fail
- Credit recovery not calculated in GPA
- Students wishing to modify GPA must retake course
- Local boards not permitted to restrict the number of credit recovery courses
- The term *repeating a course for credit* refers to a high school course repeated via any delivery method when the entire Standard Course of Study for that course is being taught to the student for a second time

South Carolina[58]

- Defines *credit recovery* as "a course-specific, skill-based learning opportunity for students who have previously failed to master content or skills required to receive credit. The term 'Credit Recovery' refers to a block of instruction that is less than the entirety of the course. Credit Recovery targets specific components or a subset of the standards to address deficiencies necessary for student proficiency in the overall course."
- Sets time limits on when courses must be completed
- Requires that original failing grade remain on transcript
- Requires that credit recovery courses be identified on transcript

- Requires transcript grades of either "P" (minimum of 60) or "NP"
- Credit recovery not calculated in GPA
- Students wishing to modify GPA must retake the course

Tennessee[59]

- Requires districts to develop and post policies
- Limits credit recovery to students who failed courses but achieved a score of at least 50 percent
- Requires that credit recovery be noted on transcripts
- Sets a limit of 70 on the grade that can be earned in the class
- Requires that original failing grade remain on transcript but not be calculated in GPA
- Requires that credit recovery courses be facilitated by content-area teachers who review diagnostic data, assist in development of the course, work closely with credit recovery facilitator, and review final student work

Appendix H

2019 OEA Graduation Cohort And 2019 All Students Group

2019 OEA Graduation Cohort, Failed And Recovered Course Counts

This cohort includes students who were first-time freshmen during the 2016 school year. The students were tracked in the data for school years 2016 to 2019. Students in the cohort were in the data for all 4 school years in the observation period.

For all years in the observation period, transcript data was used to find the instances in which an F or U was coded for these students. Only one instance per state course code per student was counted as a failed course. Thus, half credits were treated the same as full credits, and multiple credit courses were only counted as one per state course code.

Transcript data was then used to find the instances of recovered courses for all years in the observation period for the state course code/student number combinations, with only one counted per state course code per student.

2019 Graduate Course Failures Versus Course Recovery

Data for recovered course credits as reported in this appendix may underestimate prevalence of actual course recovery because they do not capture students who failed and subsequently recovered a course in a different state code. Because of flexibility permitted in course codes used to cover academic content, some recovered courses may not have been identified, especially in schools that commonly place credit-recovery students in classes that have state codes different from the ones for the classes that were failed. For example, a student may fail Algebra I but recover the course in an "integrated math" course that addresses content standards required of Algebra I classes. In such a case, OEA would identify the course failure but not the recovery. Table H.1 shows the percentage of course failures and credit recoveries.

Table H.1
Percentage Course Failures And Recoveries
2019 On-Time Graduates In A1 Schools

Number Of Courses	Failures	Recoveries
1 or more	30%	24%
3 or more	13	8
5 or more	6	3

Source: Staff analysis of data from the Kentucky Department of Education.

In addition, recoveries identified by OEA do not identify students who took "credit recovery" courses for initial credit. These are courses for initial credit that would be taken at an accelerated pace in schools that offer credit recovery "programs."

2019 All Students Group, Failed And Recovered Course Counts

Failed courses for all students coded to grades 9 to 12 for school years 2016 to 2018 were counted with one state course code instance per student. For example, if a student failed multiple parts of a course with the same state course code, the failure was counted only one time for the state course code with student number combination.

Recovered courses for these same students for the 2019 school year were counted by searching the 2019 transcript data for the state course code with student number combinations found in the failure counts for 2016 to 2018. As with the failure counts, only one recovery per state course code per student was counted.

The methods for counting course failures and recoveries for these students were used due to the coding variability across schools and districts. For example, some districts do not utilize the teaching method description tab within course data to code credit recovery courses. Staff also learned from site visits that there are many different ways in which schools coded recovered courses in both course and transcript data.

Appendix I

Absence Rates By Recovered Course Counts

Table I.1 shows the absence rates for all students who recovered a credit in 2019. The absence rate increases as the count of recovered courses increases. For example, the average absence rate for students who recovered seven or more credits was double the rate of the students who recovered one or two credits.

Table I.1
Average Absence Rates For Students Grouped By Recovered Course Counts
2019 School Year

2019 Recovered Course Count	Student Count	Average Absence Rate
1 or 2 recovered	15,472	17
3 or 4 recovered	2,386	25
5 or 6 recovered	572	28
7 or more	244	34
Total, at least one recovered/average	18,674	18

Source: Staff analysis of data provided by KDE.

Appendix J

Student Counts For Those With At Least One Recovered Credit

Table J.1
Student Counts For Those With At Least One Recovered Credit
For A1 And Not A1 Schools, With School Characteristics
2019 School Year

School Type	Total Recovered Credits	Student Count 1 Or More Recovered	Students 1 Or More Recovered % Of Membership	Average Absence Rate	Average School % FRPL	Average School % Minority
A1	24,011	15,241	8	10	58	25
Not A1	8,070	3,433	39	26	74	35
Total	32,081	18,674	9	17	61	26

Note: FRPL = free or reduced-price lunch.
Source: Staff analysis of data provided by KDE.

Appendix K

Characteristics Of Districts And Schools For Graduates By Rate That Failed And Recovered Five Or More Credits 2019 OEA Graduation Cohort

Table K.1 shows districts grouped by the percentage of 2019 graduates who recovered five or more credits during their high school careers.

Table K.1
District Level Graduation Rates For Districts
Grouped By Percentage Of Graduates Who Recovered Five Or More Credits
2019 OEA Graduation Cohort

% Of Graduates With 5 Or More Recovered Courses	District Count	On-Time Graduates	Total Cohort	% Of On-Time Graduates	Graduation Rate
None	65	7,580	8,038	17%	0.94
2 percent or less	63	16,142	17,137	37	0.94
3 to 7 percent	31	15,123	17,170	35	0.88
10 percent or more	8	4,644	5,152	11	0.90
Total/average	167	43,489	47,497	100%	0.92

Note: This table includes 2019 OEA Graduation Cohort students from all school types.
Source: Staff analysis of data provided by the Kentucky Department of Education.

Table K.2 shows A1 schools grouped by the percentage of graduates from the 2019 cohort who recovered five or more credits for school years 2016 to 2019. The schools with 10 percent or more of graduates who recovered five or more credits had higher absence rates and lower average ACT composite scores than the schools with lower percentages of such graduates.

Table K.2
A1 School Characteristics
Schools Grouped By Percentage Of Graduates Who Recovered Five Or More Credits

% Of Graduates With 5 Or More Recovered Courses	A1 School Count	On-Time Graduates	Total Cohort	Graduation Rate	Average ACT Composite	Average 2019 Absence Rate
None	75	9,431	9,937	0.95	19.3	0.09
2 percent or less	77	15,841	16,648	0.95	19.3	0.10
3 to 4 percent	24	4,572	4,847	0.94	19.0	0.09
5 to 9 percent	28	7,803	8,784	0.88	18.9	0.13
10 percent or more	18	4,087	4,838	0.84	17.9	0.13
Total/average	222	41,734	45,054	0.93	19.1	0.10

Note: This table includes 2019 OEA Graduation Cohort students from A1 schools only.
Source: Staff analysis of data provided by the Kentucky Department of Education.

Table K.3 shows the graduation rate for districts sorted by the percentage of graduates who failed five or more courses during school years 2016 to 2018. The graduates represented in this table are from the 2019 OEA Graduation Cohort.

The graduation rate for the districts in the 10 percent or more group was 6 percentage points lower than the mean for the cohort.

Table K.3
Graduation Rates For Districts
Grouped By Percentage Of Graduates Who Failed Five Or More Credits

% Of Graduates Failing 5 Or More Credits	District Count	Total Cohort	On-Time Graduates	% Of On-Time Graduates	Graduation Rate
None	24	2,261	2,146	5	0.95
2 percent or less	40	8,220	7,815	18	0.95
3 to 5	40	9,098	8,541	20	0.94
6 to 9	40	11,199	10,531	24	0.94
10 percent or more	23	16,719	14,456	33	0.86
Total/average	167	47,497	43,489	100	0.92

Note: This table includes 2019 OEA Graduation Cohort students from all school types.
Source: Staff analysis of data provided by the Kentucky Department of Education.

Table K.4 shows schools grouped by the percentage of graduates who failed five or more courses during school years 2016 to 2018. Note that the schools in the 20 percent or more group had average ACT composite scores that were 2.3 points lower than the cohort mean, and average 2019 absence rates that were 3 percentage points more than the cohort mean.

This data shows that the graduation rates for district and schools with the highest concentration of graduates that failed five or more courses have the lowest graduation rates, and it is likely that graduation rates for those districts and schools would be lower if credit recovery options were not available.

Table K.4
A1 School Characteristics
Grouped By Percentage Of Graduates Who Failed Five Or More Courses
2016 To 2018

% Of Graduates Failing 5 Or More Courses	A1 School Count	On-Time Graduate Count	Total Cohort	Graduation Rate	Average ACT Composite	Average 2019 Absence Rate
None	31	3,407	3,583	0.95	19.1	0.08
2 percent or less	50	9,770	10,228	0.96	19.8	0.09
3 to 4	31	4,635	4,877	0.95	19.0	0.10
5 to 6	33	5,960	6,287	0.95	19.0	0.10
7 to 10	35	8,517	9,233	0.92	19.2	0.11
11 to 19	31	7,364	8,257	0.89	18.9	0.12
20 percent or more	11	2,081	2,589	0.80	16.8	0.13
Total/average	222	41,734	45,054	0.93	19.1	0.10

Note: This table includes 2019 OEA Graduation Cohort students from A1 schools only.
Source: Staff analysis of data provided by the Kentucky Department of Education.

Table K.5 shows the percentage of on-time graduates who recovered one or more, three or more, and five or more credits for school years 2016 to 2019 by educational cooperative region. The districts for each educational cooperative are listed after the table. Note that the educational

cooperative membership was determined using a list published by KDE in the Kentucky School Report Card. The list published by KDE may not reflect actual educational cooperative membership.

Table K.5
Percentage Of 2019 On-Time Graduates Recovering Credits
By Educational Cooperative

	% Of Graduates Who Recovered		
Cooperative	**At Least 1 Credit**	**3 Or More Credits**	**5 Or More Credits**
CKEC (n=6,467)	29	12	5
GRREC (n=7,979)	25	10	4
JCPS (n=5,961)	34	16	7
KEDC (n=2,933)	22	9	5
KVEC (n=2,032)	21	5	2
NKCES (n=4,048)	16	5	2
OVEC (n=3,729)	21	6	2
SESC (n=5,047)	23	7	2
WKEC (n=4,451)	17	4	1
#N/A (n=842)	28	11	2
Average (n=43,489)	24	9	4

Note: Educational cooperative membership was determined using data from the Kentucky School Report Card. The list published by the Kentucky Department of Education may not reflect actual educational cooperative membership. CKEC = Central Kentucky Educational Cooperative; GRREC = Green River Regional Educational Cooperative; JCPS = Jefferson County Public Schools; KEDC = Kentucky Educational Development Corporation; KVEC = Kentucky Valley Educational Cooperative; NKCES = Northern Kentucky Cooperative for Educational Services; OVEC = Ohio Valley Educational Cooperative; SESC = Southeast/South Central Education Cooperative; WKEC = West Kentucky Educational Cooperative.
Source: Staff analysis of data provided by the Kentucky Department of Education.

Central Kentucky Educational Cooperative

Anderson County, Bardstown Independent, Bourbon County, Boyle County, Burgin Independent, Clark County, Danville Independent, Fayette County, Frankfort Independent, Harrison County, Jessamine County, Marion County, Mercer County, Montgomery County, Nelson County, Nicholas County, Paris Independent, Powell County, Scott County, Washington County, and Woodford County.

Green River Regional Educational Cooperative

Adair County, Allen County, Barren County, Bowling Green Independent, Breckinridge County, Butler County, Campbellsville Independent, Caverna Independent, Clinton County, Cloverport Independent, Cumberland County, Daviess County, Edmonson County, Elizabethtown Independent, Glasgow Independent, Grayson County, Green County, Hancock County, Hardin County, Hart County, LaRue County, Logan County, McLean County, Meade County, Metcalfe County, Monroe County, Ohio County, Owensboro Independent, Russell County, Russellville Independent, Simpson County, Taylor County, Todd County, and Warren County.

Jefferson County Public Schools

Jefferson County.

Kentucky Educational Development Corporation

Ashland Independent, Bath County, Boyd County, Carter County, Elliott County, Fairview Independent, Fleming County, Greenup County, Johnson County, Lawrence County, Lewis County, Martin County, Mason County, Menifee County, Morgan County, Paintsville Independent, Raceland-Worthington Independent, Robertson County, Rowan County, and Russell Independent.

Kentucky Valley Educational Cooperative

Breathitt County, Floyd County, Hazard Independent, Jackson Independent, Jenkins Independent, Knott County, Leslie County, Letcher County, Magoffin County, Owsley County, Perry County, Pike County, Pikeville Independent, and Wolfe County.

Northern Kentucky Cooperative For Educational Services

Beechwood Independent, Bellevue Independent, Boone County, Bracken County, Campbell County, Covington Independent, Dayton Independent, Erlanger-Elsmere Independent, Fort Thomas Independent, Kenton County, Ludlow Independent, Newport Independent, Pendleton County, Silver Grove Independent, Walton-Verona Independent, and Williamstown Independent.

Ohio Valley Educational Cooperative

Bullitt County, Carroll County, Eminence Independent, Franklin County, Gallatin County, Grant County, Henry County, Oldham County, Owen County, Shelby County, and Spencer County.

Southeast/South Central Education Cooperative

Barbourville Independent, Bell County, Berea Independent, Casey County, Clay County, Corbin Independent, Estill County, Garrard County, Harlan County, Harlan Independent, Jackson County, Knox County, Laurel County, Lincoln County, Madison County, McCreary County, Middlesboro Independent, Pineville Independent, Pulaski County, Rockcastle County, Somerset Independent, Wayne County, Whitley County, and Williamsburg Independent.

West Kentucky Educational Cooperative

Ballard County, Caldwell County, Calloway County, Carlisle County, Christian County, Crittenden County, Dawson Springs Independent, Fulton County, Fulton Independent, Graves County, Henderson County, Hickman County, Hopkins County, Livingston County, Lyon County, Marshall County, Mayfield Independent, McCracken County, Muhlenburg County, Murray Independent, Paducah Independent, Trigg County, Union County, and Webster County.

Appendix L

Average Absence Rates And ACT Scores For On-Time Graduates Based On Total Recovered Credits Earned

Number Of Recovered Courses For 2019 Graduation Cohort

Table L.1 groups 2019 on-time graduates in bands according to the total number of recovered courses accumulated from 2016 to 2019. The students who recovered the most credits during their high school careers also had higher absence rates during the 2019 school year and lower ACT composite scores on average.

Table L.1
Average 2019 Absence Rate And Average ACT Composite Scores For On-Time Graduates Grouped By Total Recovered Credits School Years 2016 To 2019

Number Of Recovered Courses	Graduate Count	% Of Graduates	K-PREP Reading Proficiency %*	K-PREP Math Proficiency %*	Average 2019 Absence Rate	Average ACT Composite
None	33,011	0.76	66	57	0.08	20.5
1 or 2	6,587	0.15	38	25	0.13	16.7
3 or 4	2,322	0.05	28	17	0.16	15.6
5 to 7	1,215	0.03	23	13	0.18	15.1
8 or more	354	0.01	18	14	0.19	14.9
Total 1 or more recovered credits	10,478	0.24	34	21	0.14	16.2
Total on-time graduates	43,489	1.00	59	48	0.10	19.5

Note: Total cohort count for 2019 OEA Graduation Cohort was 47,497.
* Of the 43,489 graduates from this cohort, 40,763 on-time graduates had K-PREP reading and math scores for 2015. The proficiency rates are calculated using the 40,763 denominator.
Source: Staff analysis of data provided by the Kentucky Department of Education.

Table L.2 shows the K-PREP reading and math performance for the 40,763 graduates from 2019 who had recorded 8th-grade K-PREP scores for those subjects from 2015.

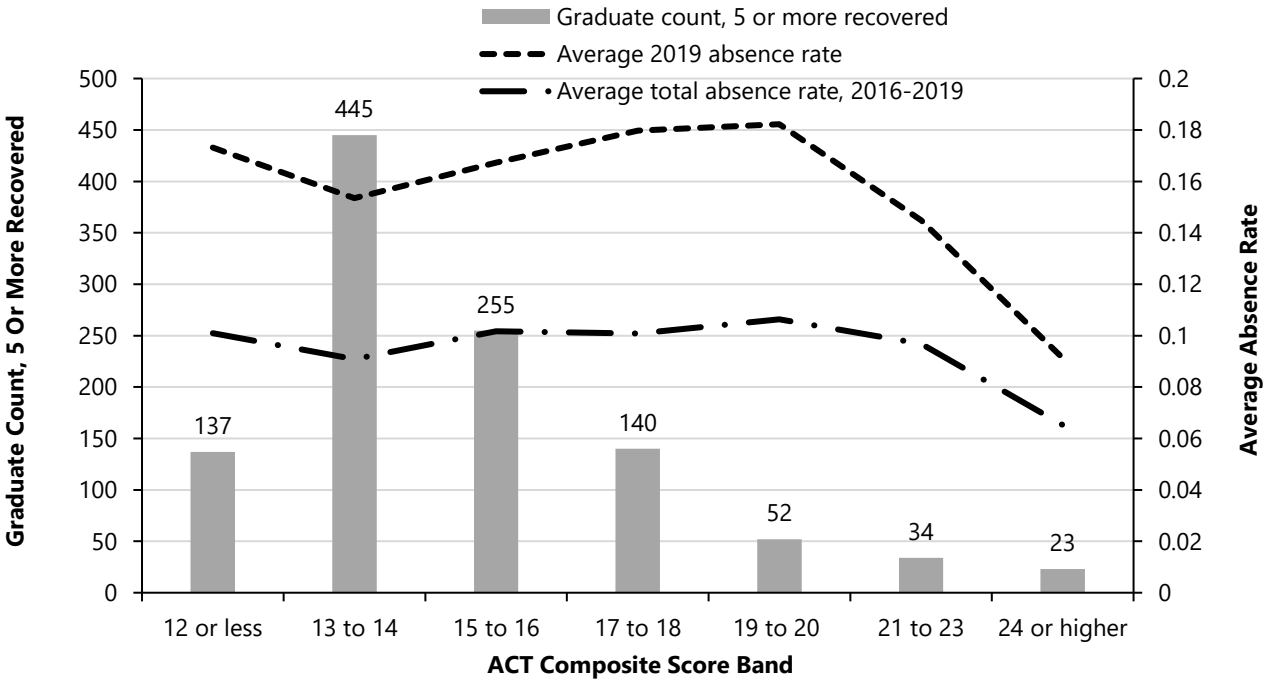
Table L.2
8th-Grade K-PREP Reading And Math Proficiency Rates
For 2019 On-Time Graduates Grouped By Number Of Recovered Credits

Number Of Recovered Courses	K-PREP Reading				K-PREP Math			
	Novice	App.	Prof.	Dist.	Novice	App.	Prof.	Dist.
None	0.13	0.21	0.42	0.24	0.08	0.35	0.42	0.15
1 or 2	0.32	0.30	0.31	0.07	0.22	0.53	0.22	0.03
3 or 4	0.41	0.30	0.24	0.04	0.31	0.52	0.16	0.01
5 to 7	0.45	0.32	0.21	0.02	0.35	0.51	0.11	0.02
8 or more	0.51	0.31	0.17	0.01	0.38	0.52	0.11	0.003
Total 1 or more recovered	0.36	0.30	0.28	0.06	0.26	0.53	0.19	0.02
Total on-time grads	0.18	0.23	0.39	0.20	0.12	0.39	0.36	0.12

Note: These proficiency rates are for the 40,763 on-time graduates from 2019 who had recorded K-PREP reading and math scores for the 2015 school year, when those students were in 8th grade. App. = apprentice; Prof. = proficient; Dist. = distinguished.
Source: Staff analysis of data provided by the Kentucky Department of Education.

Figure L.A takes a closer look at the distribution of ACT composite scores and absence rates for on-time graduates who recovered five or more courses. Approximately 54 percent of these graduates had ACT composite scores of 14 or lower, which is considerably lower than the 19.5 average for all on-time graduates.

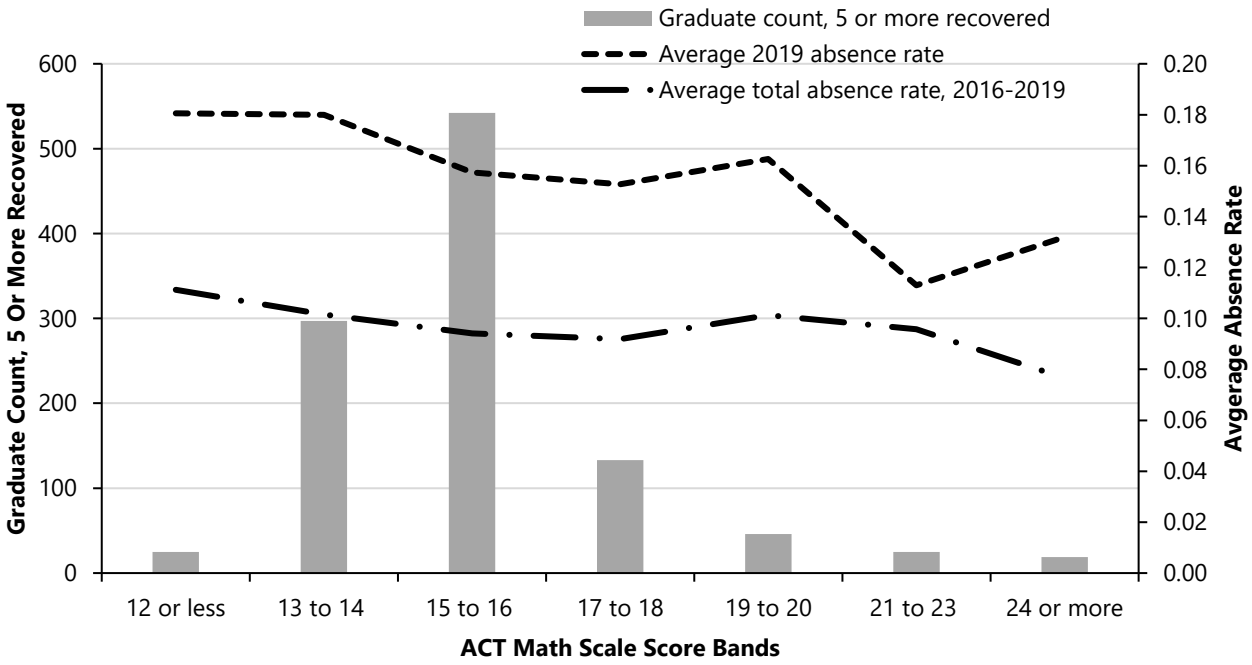
Figure L.A
Count Of On-Time Graduates Who Recovered Five Or More Courses
By ACT Composite Score Bands
With Average 2019 Absence Rates And Average Absence Rates For 2016 To 2019



Note: This figure includes 1,086 of the 1,569 on-time graduates who recovered five or more credits and had ACT scores for 2018.
Source: Staff analysis of data provided by the Kentucky Department of Education.

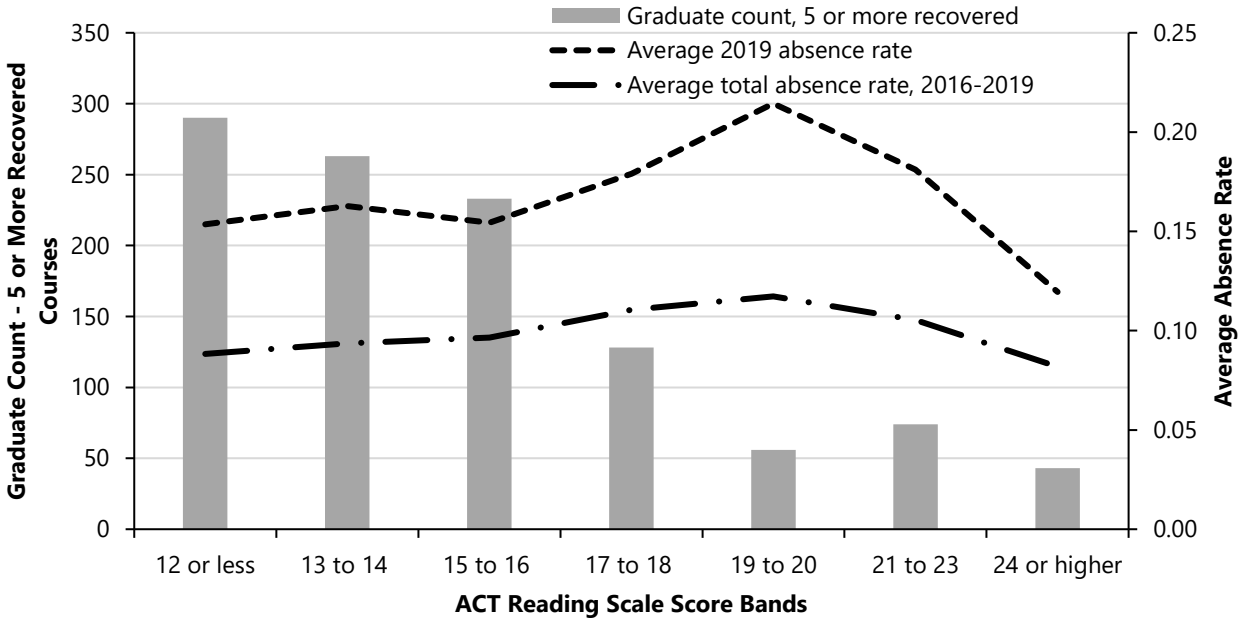
Figure L.B shows the distributions of this same group of on-time graduates grouped by average ACT Math scale score bands. More than half of these graduates had ACT Math scores of 15 to 16; Figure L.C shows that more than half of these on-time graduates had ACT Reading scale scores of 14 or below.

Figure L.B
Count Of On-Time Graduates Who Recovered Five Or More Courses
By ACT Math Scale Score Bands
With Average 2019 Absence Rates And Average Absence Rates For 2016 To 2019



Note: This figure includes 1,086 of the 1,569 on-time graduates who recovered five or more credits and had ACT scores for 2018.
Source: Staff analysis of data provided by the Kentucky Department of Education.

Figure L.C
Count Of On-Time Graduates Who Recovered Five Or More Courses
By ACT Reading Scale Score Bands
With Average 2019 Absence Rates And Average Absence Rates For 2016 To 2019



Note: This figure includes 1,086 of the 1,569 on-time graduates who recovered five or more credits and had ACT scores for 2018.
Source: Staff analysis of data provided by the Kentucky Department of Education.

Appendix M

Linear Probability Models: On-Time Graduation

Linear Probability Models

The sample of students included in the models consisted of first-time freshmen from 2016 who did not withdraw in any year. The group of 47,497 students represents the 2019 graduation cohort for this analysis.[a]

Linear probability models were used to attempt to quantify the relationship between course failures and course recoveries with graduating on time. The models were structured with a binary dependent variable for on-time graduation.

The explanatory variables of note are course failures ($\beta Fail$) and course recoveries ($\beta Recover$). Other student-level factors such as proficiency on 8th-grade K-PREP reading and K-PREP math ($\beta KPREP$) were included, as well as the count of school years each student was chronically absent ($\beta Chronic$).[b]

Student-level subgroup categories for race and ethnicity, eligibility for free or reduced-price lunch, participation in an individualized education program (IEP), limited English proficiency, and homelessness are represented ($\beta DEMO$) in the equations as well.

School-level factors such as school size, minority population proportion, and proportion of students eligible for free or reduced-price lunch were included as well ($\beta School$), with the residual error term finishing the equations (ε).

$$\textit{Model 1: On-time graduation} = \alpha + \beta Fail + \beta Recover + \varepsilon$$
$$\textit{Model 2: On-time graduation} = \alpha + \beta Fail + \beta Recover + \beta KPREP + \beta Chronic + \varepsilon$$
$$\textit{Model 3: On-time graduation} = \alpha + \beta Fail + \beta Recover + \beta KPREP + \beta Chronic + \beta DEMO + \varepsilon$$
$$\textit{Model 4: On-time graduation} = \alpha + \beta Fail + \beta Recover + \beta KPREP + \beta Chronic + \beta DEMO + \beta School + \varepsilon$$

Models 1 through 4 are shown in Table M.1 as a stepwise process in order to determine the percentage of variance (represented by R-squared in the table) explained by the various categories of explanatory variables relative to the dependent variable for each model.

Model 1 shows that each failed course decreases the probability of graduating on time by more than 8 percent, while each recovered course increases the probability by more than 6 percent. These two explanatory variables accounted for approximately 27 percent of the explained variance relative to on-time graduation.

[a] Staff removed students with the following withdrawal codes: W07, W08, W20, W21, and W29. Note that, because it does not include students who transferred in after 9th grade, the 2019 OEA Graduation Cohort is not the same as the cohort used to compute on-time graduation rates by KDE.
[b] Students were counted as chronically absent if they missed 10 percent or more of the days they were enrolled.

Model 2 illustrates that when controlling for chronic absence and prior performance on 8th-grade K-PREP, each failed course decreased the probability of graduating on time by approximately 7.7 percent and each course recovered increased the probability by more than 6 percent. Model 2 also shows that each year that a student was chronically absent decreased the probability of graduating on time by approximately 3.4 percent. Model 2 also shows that scoring proficient or better on 8th-grade K-PREP reading and math slightly increased the probability of graduating on time.

Model 3 includes the same variables as Model 2, along with other student-level characteristics. Model 3 still illustrates the strong negative impact of failed courses and chronic absence, and the positive impact of recovering courses. Model 3 also indicates that students with an IEP and homeless students have decreased probabilities of graduating on time relative to other students.

Model 4 brings school-level characteristics into the equation. When controlling for all other factors, each failed course decreased the probability of graduating on time by approximately 7.5 percent. Each recovered course increased the probability by 6.2 percent, and scoring proficient or better on 8th-grade K-PREP reading increased the probability by 1.4 percent. Each year a student was chronically absent decreased the probability of on-time graduation by more than 3 percent, with student-level factors of having an IEP and being homeless still having a negative impact on the probability of graduating on time. Students from smaller schools, and schools with higher proportions of minority students had decreased probabilities of graduating on time. Model 4 accounted for more than 30 percent of the explained variance between the explanatory variables and graduating on time.

From Model 4, it can be inferred that each failed course has a strong negative effect on graduating on time, as did each year a student was chronically absent. It can also be inferred from Model 4 that each recovered course does increase the probability of graduating on time, but with less magnitude than course failures.

Table M.1
Regression Output For On-Time Graduation Linear Probability Models
School Year 2019

	2019 On-Time Graduation Linear Probability Models							
	Model 1		Model 2		Model 3		Model 4	
Controls	Beta Coefficient	Standard Error	Beta Coefficient	Standard Error	Beta Coefficient	Standard Error	Beta Coefficient	Standard Error
Course failures	**-0.084**	0.001	**-0.077**	0.001	**-0.076**	0.001	**-0.075**	0.001
Recovered courses	**0.064**	0.001	**0.063**	0.001	**0.062**	0.001	**0.062**	0.001
Years chronically absent			**-0.034**	0.001	**-0.034**	0.001	**-0.033**	0.001
K-PREP Reading			**0.023**	0.002	**0.015**	0.003	**0.014**	0.002
K-PREP Math					0.005	0.003	0.003	0.003
Ever IEP					**-0.053**	0.003	**-0.052**	0.003
Ever homeless					**-0.040**	0.006	**-0.033**	0.006
Ever eligible for FRPL					-0.001	0.002	-0.0001	0.002
Ever identified as LEP							**-0.012**	0.002
Hispanic							0.007	0.005
Black							0.004	0.004
Two-or-more race							0.007	0.007
Other race							0.002	0.008
Large school (1,200 or more)							**0.008**	0.002
Small school (500 or fewer)							**-0.048**	0.004
School minority population 30 percent or more							**-0.035**	0.003
School minority population 9 percent or less							**0.008**	0.003
School FRPL population 72 percent or more							**-0.018**	0.003
School FRPL population 46 percent or less							-0.002	0.003
Intercept (α)	0.980	0.001	0.978	0.002	0.996	0.003	1.00	0.003
R-squared	0.270		0.290		0.294		0.301	
Number of observations	47,497		47,497		47,497		47,497	

Note: The intercept (α) represents the control group mean graduation rate for each of the models. K-PREP = Kentucky Performance Rating for Educational Progress; IEP = individualized education program; LEP = limited English proficiency; FRPL= students eligible for free or reduced-price lunch. Beta coefficients have been rounded to the nearest one-thousandth. Bolded values represent variables that were statistically significant at the $p < 0.01$ level.
Source: Staff analysis of data from the Kentucky Department of Education.

Appendix N

District Policies Related To Credit Recovery

Performance-Based Credits

Most districts delegate responsibility for credit recovery policies, standards, and monitoring to school-based decision-making councils (SBDMs) or principals. This appendix contains examples of typical district policies. It also provides an example of the district policy that addressed credit recovery in greatest detail.

For example, the following language is typical of those district policies that assign responsibility to SBDMs:

> **Council Responsibility**
>
> Performance-based credits will only be accepted by the Board if previously approved by the high school SBDM Council. It is also the responsibility of the high school SBDM Council to determine the appropriateness of content and courses for performance-based credit. The council shall determine what information must be submitted. Required information may include, but is not limited to the following:
> - A description of the proposed course;
> - Proposed assessment method(s) (e.g., performance tasks, open-response questions, descriptions of expected products);
> - How proficiency will be determined;
> - Sample papers, projects or other products that would represent work deserving of credit;
> - Proposed check points to track progress.
>
> The Council may determine whether the teacher must request additional authorization when a previously approved course must be revised (description, assessment, proficiency determination, checkpoints, etc.).

In addition, many districts specify procedures that must be used for every student who obtains a performance-based credit. They usually involve approval of every individual student by the principal or designee, along with a description of how course performance will be measured. Following is a typical example of this type of procedure:

CURRICULUM AND INSTRUCTION 08.1131 AP.2

Alternative Credit Options

Student's Name _____ _____ _____
Last Name *First Name* *Middle Initial*
Student's Address _____ ____ _____
City *State* *ZIP Code*
School _____ Grade in the upcoming school year ___

THE ABOVE NAMED STUDENT REQUESTS PRIOR APPROVAL TO EARN CREDIT THROUGH AN ALTERNATIVE ROUTE.
Course(s) requested: _____
☐ Summer School Course (approved by Superintendent/designee)
☐ Online Course ☐ Evening Course ☐ College Credit
☐ Performance-Based Credit (Provide information required on next page.)
From what source _____
Total number of credits anticipated: _____
Reason for taking this course:
☐ Graduation with class
☐ Enrichment/Elective
☐ Course not available within the District
☐ Simultaneous high school/college credit
☐ Other _____

I recommend this student be permitted to take the requested course(s) for credit toward high school graduation.

_____ _____
Principal/designee's Signature *Date*

I understand that it is my responsibility to submit an official transcript of my grade to the school by the date specified by the counselor in order to receive credit toward graduation.

_____ _____
Student's Signature *Date*

==========

Number of credits earned _____
Date grade received _____

_____ _____
Principal/designee's Signature *Date*

Alternative Credit Options
Performance-Based Credit

High school course for which credit is being requested: _____
NOTE: Requests will be accepted only for those courses the student has not yet
☐ enrolled in ☐ passed

Credit may be granted to students demonstrating proficiency for learning taking place outside the normal classroom setting. Please describe the non-traditional and/or prior learning setting in which the learning occurred for credit being requested:

_____
_____
_____

TO BE COMPLETED BY PRINCIPAL/DESIGNEE

Request was ☐ Approved ☐ Disapproved Date _____
If approved, student performance will be assessed as follows:

ASSESSMENT METHOD	**MINIMUM SCORE REQUIRED FOR CREDIT**
Course exit exam	
State exam (_____)	
Other: _____	

Date of assessment: _____ Supervised by: _____
Student/Parent contacted ☐ Yes ☐ No Date _____

_____ _____
Principal/designee's Signature *Date*

Review/Revised: 7/23/2012

Following is the local board policy that contained the greatest detail on credit recovery:

Credit Recovery Courses

With prior approval of the Principal/designee, high school students who meet criteria may earn, through credit recovery courses, academic credit to be applied toward graduation requirements.

Criteria for admission to and participation in the credit recovery program shall be as follows:

- Any student who has failed a course or who needs additional credits in order to graduate may participate in the credit recovery program.

- Students may earn only three (3) credits via online courses or credit recovery courses during their high school tenure.
- Each course objective must be mastered at a minimum of 80% accuracy before a student may move to the next objective.
- Only currently enrolled students will be permitted to take credit recovery courses.
- Only approved courses and curricular programs offered by the school will be accepted.
- Students must obtain written approval from the Principal or guidance counselor before beginning a credit recovery course.
- Students and parents are required to sign a contract outlining student and parent obligations before approval for the credit recovery course will be granted.
- Consistent attendance per credit recovery course contract is required.
- Students are required to follow the District Code of Behavioral Expectations at all times. Consistent failure to follow rules and procedures will result in dismissal from the credit recovery program.
- Continuation of the credit recovery program while in the alternative school shall be subject to approval the Board or the Principal.

Online Courses

High school students may also earn of academic credit to be applied toward graduation requirements by completing online courses offered through agencies approved by the Board, such as Plato. Credit from an online course may be earned only in the following circumstances:

- The course is not offered at the high school;
- Although the course is offered at the high school, the student will not be able to take it due to an unavoidable scheduling conflict that would keep the student from meeting graduation requirements.

Performance-Based Credit

Students attending the Carol Martin Gatton Academy of Math and Science at Western Kentucky University or the Craft Academy for Excellence in Science and Mathematics at Morehead State University and Laurel Co. School District Online/eLearning classes shall be awarded performance-based credit by achieving a mutually agreed upon level of proficiency as determined by the Academy and the Superintendent/designee. The criteria for earning credits through performance-based credit recovery programs shall be submitted for District review and approval by the District Performance-based Committee.

The District shall accept performance-based credits toward graduation in addition to Carnegie units. It is the responsibility of each high school SBDM Council (with District support staff) to develop performance descriptors and assessments for proposed performance-based courses. The District Performance-Based Credit (PBC) Committee shall develop and implement a process for annual District review of SBDM Council-approved performance-based course descriptors, and the Board will only accept

performance-based credit for courses approved by the high school SBDM Council and District PBC Committee.

Students enrolled at the (alternative program) may earn performance-based credits in addition to Carnegie units. It is the responsibility of (the alternative program) (with District support staff) to develop performance descriptors and assessments for proposed performance-based courses. The District Performance-Based Credit (PBC) Committee shall develop and implement a process for annual District review of (alternative program) staff-approved performance-based course descriptors, and the Board will only accept performance-based credit for courses approved by the District PBC Committee.

The District's standards-based, performance-based credit system shall comply with requirements of Kentucky Administrative Regulation. Procedures for developing and amending the system shall address the following:

Graduation Requirements

1. Conditions under which high school credit will be granted under the system that allow students to demonstrate proficiency and earn credit for learning acquired outside the normal classroom setting, outside of school, or in prior learning;
   - Performance-based credit may be earned while the student is still "in school," but the instructional setting will look different from a traditional "seat time" environment.
2. Performance descriptors and their linkages to State content standards and academic standards;
   - At the high school level, performance descriptors and evaluation procedures shall be established to determine if the content and performance standards have been met.
3. Assessments and the extent to which state-mandated assessments will be used;
4. An objective grading and reporting process; and
5. Criteria to promote and support school and community learning experiences, such as internships and cooperative learning, in support of a student's ILP. Such experiences shall be supervised by qualified instructors and aligned with State and District content and performance standards.

Appendix O

SBDM Policies

School Policies Submitted On OEA 2022 Survey

Table O.1 summarizes issues addressed by schools that submitted credit recovery policies on OEA's 2022 survey.

Table O.1
Policy Issues Addressed In SBDM Credit Recovery Policies
Submitted In OEA 2022 Credit Recovery Survey

Policy Area	Number Of Schools	Specific Policies
Student eligibility*	13	• Excludes freshmen • Must earn 50% in initial course • Must first retake course • 11th- and 12th-grade students only • Must have first failed a course • Must be overage or at risk of dropping out • Must have enrolled in previous class for at least 100 days • Must have completed at least 60 hours in failed class
Transcript/ GPA	10	• Maximum grade of 60%, D • Maximum grade of 70; previously failing grade remains on transcript • If using pretests and making up a portion, 60%/D; otherwise, must retake 100% of course in person or digital to change the grade • Failing grade remains on transcript • New grade replaces F for GPA, but F remains on transcript • To replace a failing grade, must take in summer school and maximum is D. During school year, grade is added to transcript but does not replace the F.
Content adjustment	4	• Units removed if pretest score is 70 percent or above • Courses can be adjusted to reflect what student mastered in previous course • Curriculum committee reviews all courses
Course eligibility	7	• No more than three credits without principal approval • Limit one credit per summer school • Maximum of two credits per summer school; must be core classes • Only core classes • No more than two credit recovery; the rest must be retakes • Requires a separate in-person enrollment class for every two credit recovery courses
Other	8	• Must attend all days of summer school for credit • List of credit recovery methods allowed and when offered • Must score 85 or above on all modules • Requires 90% to pass assessments and allows retakes only "if they made a valid first attempt"

Notes: "Student eligibility" sometimes but not always applies to digital courses specifically.
Source: Staff analysis of data from OEA 2022 credit recovery survey.

Range Of Policies

Some SBDM credit recovery policies submitted to OEA merely mentioned that credit recovery could be used but did not offer any specific requirements or performance indicators. OEA received several more comprehensive policies. Examples of minimal policies and one comprehensive policy are shown below.

Exhibit O.1
Example Of Minimal SBDM Credit Recovery Policy

Policy Statement
[School redacted] will provide a structure to assist students in recovering credit not earned through traditional classroom setting. The goal of the credit recovery plan is to provide a student with a secondary option to earn a passing grade in a course so the student can progress toward earning a high school diploma. The intervention plan will be shared annually with SBDM.

Exhibit O.2
Example Of Comprehensive SBDM Credit Recovery Policy

2018-2019 Credit Recovery Policy

Requirements:

- Online credit recovery courses (via Odysseyware, Plato, etc.) will only be available to 11th & 12th grade students in an effort to establish a culture that values in-class instruction and reinforces student responsibility.
- Exceptions will be made for non-traditional 9th grade students who are behind 3+ credits.

Completion:

- **Completing a NEW Class:**
  - Students can only complete a new class for the following reasons:
    - If the class is a graduation requirement but is unavailable for the student to take because it is **no longer offered or offered only in the Freshman Academy**.
    - If the student **needs to recover a course and is unable to fit that course in his or her schedule due to other graduation course requirements**.
  - Students are **not eligible to take extra courses in an effort to get ahead** unless they have already established a plan to graduate early with their counselor.
  - If completing a new class, students **must complete 100% of the course**.
- **Recovering a Credit:**
  - If the student **failed the course with a grade in the range of 50-59%**, he or she has the following option:
    - Students will only have to **complete the percentage by which they failed**. The student will initially take a pre-test to determine which standards will need to be covered and which ones will not. The student will then complete the respective % of what remains in the online course.
    - **Example**: If a student fails with a 56%, he or she will take the pre-test and then complete 4% of what is left in the content.
    - In this case, the **original grade will be changed to a 60%** and an "Odysseyware" notation will be made in the "Notes" section of the transcript.

- If the student **wishes to replace the grade** and have the opportunity to earn higher than a 60%, he or she **has the option to complete the 100% of the course and will then receive the grade earned**.
- In this case, a new entry will be made on the transcript, and the failed course would be zeroed out from the GPA as usual.

- If the student **failed the course with a grade in the range of 0-49%**, he or she has the following options:
  - The student can **retake the entire course by sitting through it again**. This is the first and most ideal choice but will depend on how many courses were failed.
  - The student can **retake the entire course online**.

Scheduling:

- **For every 2 courses that need recovered, they should be placed in 1 section of Odyssey:** Failed 2 Courses – 1 Section; Failed 4 Courses – 2 Sections; Failed 6+ Courses – 3 Sections

ESS: Extended School Services:

- The following extended school services may also be available for credit recovery options—
  - Summer School
  - Saturday School

For students working and recovering credits:

- See attached documents

Appendix P

Select Comments Submitted By Respondents On OEA 2022 Credit Recovery Survey

The following comments submitted by OEA survey respondents illustrate tradeoffs that educators feel are associated with digital learning courses for credit recovery. Each paragraph represents a different respondent.

- I do not think the instruction via [vendor] is near what a student may get from in-person instruction but with the sheer number of credits that needed to be recovered this was our best option to prevent a high drop out rate and low graduation percentage.

- Current policy sways schools against requiring entire course retakes due to graduation expectations.

- Digital learning is used as a last means to make up credit due to scheduling conflicts or classes not available due to being a small school.

- [Digital courses] make up for funding deficits and staff shortages (but not as good as teacher).

- Logistics dictate that digital options are used more frequently but tend to prepare students the least academically.

- Digital learning is a great tool for credit recovery but is not as effective as direct instruction for content mastery.

- Completing an on-line recovery program does not guarantee a student has mastered standards. However, it's more efficient to provide on-line recovery to recover multiple credits.

- Ideally students who retake a class with a teacher will probably gain a stronger content knowledge base. However, there is just not enough time or periods in the day for students to retake every course they fail so we had to put the packets in place and then the next step is the online credit recovery.

- All options are good options. In many cases, these options keep students from checking out on their education. When they see they have options, they work toward that. The abbreviated traditional option would be best but districts are scrambling for teachers as it is now and do not have money nor the people to offer these types of programs. Our digital learning platform is really good and offers students instruction and lessons. This is very similar to what the colleges use for their online classes.

- If the student has the space available and can complete enough credits to retain status, we prefer direct traditional instruction. If the student has missed multiple credits and attends ESS and summer school, we will use credit recovery as a last option to help them retain status. Our policies this year have been more flexible as the need rose. The pandemic shifted thinking this year and helping students get back on track has been of utmost importance.

Appendix Q

Sample Of Student Data From English II Digital Software Credit Recovery Classes

This appendix shows a sample of data from students who earned credit for English II in digital learning credit recovery courses in two schools: School A, which had low instructional expectations, and School B, which had higher instructional expectations.

Table Q.1 summarizes tasks completed by a student from each school who earned credit for the course. Data for students illustrated in the table were typical of data or all students sampled in each school. As shown in the table, the student who earned credit in School A did not complete any instructional tasks. The student earned credit exclusively by passing 12 unit tests and 1 summative test. This was possible because tests were the only course components that received weight in the final grade. The student in School B completed 28 quizzes, 5 tests, 1 summative exam, 1 essay, and 92 assignments. Each of those course components received weight in the final grade.

Table Q.1
Summary Of Course Components Completed

	Number Of Tasks Completed					
	Instructions	Assignments	Essays	Quizzes	Unit Tests	Summative Exams
Student in School A	92	92	1	28	5	1
Student in School B	0	0	0	22	4	1

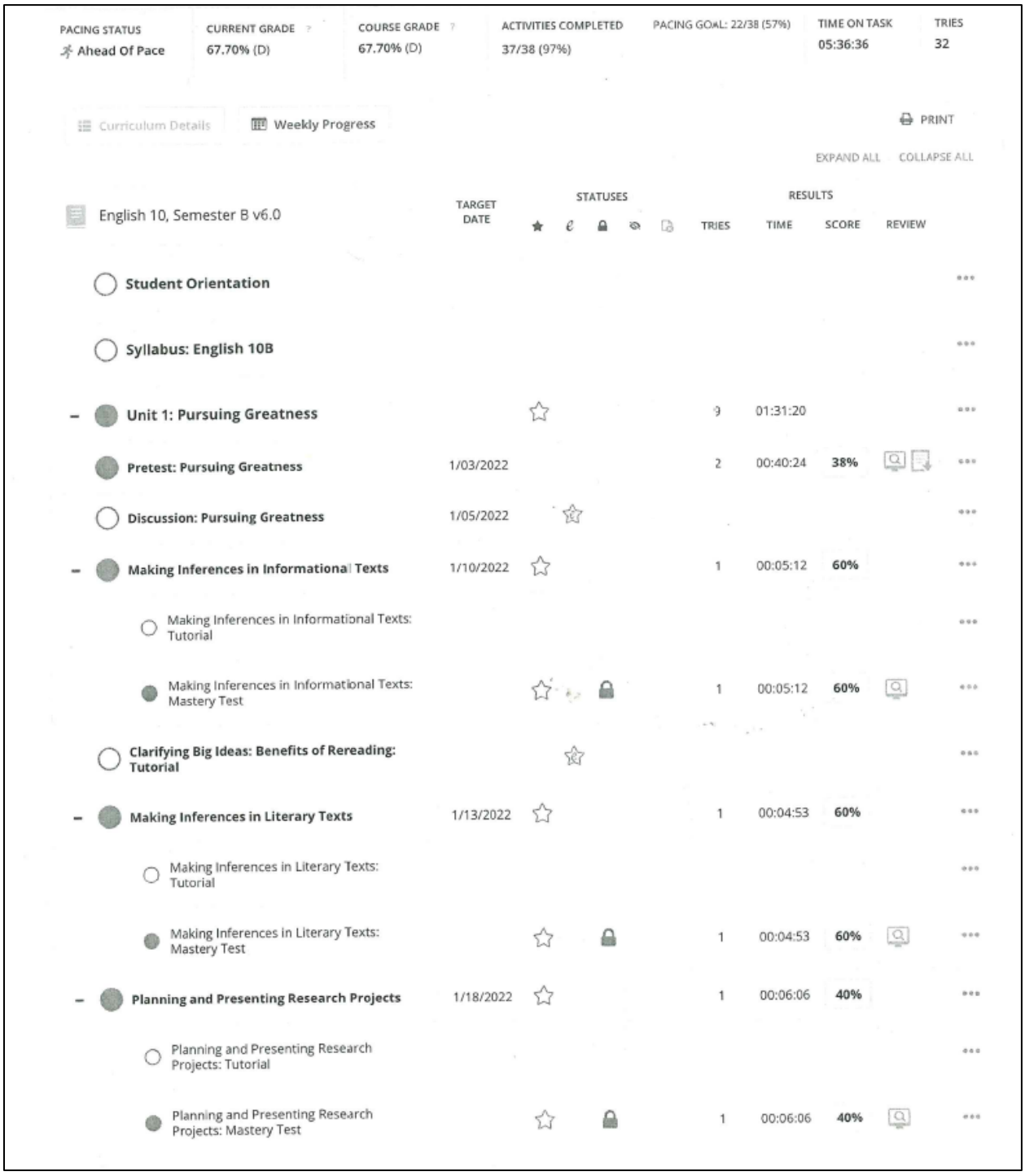
Source: Staff analysis of student-level data from digital courses as requested on OEA site visits.

The section that follows describes each school and provides a sample of English II course data from the students listed in Table Q.1

School A—Low Expectations

School A is a large school with high rates of students enrolled in digital learning credit recovery courses. A credit recovery teacher interviewed by OEA in School A reported that she discouraged students from listening to instructional videos because they take too much time. She allowed students to look up answers for test questions and helped them to obtain answers when they were unable to find them. The teacher reported that students are permitted to take course assessments at home or in other unsupervised settings. The raw data for an English II course for which the student earned credit, presented in Figure Q.A, shows that the student did not complete any instructional assignments. All of the course login time is associated with assessments. The student passed with 67 percent after 5 minutes and 36 seconds on task and was declared “ahead of pace” by the software.

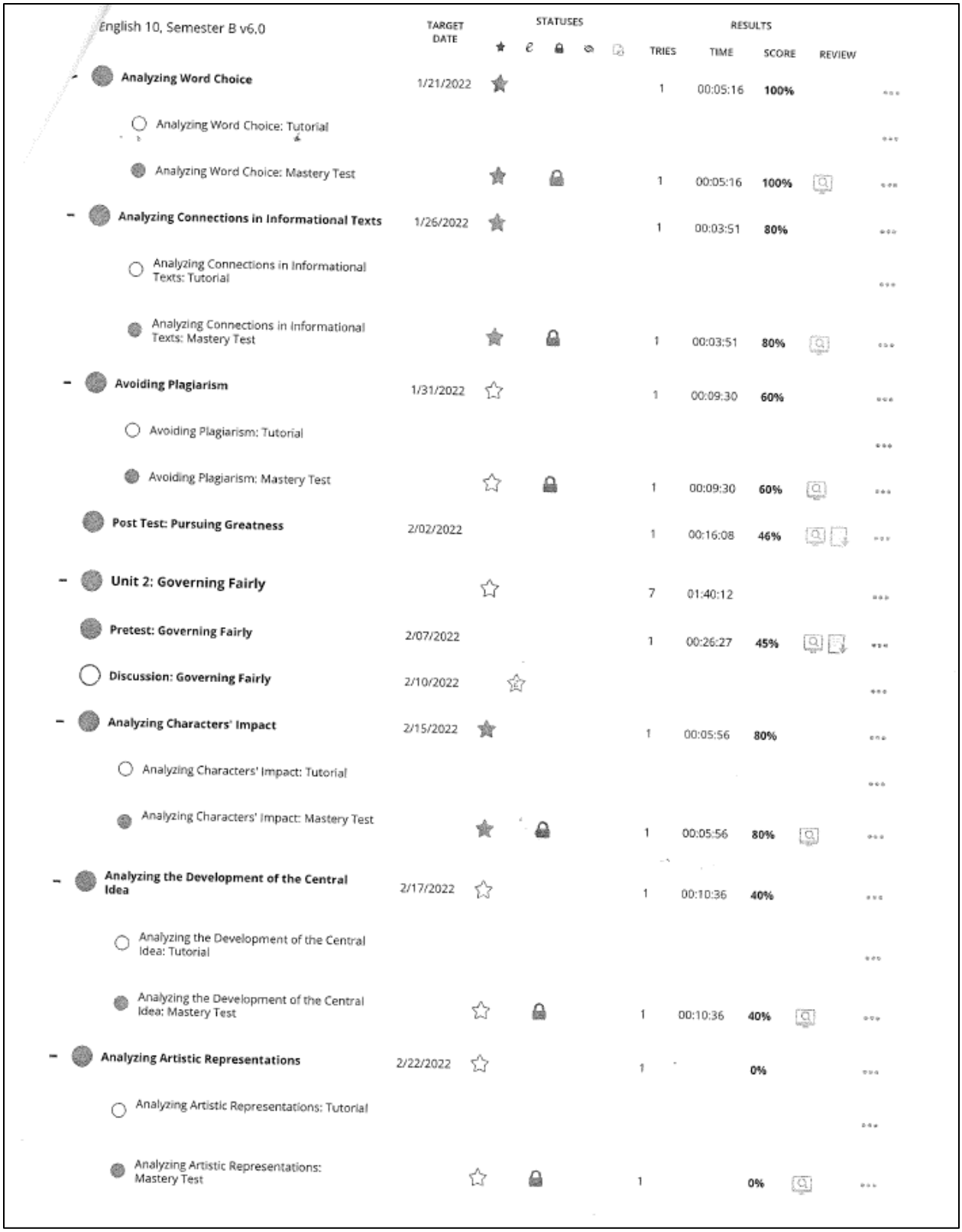
Figure Q.A
Sample Of Course Data, School A



PACING STATUS	CURRENT GRADE	COURSE GRADE	ACTIVITIES COMPLETED	PACING GOAL: 22/38 (57%)	TIME ON TASK	TRIES
Ahead Of Pace	67.70% (D)	67.70% (D)	37/38 (97%)		05:36:36	32

Curriculum Details | Weekly Progress | PRINT | EXPAND ALL | COLLAPSE ALL

English 10, Semester B v6.0	TARGET DATE	STATUSES	TRIES	RESULTS: TIME	SCORE	REVIEW
Student Orientation						
Syllabus: English 10B						
Unit 1: Pursuing Greatness			9	01:31:20		
Pretest: Pursuing Greatness	1/03/2022		2	00:40:24	38%	
Discussion: Pursuing Greatness	1/05/2022					
Making Inferences in Informational Texts	1/10/2022		1	00:05:12	60%	
Making Inferences in Informational Texts: Tutorial						
Making Inferences in Informational Texts: Mastery Test			1	00:05:12	60%	
Clarifying Big Ideas: Benefits of Rereading: Tutorial						
Making Inferences in Literary Texts	1/13/2022		1	00:04:53	60%	
Making Inferences in Literary Texts: Tutorial						
Making Inferences in Literary Texts: Mastery Test			1	00:04:53	60%	
Planning and Presenting Research Projects	1/18/2022		1	00:06:06	40%	
Planning and Presenting Research Projects: Tutorial						
Planning and Presenting Research Projects: Mastery Test			1	00:06:06	40%	



English 10, Semester B v6.0	TARGET DATE	STATUSES	TRIES	TIME	SCORE	REVIEW
Analyzing Word Choice	1/21/2022	★	1	00:05:16	**100%**	
Analyzing Word Choice: Tutorial						
Analyzing Word Choice: Mastery Test		★ 🔒	1	00:05:16	**100%**	
Analyzing Connections in Informational Texts	1/26/2022	★	1	00:03:51	**80%**	
Analyzing Connections in Informational Texts: Tutorial						
Analyzing Connections in Informational Texts: Mastery Test		★ 🔒	1	00:03:51	**80%**	
Avoiding Plagiarism	1/31/2022	☆	1	00:09:30	**60%**	
Avoiding Plagiarism: Tutorial						
Avoiding Plagiarism: Mastery Test		☆ 🔒	1	00:09:30	**60%**	
Post Test: Pursuing Greatness	2/02/2022		1	00:16:08	**46%**	
Unit 2: Governing Fairly		☆	7	01:40:12		
Pretest: Governing Fairly	2/07/2022		1	00:26:27	**45%**	
Discussion: Governing Fairly	2/10/2022	☆				
Analyzing Characters' Impact	2/15/2022	★	1	00:05:56	**80%**	
Analyzing Characters' Impact: Tutorial						
Analyzing Characters' Impact: Mastery Test		★ 🔒	1	00:05:56	**80%**	
Analyzing the Development of the Central Idea	2/17/2022	☆	1	00:10:36	**40%**	
Analyzing the Development of the Central Idea: Tutorial						
Analyzing the Development of the Central Idea: Mastery Test		☆ 🔒	1	00:10:36	**40%**	
Analyzing Artistic Representations	2/22/2022	☆	1		**0%**	
Analyzing Artistic Representations: Tutorial						
Analyzing Artistic Representations: Mastery Test		☆ 🔒	1		**0%**	

School B—Higher Expectations

School B is an alternative credit recovery program in which 100 percent of students earn credit through digital learning courses. School B has subject-specific digital learning classes supervised by teachers certified in the subject area of the digital course or a closely related certification area. Teachers in School B provide instructional mini-lessons when they observe through data that students are struggling with specific subjects. Students in School B are not permitted to take assessments at home or in other unsupervised settings. A district-level team of reviewers monitor courses and data from School B. School B has detailed policies for digital courses, including test security and grading weights.

Student-level data from School B, presented in Figure Q.B, shows multiple instructional episodes, assignments, and quizzes prior to the unit test. Although students do not earn grades for instruction, they are not permitted to progress in the software without completing the instruction.

Figure Q.B
Sample Of Course Data, School B

Course Report: 2021 LC English II S1 - CR
Course Report: 2021 [redacted] English II S1 - CR
ID: 1919961811 | **Grade:** Adult Learner
Overall Grade: 76.8% | **Actual Grade:** 76.8% | **Relative Grade:** 76.8%

Created On: 03/21/2022, 02:30 PM
Start Date: 08/10/2021 **Target Date:** 12/31/2021
Student Progress: 100% | **Target Progress:** 100%

Activity	Due	First Attempt	Submitted	Attempts	Est Time	Total Time	Category	Score
Unit: Stories from around the World								
Lesson: Analyzing Character, Theme, and Plot in Short Stories								
Instruction	08/10/2021	08/18/2021	08/18/2021	1	13m	59m 27s		
Assignment	08/12/2021	08/18/2021	08/18/2021	1	14m	13m 43s	Assignment	80%
Instruction	08/12/2021	08/18/2021	08/18/2021	1	8m	19m 9s		
Quiz	08/13/2021	08/18/2021	08/18/2021	1	15m	12m 5s	Quiz	90%
Lesson: Character and Setting in "To Build a Fire," Part 1								
Instruction	08/13/2021	08/18/2021	08/18/2021	1	15m	56m 42s		
Assignment	08/16/2021	08/18/2021	08/18/2021	1	10m	7m 37s		
Instruction	08/16/2021	08/19/2021	08/19/2021	1	4m	14m 35s		
Quiz	08/17/2021	08/19/2021	08/19/2021	2	15m	46m 46s	Quiz	90%
Lesson: Conflict and Theme in "To Build a Fire," Part 2								
Instruction	08/17/2021	08/19/2021	10/11/2021	1	12m	8m 44s		
Assignment	08/18/2021	10/11/2021	10/11/2021	1	14m	3m 36s	Assignment	84.6%
Instruction	08/18/2021	10/11/2021	10/11/2021	1	4m	5m 20s		
Quiz	08/19/2021	10/11/2021	10/11/2021	1	15m	7m 16s	Quiz	90%
þÿ L e s s o n : A n a l y z i n g W o r d C h o i c e a n in Short Stories								
Instruction	08/19/2021	10/11/2021	10/11/2021	1	15m	32m 18s		
Assignment	08/20/2021	10/11/2021	10/11/2021	1	9m	2m 35s	Assignment	80%
Instruction	08/20/2021	10/11/2021	10/11/2021	1	7m	14m 42s		
Quiz	08/23/2021	10/11/2021	10/11/2021	1	15m	7m 38s	Quiz	100%
Lesson: Determine Meaning: Words and Phrases								
Instruction	08/24/2021	10/11/2021	10/11/2021	1	31m	55m 5s		

Page 1 of 8

Course Report: 2021 LC English II S1 - CR
ID: 1919961811 | **Grade:** Adult Learner
Overall Grade: 76.8% | **Actual Grade:** 76.8% | **Relative Grade:** 76.8%

Created On:
Created On: 03/21/2021
Start Date: 08/10/2021 **Target Date:** 12/31/2021
Student Progress: 100% | **Target Progress:** 100%

Activity	Due	First Attempt	Submitted	Attempts	Est Time	Total Time	Category	Score
Assignment	08/25/2021	10/11/2021	10/11/2021	1	17m	4m 35s	Assignment	93.8%
Quiz	08/25/2021	10/11/2021	10/11/2021	1	15m	6m 9s	Quiz	80%
Lesson: Character and Culture in Literature								
Instruction	08/26/2021	10/11/2021	10/11/2021	1	8m	20m 10s		
Assignment	08/26/2021	10/11/2021	10/11/2021	1	7m	2m 9s	Assignment	100%
Instruction	08/26/2021	10/11/2021	10/11/2021	1	7m	7m 14s		
Assignment	08/27/2021	10/11/2021	10/11/2021	1	7m	2m 58s	Assignment	100%
Instruction	08/27/2021	10/11/2021	10/11/2021	1	4m	5m 29s		
Quiz	08/27/2021	10/11/2021	10/11/2021	1	15m	7m 32s	Quiz	90%
Lesson: Unit Test								
Unit Test Review	08/30/2021	10/11/2021	10/11/2021	1	15m	9m 11s	Assignment	73.3%
Unit Test	09/1/2021	10/11/2021	10/11/2021	1	40m	10m 47s	Test	84%
Unit: Life-Changing Journeys								
Lesson: Analyzing an Autobiographical Essay								
Instruction	09/1/2021	10/11/2021	10/12/2021	1	10m	16m 49s		
Assignment	09/2/2021	10/12/2021	10/12/2021	1	10m	2m 11s	Assignment	66.7%
Instruction	09/2/2021	10/12/2021	10/12/2021	1	6m	8m 41s		
Quiz	09/3/2021	10/12/2021	10/12/2021	2	15m	27m 7s	Quiz	80%
Lesson: Comparing Genres: Biography and Editorial								
Instruction	09/3/2021	10/12/2021	10/12/2021	1	10m	19m 41s		
Assignment	09/3/2021	10/12/2021	10/12/2021	1	9m	2m 16s	Assignment	40%
Instruction	09/7/2021	10/12/2021	10/12/2021	1	11m	23m 55s		
Assignment	09/7/2021	10/12/2021	10/12/2021	1	10m	2m 3s	Assignment	85.7%
Instruction	09/8/2021	10/12/2021	10/12/2021	1	4m	6m 49s		
Quiz	09/8/2021	10/12/2021	10/12/2021	1	15m	7m 20s	Quiz	100%

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