



EXPANDING EARLY ACCESS TO COLLEGE AND CAREERS:

Recommendations for Prioritizing and Growing Indiana's Pipeline of Dual Credit Teachers through Incentives and Supports

In collaboration with:



With support from:

TheJoyceFoundation

Tracy B. Butler, M.A.

Center of Excellence in Leadership of Learning at the University of Indianapolis

Sam Riggs, Ph. D. Education Northwest

ABOUT

Center of Excellence in Leadership of Learning Created in 2001, the Center of Excellence in Leadership of Learning (CELL) at the University of Indianapolis believes all children should graduate from high school fully prepared for success in postsecondary education and the 21st century workforce. The Center has generated \$57 million in funding to support its work as the leader for innovative education change in Indiana. CELL provides leadership that is both cutting-edge and action-oriented. Via partnerships with international, national, and local education leaders and organizations, CELL unites districts, schools, communities, universities, and businesses to build a sense of urgency and form innovative collaborations for statewide educational and economic improvement.

Education Northwest

Founded as a nonprofit corporation in 1966, Education Northwest builds capacity in schools, families, and communities through applied research and development. We collaborate with public, private, and community-based organizations to address educational inequities and improve students' success. Although much of our work focuses on the Pacific Northwest, our evaluations, technical assistance, and research studies have national impact and provide timely and actionable results.

CONTACT

Center of Excellence in Leadership of Learning Esch Hall 212 1400 E. Hanna Ave. Indianapolis, IN 46227 Main: 317-788-3777 cell.uindy.edu

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Education Northwest 1417 NW Everett Street, Suite 310 Portland, OR 97209 Main: 503-275-9500 educationnorthwest.org

PREFACE

On behalf of the Center of Excellence in Leadership of Learning (CELL) at the University of Indianapolis, in collaboration with Education Northwest, we are pleased to offer the following report- Expanding Early Access to College and Careers: Recommendations for Prioritizing and Growing Indiana's Pipeline of Dual Credit Teachers through Incentives and Supports.

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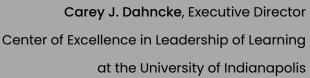
CELL has been an early adopter and a longstanding advocate of dual credit and early college programming in Indiana as an avenue to increase college readiness and postsecondary success for a wide range of students, particularly those traditionally underrepresented. Many studies have pointed toward the long-term positive effects dual credit has on college enrollment and completion rates.

In 2016, the Higher Learning Commission announced accreditation changes that would impact the ability of many high schools to continue offering dual credit courses. This change enacted new academic credentialing requirements for teachers that put Indiana's dual credit system at-risk. The Indiana Commission for Higher Education (ICHE) negotiated an extension of the credentialing requirement to September 2023, yet school and state leaders have continued to raise the alarm about this issue. Ivy Tech Community College, Indiana's largest provider of dual credit, projected that within its Priority Liberal Arts dual credit courses, the new credentialing requirements could displace approximately 350 dual credit faculty and 700 courses.

Responding to these concerns, the State has invested aggressively to remove barriers for secondary school teachers to obtain the appropriate academic credential, offering tuition-free graduate classes though programs like STEM Teach or Teach Dual Credit Indiana administered by CELL and funded through the ICHE and Indiana University's Dual Credit Pipeline Project. However, Indiana's high school administrators have continued to project a significant shortage of qualified teachers, limiting the ability of high schools to offer dual credit programming. It is important to note that while other dual credit stakeholders may be engaged in conversations regarding the merits and consequences of the HLC requirements, that is not the intent or scope of this report. "Expanding Early Access" focuses only on responding to educators' request for a greater understanding of the landscape and actionable recommendations for preventing their anticipated decline of dual credit instructors and courses.

Anecdotally, CELL witnessed a growing disparity across schools regarding the incentivization of the teacher workforce to prepare and deliver dual credit coursework at the secondary level. Thanks to the support of the Joyce Foundation, CELL was engaged to research and collect data to better understand the statewide status of teacher compensation related to dual credit delivery. This led to the development of this report that seeks to better explain the current status, challenges, and opportunities for education leaders and policymakers to diversify and expand the dual credit workforce. Our hope is that while the findings of the report are specific to Indiana, the recommendations and considerations are also informative to regional and national partners working to expand the pipeline of dual credit teachers.

I would like to thank the high school teachers and administrators, district leaders, higher education representatives, and state government officials who invested their time in this project. Their insights helped us contextualize these challenges and offer considerations to support Indiana's continued effort of expanding equitable access to dual credit opportunities for all high school students.





EXECUTIVE SUMMARY

Dual credit courses are a proven model for helping more Indiana students graduate from high school prepared to succeed in college and the workforce (Indiana Commission for Higher Education [ICHE], 2021; U.S. Department of Education, 2019). However, these vital opportunities are at risk due to a statewide shortage of teachers who are credentialed to deliver dual credit courses. Further, the already limited supply of teachers is projected to significantly decrease in September 2023, when new dual credit teacher credentialing guidelines from the Higher Learning Commission take effect. Building a sustainable pipeline of dual credit teachers is imperative if Indiana hopes to grow, or even sustain, the positive outcomes these opportunities provide for Hoosier students, including increased rates of high school graduation and postsecondary enrollment, persistence, and completion (ICHE, 2021).

The goal of this report is to build the capacity of Indiana's schools to develop a robust and diverse supply of dual credit teachers in order to preserve, prioritize, and grow dual credit opportunities and outcomes for students.

FINDINGS: CURRENT SCHOOL PRACTICES TO ENGAGE AND SUPPORT **DUAL CREDIT TEACHERS**

Three key themes of current school practices emerged from qualitative and quantitative research conducted with more than 136 Indiana educators, including K-12 administrators and teachers as well as higher education partners.

- 1. Indiana educators face five barriers to engaging more teachers in dual credit: time, cost, navigating the process, feelings of isolation, and limited awareness of the impact of dual credit on students.
- 2. Some Indiana schools are working to address these barriers through innovative practices that provide dual credit teachers with non-financial supports, such as mentoring and teacher recognition.
- 3. Seventy percent of schools offer some sort of financial incentives to teachers to participate with dual credit.

Additionally, the findings provide more insight into how and when schools leverage financial incentives to grow their supply of dual credit teachers and how these practices vary by school characteristics such as location, student population, and/ or engagement with the Indiana College Core.¹

- teaching credential and to teach dual credit.
- stipend is the most common incentive offered for teaching dual credit.
- courses.

SCHOOL-BASED RECOMMENDATIONS FOR GROWING INDIANA'S PIPELINE OF DUAL CREDIT TEACHERS

The recommendations below identify effective strategies schools can use to grow their local pipeline of dual credit teachers. Recommendations were informed by educators and education stakeholders involved with the research for this project: 1. Prioritize offering dual credit opportunities to yield positive college and career outcomes for students and strengthen the school's accountability performance, finances, community support, and teacher recruitment and retention.

- 2. Partner with higher education institutions to build a comprehensive and distinct phases: recruit, credential, activate, and retain (see Figure ES-1).
- equity and postsecondary readiness among students of color.
- teacher advancement and increased compensation.

Schools are more likely to offer educators incentives to complete a dual credit

 Incentives vary by stage: Tuition reimbursement is the most common incentive offered for taking courses toward becoming credentialed, a step on the salary scale is the most common incentive offered for becoming credentialed, and a

 Schools that offer the middle range of dual credit courses (10–19 courses) are more likely to provide incentives than schools that offer fewer or more dual credit

sustainable dual credit teacher pipeline with intentional strategies for four 3. Diversify the pipeline of dual credit teachers to benefit all students and expand

4. Ensure financial incentives, provided through a model of teacher advancement and increased compensation, are the foundation of the school's strategies to build a pipeline of dual credit teachers and are provided through a model of



RECRUIT	CREDENTIAL	ACTIVATE	RETAIN
Administrators and current dual credit teachers reach out to new teachers (both on staff or potential hires) to teach dual credit and (if needed) pursue their credential.	Emerging dual credit teachers earn their credential to teach dual credit courses, including through the completion of a master's degree or 18 additional graduate- level credits.	Credentialed teachers begin teaching dual credit classes and fulfill the ongoing credentialing requirements of higher education partners (including professional development).	Administrators work to retain credentialed dual credit teachers and the curriculum they make possible, including the Indiana College Core and Next Level Programs of Study.

- 5. Provide permanent salary adjustments as a financial incentive for teachers to earn their credential. The increased salary will be structured differently across districts due to locally negotiated contracts, but may include steps on a salary scale or multipliers off the base.
- 6. Pay stipends as the main financial incentive for dual credit teachers and calculate that stipend amount based on the number of courses being taught.
- 7. Help teachers access funding to pay for credentialing tuition costs by leveraging third-party tuition resources (such as STEM Teach or Teach Dual Credit Indiana administered by CELL and funded through ICHE, or Indiana University's Dual Credit Pipeline Project and re-allocating funds previously used for tuition support to salary adjustments and/or reallocate.
- 8. Prioritize the school's needs related to graduation pathways curriculum when deciding where to grow the supply of dual credit teachers, such as the Indiana College Core and Next Level Programs of Study.

- and course delivery.
- teachers.
- credit courses.

CONSIDERATIONS FOR MOVING FORWARD

The findings and recommendations set forth in this report are focused largely on dual credit and yet are not offered in a vacuum. The considerations below offer suggested priorities for continued research and local- and state-level strategy.

- Grow local capacity with resources and technical support.
- Develop a robust Indiana teacher workforce, including among dual credit teachers.
- teachers.
- Expand equity by expanding dual credit.
- supporting dual credit.
- Explore the implementation of career ladders as a promising approach for



9. Offer flexible scheduling options to emerging or current dual credit teachers to provide more time to complete required coursework, professional development,

10. Facilitate connections and peer learning among emerging or current dual credit

11. Collaborate with higher education partners to streamline communications and procedures for teachers who are becoming credentialed or already teach dual

• Develop a more diverse Indiana teacher workforce, including among dual credit

Align local and state postsecondary readiness systems within the ecosystem

offering educators who prefer to remain in the classroom ample opportunities, such as dual credit credentialing, to advance professionally and financially.

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nstitutions That Provide Incentives for Dual and Attributes, Excludes Rural Early College lege High Schools

nuing to Provide Non-Career and Technical her Learning Commission Credentialing

nuing to Provide Career and Technical

INTRODUCTION: PRESERVING EARLY ACCESS TO DUAL CREDIT IN INDIANA THROUGH A PIPELINE OF CREDENTIALED EDUCATORS

Dual credit courses are a proven model for helping more Indiana students graduate high school prepared for college and the workforce. However, these opportunities are at risk due to a shortage of teachers in the state with credentials to teach dual credit (Indiana Commission for Higher Education [ICHE], 2021; U.S. Department of Education, 2019). In its 2021 Early College Report, ICHE, in partnership with the Indiana Department of Education and the Governor's Workforce Cabinet, made four concluding recommendations, one of which was to "strengthen the educator pipeline" (ICHE, 2021). Similarly, this report seeks to help strengthen Indiana's pipeline of dual credit educators and safeguard the early access to postsecondary attainment and savings they provide for students.

THE OPPORTUNITY: WHY PRESERVING DUAL CREDIT IS A PRIORITY FOR INDIANA

Dual credit completion is associated with a wide range of essential outcomes for students and their schools. National and state research indicates that students who earn dual credit are more likely to graduate from high school and succeed at the postsecondary level with higher levels of enrollment, persistence, and completion (ICHE, 2021; U.S. Department of Education, 2019). The benefits of dual credit hold true for groups of students who experience equity gaps, including students from low socioeconomic backgrounds and students of color (National Alliance of Concurrent Enrollment Partnerships, n.d.).

Beyond postsecondary attainment, dual credit provides financial benefits to students and families by saving money they would otherwise spend on tuition required to earn their degree and/or certification. In Indiana, the ICHE estimates that the "total cost savings for students statewide who go to Indiana public college is \$81.9 million," which includes "\$20 million to roughly 9,000 low-income students" (ICHE, 2021). Indiana students rely on and value dual credit opportunities: the rate of students taking dual credit courses is increasing, and the majority of Indiana's high school graduates have earned dual credit (60%) or dual credit and/or Advanced Placement (64%)(ICHE, 2021).

Schools primarily provide dual credit opportunities because of their positive impact on students, but dual credit programs also benefit a range of schools' related goal areas. Specifically, delivering dual credit can strengthen a school's: Accountability and alignment with state-level policy: Students' dual credit completion is embedded within Indiana's school accountability systems (including the emerging Graduates Prepared to Succeed model), Indiana's Next Level Programs of Study, and the postsecondary ready competencies within

- Graduation Pathways.
- funding associated with growth in enrollment, earned Academic Honors the school's results with dual credit and associated pathways.
- teaching at that level so much" (CELL administrator focus group, 2021).
- particularly in the career and technical education pathways.

"Our dual credit program has helped us leverage a lot of opportunities for grant funding and maintain an increase in enrollment over the past few years. These financial gains have helped make it possible to continue to invest in our students and teachers to make the program a success."

Jody French, Principal - Perry Central Jr./Sr. High School



Finances: Offering dual credit courses can help schools leverage additional diplomas that are supported by dual credit, and grants made possible due to

• Teacher recruitment and retention: Dual credit can support a school's efforts to recruit and retain teachers. Administrators who provided input into this research observed that dual credit teachers "tend not to leave because they enjoy

 Community support and partnership development: Educators who participated in discussions for this report said that dual credit opportunities can help build community support for and pride in the school. Additionally, the structure of dual credit inherently requires collaboration with higher education institutions. For some schools, it also facilitates closer partnerships with local businesses,

THE THREAT: A SHORTAGE OF TEACHERS CREDENTIALED TO DELIVER DUAL CREDIT

The current shortage of dual credit teachers in Indiana threatens the state's ability to grow, or even sustain, pivotal dual credit opportunities for Hoosier students. Through the research conducted for this report, schools explained that their current "bench" of dual credit teachers is slim to non-existent, particularly in some core content areas such as math and science. Many administrators who participated in this research reported staffing shortages, specifically in dual credit, at the start of the 2021–22 school year. These administrators were "scrambling" to replace dual credit teachers who left due to retirement, moves to other districts, and/or other challenges related to the COVID-19 pandemic. The vacancies of highest concern were those that limited a school's ability to continue providing a pathway their students were already on, such as the Indiana College Core or a Next Level Program of Study. A recent survey conducted by the Indiana Commission of Higher Education also found that a lack of credentialed dual credit teachers was inhibiting students from pursuing the Indiana College Core (see appendix B).

The dual credit teacher shortage is projected to significantly worsen in September 2023, when new credentialing guidelines from the Higher Learning Commission take effect. The new requirements stipulate that in order to teach academic dual credit courses, a teacher (or "qualified faculty member") must have earned either a master's degree or higher in the subject area being taught or any master's degree or higher plus eighteen hours of graduate-level coursework in the subject area being taught (Higher Learning Commission, 2020). Anecdotally, school-based research participants shared that they fear the "cliff" coming in 2023, when they anticipate losing some current dual credit teachers. Ivy Tech Community College, Indiana's largest provider of dual credit, has assessed the potential impact of the new credentialing requirements on its Priority Liberal Arts dual credit courses, projecting that "roughly 68% of dual credit faculty within liberal arts and sciences will be credentialed come Fall 2023, which will displace approximately 350 dual credit faculty and an estimated 700 courses" (Ivy Tech Community College, 2021). Note this projection only includes Priority Liberal Arts dual credit courses, as the new HLC requirements will not impact teachers delivering career and technical education dual credit courses.

The need for greater diversity among Indiana's dual credit instructors continues to undermine the state's capacity to leverage dual credit to close equity gaps among students of color. Within Indiana's K-12 schools, the percentage of students of color (31.2%) far exceeds the percentage of teachers of color (7.6%) who are providing their education (Indiana Department of Education [IDOE]2020). Further, data indicates an even greater disparity may exist between students' and teachers' race and ethnicity within dual credit classrooms. Only 5 percent of Indiana's dual credit courses delivered in 2020 were taught by teachers of color (IDOE, 2020), while a higher percentage of students earning dual credit were students of color (19% of priority liberal arts dual credit earners and 24% of technical dual credit earners) (ICHE, 2020). As schools and the state seek to close equity gaps, in part by engaging more students of color in dual credit, it is essential for students to see more diversity represented among their dual credit instructors.

ROADMAP TO THIS REPORT

This report presents findings related to Indiana schools' current practices for building dual credit teacher pipelines and offers a framework of recommendations to inform ongoing efforts to sustain and grow these local pipelines. Educators, including both teachers and administrators, are the primary focus in this report. They are the research participants who provided the core insights and learnings as well as the primary audience for the recommendations. Without their contributions, this report-and indeed dual credit opportunities for Indiana students-would not be possible.

This report includes four main sections: introduction, findings, recommendations, and considerations for moviing forward. The bolded headers, executive summary, and key takeaways section provide the essential themes. The findings section provides an in-depth look at schools' current experiences with building their dual credit teacher workforce, including their financial incentive practices and the barriers to securing enough dual credit instructors. The recommendations section offers actionable strategies schools can use to build their pipeline with financial

incentives and non-financial supports. Lastly, the appendix includes more detail on the quantitative finding and analyses generated by this research.

Throughout the report, a framework organizes the dual credit teacher pipeline into four distinct phases: recruit, credential, activate, and retain (see Figure 1.) This framework is used to both summarize findings of current practices and barriers and present recommendations for engaging more dual credit teachers. The intent of this framework is to provide schools with a model that supports strategies that are both comprehensive (to build the full pipeline) and targeted (to assess and prioritize specific areas of greatest need within their pipeline).

Figure 1: Model for Developing a Dual Credit Teacher Pipeline

RE	CRUIT	CREDENTIAL	ACTIVATE	RETAIN
and c dual c teach reach new te (both or pot hires) teach credit (if nee	ers out to eachers on staff to dual and eded) e their	Emerging dual credit teachers earn their credential to teach dual credit courses, including through the completion of a master's degree or 18 additional graduate- level credits.	Credentialed teachers begin teaching dual credit classes and fulfill the ongoing credentialing requirements of higher education partners (including professional development).	Administrators work to retain credentialed dual credit teachers and the curriculum they make possible, including the Indiana College Core and Next Level Programs of Study.



FINDINGS: UNDERSTANDING THE LANDSCAPE OF BARRIERS AND INCENTIVES FOR DUAL CREDIT TEACHERS

Secondary schools throughout Indiana are working to understand and address the barriers experienced by dual credit teachers by providing financial incentives and additional non-financial supports. As the state works to expand students' dual credit opportunities through a stronger pipeline of educators who are credentialed to teach these courses, it is important to understand the current landscape of school and educator experiences in this area. Their experiences provide essential insights into the barriers to engaging more teachers in dual credit as well as promising solutions to mitigate those challenges. The summary below provides an overview of schools' experiences through the perspectives of educators who participated in the surveys, focus groups, and/or working groups convened for this project.

BARRIERS TO BUILDING A PIPELINE OF DUAL CREDIT TEACHERS

Through focus groups, school administrators and teachers identified five barriers experienced by those who teach, or are considering teaching, dual credit courses: time, cost, navigating the process, feelings of isolation, and limited awareness of the impact of dual credit teachers. These barriers are experienced *individually* (by teachers), *systemically* (by schools working to build their pipeline of dual credit teachers), and *persistently* (at every stage of the dual credit teacher pipeline, from recruitment through retention).

The prospect of investing time toward credentialing is daunting for educators trying to "simply survive" and meet students' escalating needs, particularly during the COVID-19 pandemic. Not having enough time was one of the most common concerns and realities among teachers deciding whether to become credentialed or teach dual credit. Particularly now, teachers are working to "simply survive" as they try to meet their students' escalating academic and social and emotional needs. Teachers considering becoming credentialed to teach dual credit worry about the time commitment of going back to school to earn their master's degree and/or additional graduate-level credits. Credentialed teachers also must invest time above and beyond their standard teaching duties to fulfill the additional curriculum and training requirements associated with delivering dual credit. Further, dual credit teachers often teach several dual credit and non-dual credit courses, which can exceed the teaching load of college-based faculty.

"I have several teachers in my building who have said they're not prepared to go back to school, so we're going to lose at least 3 classes because the teacher says 'I just can't go back (to school) and do the same amount of work, be a parent and grade papers, and do lesson plans. I just can't."

Tami Wuest, Teacher- Blufton High School

The direct and indirect costs associated with teaching dual credit classes can leave teachers feeling forced teachers to choose between investing in their own financial well-being or their students' futures. The direct costs of tuition and supplies place an additional financial burden on teachers, many of whom already struggle with relatively low salaries. For some teachers, the opportunity costs associated with becoming credentialed can be an even greater challenge; teachers who pursue the credential may have less personal time or miss out on supplemental income available through higher paying school-based opportunities or external jobs that offer higher hourly wages.

The process to become credentialed to teach dual credit, maintain a credential, and satisfy dual credit curriculum requirements can be complicated and unclear. While many educators demonstrate a strong understanding of the reasoning behind credentialing requirements, the process to fulfill the requirements can be overwhelming and prevent some teachers from participating. This is especially true for schools and teachers working with multiple higher education partners. K-12 educators expressed a need for clearer, more streamlined communication and requirements with individual partners and across all potential higher education partners. Engaging with dual credit can feel "like a lonely experience" for educators, particularly those who were drawn to their profession because they value connection and community. Educators report that becoming involved with dual credit can, at times, lead to isolation from their school and peer community. Those working toward their credential may feel disconnected as they take required graduate courses—particularly if they are the only one in their school working toward their credential or are taking online asynchronous courses. Those already teaching dual credit may feel like "they are on an island by themselves" because they are often the only ones teaching a specific course at a specific level within their building. Due to the unique time commitments of engaging with dual credit teaching and credentialing, these teachers may also have less capacity to connect with on-site professional learning communities.

A lack of awareness of the positive impact of dual credit experiences for students is a barrier to recruiting new teachers and recognizing the contributions of current dual credit teachers. Although dual credit is an evidence-based model demonstrated to have a significant and lasting impact on students, teachers can feel disconnected from those positive effects. Prospective teachers may not be fully aware of how dual credit improves students' outcomes and thus not understand the impact they can have by teaching dual credit classes. While current dual credit teachers are more likely to see the immediate positive effects, they may not be acknowledged for their role in helping students earn college credits that will save them money and improve their likelihood of persisting toward a postsecondary degree.



SCHOOL PRACTICES TO LEVERAGE FINANCIAL INCENTIVES TO BUILD A PIPELINE OF DUAL CREDIT TEACHERS

Many Indiana schools are working to address the barriers to building a dual credit teacher pipeline by offering educators a range of financial incentives and nonfinancial supports. Practices related to financial incentives are summarized in this section, and promising examples of non-financial support appear in the following recommendations section.

To understand the current landscape of dual credit incentives and supports in Indiana, we analyzed data collected through CELL's Compensation for Dual Credit survey, which was administered to all public and private high schools in Indiana during spring 2021. Our sample includes 131 partial and complete unique school-level responses from across the state.² For characteristics of survey respondents and all Indiana high schools, see table A1 in appendix A. About 70 percent of schools in the sample offer some incentive to take courses toward becoming credentialed to teach dual credit, earn a credential, or teach dual credit. The following findings outline what types of incentives are most common and what types of schools are most likely to offer incentives.

Overall, schools are most likely to offer incentives to earn a credential or to

teach dual credit. Among 108 respondents who answered questions about dual credit incentives, schools are most likely to offer educators incentives to become credentialed to teach dual credit (49%) and to teach dual credit (49%). A smaller share of respondents (19%) offer incentives for educators to take courses toward becoming credentialed (see Table C1 in Appendix C)^{3,4}

2. Ten of the 131 responses are from other educational entities that do not match to a unique public or private Indiana school in the NCES Common Core of Data or Private School Survey. We retained these responses in our analysis to present the most complete picture of the provision of dual credit incentives in Indiana.

Three of the schools that provide "something else" indicated through open-ended responses that they hope or plan to provide incentives in the 2021/22 school year. Other schools that provide "something else" did not provide an open-ended response.

3. Three of the schools that provide "something else" indicated through open-ended responses that they hope or plan to provide incentives in the 2021/22 school year. Other schools that provide "something else" did not provide an open-ended response.

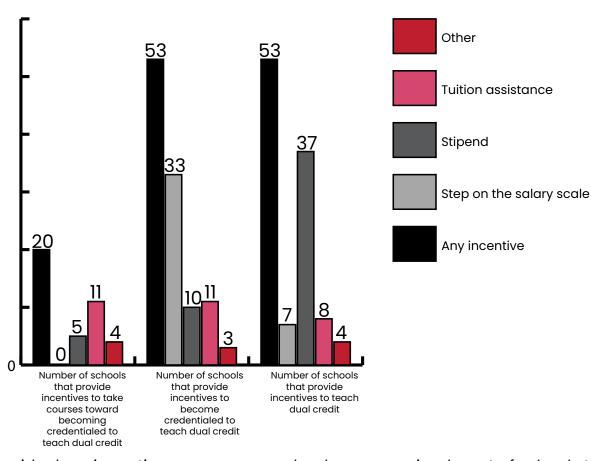
4. While the survey allowed respondents to select more than one type of incentive provided at each stage, the majority of schools selected only one type. There are, however, some exceptions to this. Among the 53 schools that provide incentives to become credentialed, three offer both a step on the salary scale and tuition assistance. Additionally, of the 53 schools that provide incentives to teach dual credit, three schools provide tuition assistance, a step on the salary scale, or something else (unspecified) in combination with a stipend.

Schools providing incentives in one area are likely to do so in another area. Among schools that offer incentives to take courses toward becoming credentialed, 90 percent also provide incentives to earn a credential and 75 percent also provide incentives to teach dual credit. Fifty-eight percent of schools that offer incentives to become credentialed also offer incentives to teach dual credit (see Table C2 in Appendix C).

Incentives vary by pipeline stage: Tuition reimbursement is the most common incentive to take courses toward becoming credentialed, a step on the salary scale is the most common incentive to become credentialed, and a stipend is the most common incentive to teach dual credit. Among the 20 schools that provide incentives to take courses toward a credential, 11 (55%) offer tuition assistance, five (25%) offer a stipend, and the remaining four (20%) offer another incentive that was not defined in the data. Of the 53 schools that provide incentives to become credentialed, a step on the salary scale is the most common incentive (33 schools; 62%). A smaller share of schools provide tuition assistance (11; 21%) or stipends (10; 19%), and three schools (6%) provide something else. Of the 53 schools that provide incentives to teach dual credit, the vast majority (37; 70%) provide a stipend, eight (15%) provide tuition assistance, seven (13%) provide a step on the salary scale, and the remaining four (8%) provide something else (see Table C1 in Appendix C).



Figure 2: The Type of Incentives Provided Varies with Stages of the Dual Credit Pipeline



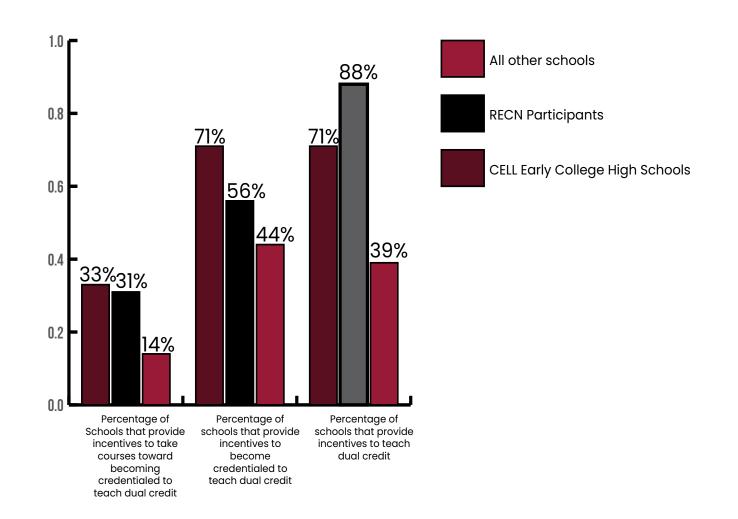
To consider how incentives vary across schools, we examined a set of schools that might provide incentives at higher rates than others. Specifically, we examined the provision of incentives among schools that have received the CELL Early College High School Endorsement, Rural Early College Network (RECN) participants, and schools that currently provide-or aspire to provide-the Indiana College Core. Data for the Early College⁵ and RECN⁶ schools was disaggregated for a number of reasons including: CELL works closely with Early College schools as their endorsement entity, CELL leads a federal EIR-Mid-Phase grant that includes funding for RECN schools, and Early College and RECN schools are known to prioritize dual credit offerings as an element of their early college models.

5. The Early College High School model gives students a head start on the rest of their lives. These small schools allow students to earn both a high school diploma and up to two years of credit toward a bachelor's degree, or an associate degree through different curricular pathways. The Indiana Commission for Higher Education designated CELL as the sole organization in the state to train, support, and endorse Early College High Schools.

6. In the fall of 2019, the Center of Excellence in Leadership of Learning (CELL) at the University of Indianapolis was awarded a Mid-Phase EIR federal grant of \$7.9 million from the US Department of Education to launch a Rural Early College Network (RECN) project. This project focuses on helping rural high schools implement high quality, sustainable Early College (EC) programs through a system of supports, coaching and a network approach.

Schools with an Early College Endorsement and Rural Early College Network participants are more likely to provide incentives than other schools. Early College High Schools and RECN participants are more likely than all other schools to provide incentives to take courses toward becoming credentialed (33%) and 31% compared to 14%), to provide incentives to become credentialed (71% and 56% compared to 44%), and to provide incentives to teach dual credit (71% and 88% compared to 39%; see Tables C1 and C2 in Appendix C).

Figure 3: Early College High Schools and RECN Participants Are Most Likely to **Provide Incentives**



CELL is Center of Excellence in Leadership of Learning. RECN is Rural Early College Network. Note: Sample includes 24 CELL Early College High Schools, 16 RECN participants, and 77 schools that are neither CELL Early College High Schools nor RECN participants. CELL Early College High Schools and RECN categories are not mutually exclusive, as nine schools are included in both.

Source: Authors' analysis of CELL Compensation for Dual Credit survey.

Schools that currently offer or would like to offer the Indiana College Core provide incentives at higher rates than schools that do not. Schools that currently offer or aspire to offer the Indiana College Core provide incentives to teach dual credit at higher rates than schools with no interest in offering the Indiana College Core. For example, 8 percent of schools that are not interested in offering the Indiana College Core provide incentives to take courses toward becoming credentialed to teach dual credit, 31 percent provide incentives to become credentialed, and 23 percent provide incentives to teach dual credit. These rates are 1.5 to 3 times higher among schools that already offer, or want to offer, the Indiana College Core (see Table C2 in Appendix C).

Rural schools are more likely than nonrural schools to provide incentives to teach dual credit but less likely to provide other incentives. Whether a school provides incentives varies with school locale. Schools in nonrural areas are slightly more likely than schools in rural areas to provide incentives to take coursework toward becoming credentialed to teach dual credit (20% compared to 15%) and to become credentialed to teach dual credit (55% compared to 43%). However, nonrural schools are less likely than rural schools to provide incentives to teach dual credit (38% compared to 64%). These descriptive patterns continue to hold in analyses that remove Early College High Schools and RECN participants as well as regression analyses that account for other school differences (see Tables C2 and C3 in Appendix C).⁷

Schools that offer 10–19 dual credit courses are more likely to provide incentives than schools offering fewer or more dual credit courses. Schools that offer the middle range of dual credit courses (10–19) are somewhat more likely to provide incentives than schools offering fewer or more dual credit courses. When we remove Early College High Schools and RECN schools from the analysis, schools with 10–19 DC courses remain more likely than schools that offer fewer or more dual credit courses to provide incentives to become credentialed to teach dual credit and to teach dual credit (see Tables C2 and C3 in Appendix C).

7. Regression models that examine the relationship between school locale and the provision of incentives account for the following school characteristics: student enrollment in grades 9-12; student-to-teacher ratio; the number of academic and career and technical education dual credit courses offered; the share of students who identify as Black, Indigenous, or people of color; school control; whether the school is an endorsed CELL Early College High School; whether the school is a RECN participant; the school's engagement with the Indiana College Core; and the share of students who are eligible for free or reduced-price lunch (public school analyses only). By including these variables in the model, we conceptually compare the likelihood that two schools (rural and nonrural) that otherwise possess the same school characteristics provide incentives to take courses toward becoming credentialed to teach dual credit, incentives to become credentialed to teach dual credit, and incentives to teach dual credit.

"Schools that offer 10-19 dual credit courses may be most likely to provide incentives because 'they want to be sure they have enough teachers to comfortably offer the ICC versus those schools [offering more courses] that have plenty of teachers for their students to get the ICC pathway or those schools [offering fewer courses] that aren't even close to being able to offer the ICC."

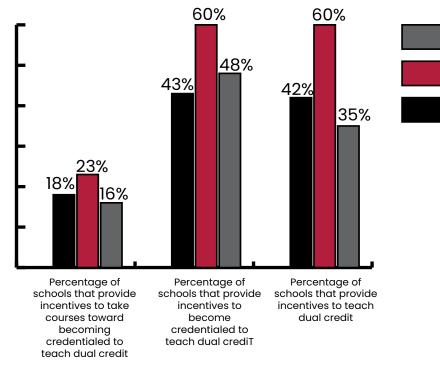
Troy Byler, Director, Advance College Project - Indiana University

Educators participating in the practitioner workgroup offered two explanations for why schools that offer the middle range of dual credit courses may be more likely to offer financial incentives. First, schools in the middle range may be working most actively to build a dual credit teacher pipeline to more comfortably offer the ICC pathway to students. In comparison to schools that offer fewer courses, middle range schools may be closer to achieving this goal. Second, middle range schools may be more likely to prioritize growing their dual credit offerings than schools with a higher number of dual credit courses. Discussing schools that offer more dual credit courses, Dr. Kevin Mowrer with Vincennes University said, "Through conversations with colleagues offering ICC programs, I learned that the excitement of building something new" seems to wane or that these schools have "gotten to the point where they have a good number of courses and are on the maintenance level [for the ICC]."



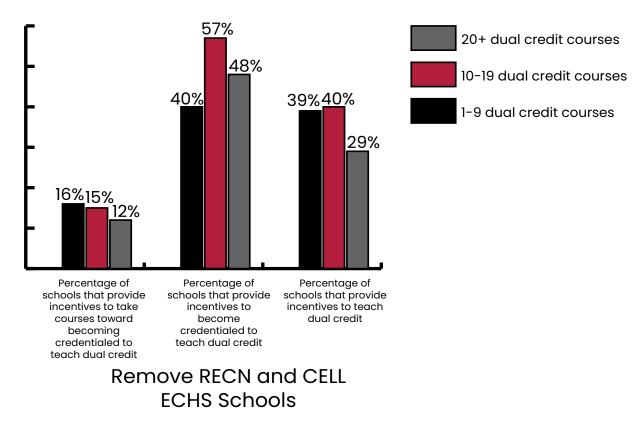
Figure 4: Schools That Offer 10-19 Dual Credit Courses Are More Likely to

Provide Incentives



All Schools

CELL is Center of Excellence in Leadership of Learning. ECHS is Early College High Schools. RECN is Rural Early College Network. Source: Authors' analysis of CELL Compensation for Dual Credit survey.



CELL is Center of Excellence in Leadership of Learning. ECHS is Early College High Schools. RECN is Rural Early College Network. Source: Authors' analysis of CELL Compensation for Dual Credit survey.

RECOMMENDATIONS: GROWING AND SUSTAINING INDIANA'S PIPELINE OF DUAL CREDIT TEACHERS

Strategies to grow and sustain Indiana's workforce of dual credit teachers must be driven by student- and educator-centered practices, sustainable models for funding and implementation, and innovative solutions that address the unique context of assets and needs within each school. These objectives drive the recommendations below and offer a framework for K–12 schools, higher education institutions, and state-level institutions that are working to build a more robust, stable, and diverse workforce of dual credit teachers for students in Indiana. Recommendations were informed by examples of effective practices underway at schools throughout Indiana and developed by invested educators and partners who participated in focus groups with K–12 teachers and administrators; a practitioner workgroup of teachers, K–12 administrators, and higher education partners; and a state leader workgroup of systems leaders who represent education, government, and state legislature.



15

20+ dual credit courses

0-19 dual credit courses

-9 dual credit courses

OVERARCHING RECOMMENDATIONS

Seven overarching recommendations can inform a school's comprehensive strategy to develop a sustainable pipeline of dual credit teachers. While these recommendations are broad, they apply universally to building out any stage of the dual credit teacher pipeline.

- District and school leadership teams prioritize offering dual credit opportunities to yield positive college and career outcomes for students and strengthen the school's accountability performance, finances, community support, and teacher recruitment and retention. The first critical step to building a pipeline of dual credit teachers is deciding, as an administrative team, that providing students with dual credit courses and the pathways they make possible is a high priority. This decision is essential to moving forward the remaining recommendations that require the school to develop strategy and invest targeted time, financial incentives, and additional supports. Participating educators shared that as schools prioritize dual credit, they must be clear about both the "why" of their dual credit programming and how it fits within their broader set of curriculum and staff development goals.
- Partner with higher education institutions to build a comprehensive and sustainable dual credit teacher pipeline with intentional strategies for the four distinct phases: recruit, credential, activate, and retain (see figure 1). Many schools reported struggling with "building a deeper bench" of dual credit instructors that would enable them to continue offering priority classes when other dual credit teachers leave. The more teachers a school can engage at all points along the pipeline, the fewer interruptions in quality dual credit course content their students will experience. Across conversations, administrators commonly expressed that although their school is currently in good shape, they worry about sustaining that stability. Effective sustainability strategies for a dual credit teacher pipeline occur on three fronts: finances, systems (moving from informal practices to formal policy), and personnel (including continuity in leadership and instruction).

- Diversify the pipeline of dual credit teachers to benefit all students and quality professional development and growth opportunities.
- and administrators.

It is important to recognize that while financial incentives are critical to expanding the DC teacher pipeline, schools cannot and do not consider this strategy within a vacuum. It must be included in a broader model of teacher advancement and compensation that balances the talent and needs of all teachers and all students. "Career ladders" offer a promising approach for developing a comprehensive model that "build(s) the internal capacity of the school district to positively affect student achievement by using its most underutilized resource: its people" (AFT, n.d.). Specifically, districts can develop career ladders, also referred to as teacher-leader models (American Institutes for Research [AIR], 2015), that are innovative, strategic, and sustainable by advancing these objectives:

"For our purposes, incentives are everything. If it weren't for those incentives, we would not have teachers working Especially for smaller school districts [that may not be growing]."

Joshua Blossom, Principal, Wabash High School

particularly to expand equity and postsecondary readiness among students of color. Schools can work to diversify their pipeline of dual credit instructors on two levels. First, broadly increase diversity among the full teaching staff by implementing evidence-based strategies for "recruiting, hiring, and retaining diverse teachers (that are) data-driven and targeted" (REL Northwest, 2019). Second, more narrowly focus some of these overarching strategies on increasing diversity among dual credit teachers. For example, a school could begin by selecting three of the nine broader evidence-based strategies offered by REL Northwest on their dual credit teacher pipeline such as: using data effectively, ensuring strategies are relationship-based, and connecting teachers to high

Ensure financial incentives are the foundation of the school's strategies to build its pipeline of dual credit teachers, and are provided through a model of teacher advancement and increased compensation. At every point along the pipeline, financial incentives play a critical role in a school's ability to engage and retain dual credit teachers. While non-financial supports are also important, financial incentives emerged as the most valuable strategy to both teachers

- Provide teachers who wish to stay in the classroom with ample opportunities to grow professionally and financially and "move up without moving out" (AIR,
- Offer "multiple avenues for advancement" (AIR, 2015) for teachers throughout all levels of K-12 to grow their careers.

2015).

- "Create a sustainable budget model using existing funds" (AIR, 2015) to build teacher confidence that earned credentials and expertise will continue to be compensated.
- Target all of the district's priorities for teacher credentialing and content-area expertise in areas such as special education, STEM, and dual-credit.
- Prioritize the school's needs related to graduation pathways curriculum when deciding where to grow the supply of dual credit teachers, such as the Indiana College Core and Next Level Programs of Study. Most, if not all, schools will have gaps in their pipeline. With limited resources, it is important to prioritize which gaps to fill first based on each school's dual credit and related curriculum needs. For example, two important considerations are the school's capacity to provide the Indiana College Core and classes required for their Next Level Programs of Study. With the new Higher Learning Commission requirements taking effect in September 2023, schools can assess which teachers will likely be credentialed at that time and then project where gaps will be.
- Offer flexible scheduling options to emerging or current dual credit teachers to provide more time to complete required credentialing, professional development, and course delivery. Even with limited financial resources, schools can be innovative with their master schedule to address the barrier of teachers having limited time. For example, emerging or existing dual credit teachers can benefit from open periods at the end of the day, flex scheduling to complete exams or professional development, and/or teaching fewer different classes at once to lighten the preparation load while pursuing credentialing or taking on additional dual credit classes.
- Facilitate connections and peer learning among emerging or current dual credit teachers. Build a community of support and camaraderie that builds shared identity, purpose, belonging, and effective teaching practices. Schools can strengthen these connections through peer-to-peer outreach and

recruitment, classroom shadowing, buddy systems for teachers pursuing their credential, mentoring between veteran and emerging dual credit teachers, and collaborating with educators from other districts who teach the same content. Collaborate with higher education partners to streamline communications and procedures for teachers who are becoming credentialed or already teach dual credit courses. A strong partnership between the high school and its higher education partner(s) can directly support the development of a more robust supply of dual credit teachers. To strengthen collaboration, schools can ensure that administrators and teachers are aware of all existing supports available from the higher education partner(s) and stay in close communication regarding areas for improvement. Examples of practices to strengthen the partnership include establishing a memorandum of understanding that identifies the core commitments and points of alignment by the respective partner, scheduling regular meetings between frontline partners, and inviting the higher education partner to spend time at the high school to understand the needs of dual credit teachers and students.

RECRUITMENT RECOMMENDATIONS

Financial Incentives

While financial incentives do not play a direct role in recruiting dual credit teachers, they can offer motivation and assurance. With defined and formal school policies regarding financial incentives for prospective dual credit teachers, educators can feel confident that they have all the information they need to make an informed decision and that, if financial incentives are currently offered, they will still be available by the time the teacher reaches the corresponding stage in the pipeline.

- financial incentives to prospective dual credit teachers.
- and teacher contract.

Recommendation: Strengthen the school's articulation and assurance of later

 Examples: Summary page of incentives and supports with contact information for questions; defined incentives policy in staff handbook, school board policy,

Non-Financial Supports and Incentives

Prospective dual credit teachers will consider the full package of supports available, including those that are non-financial, when making the decision to pursue their credential. At the recruitment stage, a school's goal is to build the teacher's confidence in their ability to teach dual credit effectively, their capacity to complete the process, and the school's commitment to support and value them throughout the experience. Below are recommendations of promising practices schools can use to achieve these objectives, organized by the key barrier each recommendation addresses.

- Cost: Provide clear and consistent communication regarding available financial support and/or incentives as well as resources to alleviate some or all costs associated with credentialing (such as STEM Teach or Teach Dual Credit Indiana administered by CELL and funded through ICHE).
- *Time*: Provide clear and consistent communication regarding the timeline for earning and maintaining a dual credit credential, the school's practices and policies that provide teachers with additional time during the dual credit and credentialing stages, and the timing requirements of higher education partners.
- *Process*: Simplify and streamline communications about the dual credit process • within the high school and the partnering higher education institution. To the extent possible, align messaging across partnering higher education institutions and include an overview of the similarities and differences in the credentialing processes.
- *Connection*: Build one-on-one connections between prospective dual credit • teachers and influencers who can provide support during the decision-making process, including a dual credit teacher within the school (ideally one who teaches the same content area) and an administrator who will personally encourage them to teach dual credit and affirm their capacity to be successful. Valuable messaging points include the positive impact each teacher could have on their students as well as the opportunity for their career advancement.

Financial Incentives

Providing financial incentives can reduce the financial burden emerging dual credit teachers take on to earn their credential and maintain a competitive edge in attracting and retaining emerging dual credit teachers who know they can earn this financial support at other schools. In our analysis of data from CELL's Compensation for Dual Credit survey, we found that 19 percent of respondents offer educators incentives to take coursework toward becoming credentialed and 49 percent offer incentives to become credentialed. The most common type of incentive offered for taking coursework is tuition assistance, and the most common type of incentive offered for earning a credential is a step on the salary scale. Financial incentives at the credentialing stage might also include supplies for graduate-level courses, compensation for time spent completing coursework, and a stipend.

higher steps on the salary scale.

Non-Financial Supports and Incentives Of the four stages in the dual credit teacher pipeline, credentialing can be the most stressful for teachers as they balance going to back to school with full-time work and personal responsibilities. Even if schools have limited financial resources to invest in teachers going through this stage, several non-financial incentives and supports have emerged as promising practices to support teacher well-being and credential completion. These recommendations appear below, organized by the key barrier each one addresses.

funded through ICHE.

 Recommendation: Provide sustained salary adjustments as a financial incentive for teachers to earn their credential. Compensate credentialed teachers for the additional value they offer the school through salary adjustments such as

 Cost: Connect teachers with third-party tuition support to defray the cost of courses while minimizing the impact on the school's incentives budget. Examples include STEM Teach or Teach Dual Credit Indiana, administered by CELL and

- *Time*: Provide teachers with extra time in their schedule to complete required coursework. Creative schedule practices include offering teachers an end-ofday prep period, fewer unique classes they need to prepare for, one half day "off" every nine weeks to complete coursework, and a flexible schedule during their course's final exams.
- *Process*: Simplify and streamline communications about dual credit processes • within the high school and the higher education institution.
- *Connection*: Create a community of support for teachers by pairing them with at • least one other teacher who is pursuing their credential and/or by facilitating the formation of study groups among teachers who are taking the same classes.
- Impact: Recognize emerging dual credit teachers for pursuing and earning their • credential through schoolwide communication channels such as newsletters or staff meetings. Individually, encourage each teacher to complete coursework with reminders of how the credential will help their students earn college credit and support the teacher in advancing their career, increasing their salary level, and building their ability to teach more rigorous coursework.

ACTIVATION RECOMMENDATIONS

Financial Incentives

Financial incentives at the activation stage are an effective and increasingly necessary strategy schools can use to compensate teachers for their willingness to teach more time-intensive dual credit classes. These incentives can yield significant returns for students and for the school's curriculum, accountability measures, finannces and community engagement. While incentive structures will vary across unique school contexts, they should, to the extent possible, be formalized in school policy, including the teacher contract, and be sustainable, through renewable, secure funding sources. In our analysis of data from CELL's Compensation for Dual Credit survey, we found that 49 percent of respondents offer an incentive for educators to teach dual credit courses and that the most common type of incentive provided at this stage is a stipend. Less common incentives provided at this stage include a step on the salary scale and tuition assistance.

- delivered.

Non-Financial Supports and Incentives Dual credit educators reported a high level of satisfaction with teaching these courses as well as unique challenges related to making this intensive commitment to their students and school community. Schools can support dual credit teachers in this stage through several promising practices for non-financial assistance, organized below by the key barrier that each addresses.

- staff members receive for their supplemental staff roles.
- with students (e.g., through advisories), and fulfill the requirements of professional development time).
- and collaboration across higher education partners.
- area.
- ceremony for seniors).

 Recommendation: Compensate educators for teaching dual credit classes with the level of award calculated based on the number of dual credit courses being

• Examples: Stipends provided to teachers at the end of the semester or year.

• Cost: Reduce the opportunity cost of teaching dual credit by narrowing the gap between the compensation dual credit teachers receive and the stipends other

Time: Provide teachers with extra time in their schedule to prepare and grade college-level coursework (e.g., through an extra study hall), meet individually higher education partners (e.g., by allowing teachers to complete some of their mandated higher education professional development during school

Process: Streamline communications and, wherever possible, align processes

 Connection: Onboard new dual credit teachers with mentorship, shadowing, and support from an existing dual credit teacher (ideally in the same content area) and connect dual credit teachers to others who teach the same content

• Impact: Acknowledge and celebrate the impact that dual credit teachers have on students and the school by announcing the number of dual credits and cost savings they have made possible for students (e.g., during an end-of-year

RETENTION RECOMMENDATIONS

Financial Incentives

Promising practices to retain dual credit teachers largely mirror those to retain all teachers. Financially, the essential strategy to prevent attrition among dual credit teachers is to offer a competitive and sustainable incentives package. In our analysis of data from CELL's Compensation for Dual Credit survey, we found that schools that provided incentives were more likely to have "high confidence" in their ability to continue to provide dual credit courses. This suggests that financial incentives are an effective strategy for a school to retain its dual credit teachers (see tables C5 and C6 in appendix C).

To set the level of stipends and/or salary increases for dual credit teachers, schools can compare their compensation to what neighboring school districts offer. Such market research helps identify a meaningful incentive amount and strengthens the case for competitive incentives to those who need to approve them, including the school board. An additional strategy to reduce attrition among dual credit teachers is to provide awards when teachers reach milestones in their dual credit service to the school (e.g., 5 years, 10 years)

Non-Financial Supports and Incentives

The promising practices for non-financial supports that retain dual credit educators are similar to those that apply to the activation stage. Implementing those recommendations will not only support educators as they teach dual credit courses but also reduce their likelihood of leaving by increasing their feelings of being valued and supported.



FUNDING STRATEGIES FOR DUAL CREDIT TEACHER INCENTIVES

Funding for dual credit teacher incentives can come from a variety of sources. Presently, across many schools, grant or discretionary funding is utilized to compensate teachers when they engage in dual credit instruction. Title II funds are also used to provide financial incentives and tend to be a fairly predictable source of ongoing 'soft-funding'. However, as highlighted in this report, the task to complete the necessary coursework under the HLC rules, is significant. Despite various tuition reduction/elimination programs, many teachers report a reluctance to invest so much time (particularly during more challenging times in schools) for the possibility of later discretionary compensation. Additionally, many dual credit teachers shared current compensation practices are relatively low, compared to numerous other extracurricular employment opportunities. Further, school administrators voiced concern over the ability to continue to support dual credit compensation practices, with no dedicated funding sources. District leaders also raised the challenges related to employee equity issues, if only a subgroup of employees were eligible for meaningful compensation increases, such as those associated with dual credit. While opportunities exist for districts to build in a dual credit compensation plan that offers fiscal incentives comparable to extracurricular opportunities, a broader view of compensation practices may be warranted.

As schools consider the renegotiation of salary agreements, an opportunity exists to more broadly incentivize teacher qualifications that are of value to schools and aligned with student needs. The expansion of dyslexia programming, elevated numbers of autistic students, growing numbers of English language learners, amplified attention on trauma and specialized behavioral supports – could be adressed and be paired alongside dual credit credentialing qualifications to craft a compensation ladder for all teachers that extends past longevity steps on a salary scale. The practice could offer schools a method for ensuring more expansive qualifications and growth opportunities within the teacher workforce.

CONSIDERATIONS FOR MOVING FORWARD

The findings and recommendations set forth in this report are focused largely on dual credit and yet are not offered in a vacuum.

The ultimate goal of this report is to preserve, prioritize, and expand dual credit opportunities for Indiana students by building the capacity of school districts to grow their pipeline of credentialed instructors. The national and state research is clear – earning dual credit in high school yields powerful outcomes for students, including those populations experiencing equity gaps such as students of color and low-income students. The forecasts are also clear. If the state is not able to expand the supply of dual credit instructors, Indiana students will have more limited access to these opportunities, outcomes, and the pathways that rely on them - including the Indiana College Core and Next Level Programs of Study.

However, this report also acknowledges that dual credit exists within a broader environment of educational priorities in Indiana that are not separate from, but vital to, the state's ability to leverage dual credit as an opportunity for both students and teachers.

Chief among these priorities is the need to diversify the teacher workforce for the benefit of all Indiana students - including those accessing dual credit. Research demonstrates that students of color benefit in numerous ways from having "an educator who shares the same race, ethnicity, or background" (Indiana Youth Institute [IYI], 2021). Through this report, we challenge the local and state dual credit stakeholders to prioritize having equitable representation within their dual credit teaching force that parallels the population of the school's and state's student population.



To preserve and expand dual credit opportunities, Indiana must employ strategies that both focus on dual credit and address the state's broader context of systemic and teacher workforce needs related to education and college and career pathways. The considerations below offer suggested priorities for continued research and local- and state-level strategy.

- resources and technical support?
- Develop a robust Indiana teacher workforce, including among dual credit teacher workforce in Indiana?
- Develop a more diverse Indiana teacher workforce, including among dual pathways for themselves within dual credit programming?
- take dual credit courses (ICHE, 2021)?
- pipeline.
- opportunities can be available to students throughout K-12?

"Having representation in our teachers is critical when looking at dual credit equity. Our cultural, linguistic, economic, and gender minority students need to be able to see themselves in their dual credit instructors to break down barriers and show them that representation matters in our schools, their fields of interest, and throughout dual credit programming."

Christy Diehl, Assistant Principal of Curriculum and Instruction/Dual Credit Teacher - Logansport High School

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 Grow local capacity: How can education stakeholders, including school districts and state systems, build upon on this report's findings and recommendations to grow schools' capacity to provide sustainable dual credit with practical

teachers: How can efforts to grow a more robust dual credit teacher pipeline intersect with and support broader efforts to achieve the same goals for the full

credit teachers: How can the state develop a more diverse teacher workforce to ensure that students from groups that have been inderrepresented within advanced courses and postsecondary attainment, see representation and

• **Expand equity by expanding dual credit:** How can Indiana close the equity gaps in dual credit attainment by accelerating the upward trend of increasing percentages of students of color and students from low-income households who

 Align local and state postsecondary readiness systems within the ecosystem supporting dual credit: How can Indiana strengthen alignment within and across systems involved with the delivery of dual credit, particularly with respect to expanding the statewide pipeline of a robust and diverse dual credit teacher

• Explore the implementation of career ladders as a promising approach for offering educators who prefer to stay in the classroom ample opportunities to advance professionally and financially. How can Indiana leverage career ladders to grow and retain our teacher workforce? What framework of expanded

REFERENCES

Indiana College Core. (n.d.). Indiana College Core [Infographic]. https://www.in.gov/che/files/2021_ICC_Info_One-Pager_03_11_21.pdf

Indiana Commission for Higher Education. (2021). Indiana early college credit report 2021. https://www.in.gov/che/files/2021_Early_College_Credit_ Report_01_28_2021.pdf

Indiana Department of Education (2020). Data request.

- Indiana Youth Institute (2021). 2021 Indiana KIDS COUNT® Data Book: A profile of Hoosier youth. https://www.iyi.org/wp-content/uploads/2021/03/2021_IYI_ Databook_FINAL.pdf
- National Alliance of Concurrent Enrollment Partnerships. (n.d.). Fast facts [Infographic]. https://nacep.org/docs/resources/Fast%20Facts-FINALpdf.pdf
- Regional Education Laboratory Northwest (2019). 9 Strategies for Recruiting, Hiring, and Retaining Diverse Teachers [Infographic]. https://ies.ed.gov/ncee/edlabs/ regions/northwest/pdf/teacher-attrition.pdf
- U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. (2019). Dual enrollment: participation and characteristics [NCES 2019-176]. https://nces.ed.gov/pubs2019/2019176.pdf

APPENDICES

APPENDIX A: DATA SOURCES

Our analysis draws from survey data, focus groups with high school teachers and high school administrators, working group meetings with dual credit practitioners and state leaders, and publicly available school-level data from the National Center for Education Statistics (NCES) Common Core of Data and Private School Survey. These sources are described in more detail below.

Center of Excellence in Leadership of Learning: Compensation for Dual Credit Survey

The Center of Excellence in Leadership of Learning (CELL) administered this survey to principals and superintendents at all accredited public and private Indiana high schools in spring 2021. One hundred seven individuals completed the survey and an additional 24 partially completed the survey for a total of 131 partial and complete responses. The survey contains school-level information about the provision of dual credit, incentives for teachers to become credentialed and to teach dual credit, and funding for dual credit incentives.

Indiana Commission for Higher Education: Indiana College Core Survey The Indiana Commission for Higher Education administered this survey to high school and postsecondary faculty and administrators across Indiana. A total of 105 high school educators and 55 postsecondary educators responded to the survey. The survey contains individual-level responses about the Indiana College Core, including familiarity with the Indiana College Core, messaging to promote it, resources to support engagement, and challenges to overcome to increase the number of students who earn the Indiana College Core.

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National Center for Education Statistics:

Common Core of Data and Private School Survey

The NCES Common Core of Data contains publicly available school-level data about public (Common Core of Data) and private (Private School Survey) primary and secondary schools. These data include information about school locale, enrollment, student-to-teacher ratio, teacher FTE, and the share of students who are eligible for free or reduced-price lunch (public schools only). We use the most recent years of data available in our analysis, 2019/20 (public) and 2017/18 (private).

Focus groups

Two focus groups—one with high school administrators and one with high school teachers—were conducted by CELL in November 2021. Participants were asked to speak to the barriers and promising practices for expanding the dual credit teacher workforce in Indiana.

Workgroup meetings

Workgroup meetings with dual credit practitioners and state leaders were convened in November and December 2021 and January 2022. Participants provided feedback and guidance to develop the recommendations and considerations described in this report.

Analysis

We analyzed administrator and teacher focus group data to identify common barriers facing schools as well as the promising practices they are either leveraging and/or would recommend to grow dual credit teaching staffs. The common themes identified by the research team were reviewed and refined with input from workgroup meeting participants.

Using data from the CELL: Compensation for Dual Credit survey, we conducted descriptive analysis to examine the landscape of dual credit incentives across Indiana. To explore whether the provision of incentives varies with school

characteristics, we merged school-level data from the NCES Common Core of Data and Private School Survey with individual responses to the CELL survey. Of the 131 responses to the CELL survey, 121 matched with NCES school-level data. The remaining 10 responses came from educational entities that are not represented within NCES data. These responses were retained in all analyses that do not include school-level data. In addition to descriptive analysis, we also estimated regression models to test the relationships between school characteristics and the provision of dual credit incentives. This approach allowed us to determine if and how a change in one school characteristic (e.g., school locale) relates to the provision of dual credit incentives while holding all other school characteristics at their mean value for the sample.

Table A1 contains characteristics for all public and private high schools in Indiana as well as the subset of high schools that responded to the CELL survey. CELL survey respondents are similar to the overall Indiana high school population across most school characteristics. The exceptions are schools with the Early College High School Endorsement, Rural Early College Network participants, and schools that offer the Indiana College Core. Schools that belong to any of these groups were far more likely to complete the survey than other schools.



Table A1. Characteristics of High Schools That Responded to the CELL:

Compensation for Dual Credit survey

	All Indiana private hig		High schools that responded to the CELL: Compensation for Dual Credit survey		
Characteristic	Number of schools with non-missing data	Mean value for schools with non- missing data	Number of schools with non- missing data	Mean value for schools with non-missing data	
Total high schools	610		131		
Public high school	610	78%	121	80%	
Private high school	610	22%	121	20%	
Rural high school	610	48%	121	44%	
Nonrural high school	610	52%	121	56%	
CELL Early College High School Endorsement	N/A	7%	121	22%	
Rural Early College Network participant	N/A	3%	121	13%	
High school offers Indiana College Core	N/A	20%*	131	40%	
Grades 9–12 student enrollment	609	561	116	724	
Share of students eligible for free or reduced-price lunch (public high schools only)	425	47%	95	44%	
Share of students who identify as Black, Indigenous, or people of color	560	24%	119	24%	
Number of academic dual credit courses offered (not career and technical education)	N/A	N/A	115	15	
Number of career and technical education dual credit courses offered	N/A	N/A	102	9.5	

CELL is Center of Excellence in Leadership of Learning. N/A is not applicable.

*Approximately 20 percent of Indiana high schools currently offer the Indiana College Core (Indiana College Core, n.d.). Note: Ten of 131 CELL survey respondents did not match with National Center for Education Statistics school data; therefore, school characteristic data are not available.

Source: Authors' analysis of CELL Compensation for Dual Credit survey and National Center for Education Statistics Common Core of Data and Private School Survey.

APPENDIX B: INDIANA COMMISSION FOR HIGHER EDUCATION – INDIANA COLLEGE CORE SURVEY

A recent survey conducted by the Indiana Commission for Higher Education on the Indiana College Core provides additional context to some of the barriers and challenges that inhibit students from pursuing dual credit opportunities as well as some potential resources that could address these barriers and support dual credit attainment. Retaining students in dual credit courses can in turn support retention of dual credit teachers. While the survey focuses on the Indiana College Core, the findings and recommendations could be generalized to other dual credit opportunities.

The following main themes emerged from respondents' perceptions of the challenges that inhibit students from pursuing the Indiana College Core. These include a lack of credentialed dual credit teachers, the cost of course registration for students, and communicating and managing expectations around credit transfer, especially for students who choose to attend private postsecondary institutions. Respondents also identified several resources that hold potential to support Indiana College Core attainment. More than three-quarters of respondents (77%) said that "general resources about what the Indiana College Core is and how it works" would help to support attainment. The majority of high school respondents (74%) and postsecondary respondents (60%) also wanted better guidance from Indiana postsecondary institutions in selecting Indiana College Core courses that would apply directly to different academic majors. About two-thirds of respondents (64%) thought that short videos explaining the Indiana College Core would help reduce barriers to engagement. See table BI for full results.



Table B1. Resources With Potential to Support Indiana College Core Attainment

	All Res	espondents High school respondents			Postsecondary respondents		
Resource	Number	Percentage	Number	Percentage	Number	Percentage	
General resources about hat the Indiana College Core is and how it works	123	77%	84	80%	39	71%	
Guidance from the Indiana institutions to help students choose Indiana College Core courses that will apply directly to different academic programs (majors)	111	69%	78	74%	33	60%	
Short videos explaining the Indiana College Core	103	64%	66	63%	37	67%	
A digital toolkit with resources for high school and college faculty who interact with students	101	63%	65	58%	28	51%	
Social media toolkit with key facts, messages, and images	89	56%	61	58%	28	51%	
"Plug and play" content (including boilerplate language and logos) to put on your organization's website about the Indiana College Core	88	55%	61	58%	27	49%	
Success stories with real life students who used the Indiana College Core	79	49%	45	43%	34	62%	
All above resources	29	18%	17	16%	12	22%	
Other resources	14	9%	8	8%	6	11%	

APPENDIX C: SURVEY RESULTS

Table C1. Number and Percentage of Schools That Provide Incentives for Dual

Credit

	All Sci	hools	Remove RECN Participants and CELL Early College High Schools		
Incentive	Number	Percentage	Number	Percentage	
Total schools	108	100%	77	100%	
Provide incentives to take courses toward becoming credentialed to teach dual credit	20	19%	9	13%	
Provide incentives to become cre- dentialed to teach dual credit (cre- dential)	53	49%	31	44%	
Provide incentives to teach dual credit (activate)	53	49%	28	39%	
Of schools that provide incentives to take	courses toward b	ecoming crede	ntialed to tea	ch dual credit	
Step on the salary scale	0	0%	0	0%	
Stipend	5	25%	2	22%	
Tuition assistance	11	55%	5	56%	
Other	4	20%	2	22%	
Of schools that provide incentives to becc	me credentialed	to teach dual c	redit		
Step on the salary scale	33	62%	20	65%	
Stipend	10	19%	6	19%	
Tuition assistance	11	21%	7	23%	
Other	3	6%	1	3%	
Of schools that provide incentives to teac	h dual credit	·	·	·	
Step on the salary scale	7	13%	6	21%	
Stipend	37	70%	17	61%	
Tuition assistance	8	15%	4	14%	
Other	4	8%	3	11%	

CELL is Center of Excellence in Leadership of Learning. RECN is Rural Early College Network. Source: Authors' analysis of CELL Compensation for Dual Credit survey. Sample includes all schools who responded to survey questions about the provision of incentives.

Source: Authors' analysis of Indiana Commission of Higher Education Indiana College Core Survey.

Credit, by Select School Characteristics and Attributes, All Schools

			Provide any incentive to take courses toward becoming credentialed to teach dual credit		Provide any incentive to become credentialed to teach dual credit (credential)		Provide any incentive to become credentialed to teach dual credit (credential)			
Grouping	Category	Number of Respondents in Category		Percentag of Catego Total		Number	Percenta of Catego Total	ige ory	Number	Percentage of Category Total
Provide any incentive to take courses toward becoming credentialed to teach dual credit	No	88	0	0%		35	40%		38	43%
	Yes	20	20	100%		18	90%		15	75%
Provide any incentive to become credentialed to teach dual credit (credential)	No	55	2	4%		0	0%		22	40%
	Yes	53	18	34%		53	100%		31	58%
Provide any incentive to teach dual credit (activate)	No	55	5	9%		22	40%		0	0%
	Yes	53	15	28%		31	58%		53	100%
Does your high school offer the Indiana College Core?	We are currently pursuing the Indiana College Core.	6	0	0%		1	17%		2	33%
	We are not interested in offering the Indiana College Core.	13	1	8%		4	31%		3	23%
	We would like to offer the Indiana College Core, but are not able to at this time.	39	7	18%		18	46%		21	54%
	Yes, we are currently offering the Indiana College Core.	50	12	24%		30	60%		27	54%
CELL Early College Endorsement	No	78	10	13%		33	42%		34	44%
	Yes	24	8	33%		17	71%		17	71%
Rural Early College Network participant	No	86	13	15%		41	48%		37	43%
	Yes	16	5	31%		9	56%		14	88%
Number of academic dual credit courses offered (no career and technical education)	0 dual credit courses of- fered	2	0	0%		0	0%		2	100%
	1–9 dual credit courses offered	40	7	18%		17	43%		16	40%
	10–19 dual credit courses offered	35	8	23%		21	60%		20	57%
	20+ dual credit courses offered	31	5	16%		15	48%		15	48%
NCES high school locale: Nonrural vs. rural	Nonrural	55	11	20%		30	55%		21	38%
	Rural	47	7	15%		20	43%		30	64%

Credit, by Select School Characteristics and Attributes, Excludes Rural Early

			ince take toward crede	vide any entive to courses I becoming entialed to dual credit	Provide any incentive to become credentialed to teach dual credit (credential)		Provide any incentive to become credentialed to teach dual credit (credential)		
Grouping	Category	Number of Respondents in Category	Number	Percentage of Category Total	Number	Percentage of Category Total	Number	Percentage of Category Total	
Provide any incentive to take courses toward becoming credentialed to teach dual credit	No	66	0	0%	24	36%	23	35%	
	Yes	11	11	100%	10	91%	7	64%	
Provide any incentive to become credentialed to teach dual credit (credential)	No	43	1	2%	0	0%	13	30%	
	Yes	34	10	29%	34	100%	17	50%	
Provide any incentive to teach dual credit (activate)	No	47	4	9%	17	365	0	0%	
	Yes	30	7	23%	17	57%	30	100%	
Does your high school offer the Indiana College Core?	We are currently pursuing the Indiana College Core.	4	0	0%	0	0%	1	25%	
	We are not interested in offering the Indiana College Core.	13	1	8%	4	31%	3	23%	
	We would like to offer the Indiana College Core, but are not able to at this time.	35	6	17%	17	49%	19	54%	
	Yes, we are currently offering the Indiana College Core.	25	4	16%	13	52%	7	28%	
Number of academic dual credit courses offered (no career and technical education)	0 dual credit courses of- fered	2	0	0%	0	0%	2	100%	
,,,,,,,, _	1–9 dual credit courses offered	38	6	16%	16	42%	15	39%	
	10–19 dual credit courses offered	20	3	15%	12	60%	8	40%	
	20+ dual credit courses offered	17	2	12%	6	35%	5	29%	
NCES high school locale: Nonrural vs. rural	Nonrural	46	8	17%	22	48%	16	35%	
	Rural	25	1	4%	9	36^	12	48%	

CELL is Center of Excellence in Leadership of Learning. NCES is National Center for Education Statistics. Source: Authors' analysis of CELL Compensation for Dual Credit survey. Sample includes all schools who responded to survey questions about the provision of incentives.

CELL is Center of Excellence in Leadership of Learning. NCES is National Center for Education Statistics.

Source: Authors' analysis of CELL Compensation for Dual Credit survey. Sample includes all schools who responded to survey questions about the provision of incentives.

Table C3. Number and Percentage of Institutions That Provide Incentives for Dual

College Network Participants and CELL Early College High Schools

Table C4. Schools' Confidence in Continuing to Provide Non-Career and Technical Education Dual Credit Classes After Higher Learning Commission Credentialing Deadline

	Incentives to take dual credit credentialing courses		credentialed	to become to teach dual edit	Incentives to teach dual credit		
Confidence school will continue to provide non-career and technical education dual credit classes after credentialing deadline	Not provided	Provided	Not provided	Provided	Not provided	Provided	
No Confidence	3%	0%	4%	0%	2%	2%	
Low Confidence	10%	5%	9%	9%	9%	9%	
Moderate Confidence	33%	30%	36%	28%	42%	23%	
High Confidence	55%	65%	51%	62%	47%	66%	
Total	100%	100%	100%	100%	100%	100%	

Source: Authors' analysis of Center of Excellence in Leadership of Learning Compensation for Dual Credit survey. Sample includes 108 schools who responded to survey questions about confidence in offering dual credit and provision of incentives.

Table C5. Schools' Confidence in Continuing to Provide Career and Technical

Education Dual Credit Classes

	Incentives to take dual credit credentialing courses		credentialed	to become to teach dual edit	Incentives to teach dual credit		
Confidence school will continue to provide non-career and technical education dual credit classes after credentialing deadline	Not provided	Provided	Not provided	Provided	Not provided	Provided	
No Confidence	2%	0%	3%	0%	0%	3%	
Low Confidence	4%	0%	6%	0%	0%	5%	
Moderate Confidence	18%	8%	17%	15%	16%	16%	
High Confidence	77%	92%	74%	85%	84%	76%	
Total	100%	100%	100%	100%	100%	100%	

Source: Authors' analysis of Center of Excellence in Leadership of Learning Compensation for Dual Credit survey. Sample includes 69 schools who provide at least one career and technical education dual credit course and responded to survey questions about confidence in offering dual credit and provision of incentives.

APPENDIX D: WORK GROUP MEMBERS

We would like to thank the following partners for serving on one of the work groups that provided input into this report. We appreciate and value the time they invested and their ongoing commitment to preserving and expanding dual credit opportunities for Indiana students. While their perspectives were vital to informing the report's content, their participation should not be interpreted as an individual or organizational endorsement of the report or its content therein.

Practitioner Work Group

Troy Byler, Director, Advance College Project - Indiana University Josh Blossom, Principal – Wabash High School Christy Diehl, Assistant Principal of Curriculum and Instruction, Dual Credit teacher – Logansport High School

Jody French, Principal - Perry Central Jr./Sr. High School LaKisha Hillard, M. Ed, Director of K-14 Initiatives - Ivy Tech Community College Valparaiso

Eric Howe, Dual Credit Teacher – Center Grove High School Valerie Miller, Assistant Principal – Ben Davis University High School Kevin Mowrer, Ph.D., Assistant Dean of Instruction – Vincennes University at New Palestine

Michael Thompson, Business Department Chair and Early College High School Director –Connersville High School

State Leader Work Group

Mike Beam - Assistant Vice President - Indiana University Flora Jones, Director of Student Pathways - Indiana Department of Education Tari Lambert, Director, Transfer Indiana - Indiana Commission for Higher Education Tim McRoberts, Associate Executive Director - Indiana Association of School Principals

Rebecca L. Rahschulte, Ph.D., Vice President of K-14 Initiatives & Statewide Partnerships Office of K-14 Initiatives/Provost Office - Ivy Tech Community College Dr. Ken Sauer, Senior Associate Commissioner and Chief Academic Officer -Indiana Commission for Higher Education Dr. Nicole Shankle, Dean of Academic Early College - Vincennes University







Whitepaper Creative Designer Payton Gross, M.S. Public Relations Manager - Center of Excellence in Leadership of Learning

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