



Increasing Dual Enrollment Access and Success

Response to CFDA 84.411A

Education Innovation and Research (EIR) Program—Expansion Grants

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INTRODUCTION

The **Increasing Dual Enrollment Access and Success (IDEAS) project**, led by Jobs for the Future (JFF) in partnership with leading state-level dual enrollment (DE) technical assistance (TA) providers in Arizona (AZ), Illinois (IL), and Texas (TX), with the American Institutes for Research (AIR) as evaluator, will improve educational outcomes for *high-need high school (HS) students*, defined as low-income and/or students of color, by ***measurably increasing student access to and success in high-quality DE courses***, through which students earn HS and college credit simultaneously.¹ DE is a proven strategy for improving educational outcomes in both HS and college. IDEAS will expand access to this evidence-based intervention and improve educational outcomes for students across the country by designing and implementing a groundbreaking model for ***Dual Enrollment Hubs (Hubs) that are embedded within community colleges (CCs) and serve multiple HSs***. Hubs will enable CCs to serve more DE students and HSs by achieving operating efficiencies and economies of scale, leading to increased—and more equitable—access to DE and greater student success. IDEAS will: 1) provide Hubs with funding and ongoing TA to support their design, launch, and implementation; and 2) generate a suite of tools, resources, and publications to support national replication and adaptation of the model. AIR’s evaluation will test the impact of IDEAS on college credit attainment in HS and postsecondary enrollment and attainment.

Our proposed Education Innovation and Research (EIR) project, with DE as its key component, addresses Absolute Priority 1—Strong Evidence (API). A February 2017 What Works Clearinghouse (WWC) Intervention Report identifies 5 studies meeting WWC group design standards that found DE had a positive effect, based on a medium to large extent of evidence and with no negative effect, across a range of student outcome domains, including

degree attainment (college), college access and enrollment, credit accumulation, HS completion, and general academic achievement (HS).² *DE and the IDEAS project thus meet the strong evidence definition under 34 CFR 77.1 and satisfy the requirement for AP1.*

IDEAS will address Absolute Priority 2—Field-Initiated Innovations—General (AP2) by scaling DE via Hubs, an entrepreneurial, evidence-based, field-initiated innovation to address inequities in our country’s education system and improve student achievement and attainment for high-need students. IDEAS is informed by JFF’s 20+ years of work to scale DE nationally and direct feedback from the field regarding ongoing barriers to scale and how to address them with a centralized DE delivery approach. ***IDEAS also addresses this competition’s Competitive Preference Priority—Promoting Equity in Student Access to Educational Resources and Opportunities—Implementers and Partners by including CCs as implementation partners and sites for the Hubs***, the central component of the project. IDEAS will partner with CCs to more equitably serve DE students and better enable students, especially high-need students, to access educational opportunities to succeed in school and reach their full potential.

A. SIGNIFICANCE

IDEAS will develop and demonstrate an innovative Hub model to scale DE, a critical evidence-based strategy for addressing inequities in our country’s education system, leading to more equitable student access to DE and improved educational attainment and achievement. Hubs embedded within CCs will function as central service centers for DE, managing key operational issues—including faculty and course availability and the development of partnership agreements with HSs—while also partnering with HSs to provide students, especially high-need students, with robust supports, advising, and navigation services. Hubs will overcome persistent and significant challenges to student access and success by reimagining how CCs and HSs partner to

offer DE. IDEAS will thus expand a proven strategy for improving student outcomes at the HS and postsecondary levels and drive innovation and create resources that support further scale.

IDEAS will implement the Hub model in two cohorts of states: Group 1 comprises three states—AZ, IL, and TX—three state lead (SL) TA providers, and four CCs. (See Table 1.)

Table 1: IDEAS State Leads and Community College Implementation Partners—Group 1

State	Arizona	Illinois	Texas
State Lead (SL)	Center for the Future of AZ (CFA)	Education Systems Center at Northern IL Univ. (ESC)	Educate Texas (EdTX)
Community College (CC)	Pima CC (PCC)	College of Lake County (CLC)	Alamo Colleges Amarillo College

Collectively, the four Group 1 CCs enroll almost 108,000 students and annually serve more than 24,000 DE students across 223 public and charter HSs and 101 school districts. (For college-level data, see Appendix J.1) The CC implementation sites represent highly varied contexts, from a major urban CC system to a CC serving primarily rural school districts with under 500 students. In Year 3 of the project, we will select and onboard a second group (Group 2) of three states that, like Group 1, will include three SLs and four CCs. Group 2 states and colleges will be selected based on factors that include their state policy contexts, locales, and populations of high-need students to be served, as well as their readiness to implement the Hub model. This approach provides an opportunity to create a diverse mix of IDEAS implementation sites, allowing for significant testing and refinement of the Hub model across multiple contexts. IDEAS will both drive expansion of DE during the project period and support the creation of a national model that can be adopted by and tailored to many more states, will support replication beyond the project period, and will be documented and disseminated by the IDEAS partners.

The WWC evidence base is unassailable: DE is one of the most powerful interventions to improve educational outcomes, especially for high-need students, with positive effects across a range of student outcome domains in HS and postsecondary education, including college access, enrollment, and degree attainment; credit accumulation; HS completion; and HS general academic achievement.³ Research also shows that DE is an equity strategy; its positive effects on college access and completion are greatest for students underrepresented in higher education and low-income students.⁴ High-quality DE provides students with an opportunity to get a head start on college by taking courses aligned with postsecondary programs of study, credentials, and degrees and has the potential to reduce college tuition costs for students and families.⁵ DE often offers a wider variety of course options and a smoother transition from HS to postsecondary than programs such as Advanced Placement (AP).⁶ Studies have found that DE increases the probability that participants will earn postsecondary degrees.⁷ This effect is magnified for students from low-income families.⁸ In addition, students who participate in DE apply to more colleges than those who do not, and students who attempt DE credits are more likely than their peers to be admitted to in-state four-year colleges and to be admitted to a highly selective college.⁹ The strongest evidence comes from studies of DE models like early college high schools (ECHS) in which students earn a larger number of college credits and receive targeted supports¹⁰—much like the Hub model. Evidence also suggests that the monetary benefits to students and the public of DE models like ECHS outweigh the costs, signaling a positive return on investment that is critical for low-income households and people of color.¹¹ This is especially important as the rising cost of postsecondary education has had a negative effect on the ability of young Americans to reach the level of educational attainment needed to secure good jobs.¹²

Over the last two decades, DE has gained significant traction as an evidence-based model for

improving educational outcomes, but persistent challenges in equitable access to DE have denied high-need students its benefits and slowed its growth. About 1.5 million students annually participate in DE courses,¹³ and 34% of all HS graduates have participated.¹⁴ Yet the data reveals stark inequities in access. (See also section C3.) Only about 10% of public HS students in the U.S. participate in DE each year, and the participation rate for white students is more than twice that for Black students.¹⁵ About 90% of HSs in rural areas offer DE, as compared to 73% of HSs in urban areas.¹⁶ But in half of those rural communities, students and their families cover the costs of DE, limiting access to students with the means to pay for it.¹⁷ Among public HSs where 75% or more of all students qualify for free or reduced-price lunch, 71% offer DE, compared to 82% of all public HSs.¹⁸ Parents' education levels are also predictors of student participation: 42% of all U.S. HS students whose parents held bachelor's degrees or above participated in DE, while only 26% of students whose parents had less than a high school diploma did so.¹⁹

IDEAS Hubs are an innovative model that will restructure existing delivery approaches to increase equity of access to—and bolster student success in—this evidence-based intervention. The prevailing national model of one-to-one DE partnerships that are individually negotiated between HSs and CCs contributes significantly to inequitable access and lack of student success. Student outcomes are often impeded by partnership agreements that are not well developed and do not appropriately plan for partner-specific responsibilities related to programmatic services, advising and navigation supports, costs, and data collection.²⁰ Hubs will address uneven access across HSs and districts by centralizing the process for negotiating high-quality partnership agreements with clearly delineated responsibilities for operations and student supports. In addition, Hubs will partner with HSs to offer operational and student supports that increase both access and success for high-need students (see sections B1 and C3).

IDEAS responds to the U.S. Department of Education’s “Raise the Bar: Lead the World” call to action to reimagine schools and transform our education systems, including ensuring that every student has a pathway to college and a career.²¹ ED’s Raise the Bar: Unlocking Career Success initiative prioritizes DE as one of four keys to student success.²² IDEAS responds to ED’s call to address the equity gaps in our current DE system by implementing key strategies that include focusing on equitable student engagement; driving quality, oversight, and cross-sector collaboration; reducing costs; and increasing the availability of academic and career-focused courses.²³ Federal recognition of the importance of DE is mirrored at the state level: in 2023, state legislatures in all 50 states introduced a collective total of 527 bills related to DE. As the nation’s recovery from the COVID-19 pandemic continues, DE is also a key strategy for addressing declining college enrollment rates and their implications for students’ educational and career outcomes. CC enrollment declined by 10% in the first year of the pandemic, from fall 2019 to fall 2020, and another 3% from fall 2020 to fall 2021.²⁴

IDEAS will be implemented across multiple geographies, thus yielding a model that is adaptable to varied state and local contexts and replicable nationally. The states in IDEAS Group 1 have varied state policy and funding environments for DE (see Appendix J.2), and the CCs that will implement Hubs operate in locales that range from rural to suburban to urban. The inclusion of two CCs in TX in Group 1 and two CCs in another state in Group 2 will also provide an opportunity to answer critical questions about how to operationalize Hubs across different locales within the same state policy context. All Group 1 states have DE participation rates that are above the national average, which provides the opportunity to ensure that Hub practices are closing equity gaps, rather than simply providing an overall DE boost that achieves parity with national figures. IDEAS will balance implementation fidelity and flexibility for scaling by

utilizing a model for Hubs that emphasizes a set of core functions while allowing for adaptation across states and locale types. Expansion to a second group of states in Year 3 will create an important opportunity to test and refine the model developed in the first half of the project period in new geographies; lead to new learning about how IDEAS practices improve student achievement and attainment; and develop increasing evidence of effectiveness. Increasing cost effectiveness for CCs is a core component of the Hub model, and IDEAS will generate new strategies for efficiently and cost effectively scaling DE and the Hub model and lead to greater understanding of how the cost structures of DE change as the intervention scales. See section C1 for additional detail on how the IDEAS partnership structure supports this approach.

IDEAS will hold national significance and influence beyond the project period, as JFF will leverage its national networks and work with SLs and CCs to drive national and state expansion of DE and adoption of the Hub model. The three Group 1 states represent more than 2.6 million public HS students, 17% of the national total. Through the project, JFF will provide TA to IDEAS SLs in six states to build their capacity to support the development of additional Hubs in their states and drive needed state policy changes beyond the project period (see section C1). JFF will also share and leverage IDEAS frameworks, tools, and publications with its network of K-12 and postsecondary educators and institutions, systems-level partners, and policymakers in order to support national adoption and expansion beyond the project period (see section B4).

B. STRATEGY TO SCALE

B1. Strategies that Address Barriers to Reaching Scale. IDEAS will leverage Hubs to address barriers to scale and develop solutions identified by researchers and by the field, ensuring that the *Hubs are a field-initiated innovation in line with AP2* that scales an evidence-based intervention. IDEAS will pursue six major strategies to address barriers to scale:

Strengthen DE partnership models. An ongoing barrier to equity and scale is DE partnerships based on one-to-one relationships that yield individualized DE agreements between CCs and HSs. (See section A.) This approach drains both CC and HS resources and results in a need for CCs to vary DE implementation for different HSs depending on the terms of their agreements, creating additional inefficiencies. Further, these one-to-one relationships mean students' access to DE is dependent on the ability of their HS or district to negotiate a favorable agreement.²⁵ Even within the same district, access to DE can vary by HS.²⁶ IDEAS will create a **Hub Framework** that articulates implementation principles for strong, efficient CC-HS partnerships and provides guidance on standardized DE agreements that will be more effective and equitable. JFF will develop the initial Framework with key design principles; each SL will then build out the Framework in alignment with its state policy context. To support SLs, CCs, and HSs in monitoring progress, JFF will create a **Hub self-assessment tool** aligned to the Framework, with benchmarks to track success along dimensions of role and function, and a **Hub data collection tool** to support CCs and HSs in collaboratively collecting and using disaggregated student-level data to identify and address equity gaps and support continuous improvement.

Create DE instructor staffing model for Hubs. A lack of qualified instructors for both core academic and career and technical DE courses is a major barrier to scale and limits course availability,²⁷ particularly in the context of DE models in which courses are taught within the HS by HS teachers, a model that is common because it tends to reduce costs and remove logistical barriers such as transportation to DE courses taught on a college campus. DE instructors must meet the qualification requirements set by CCs and postsecondary accreditation agencies, which often require discipline-specific graduate education for academic courses and extensive professional experience for technical courses. Many HS teachers do not meet these requirements,

assessment	local leaders in creating needed state policy conditions for Hub replication
Practice brief	Five briefs highlighting actionable IDEAS best practices, with a focus on practices that promote equity and support high-need students
IDEAS blog series	Series highlighting perspectives of IDEAS project participants, including students, families, teachers, advisors, Hubs, HSs, and SLs

Strategic national dissemination. JFF brings significant strategic communications capabilities to advance and disseminate knowledge across the education sector. In Year 2 of the project, JFF will create a robust *dissemination plan* focused on a national campaign to share IDEAS tools and resources. The campaign strategy will clearly define the target audiences, name the core educational outcomes IDEAS will achieve, and identify the ways in which the field can utilize IDEAS resources. The campaign will center around cross-promotional strategies, and JFF will create social media and email toolkits the IDEAS partners can utilize to create a coordinated dissemination effort to maximize reach and impact. To ensure that all publications and tools are readily accessible, JFF will create a *public-facing IDEAS webpage and resource library*. JFF will also promote and distribute IDEAS resources through our digital properties, such as JFF.org, email lists (50,000+ contacts), LinkedIn (33,500 followers), Twitter (18,900 followers), and other channels, including Facebook, Instagram, Medium, and YouTube.

In addition, IDEAS partners will disseminate tools and publications and engage with their networks, practitioners, and policymakers interested in replication. IDEAS partners will showcase the project in presentations at *five or more relevant national conferences*, including those focused on DE and CCs. In Year 5, JFF will host a *series of three webinars open to a national audience* to support further dissemination of IDEAS resources. IDEAS resources will also be posted on partners' websites, all of which include online repositories for publications and

resources that are regularly accessed by thousands of national, state, and local education leaders.

Strong support for dissemination activities will be provided by JFF’s extensive national networks and reach, which encompass K-12 schools, postsecondary institutions, system-level partners, and policymakers across 46 states. Members of major national networks and initiatives, including the PtoPN and CHSA, will be included in all outreach. JFF’s networks also include HSs and CCs across multiple states that are now developing innovative DE models with support from four EIR awards led by JFF. For those awards, JFF has developed a cross-cutting dissemination plan, staffed by a dedicated coordinator, to accelerate efforts associated with any single grant or project and foster development of a national narrative about cutting-edge DE strategies. JFF’s track record in using this strategy to engage national audiences includes an April 2023 publication on scaling DE in rural communities that has been shared over 7,500 times on social media and featured in national newsletters, including by the U.S. Department of Labor and the National Association of Concurrent Enrollment Partnerships. This existing structure to support dissemination—and national audience—will be leveraged to support the IDEAS dissemination plan and connect IDEAS to ongoing national conversations about DE.

B5. Utility of Products. All IDEAS products will be designed with utility in mind and usable across a variety of settings to support national replication and expansion. JFF and the SLs’ expertise in working across multiple states will ensure that all products are adaptable to multiple contexts. All resources in the IDEAS Toolkit (see section B4) will have been tested across varied state and local contexts during the project period (see section B1) and will provide a customizable foundation for replication. Publications (see section B4) will be strategically written to be relevant in a variety of settings. The IDEAS report will highlight outcomes and ignite national conversations, while case studies and practice briefs will showcase Hub

implementation in ways that elevate on-the-ground strategies, identify tactical action steps, and raise key themes across states. Policy recommendations will speak to ways policymakers and educational leaders can improve policy conditions to enable utilization of the Hub model. Self-assessment tools and the data guide will similarly be designed for use in a variety of settings.

JFF will also test and improve the utility of IDEAS products by soliciting feedback from national networks and partners such as the members of the CHSA steering committee. JFF will further invite feedback from DE leaders across the country by leveraging the PtoPN, thereby gathering feedback from educators and policymakers representing 40+ states and regions. Feedback sessions will be hosted at PtoPN convenings, and PtoPN leaders will be invited to test IDEAS products and practices and provide the IDEAS project partners with feedback to enhance their usability, which will inform final product refinements prior to publication.

C. QUALITY OF THE PROJECT DESIGN

C1. Extent and Quality of Conceptual Framework. The conceptual framework for IDEAS will yield a new mechanism to equitably scale DE, expand access, and improve student outcomes, especially for high-need students. Our logic model (see Appendix G) depicts how we will improve educational outcomes by leveraging the IDEAS partners' expertise and institutional capital to: 1) design and implement the Hub model; and 2) support state and national replication.

Designing and implementing the Hub model. IDEAS will provide TA to support CCs and partner HSs in implementing a Hub model that increases equitable access to DE courses and supports student success in them while creating a more efficient and effective operating model. In the project's first six months, JFF will lead development of the Hub Framework, and SLs will support CCs in planning for its implementation. IDEAS will employ a multi-tiered structure for TA delivery throughout the project. JFF will oversee all TA activities and provide **TA and**

capacity building supports for all SLs, including monthly 1:1 TA calls and support adapting national tools and frameworks to their state contexts, to ensure quality and consistency of TA delivery to Hubs. SLs will leverage their local knowledge and relationships to provide direct TA and coaching to the CCs that will serve as direct implementation sites, as well as supporting partner HSs. All SLs and CCs will receive funding to support IDEAS implementation. For purposes of the evaluation, half of the HSs currently partnering with Hub CCs on DE will be assigned to the treatment group and half to the control. JFF and SLs will collaboratively develop a ***TA plan aligned to the Hub Framework*** to guide TA activities and ensure that all Hubs receive a robust suite of supports. In addition to a ***suite of tools and resources*** (see sections B1 and B4), IDEAS will provide ***high-quality, customized TA to Hubs*** that will include individual site visits in Years 1-4 and monthly 1:1 coaching calls in Years 1-5 to assist CCs in planning and to provide customized training on key design principles. SLs will facilitate the development of partnership and data-sharing agreements between CCs and HSs and will support data collection. In addition, all SLs and Hubs will participate in peer-learning opportunities via a national ***IDEAS CoP convened by JFF*** that brings together SLs and CCs in Groups 1 and 2 for peer learning and collaborative problem solving, focused on refining a Hub model that is sustainable and effective across multiple geographies. The CoP will ***meet in person twice annually*** (once in Year 1 of the project) immediately prior to JFF-hosted PtoPN biannual convenings, which bring together 200+ national leaders and are focused on scaling DE pathways. Following the CoP events, all IDEAS project participants will have an opportunity to join the PtoPN convenings to learn about emerging national best practices in scaling DE. The IDEAS CoP will also include ***quarterly virtual learning events*** focused on problem solving and deep dives into content.

Supporting state and national replication and adaptation. The eight CCs in Groups 1 and 2 will

serve as Hub implementation sites, allowing for refinement of the model across multiple geographies—encompassing varied state policy contexts and urban, suburban, and rural locales—and expansion within the project period. The IDEAS “train-the-trainer” model, in which JFF provides TA to SLs instead of serving as a centralized TA provider working directly with Hubs, will support replication by ensuring that SLs are positioned to support development of additional Hubs in their states. The SLs work closely with their state policymakers and are well positioned to support policy changes aligned to the IDEAS state policy framework that will encourage expansion of the model to additional colleges within their states. JFF will leverage its national networks and dissemination strategy (see section B4) to support the adaptive integration of the Hub model into varied contexts nationwide and drive national replication and expansion.

C2. Measurability of Goals, Objectives, and Outcomes. Our conceptual framework supports the pursuit of four goals that measurably improve outcomes. The goals, objectives, and outcomes are measurable; aligned metrics are in the Project Objectives and Performance Measures Information form. A baseline to measure progress over the grant period will be established by AIR in Year 1.

Goal 1. Increase equitable access to and high-need students’ participation in DE by

designing and implementing Hub model. Objectives: 1) Increase the number of high-need students who enroll in DE courses; 2) Launch Hubs that provide equitable access to DE in 6 states; 3) Increase students’ and families’ understanding of the benefits of DE. Outcomes: 1)

High-need students are enrolling in DE courses at rates proportionate to their overall enrollment;

2) Multiple Hubs are serving diverse locales, including urban, suburban, and rural areas; 3)

High-need students and their families have greater awareness of the benefits of DE.

Goal 2. Increase students’ HS academic attainment and postsecondary enrollment and completion. Objectives: 4) Increase the number of DE courses aligned to programs of study

offered; **5)** Increase the number of students who complete at least one DE course; **6)** Increase the number of students who complete at least 12 college credits via DE; **7)** Increase the number of students who complete at least 12 credits aligned to programs of study via DE; **8)** Increase the number of students who graduate from HS; **9)** Increase the number of students who enroll in postsecondary education; **10)** Increase the number of students who complete postsecondary degrees and certificates; **11)** Provide high-need students with advising and supports in order to improve their academic outcomes. *Outcomes:* **4)** High-need students are successfully completing DE courses at rates proportionate to their overall enrollment; **5)** More students graduate HS with at least 12 college credits; **6)** High-need students get a head start on postsecondary degrees and credentials by earning college credit in HS.

Goal 3. Build the capacity of CCs and HSs to serve more high-need students in DE via the Hub model. *Objectives:* **12)** Increase the number of DE courses offered; **13)** Increased capacity of HSs and CCs to collect and analyze student outcome data; **14)** Codify sustainable funding mechanisms for Hubs; **15)** Create opportunities for IDEAS partners to learn from evidence-based practices and from each other. *Outcomes:* **7)** Hubs offer a range of courses aligned to programs of study to students from multiple partner HSs; **8)** Hubs and HSs collaboratively use student outcome data to drive continuous improvement in serving high-need students; **9)** Hubs operate based on a sustainable funding model that can be replicated in additional locales; **10)** IDEAS partners consistently use evidence-based practices to scale DE.

Goal 4. Document and disseminate promising practices and lessons learned to a national audience to support replication and expansion. *Objectives:* **16)** Document and share how IDEAS expands access to and success in high-quality DE courses; **17)** Ensure national replication and expansion of IDEAS across other states; **18)** Share IDEAS processes, practices,

and findings nationally, with active outreach to education leaders in other states. *Outcomes:* **11)** IDEAS inspires and informs the development of expansion strategies for increasing access to and success in high-quality DE; **12)** IDEAS expands the evidence base about effective practice to improve outcomes of high-need students and creates actionable tools and resources for policymakers and practitioners across the country; **13)** IDEAS strategies are utilized nationwide.

C3. Addressing Needs of Target Populations. The IDEAS target population is high-need students, especially students from low-income households and students of color. Over 50% of public K-12 students in all three Group 1 states are students of color (see Appendix J.4).³⁴ IDEAS will boost high-need students' achievement and attainment and address three pressing and interconnected challenges: 1) persistent and deep inequities in educational attainment; 2) inequitable access to the benefits of DE; and 3) lack of available supports for high-need students.

Despite efforts to close them, significant gaps in student outcome measures when disaggregated by race and socioeconomic status persist across the country. In 2019, the on-time public HS graduation rates for American Indian/Alaska Native, Black, Hispanic, and economically disadvantaged students were 75%, 81%, 83%, and 81%, respectively, compared to 90% for white students.³⁵ Similar disparities exist in postsecondary enrollment and completion. Between students in the highest socioeconomic status group and those in the lowest group, there is a 50-point gap in college enrollment rates.³⁶ In 2022, for Black, Hispanic, and American Indian/Alaska Native 25- to 29-year-olds, postsecondary attainment rates were 36%, 34%, and 19%; that of their white peers was 56%.³⁷ In addition, Black and Latinx students are underrepresented in selective public colleges.³⁸ The COVID-19 pandemic further depressed postsecondary enrollments for 18- to 24-year-olds.³⁹ A lack of educational attainment limits young people's career prospects and access to good jobs. Nationally, by 2027, 70% of jobs will

require education or training beyond HS.⁴⁰ We are not on track to meet that demand.⁴¹

DE is a proven strategy for improving educational outcomes in HS and college for high-need students (see Section A), yet access to its benefits remains uneven—a challenge the Hubs will address. In 2019, the DE participation rate of Black students in public high schools was only 6%; for Hispanic students, 7%; and for American Indian/Alaska Native students, 8%. 12.5% of white students participated in DE.⁴² In addition, research has found high levels of variability in access to DE at the HS and district levels, with greater opportunities for students in well-resourced HS and districts. IDEAS will level the playing field by centralizing DE partnerships and providing a clear and streamlined model for HS to access and offer DE opportunities. Hubs will also standardize DE participation requirements and ensure that all students have equal access to information about participation, a key lever for supporting high-need students.⁴³

Hubs will also improve outcomes for the target population by providing critical supports for high-need students while developing HS-CC partnerships that prioritize equity. Evidence shows that a shared vision that centers equity and strong relationships between CC and HS—all essential components of the Hub model—are critical to equitable student access and outcomes.⁴⁴ Strong student advising models, which will be implemented by the Hubs in partnership with HSs, are another lever to meet the needs of the target population.⁴⁵ In addition, the Hubs' centralized course scheduling approach will allow DE courses to be integrated into the school day, a structure that supports success for high-need students.⁴⁶ This infrastructure will be coupled with student support resources (see section B1) that provide CC and HS faculty and staff with information on best practices and tools for serving high-need DE students.

D. QUALITY OF THE PROJECT EVALUATION

AIR will conduct an independent evaluation of IDEAS to address eight research questions

(RQs) that relate to its impact, implementation, scalability, and cost-effectiveness. The evaluation will address these research questions through the collection and analysis of data from several sources during five academic years, between 2024–25 and 2028–29. Relying on CC administrative records, state longitudinal datasets, and National Student Clearinghouse (NSC) data,⁴⁷ the impact evaluation will examine students’ HS outcomes for four cohorts of students and capture students’ post–HS outcomes through fall 2028 for three cohorts of students. The implementation study of the IDEAS project will collect survey, interview, and focus group data from stakeholders engaging with IDEAS at the state, CC, school district, and HS levels. Finally, AIR will estimate the cost-effectiveness of IDEAS using extant staffing and spending data from CCs and school districts and through interviews with DE program staff at the CC and HS levels. The research questions (RQs) that will guide the evaluation are listed below.

RQ1: What is the impact of IDEAS on students’ completion of (a) at least one DE course, (b) at least 12 college credits, and (c) at least 12 college credits aligned to college degree requirements during HS?

RQ2: What is the impact of IDEAS on students’ progression to the next grade level?

RQ3: What is the impact of IDEAS on students’ HS graduation, college enrollment after HS, and postsecondary degree or certificate completion?

RQ4: Is the impact of IDEAS on participation in DE, HS graduation, college enrollment after HS, and postsecondary degree or certificate completion moderated by student or program characteristics?

RQ5: Is the impact of IDEAS on college enrollment and postsecondary degree or certificate completion after HS mediated by participation in DE during HS?

RQ6: To what extent is IDEAS implemented with fidelity?

RQ7: What are the barriers and facilitators of implementing IDEAS?

RQ8: How cost-effective is IDEAS in terms of HS graduation and college enrollment after HS?

DI. Evaluation Designed to Meet WWC Evidence Standards Without Reservations. The evaluation design is a school-level randomized controlled trial (RCT). For each of the eight partnering Hubs, AIR will identify the pool of HSs with formal DE agreements and who agree to participate in the evaluation. AIR will conduct two rounds of randomization to align with the phased implementation approach. The first round and second rounds of randomization will each include four CCs in three states; the first round will occur in spring 2024 and the second in spring 2026. During each round of randomization, AIR will randomly assign half of the partnering HSs to receive enhanced DE support through the Hub (i.e., the treatment group), and the remaining HSs (i.e., the comparison group) will continue to participate in business-as-usual activities, allowing students to participate in DE opportunities as they have historically been provided by the CC. This school-level RCT will meet WWC evidence standards without reservations by (1) mitigating sample attrition, (2) reducing the likelihood of contamination, and (3) excluding from analyses students who enter participating HSs after randomization.

(1) AIR will minimize attrition through the collection of student outcome data through statewide and national administrative data sources and the reliance on existing partnerships between CCs and HSs. Attrition, or the absence of outcome data for study participants, can jeopardize the internal validity of an RCT by altering baseline equivalence, particularly if rates of attrition differ by treatment status. Attrition can happen at both the student level, when students are missing outcome data, and at the school level, when schools choose to withdraw from data collection activities. To minimize the potential threat of student-level attrition, the impact evaluation will rely on administrative data sources and will not involve primary data collection

through student surveys or additional student assessments. Because the student outcomes for this study will be provided by state longitudinal data sets, administrative records from partnering CCs, and the NSC, AIR will capture HS outcomes even if students transfer to another HS in the state during the evaluation timeline, and students' college enrollments and postsecondary degree and certificate completions will be collected even if they enroll in a college in another state.⁴⁸

We therefore anticipate a small amount of missing student outcome data. To minimize the potential threat of school-level attrition, the evaluation will include HSs that already have formalized DE agreements (e.g., through the establishment of a memorandum of understanding) with participating CCs before randomization in spring 2024 and spring 2026. Because IDEAS will serve as an enhancement of existing opportunities for students, establishing IDEAS in treatment schools will not greatly disrupt their existing processes and structures, which will reduce the likelihood of schools choosing to withdraw from the study. Reliance on administrative data sources to measure student outcomes will also minimize data collection burden in both treatment and control schools, so we anticipate a low incidence of HSs withdrawing.

(2) The evaluation design will reduce the likelihood of contamination by including only a single HS from districts with districtwide DE agreements. For the IDEAS evaluation, only schools assigned to the treatment condition will have the opportunity to modify existing DE agreements to include the course sequences and supports provided by IDEAS. In districts where multiple HSs share a districtwide DE agreement with the CC, it may be difficult to prevent the introduction of key components of IDEAS (e.g., course offerings, staffing) in only a subset of these schools. On the other hand, in the absence of districtwide DE agreements, each HS in a school district may have an independent agreement with the CC, so changing practices at one HS is not likely to influence practices at another HS. CCs will be informed of the importance of

maintaining business-as-usual DE practices at comparison HSs. Although students attending comparison schools may independently enroll in DE courses associated with Hubs' pathways, they will not be provided with the same recruitment materials or offered the same supports that will be provided to students attending schools in the treatment condition.

(3) The evaluation design will exclude from analyses students who enter participating HSs after randomization. Although school-level random assignment reduces the risk of contamination, it may introduce the risk of bias in impact estimates if students choose to transfer into schools in the treatment condition after learning about the opportunities unique to treatment schools. To eliminate the risk that “joiners” will bias impact estimates, random assignment results will not be shared with students and families until after the school year begins in fall 2024 (Phase 1 randomization) and fall 2026 (Phase 2 randomization). Students who join participating HSs after random assignment results are shared publicly will be excluded from analyses.

The proposed evaluation of IDEAS will have sufficient statistical power to demonstrate meaningful impact on student outcomes. Currently, 223 HSs have DE programs with the four CCs that have expressed interest in the IDEAS project. Although the evaluation will be limited to schools that agree to participate in the evaluation and will exclude some HSs with districtwide DE agreements, given current levels of expressed interest, we are confident that we will achieve a sample of approximately 80 HSs for the proposed RCT for the first phase of randomization, with at least 40 additional HSs for the second phase of randomization. Depending on the assumptions made when conducting the power analysis, the estimated minimum detectable effect size ranges from .148 to .249, which aligns with effect sizes observed in previous research on the impact of DE and ECHS on student outcomes during and after HS (Berger et al., 2013; Edmunds et al., 2017; Song & Zeiser, 2019; WWC, 2017). A detailed description of the power analysis

assumptions is in Appendix J.5.1.

D2. Guidance on Effective Strategies Suitable for Replication or Testing in Other Settings.

Using data collected for the moderation analysis (RQ4) as well as the implementation analysis (RQ6, RQ7), the proposed project seeks to disseminate promising practices and lessons learned to a national audience to support replication and expansion in other settings. Qualitative data collection tools for RQ6 and RQ7 will be designed to identify school, district, community, and state-level contextual factors that may facilitate or inhibit implementation of specific program features. The AIR research team will collect information from all participating SLs, Hub staff, CC administrators, and guidance counselors on an annual basis to identify which features of these settings are helping or hindering the implementation of IDEAS at each level.

Additionally, RQ4 specifically examines the conditions under which the observed impact of IDEAS on student outcomes is stronger or weaker. For example, the research team will examine whether the impact of IDEAS on students' participation in DE is stronger among HSs in which DE courses are offered inside the HS relative to HSs in which DE is offered at the CC. Results of this moderation analysis will allow the research team to provide guidance on the conditions under which IDEAS can be replicated with fidelity and yield the desired effect.

JFF will use the results of the implementation study during the 2024–25 and 2025–26 school years to continuously improve the IDEAS program. In spring 2026, JFF will identify four additional CCs in three additional states to serve as Hubs implementing a refined version of IDEAS starting in the 2026–27 school year. Using the lists of participating HSs for these four CCs, AIR will conduct a second phase of randomization in spring 2026 to evaluate the implementation and impacts of IDEAS on student outcomes, allowing us to further assess the scalability of IDEAS across multiple state and local contexts.⁴⁹

D3. Project Components, Mediators, and Outcomes, and Measurable Threshold. The

evaluation is designed to align with the logic model presented in Appendix G, which lists key program inputs, activities, and short-term outcomes/mediators and long-term outcomes at the student, school, CC, and state levels. The impact evaluation will focus on the impact of attending a school participating in the IDEAS hubs on students' short-term (RQ1–RQ2) and long-term (RQ3) outcomes. Short-term outcomes include participation in DE, successful completion of at least 12 college credits before the end of HS, and progression to the next grade level. Long-term outcomes include HS graduation, enrollment in college, and postsecondary degree or certificate completion. A description of all outcome measures, the sample for which outcomes will be measured, the timing of measurement, and associated data sources are in Appendix Table J.5.2.2.

Estimates of the impact of IDEAS will reflect the intent-to-treat effect of attending a HS that was randomly assigned to participate in IDEAS, regardless of the extent to which the HS actively participates in all hub activities. We will use a two-level model with a random intercept and fixed slopes that will account for the clustering of students within HSs and will control for CC Hubs, which will serve as the blocks for random assignment.⁵⁰ The treatment indicator and DE program characteristics will be at the second level (schools) and, to improve the precision of impact estimates, all models will include student-level demographic information and Grade 8 achievement test scores in mathematics and English language arts.

The evaluation also will examine how IDEAS impacts may differ for different student subgroups and DE program features (RQ4). Student-level moderators include race/ethnicity, eligibility for free or reduced-price lunch, prior achievement test scores, special education status, and English learner status. Program-level moderators include whether college course taking occurs at the HS, on a college campus, or online and the lowest grade level at which students are

permitted to start taking DE courses.⁵¹ To examine differential impacts of IDEAS, we will include interaction terms between treatment status (Level 2) and the moderator (Level 1 or Level 2) in the previously described two-level model. We will test whether impacts significantly differ across different student-level and program-level characteristics, and we will subset the data for these different subpopulations to explore whether the impact of IDEAS is significant for students from particular backgrounds or who attend programs with specific characteristics.

To assess whether and how participation in DE mediates the impact of IDEAS on students' college enrollment and postsecondary degree or certificate completion after HS (RQ5), we will add indicators of DE participation as independent variables in the impact models described above, including each mediator in a separate impact model. Based on the distribution of DE credits completed during HS in our analytic sample, we will dichotomize, test, and select alternative DE participation indicators to identify potential tipping points beyond which the completion of additional DE credits may no longer predict postsecondary college outcomes. See Appendix J.5.3 for technical details of all analytic models.

RQ6 and RQ7, which focus on the implementation and scalability of key features of IDEAS, will rely on survey and focus group data collected from Hub staff, SL, CC and HS administrators, and teachers; attendance logs and other participation tracking tools; and a review of relevant documents from IDEAS, HSs, and CCs. See Appendix J.5.4 for a more detailed description of the implementation data. At the start of project Year 1 (i.e., Jan.–Aug. 2024), AIR will identify quantifiable implementation indicators for the key activities in the logic model and the project objectives. AIR will work with the IDEAS team to establish a threshold for satisfactory implementation for each indicator, such as 80% participation in Hub learning events.⁵² Descriptive analyses of quantifiable data from attendance logs and surveys will be used

to inform JFF about the degree to which the plan has been implemented with fidelity. Qualitative data from focus groups with key staff at the state, CC, school district, and HS levels will be analyzed by coding with qualitative data analysis software (Nvivo) using a priori and emergent themes to inform JFF about the barriers and facilitators for implementation in different settings.

To estimate the cost-effectiveness of the IDEAS model (RQ8), the study team will calculate the incremental cost per unit of impact on students' HS graduation and college enrollment after HS.⁵³ For example, results of the cost-effectiveness study will present cost-effectiveness ratios measuring the cost of the IDEAS model per student who enrolls in college after HS. Information about the personnel and non-personnel costs of DE programs in both treatment and comparison schools, and the sources of funding that are used to cover those costs, will be collected from CC and school district administrative records, as well as through interviews with relevant staff, to determine the portion of resources that can be attributed to offering DE and their corresponding costs. To calculate an appropriate average cost across sites that exhibit regional differences in input price levels due to variation in cost of living and other factors, personnel prices (compensation rates) and non-resource prices will be standardized to national averages. More detail about the implementation and cost-effectiveness analyses is provided in Appendix J.5.6.

D4. Providing Performance Feedback and Facilitating Periodic Assessment of Progress. At the beginning of the evaluation, AIR will establish data-sharing agreements with participating states and CCs to facilitate the timely analysis of student administrative records. For each year of the evaluation, AIR will examine data for students at both treatment and comparison schools to identify (1) the characteristics of students who are enrolling in DE courses and compare these to the characteristics of all students attending the participating HS; (2) the average number of college credits students earn through DE courses by grade level; and (3) the subject areas of the

DE courses students successfully complete, to determine whether courses align with programs of study. These data will demonstrate whether the IDEAS Hubs are meeting goals related to increasing and broadening access to meaningful DE participation.

The research team will also continuously collect data on treatment contrast from both treatment and comparison schools (e.g., DE program recruitment materials, guidance and supports for DE students, DE course offerings) and implementation fidelity from treatment schools only (e.g., stakeholders' access to tools, resources, and supports, and feedback on the quality and usefulness of these inputs) during each year of implementation.

During monthly meetings with JFF, AIR will share updates about data collection progress and any initial implementation or impact study findings to inform JFF's work with state partners and CCs. For example, shortly after trainings provided by JFF, AIR will provide memos to summarize feedback from participants collected through post-event surveys to inform targeted continuous improvement. In addition, AIR will present emerging implementation study findings to JFF to highlight variation across CC Hubs in terms of initial launch, indicators of early functionality, and areas where individual Hubs follow the national model versus shifting to meet local needs, reflecting these findings back in periodic memos.

In addition to providing regular formative feedback, AIR will deliver reports to JFF each summer that include (1) aggregated achievement of implementation thresholds and findings that align implementation and impact outcomes; and (2) findings disaggregated by CC Hubs. The reports will provide actionable findings which will allow JFF, SLs, and CCs to identify areas for improvement and contextual factors that may affect implementation fidelity across sites. JFF and AIR will co-interpret these findings with SLs and Hub staff to strategize how to mitigate barriers to implementation and to share best practices across treatment HSs and CCs.

PROJECT NARRATIVE REFERENCES

¹ The definition of “dual enrollment” for purposes of the IDEAS project and this proposal is identical to the What Works Clearinghouse definition: “Dual enrollment programs allow high school students to take college courses and earn college credits while still attending high school.”

See What Works Clearinghouse. “Transition to College Intervention Report: Dual Enrollment Programs” (Washington, DC: U.S. Department of Education Institute of Education Sciences, February 2017). Retrieved on May 29, 2023 from:

https://ies.ed.gov/ncee/wwc/Docs/InterventionReports/wwc_dual_enrollment_022817.pdf. States

included in IDEAS Group 1 use varied terms within their state contexts: in TX, dual enrollment is generally referred to as “dual credit,” while in IL, “dual enrollment” refers specifically to courses taken by high school students on a college campus, while “dual credit” refers to courses through which students can earn college credit that are offered in high school settings. For more on dual enrollment course environments, see Bethany Arnold et al, “Dual enrollment student achievement in various learning environments” *Journal of Learning in Higher Education* 13, no. 1 (2017): 25–32. Retrieved on June 25, 2023 from: <https://eric.ed.gov/?id=EJ1139694>.

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³ Ibid.

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<https://eric.ed.gov/?id=ED577243>.

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<https://ccrc.tc.columbia.edu/publications/impact-dual-enrollment-application-choice-admission-success.html>.

¹⁰ Mengli Song and Kristina L. Zeiser. *Early College, Continued Success: Longer-Term Impact of Early College High Schools* (Washington, DC: American Institutes for Research, September 2019). Retrieved July 8, 2023 from: <https://www.air.org/system/files/Early-College-Continued-Success-Longer-Term-Impact-of-ECHS-September-2019.pdf>.

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Youth to a Good Job.

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⁴⁷ State longitudinal data systems will provide K–12 educational records and information about college enrollment and postsecondary degree or certificate completion from colleges in the state that provide data to the state data system. National Student Clearinghouse data will provide supplemental information about college enrollment and degree completion by including private colleges and colleges that students may attend outside of the state where they attended HS.

⁴⁸ The National Student Clearinghouse currently provides data for more than 3,600 colleges and universities, which account for 98% of all students enrolled in public and private colleges and universities across the United States.

⁴⁹ Due to the timeline of the proposed evaluation, AIR will not be able to capture student outcomes after HS for students attending HSs in Phase 2 of the evaluation.

⁵⁰ Among HSs associated with the same CC partner, if we observe variation across DE programs with regard to key program features (e.g., courses take place in the HS vs. on the college campus), randomization blocks may also take these DE program characteristics into consideration to minimize the possibility that other differences across schools may explain differences in student outcomes.

⁵¹ Additional program-level moderators will be considered once the research team has identified the key features of the DE programs in participating HSs.

⁵² Example thresholds for acceptable implementation are provided in Appendix J.5.5

⁵³ Incremental cost is defined as the difference in average cost per student to offer DE opportunities between treatment schools (i.e., schools participating in IDEAS) and comparison schools.