Innovative High School Models of New York:

Smart Scholars, P-Tech, and New Tech A Comparative Study

October 2017



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INTRODUCTION

The SUNY Innovative High School Programs study is an evaluative research project that contributes to the understanding of how innovative high school models promote, accelerate and amplify New York's aspirations for 21st century education. The project relies on a mixed-methods qualitative and quantitative approach to capturing important data that informs comparative analysis and establishes a consistent process for assessing future models as they arise in order for policy makers and administrators to forge informed decisions in the best interest of New York communities.

This study was initiated on March 29, 2017 by the State University of New York (SUNY) in partnership with the PAST Foundation Knowledge Capture Program funded by a grant from the Ford Foundation. The study focuses on aspects of design and development of three distinct innovative school models: *Smart Scholars Early College High Schools* (Smart Scholars), *Pathways in Technology Early College High Schools* (P-Tech), and the *New Technologies High Schools* (New Tech). Primary data collection began in April 2017 and was completed on August 31, 2017. The Interim Report was submitted on August 31, 2017 with preliminary survey data findings. This report provides the final analysis of data and presents a comparative view of the three innovative high school models.

Challenge

"College and Career Readiness" are hallmarks of the emergence of STEM education across the nation. In New York State there are three models of innovative high school programs that are in part designed to build upon the early college concept first established in New York State in 2002 funded by the Gates Foundation (Grey 2011a). This study is focused on three particular high school models that offer students the option of dual credit for college level coursework completed by graduation, or dual enrollment with a higher education partner college. The *Smart Scholars Early College High School (ECHS) and P-Tech* programs have been funded through grants from the New York State Education Department (NYSED). A third model developed by the *New Tech Network*, is offered to schools/districts by a private non-profit national program. All three Innovative High School models focus on college and career readiness to differing degrees. Looking nationally, there promises to be continued growth in ECHS models as whole communities explore innovative approaches to delivering quality education that resonates with 21st century workforce development, regional economic growth, and a cultural context in which students see themselves on



a pathway to post-secondary success in college and/or career. The challenge is to understand the power and potential of each model in order to better:

- Promote each model to varying constituencies and partnerships;
- Accelerate the growth of each model to its fullest potential; and
- Amplify the transformation of responsive actions that resonate with aspirations to attain meaningful and high quality education in New York State.

Research Design

The SUNY Innovative High School Study has two main objectives focused on better understanding of how to promote, accelerate and amplify the strengths of the different models being used to deliver STEM instruction, as well as consider the distinct early college attributes of these programs and the broader context for effective implementation. These objectives are tied directly to development of a *theory of action* designed to inform decision makers in education at all levels regarding strategies to improve the quality of high school education. These include goals to increase student matriculation rates, improve student performance, increase awareness of college and career opportunities, and better prepare students for entry to the STEM workforce through career/degree pathways offered in the ECHS model.

Defining a theory of action associated with each model can help inform program design for individual schools, entire districts, as well as regional consortia engaged in shared goals for attaining high quality STEM education aligned to jobs and careers in the fast growing, 21st century economic arena in New York State. These objectives include:

1) Develop a theory of action for the three models that comprise New York's nearly 60 active Smart Scholars, P-Tech and New Tech schools to provide understanding of the strategies these schools are using to improve teaching and learning in ways that help more students graduate from high school and college. The theory of action will specifically describe *how* these partnerships are successfully impacting student outcomes. For example, *How* specifically are these programs preparing students to be college and career ready? *What* are these programs doing to help traditionally *underrepresented* students successfully transition from high school to college? *What* are the essential factors necessary to support *at-risk youth* to ensure graduation from high school and increase expectation of college and career opportunities? *What* is the role of the broader community to integrate workforce development priorities and community goals for a civically engaged youth in meeting the challenges of the 21st century?





Thus, with an understanding of a specific set of components that comprise the variables and drivers of program strategies, all three models within the study can be compared in terms of how they prioritize strategies and employ particular components to their advantage. The prioritization choices contribute to each model's individualistic success. Studying the *components* as distinctive variables, and the *strategies* as distinctive drivers, leads to defining patterns of interactions and ongoing modifications each school has employed in attaining a successful balance aligned to their particular aspirations. Discussion issues and survey questions were developed with two main aspects in mind:

- The relative order in which innovative high school models prioritize strategies and the effectiveness of that prioritization;
- The succeeding modifications employed to strengthen effective strategies and impacts on student preparation for post-secondary education/career pathways.

Study Methodology

The research plan involved seven components: data assembly, one-on-one interviews, focus group directed discussions, online surveys, analysis, and reporting. Appendix A: SUNY Innovative School Design Project Chronology, 2016-17, provides a detailed description of research activities and implementation process in collaboration with the study partners including SUNY staff, and overall program leads/coordinators for Smart Scholars, P-Tech, and New Tech programs. Study participants were self-selected in response to outreach requesting participation in the research project. Participants were provided with study parameters, including information guiding confidentiality of data. Appendix B: Human Subjects Research Protocols, presents human subjects research consent documents with information for survey participants regarding anonymity and confidentiality guiding data collection, data uses, restrictions on access to data limited to the research team, and secure archiving of research data.



Multiple messaging via email and phone contact supported an outreach strategy to meet participation targets for focus group and survey participation. Appendix C: Communication Catalog presents school program staff email outreach messages.

These materials include:

- May 8, 2017: Project Summary and information about the study and schedule for conducting the focus groups and survey;
- June 23, 2017: Advance notification to school leaders regarding the July 28 survey launch date;
- July 28, 2017: Launch survey and disseminate first email request to participate in the survey via the weblink provided to survey participants;,
- August 11, 2017: Second email and notification of the extended period to complete the survey by August 25th; and
- August 25, 2017: Notice to Smart Scholars School Leaders of extension of survey access to complete the survey by September 1, 2017.

The strategy for developing research instruments utilized a mixed-methods approach, integrating qualitative and quantitative data in building informed research questions driving data collection toward identified study objectives. Table 1 presents an overview of research tasks beginning with initial phases of data collection designed to inform successive phases and development of research instruments.

Four primary research tasks were conducted to support data collection:

- Task 1: During the initial phase of work the project team reviewed existing evaluation reports, NYSED grant RFPs, and other sources of programmatic information about the Smart Scholars, P-Tech, and New Tech schools in New York State. The research team also identified key informants for the three school models, conducting one-on-one interviews with these individuals, as well as involvement in later phases of work to provide review and feedback.
- *Task 2:* Review of existing program materials informed development of a schedule of questions for each school model for one-on-one interviews. Multiple, open-ended interviews were conducted with key informants to explore current program priorities including policies that impact sustaining programmatic strategies.
- Task 3: Focus group questions were developed and circulated for review and feedback in an iterative process conducted by PAST with SUNY staff and designated key informants. Appendix D: Focus Group Questions, presents the question sets for the focus groups. A total of three focus groups were conducted with P-Tech (n=2) and Smart Scholars (n=1) program staff. (Note that the New Tech program staff was unable to participate in a focus group discussion during



Table 1: Summary of Research Activities and Deliverables

Project Actions and Deliverables			
Research Task	Study Activity	Research Product	
Task 1:Review of published data and reports on New York State innovative high school design	A project file sharing web platform was established for program reports and other published data. Review of historic data on innovative school program design, goals, and student learning informed the issues identified to explore further through interviews, focus groups and surveys.	Reports and other program related materials were collected from the three innovative model programs: Smart Scholars, P-TECH and New Tech; analysis informed design of research collection instruments, including schedule of research questions for open- ended interviews, focus groups, and survey.	
Task 2: Open-ended Interviews	Interviewees were contacted via email beginning May 8, 2017 and continued throughout June via email and phone outreach.	Multiple one-hour to 1.5-hour, one-on-one interviews were conducted with (7) individuals including program administrators, coordinators or lead staff currently engaged in program policy and oversight. [See Table 3.]	
Task 3: Focus Groups	School Leaders were contacted via email beginning May 8, 2017. Focus groups were conducted between 5/17 and 6/2/17.	Three 1-hour to 1.5-hour focus groups were conducted with school leaders, program administrators, coordinators and lead staff currently engaged in the coordination and operation of the school model. [See Table 3.]	
Task 4:Surveys	Survey launch on July 28 and accessible 24/7 through September 1, 2017.	School leaders, program administrators and lead staff participated in an anonymous online survey via SurveyMethods® secure website platform. [See Table 3.]	

the designated timeframe due to scheduling conflicts during the period May 17 through June 2, 2017. The New Tech school leaders did participate in the surveys conducted during the last phase of data collection.)

Task 4: Qualitative data sets were analyzed and used to inform the creation of the third study instrument in the form of an online survey. Appendix E: Administrator and Partner Surveys presents question sets for the participating school administrators and school partner. The online survey consisted of absence/ presence questions in the form of Likert[™] and multiple choice formats, as well as ten open-ended questions. The SurveyMethods[™] web-based platform was employed to deliver the confidential online survey providing 24/7 access to the



employed to deliver the confidential online survey providing 24/7 access to the survey for convenience of participants in completing the survey.

Table 2 presents overall school numbers by program, targeted response number, actual response number, and percentage response rate by school program type. Table 3 presents an overview of research participants across the three school models and reflects a representative cross section of views and experience with design, implementation and operational dimensions of the three programs ranging from upper level administrators to supporting program staff.

Interview and focus group data were analyzed using ATLAS.ti®, a social science software program to support systematic qualitative data analysis. Together the quantitative survey data and qualitative ATLAS.ti data sets were used to produce two types of information. First, the study identified the universal and particular program components associated with each of the three innovative school models. The data sets were used to create a matrix of the full suite of the components of each model identifying the particular strengths of each model and associated sustaining strategies. In this approach, the analysis provides a context for comparative view for understanding the common aspects of the innovation exhibited in each of the three models, and the distinct program attributes that reflect differences in priorities and sustaining actions.

	Respondent Participation Rate		
	Smart Scholars ²	P-Tech ³	New Tech⁴
Total Number of Model Schools ¹	16	38	7
Survey Response Target "N"	10 (62.5%)	15 (39%)	5 (71%)
Actual Response "N"	10	14	5
Percentage Response Rate	37%	62.5%	71%%

Table 2: Respondent Participation Rates

1. SUNY Report September 2016

2. Total Smart Scholars respondents in extended survey (closed 9.1.2017)

3. Total P-Tech schools which include the four P-Tech/Smart Scholar schools

4. Total New Tech schools include three active schools, two new schools set to open in fall 2017, and two schools that have completed program development and are considered to be 'alumni of the New Tech network.



Table 3: Survey Respondents by Job Title

Respondent Job Title	Smart Scholars	P-Tech	New Tech
Administrator			
Chair of Governance Team			
CTE Supervisor			
Developmental Educator			
Director of Grants			
Director of Secondary Education			
District Administrator			
Executive Director			
Grants Coordinator			
Grant Manager			
Principal/Asst. Principal			
Program Director			
Program Liaison			
Program Coordinator			
Project Coordinator			
Senior Director			
Superintendent/Asst. Superintendent			
Supervisor of Instruction			
Teacher			

Second, data analysis was also directed toward creating a framework for comparative assessment of future models presented for consideration in New York. By creating a set of informed benchmarks reflecting both fundamental program components



essential for student success and dynamic program partnerships, future comparisons of new and developing models will empower SUNY to continue to study and acquire data that informs decision-making for expansion and sustainability of these programs. By establishing a series of consistent benchmarks around educational universals, future researchers will be able to agilely ascertain the particulars that strengthen each model as that model relates to specific stakeholders and audiences.

Informing decision making and policy in a consistent manner will promote, accelerate and amplify each model's potential for continued success in supporting the transformation of 21st century learning in New York State. Using a systematic approach to assess common aspects and differences in models, New York positions the state's educational systems to evaluate all models put forward and assist in assuring essential aspects of different models are strategically implemented in achieving success.

Innovative High School Programs: Design, Capacity and Sustainability

The following discussion is organized to first present the individual programs beginning with Smart Scholars, the initial innovative high school model (grades 9-12) established by the New York State Department of Education (NYSED) in 2009, followed by P-Tech first funded by NYSED in 2013, offering a 9-14, six-year ECHS model. New Tech, a nationally based, private nonprofit program is the final innovative high school model presented in this section to explore the public-private partnership supported by the New Tech Network Program. The first New Tech school was established in New York State in 2007.

Each of the innovative school models is presented from the perspective of four universal program components:

- Implementation Model to identify distinctive program attributes of each program;
- Culture of Achievement to define aspirational goals for students;
- Student Support to meet specific needs aligned to aspirational goals; and
- *Program Partners* to provide expanded services and other program support for student success.

Through the lens of these core program components, we explore the particular attributes of *program design*, as well as consider specific *capacity and sustainability* issues involved with each innovative school model.



SMART SCHOLARS SCHOOL DESIGN

The Smart Scholars Early College High School Program was initiated in 2009 by the NYSED as part of a statewide action to establish a network of early college programs for underserved, at-risk students, including "English-language learners, first generation college goers or students with disabilities" (USNY 2009; NYSED 2010). A primary focus of the program is to increase high school and college graduation rates among economically disadvantaged youth, and increase their ability to pursue employment with the potential for careers in high-skills, high-paid jobs. The Smart Scholars Program was first launched in 2009 with continued funding cycles concluding the program with the 2015-16 academic year (SUNY 2016). For purposes of this study, (16) cohort 1, cohort 2 and cohort 3 schools were identified to participate in this investigation. Discussion of the four core components and associated variables of the Smart Scholars Program include: *Implementation Model, Culture of Achievement, Student Support and Program Partners*.

Smart Scholars Implementation Model

The Smart Scholars Program is based on the early college model, offering students no-cost tuition for dual-credit/dual enrollment college courses completed during grades 9 through 12 in partnership with a 2- or 4-year institution of higher education (IHE). College courses are offered to students either during the school day at the high school campus and taught by high school teachers with IHE adjunct faculty status, or in special classes offered on Saturdays. Some Smart Scholars schools are located either on the college campus or adjacent to the college campus, or provide transportation allowing students to enroll in college courses taught by college faculty at the partner IHE campus. The program criteria listed in the NYSED "Application Guidance" also includes coursework for Smart Scholars students should have a STEM or Career Technical Education (CTE) focus (NYSED 2011).

The Smart Scholars Program is either a "whole school," or a "school within a school," the latter involving enrollment in the program of a sub-set of 9-12 grade-level students within the high school population. Survey respondents reported enrollment ranging from 20 – 110 by grade level. Additionally, the early college, no-cost college tuition supports exposure to the college experience, and is central to attaining the "culture of achievement" fundamental to the program. Students may earn from 20 to 60 transferable college credits by graduation, "compressing" the time needed to earn an A.A. degree (Grey 2011b; Barnett et al. 2013). These main program components



are further explored in looking at the sustainability of the program in a later section of this report.

Note that program planning and implementation for (11) cohort 1 Smart Scholars schools was supported by an external contractor serving as a Smart Scholars statewide intermediary, funded by a state grant issued in 2009 (USNY 2009). While providing significant guidance for initial planning and implementation of the first (11) Smart Scholars schools, the role of the intermediary is not a part of this analysis of the Smart Scholars Program and therefore is not reflected in the discussion of the core elements of the program design that follows.

Smart Scholars Culture of Achievement

Among survey respondents (n=8), seven (87%) identified "focus on college/career pathways" as the cornerstone of their innovative school design, and six (75%) identified "focus on college readiness." Focus group participants also expressed views concentrated on "college awareness" and helping students become informed about navigating college entry as their primary purpose. Establishing a sense of success in completing early college courses also strengthens a student's cultural identity, instilling confidence in their ability to continue to a post-secondary degree program and expectations associated with a "college-going culture" as an important element of their transition into the workforce. Survey respondents reported that on average students earned 21 college credits by high school graduation through the Smart Scholars Program.

Recognizing that most Smart Scholars students are low-income, first-generation college goers, exposure to the partner college campus was identified as a key game changer for students who may lack access to role models in their personal lives, or possess little knowledge of career opportunities that are open to students earning a 2-or 4-year degree. Activities such as tours to experience particular college campus resources (e.g., counseling services, student centers, libraries, computer labs, etc.), and events, including the opportunity for peer mentoring were discussed by focus group participants. Among survey respondents, 80% indicated "exposure to college campus environment," and "exposure to career pathways," as a priority mission of the Smart Scholars Program. The former has been referred to as the "power of place" in creating the experience that allows students to establish a sense of identity as a college student, an essential aspect of the program that can help to remove barriers to attaining the benefits of post-secondary education (NYSED 2011; Barnett et al. 2013). However, 75% of survey respondents indicated that offering college courses at the high school helped to meet the mission of the program.



also commented on the real challenges associated with coordinating student schedules and lack of transportation for high schools that are not within walking distance of the college campus.

Smart Scholars Student Support

Among focus group participants, important factors associated with student support services in their schools concern both academic support (tutoring/counseling), and meeting student needs for social/emotional learning through mentoring and other social/mental health services offered through community partners. Among survey respondents (80%) identified mentoring services funded by NYSED grants and offered by school district programs, or mentoring coordinated by the IHE partner for ECHS students. Additionally, "special college readiness courses to enhance study skills" taught at the high school or at the college were also identified by 80% of survey respondents as important elements of student support.

Smart Scholar grant "Application Guidance," (NYSED 2011) specifically noted that Smart Scholars dual-credit college courses are "non-remedial" and should be equivalent in rigor and "assessed by the same standards" as courses offered at the IHE. However, focus group school leaders commented that "early intervention" to assess grade-level skills gaps and remediation are an integral aspect of preparing students for success in the Smart Scholars Program. This is especially important during freshmen and sophomore years in order for students to elevate their skills to grade level, both to assure high school graduation as well as to enhance potential success in dual-credit college courses. Focus group discussants also noted that without additional support focused on improving academic skills, struggling students would not succeed in their college coursework and experience failure, and would in effect undermine program goals for these students to identify themselves with the Smart Scholars "culture of achievement."

Smart Scholars Higher Education Partnership

The role of the IHE is to conduct oversight and coordination of the dual-credit courses, both in terms of developing curriculum and approving accredited courses offered to early college students, and in supporting high school teachers who are assigned to teach college-level courses at the high school campus. This involves vetting high school teachers to assure equivalency in meeting criteria required for college faculty, and in providing other support including mentoring, joint planning and review of course curriculum/course alignment, and offering course-specific professional development (Grey 2011b). However, in focus group discussion and in review of survey data, program administrators found it challenging to coordinate work



with IHE partners to review curriculum development/course alignment, and also to schedule PD and mentoring opportunities.

In a focus group discussion of preferences for types of PD for high school teachers to support rigorous, college-level instruction for Smart Scholars students, few high school administrators reported that collaborative work between high school teachers and college faculty occurred. One partner IHE program administrator reported creating and offering PD for high school partner schools, yet in discussion with high school partners of that particular IHE, there was no awareness of the PD available to high school adjunct faculty in discussing professional development needs and opportunities.

Smart Scholars Program Coordinators in particular noted that the strength of the IHE partnership varied depending on the relationship between the college liaison and/or dedicated, full-time high school liaison. Among survey respondents (n=8), only three schools indicated Smart Scholars program staff included a full-time coordinator. Seven (87%) described the liaison position was designated as a half time, "split position" (e.g., also assigned work as a guidance counselor, teacher, or other school administrative role). These issues will be further explored in the next section, *Smart Scholars Capacity and Sustainability*, to consider how program implementation strategies have served the overall mission and goals for attaining student success.

Smart Scholars: Capacity and Sustainability

The dynamic relationships and sustaining program components of the Smart Scholars program are presented in this section. Discussion is focused on key issues that impact *Student Support* for success in the program and include:

- Family Support
- Teacher Support
- Program Support

Initial outreach and recruitment of students to the Smart Scholars Program involves communication with students and their families. Challenging aspects of recruitment raised by focus group discussants include low-income patterns of student transiency, as well as inexperience or lack of knowledge of the college entrance process for high school parents of first-generation college students enrolled through early college programs.



State funding of the Smart Scholars Early College High School Program ended with the 2015-16 academic year (SUNY 2016). Review of a subset of the Smart Scholars school websites as of fall 2017 shows continued influence of the Smart Scholars Program for student support for success in high school. Student services listed on school websites include language about special focus on support for economically disadvantaged students, and opportunities for tutoring, remediation, and mentoring to help students meet high school graduation requirements. Two schools listed benefits of the New York State early college system including: focus on college readiness; opportunity to earn transferable college credits, and partnership with a specific IHE.

Survey respondents described a range of direct outreach activities targeted to families as part of the Smart Scholars Program. These include participating in local community events involving families in different venues (e.g., family nights, organized picnics, booths at community events). Two schools reported hosting family orientation or Career Fairs, and two schools reported middle school visits to promote awareness of the program to school faculty and staff, including Smart Scholars student presentations at the middle school. Outreach to middle school counselors was noted by one survey respondent, and another noted district-wide outreach to feeder schools.

In focus group discussion, a program administrator commented that their Smart Scholars students were enrolled automatically through the Accuplacer® test given to all freshmen as a requirement of their NYSED Smart Scholars grant. However, the administrator noted that using test scores to place students in the program does not allow for flexibility to take account of a student's level of maturity or academic motivation as a freshman. In the experience of this administrator, some students who are among the priority Smart Scholars student groups (e.g., underserved, at-risk youth) need time during 9th and 10th grade to gain maturity and develop a fundamental understanding of post-secondary options as part of exploring their education and career goals. In this case, the program administrator suggested that focusing on skills enhancement college courses during 9th and 10th grade, and advancing to General Education courses in 11th and 12th grade would likely lead to increased academic success and confidence, and thus nurture a "college-going culture," leading students to pursue post-secondary education on graduation from high school.

Maintaining the high school teacher's ability to conduct rigorous, college-level instruction while engendering an energized "culture of achievement" also forms an important aspect of student success. This involves a range of supportive actions that



include ongoing course-specific PD for high school teachers, common planning time and collaboration among high school instructors and college faculty, and direct involvement in curriculum development and course alignment. Survey respondents also identified "ongoing PD support for program teachers" as their top choice for sustaining program effectiveness and innovation. In particular, when asked about the most effective type of professional development for Smart Scholars high school instructors, 86% of respondents identified three areas of PD essential to teacher effectiveness. They include PD that can help teachers:

- Develop and sustain a "college-going culture";
- Engage effectively with college faculty partners in joint review of curriculum design and alignment; and
- Enhance instructional skills in blended learning.

Over half of survey respondents (57%) identified four additional areas of PD essential for high school Smart Scholars instructors. They include:

- Project-based learning;
- Problem-based learning;
- Developing and sustaining a "culture of achievement"; and
- Cultural training to work more effectively with underserved, first-generation college students.

In addition to coordination of course alignment and curriculum development between college faculty and high school instructors, overall IHE program support involves providing opportunities for students to experience campus resources. Direct exposure to campus resources can potentially incentivize students to pursue early college benefits offered as part of the articulated agreement between the ECHS and the IHE. Learning about IHE campus resources, high school students gain experience with support services that can begin to change the equation for students at risk of dropping out of high school, and initiates a level of confidence that leads to developing a cultural identity associated with knowing about the college environment and how to engage with activities as a college student.

District buy-in to support the long-term sustainability of the program offers additional strategies to address staffing needs with emphasis on STEM and PBL training. Districts are also in position to identify new and continuous funding opportunities to maintain the early college program beyond the life of the Smart Scholars Program, as well as direct additional funding support for tutoring and remediation, a high priority cited by school leaders. Specifically noted is the latest iteration of early college program support offered to Smart Scholars schools through state funds issued under



the "Smart Transfer ECHS Program" (NYSED 2017). The Smart Transfer Program is targeted to districts as the lead entity, and similar to the Smart Scholars program, requires articulated agreements with IHEs for accelerated programs earning college credits by 12th grade, and assurance of transferable credits towards an A.A. degree with the option of continuing on to a 4-year program and B.A./B.S. degree.

Smart Scholars: Theory of Action

In this study, school administrators reported that Smart Scholars students earned an average of 21 transferable college credits, and similar to other studies of the Smart Scholars Program, administrators also reported an increase in high school retention rates and graduation rates. Figures 1 and 2 present the major program elements that distinguish implementation strategies through dynamic sustaining actions that have led to improvements in academic performance essential for Smart Scholars students. This program is primarily based on the established benefits of the early college experience to change the culture and expectations of underrepresented students who are academically at risk of failing to graduate from high school, and who historically have very limited options to pursue post-secondary education. The barriers and challenges these students face are in part financial. However, academically challenged students who can be identified through early intervention in grades as early as 6th grade, can be motivated to excel with incentives to earn no-cost college credits and options for earning an A.A. degree beginning in 9th grade (Barnett et al. 2013).

The Smart Scholars Program approach provides an extensive support structure that integrates academic performance with other actions provided by enhanced resources of the high school/IHE partnership with demonstrated success. The goals of the Smart Scholars Program extend beyond the primary early college benefit of dual-credit, no-cost tuition for completing college courses, accelerating the potential for earning an A.A. degree by high school graduation, and/or transferring to a 2- year or 4-year program. These enhancements address key barriers in creating a broader outreach strategy that provides family orientation and support to ensure students remain committed and engaged in boosting their academic performance reinforced by increased family knowledge and understanding of the early college program.

Maintaining student engagement is also achieved by providing college-level instruction at the high school campus conducted by highly trained and motivated high school instructors who have taken steps to attain adjunct faculty status through the IHE partnership. This is especially crucial for students who lack financial ability and access to transportation to the college campus, thus barring enrollment in college









student engagement. *PNORM SUPONT* reflects the challenges associated with college course offerings that involve scheduling, staffing, and in some cases transportation to the college campus to assure the impact on students of the "power of place" experience. *TEACHERSUPPNT* involves the unique dimension of professional development requiring high school teachers to obtain higher education certifications to teach college-level courses, differentiation to address individual student squel as well as additional support to build a "college-going culture."



course offerings. The key element provided by the Smart Scholars/IHE partnerships offers ongoing, course-specific professional development for high school teachers and mentoring by college faculty. Involvement in curriculum development and course alignment must also occur through common planning time to ensure the high school/ IHE programs meet goals for bridging the high school-college experience for students.

Finally, these students also receive mentoring through collaboration with high school and college faculty as well as peers, providing opportunities for ECHS students to hear from former Smart Scholars students or other college students who can identify with first-generation college challenges. Exposure to college resources, including counseling and tutoring services through organized college campus events held for Smart Scholars students also helps to diffuse perceived barriers, transforming student expectations to engender a "college-going culture" through exposure to the college that is a major aspiration of the Smart Scholars Program. The latter has been reported by others to involve the "power of place," introducing students to a full suite of possibilities in which they can envision a different path for achieving success in postsecondary programs (NYSED 2011; Barnett et al. 2013).

In sum, the factors that are most critical to the success of the Smart Scholars Early College Program have to varying degrees been implemented across the (16) programs reviewed for this study. Administrators were candid in noting that sustaining the success of the program requires dedicated funding streams that support the enhanced early college design of the Smart Scholars Program, providing an authentic transformation to a "culture of achievement" as students transition from high school to continue post-secondary education, career development and entry to the workforce.

P-TECH SCHOOL DESIGN

The first P-Tech Program was created in 2011 as a public-private partnership offering students in Brooklyn, New York an alternative, innovative version of the early college high school model (SUNY 2016). The current P-Tech model is designed as a six-year program, integrating high school/college curricula with work-based learning, culminating in completion of a high school and an A.A./A.A.S. degree. A major goal of this innovative high school design is bringing academic institutions together with business/industry partners to focus on integrated planning for regional job growth



areas in STEM fields. This aspect of P-Tech assures workforce needs are considered in preparing students for future careers with potential employers participating in the P-Tech Program (Legere 2013).

The P-Tech ECHS network was initiated with funding for (16) schools launched in 2014 (NYSED 2014a). The P-Tech Program has continued to expand geographically across the state, creating a regional ECHS network to align with economic development sectors (Legere 2013). The work-based learning focus of the P-Tech innovative school design is key to exposing students to STEM professions and involves an applied context for relevant academic and technical skill development. In this approach, students are exposed to authentic, problem-based "challenges" designed for students to explore solutions to real-world problems (Adams & Willner n.d; NYSED 2014a).

For purposes of this study, (38) P-Tech cohort 1, cohort 2, and cohort 3 schools were identified to participate in this research project. The following discussion is organized to present the four core components of the P-Tech Program: *Implementation Model*, *Culture of Achievement, Student Support* and *Program Partners*. The P-Tech partners include both *Higher Education*, and *Business and Industry*.

P-Tech Implementation Model

The P-Tech program is aimed at demographically underserved, underrepresented students in college and in the STEM professions. P-Tech offers students no-cost college tuition to complete an A.A./A.A.S. degree or other post-secondary two-year degree that meets the "industry standard" in a high-tech field in a 9-14, six-year program model (NYSED 2014a). P-Tech schools are a school of choice and typically have multiple school district partners. Survey respondents report small-scale enrollment ranging from 20 to 80 by grade level. This innovative education design is intended to meet economic growth initiatives by combining industry workforce needs with new curriculum development, creating career pathways focused on preparation in three areas required for success, including professionalism in the workplace together with acquiring relevant academic and technical skills (Public Policy Institute n.d.). The focus on career preparation is integral to meeting the goals of business and industry program partners who have an active role on the P-Tech Steering Committee, driving integration of workforce priorities with curriculum and course alignment, and overseen by the IHE partner to assure a seamless 9-14 pathway to a 2-year degree.

Survey respondents identified the two most important dimensions of their programs: First, 100% of respondents view completion of the A.A. degree to be the highest goal



of the program; 85% believe that authentic involvement of their business partners is key to student growth and career awareness; over two-thirds of survey respondents (69%) also identified college and career focus as the "cornerstone" of the P-Tech Program; lastly, almost two-thirds (64%) of survey respondents noted the value of earning credit-bearing courses for students towards attaining a specific A.A. degree. Focus group discussion provided additional insight to the way in which business and industry partners contribute to the overall "continuous development" goals of the P-Tech Program implementation model, assuring relevance of career readiness aligned to emerging fields and related skill sets through direct involvement and input from the Steering Committee in ongoing planning and review of the P-Tech Program.

P-Tech Culture of Achievement

The added dimension of work-based learning to the early college model is gained through involvement of the industry partner, providing authentic engagement with industry-specific design challenges for students in collaboration with STEM professionals. The problem-based learning context also engages students in an applied learning experience that exposes students to career options and skill sets associated with different fields. Gaining first-hand experience through work-based challenges can provide clarity for students to explore career pathways and required post-secondary coursework. This experience can also increase motivation and help to engender a "college-going culture" for student graduates of the tuition-free, six-year A.A. degree P-Tech program. Over half of survey respondents (62%) view "project-based learning" as integral to instruction.

P-Tech Student Support

Providing early college students with workplace exposure is initiated with workplace tours and other on-campus or workplace opportunities for collaboration and mentoring with industry professionals. Nearly 70% of survey respondents viewed exposure to workplace environments as essential to meeting the mission of the P-Tech Program. Continued exposure builds deeper involvement with authentic problem solving in coursework related to work-based challenges, engaging students in research and problem solving around a priority area of business/industry needs. Expansion of career exploration experience broadens and intensifies for students through internships, job shadowing, and career mentoring. Guidance for these elements of the program is clearly described as substantive experiences intended to enhance applied learning embedded in the work-based challenge (Public Policy Institute n.d.).



Similar to the Smart Scholars Program, meeting underserved student needs to strengthen grade level skills involves additional support. Among survey respondents, 75% identified tutoring, and 67% observed that special study skills courses offered at the high school also contributed to student success in preparing for college level coursework, and 50% stated that special college readiness courses offered at the college were also an important step for advancing students to success in college level coursework.

In focus group discussions, school administrators commented on the role of mentoring in raising the bar for student accountability and increased maturity gained in working with adult STEM professionals through different experiences. Mentoring was also identified as a major dimension of increasing student awareness and understanding of career-specific skills. Benefits of mentoring interaction with STEM professionals incentivizes mastery and ownership of learning by students, and contributes to development of a "growth mindset" in which students experience the relevance of continuous skill building required in 21st century careers and jobs of the future. Among survey respondents in an open-ended question, 92% listed mentoring as integral to student success.

The added bonus of gaining exposure to particular partners and internships, job shadowing, and mentoring, are also integral to a high priority of the program referred to as "first in line" for jobs on completion of the A.A/A.A.S. degree (Public Policy Institute n.d.; NYSED 2014a and 2014b). Through demonstrated talent, acquired skills, and professionalism, students are directly exposed to potential employers seeking to fill high demand STEM jobs, allowing employers to select employees from known talent pools produced through the P-Tech program partnerships.

P-Tech Higher Education, Business & Industry Partnerships

The intersection of the IHE and workforce development is the hallmark of the P-Tech Program, equally focused on robust, 21st century learning, and addressing economic growth demands in STEM fields to meet regional business & industry workforce needs. STEM professionals engaged in the work-based challenge and related coursework are in effect co-teaching and/or providing an authentic audience in evaluating the quality of student products. Students also benefit from work with STEM professionals whose involvement can inject real-world expectations for students exposed to collaborative exploration of industry issues, problems to solve, and working through experimental approaches to viable solutions.





The involvement of business and industry also directly informs skill mapping for jobs in a regional context coordinated through the P-Tech Steering Committee, offering a forum for discussion and planning for jobs of the future and defining associated skill sets. Among survey respondents, 92% identified curriculum development informed by industry needs as a high priority to successfully direct students to develop specific skills sets and prepare for work in high demand jobs. In Figure 1, the role of business in "identifying emerging STEM fields," and developing "industry certifications," is directly linked to the IHE and its role in curriculum development/course alignment informed by business & industry. Nearly all survey respondents (92%) value the IHE partnership and the opportunity to grow industry certification programs. Additionally, certifications and newly developed STEM coursework together contribute to increased A.A./A.A.S. degree awards for students by the IHE. Merging these areas to support career readiness is the principle distinction of the P-Tech Program.

P-Tech: Capacity and Sustainability

The dynamic relationships and sustaining program components of the P-Tech six-year program are discussed here and are focused on key issues that impact essential *Student Support* for success and include:

- Business & Industry Partners
- Program Support
- Teacher Support

In focus group discussion, P-Tech administrators shared the view that the most critical aspect of establishing a successful program is in building strong partnerships between the IHE and business & industry organizations to inform program design, provide exposure to the workplace, and in the long term help to create curricula that builds relevant skills for a 21st century workforce in high demand STEM jobs. Among survey respondents 92% agreed that strong partnerships were essential to the program's overall goals. The concept of "career infusion" (Willner 2017) associated with workbased learning experiences can elevate student awareness of career themes and professional skills integrated into academic courses offering applied learning that is both rigorous and meaningful in preparing students for professional life.

One administrator stressed the importance of the workplace context for student learning, providing a relatively low-cost resource that contributes to sustainability of the P-Tech model. The benefit to the student derives from direct experience and understanding of career expectations beyond content knowledge to include professionalism and related problem solving skills. Work-based learning is also beneficial to potential employers who can evaluate the impact of curricula for skill



development and also inform criteria of industry certifications leading to short-term growth of entry-level workforce talent.

In focus group discussion, "continuous development" of the P-Tech model was identified by school administrators as a major driver of innovation in the P-Tech model of education. P-Tech schools are also focused on the potential benefits for students for an approach to developing career infused curricula for traditional high schools involving "Workplace Challenges" jointly developed with the business and industry partner (Willner 2017; Adams and Willner, n.d.). Among focus group discussants, P-Tech school leaders expressed strong views about the ways in which traditional high school students could benefit from coursework aligned to a career pathways model. These ideas revolve around the potential for the BOCES schools to expand Career Technical Education (CTE) courses, potentially increasing the number of students who enter STEM career pathways education aligned to regional needs, overcoming the enrollment limits of the P-Tech program, and opening up job awareness and options for students more broadly.

Another major challenge lies in the ability of P-Tech schools to demonstrate success in ways that will support expansion of the innovative school design based on metrics that show gains in student performance beyond test scores. High school teacher support requires PD to develop meaningful metrics of student performance in a career focused context that show the range and depth of impact on student preparation for advanced coursework beginning in 9th grade and continuing to attainment of the A.A./A.A.S. degree. High school teachers will also benefit from continued support in fully integrating rigorous instructional strategies with integrated delivery of instruction in partnership with college faculty and STEM professionals in work-based learning. A major aspect of this involves a shift for both high school instructors and college faculty to embrace innovative instructional strategies as well as delivery of instruction that occurs outside the classroom. Over two-thirds of survey respondents (69%) identified a priority for providing ongoing PD for P-Tech instructors. An equal number (69%) shared the view that PD focused on creating a "culture of achievement," and strategies for incentivizing student academic achievement, and identifying with a "college-going culture," are also important aspects of support for teachers who are most effectively able to elevate student expectations for success in college and career. This is especially important for underserved student populations.

Additionally, PD to support joint work between college faculty and ECHS instructors to conduct curriculum alignment and program coordination was identified as a high priority by 77% of survey respondents. Collaborative planning and review of course



curriculum and program innovation conducted jointly can also expose college faculty to instructional approaches that are essential to sustaining the innovative "culture of achievement" in a problem based, de-siloed platform for 21st century learning that students experience in the P-Tech Program design.

P-Tech: Theory of Action

Survey respondents reported that on average students earn over 50 credits by graduation from high school through the P-Tech Program. They share the view that engaging with IHE and business and industry partners in a new enterprise for curriculum development is the bedrock of the program, where career infusion supports curricula designed to meet rigorous academic standards while preparing students to develop professional work ethics and advanced career-specific skills attained through work-based learning. Figures 3 and 4 present the major P-Tech Program components that distinguish implementation through dynamic sustaining strategies that prepare students for seamless success in college and transition to the workforce. The regional context for merging workforce needs with 9-14 education through business and industry involvement assures that students are exposed to high-demand career options, experience success in post-secondary education, and increase their potential for advancing to a 4-year college and higher-skilled, high-paid jobs.

This program also addresses the statewide priority to increase college and career exposure for demographically underrepresented students in STEM fields, including low-income, ethnic minorities, and females who are exposed to the P-Tech "culture of achievement" supported by the innovative program design. Delivering robust applied learning experiences and generating high expectations for academic success established by both high school and college faculty is central to the program's mission. Finally, in providing a pathway to earning an A.A./A.A.S. degree, the P-Tech Program is designed to create a "college-going culture" that increases future employment opportunities for underrepresented students, placing them in line for highly skilled, high paying jobs. The work-based learning context in which students engage with STEM professionals who serve as mentors in problem-oriented challenges also supports development of a "growth mindset." In this experience, students gain maturity and professionalism through applied, collaborative learning that simulates the workplace environment, influenced by STEM role models in preparing students for success in entry to STEM professions.





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shadowing, and exposure to STEM mentors and role models. *P06RMM SUPPORT* challenges involve maintaining partner engagement including district buy-in to grow the P-TECH design to extend aspects of STEM career pathways model to other students regionally, especially in schools offering CTE courses. *TEACHER SUPPORT* involves professional development to meet unique, bedrock goals associated with creating a "college-going culture," and also for college faculty who play a role in sustaining a "culture of achievement" associated with innovation and problem based learning skills attained through the P-TECH curriculum and student work-based learning experiences.



NEW TECH SCHOOL DESIGN

The New Technologies High School Program (New Tech) was first designed by a nonprofit organization in 1996 in response to unmet workforce needs in the Silicon Valley region of northern California (New Tech Network 2013). This approach initially designed as a high school program (9-12) has expanded to include K-12 programs in a public/private enterprise in which content standards/academic skills are integrated with project based learning, providing an applied learning approach to build team experience and technology skills. New Tech schools are currently in operation in over 200 schools/districts nationally (New Tech Network 2017). New Tech schools were introduced in New York State as part of the state's commitment to developing STEM education. Seven New York schools have been affiliated with the New Tech Network since 2007; as of fall 2017, there are five active New York State schools in the New Tech Network, including a national high school demonstration site designated in 2016, and one new high school and one elementary/middle school launched in fall 2016 (New Tech Network 2017).

The discussion that follows is based primarily on published program reports assessing program achievements in years prior to 2017 for the New York schools. Quantitative data regarding current views on the New Tech high school model derived from the study survey conducted during July-August of 2017 with New Tech school directors and other lead staff (n=5). (Note that time constraints prevented the New Tech directors and lead staff from participating in a focus group discussion during spring 2017.)

Assessment of program attributes presented in this section is organized to focus on the four core innovative school components reviewed for the Smart Scholars and P-Tech Innovative High School Models and include: *Implementation Model, Culture of Achievement, Student Support,* and *Partnerships.* However, quantitative data (survey) was not sufficient to develop a visual schematic of the dynamic interrelationships based primarily on qualitative focus group data developed for Smart Scholars (Figures 1 and 2) and P-Tech (Figures 3 and 4). However, New Tech school design components are included in a comparative matrix and an overview of program variables across the three school models presented in the final section of this report.

New Tech Implementation Model

The New Tech program offers public and private schools/districts a 3-5 year structured implementation process that is tailored to the particular school, whether a start up with new facility and staff (whole school), or a transformation of an existing school (a



school within a school). Several of the New York high schools were designed as a "school of choice" involving multiple districts (New Tech Network 2017). The program is designed to achieve change in student performance outcomes aligned to New York State learning standards integrated with 21st century workforce skills and learning through new technologies. The program is also focused on increasing student potential for college and career entry in STEM fields. The New Tech school design relies on establishing formal regional partnerships with local business and industry as well as community organizations; however, partnership with a higher education academic institution (IHE) while desired, is not required.

New Tech planning and pre-implementation training is directed by a team that involves New Tech Network staff and an on-site "coach" who guides existing school administrators or new school leaders during the pre-implementation year and successive implementation period providing leadership and teacher training and support. This begins with a pre-implementation planning process involving the school director and partners to build a unique regional vision for the school. The planning process produces a plan that reflects local community values and culture in ways that will involve students in academic learning that also addresses community needs. The benefit to students engaged in authentic, real-world project based learning, is also intended to create civic engagement for New Tech students with their community. Program support also involves training and application of the proprietary "Echo" student grading system that tracks academic as well as workforce skills (e.g., collaboration, team work, communication, etc.). Professional Development for teachers is focused on project based learning, giving teachers new classroom delivery practices. Additionally, the New Tech network resources include a project library, providing teachers access to project-based curricula.

While the New Tech model is not considered "early college," the program does support student exposure to college and career and considers student-centered learning to be an essential aspect of the program. New Tech program survey respondents reported enrollments ranging from 21-40 students by grade level. Survey respondents (n=3) also reported that their students earn from 3-22 college credits; 67% reported that students complete General Education college courses and/ or "credit-bearing courses for a designated A.A. degree" by graduation from high school.

New Tech Culture of Achievement

Among survey respondents, five (100%) identified "project based learning" as the cornerstone of New Tech school design. Four respondents (80%) also view "problem



based learning" (PBL) to be essential to instruction, and noted the need for PBL professional development for teachers. A majority of survey respondents (80%) also reported focus on college and career readiness for New Tech students, and 60% cited exposure to career pathways as important aspects of the program assuring that students are "competitive for future jobs" in STEM fields. Authentic learning through engagement with business and industry partners was identified by 80% of survey respondents, with one respondent commenting on impacts for students who are "challenged to engage in authentic learning" about their community, and 60% identified the importance of "relevancy of real world problems" as a primary principle of student engagement, incentivizing development of a student culture of community awareness and civic life.

New Tech Student Support

Exposure to workplace environments and 21st century workforce skills was cited as integral to the program by 80% of survey respondents. In an open-ended survey question, respondents identified program goals to create a "culture of empowerment" for students as a primary message about the program for both students and parents, reflecting a priority in developing a "mindset for success in college and career." Student growth is also designed to engage students with community issues in ways that will help to build "citizenship" and personal growth as an adult in preparing for entry to the job pipeline and in developing potential career aspirations.

Internships are also offered through business and industry partners as well as community organizations, infusing student experiences with applied learning and awareness of essential workplace skills involving innovation, problem solving, communication, collaboration, and workplace expectations for continued growth as an adult professional. Three schools (60%) reported that students are offered internship opportunities, exposing students to local and regional career potential, as well as jobspecific credentials associated with 21st century STEM fields.

New Tech Higher Education, Business & Industry Partnerships

Among survey respondents, 80% view input from business and industry partners in developing curriculum to be essential to alignment with workforce skills sets and the job pipeline through authenticity of the curriculum. Additionally, planning for scale up to expand the program's potential growth in STEM fields is another facet of business input in a regional context for understanding job growth and relevant skill sets that can place students in line for high demand jobs. Establishing and maintaining strong partnerships and engagement with business partners was cited as both a high priority for the school as a whole, and also identified as a strong need for ongoing



professional development for teachers to engage more effectively with both community and business partners across survey respondents.

In schools that reported partnering with higher education, exposing college faculty to problem based/project based learning is another outcome of the higher education partnership for New Tech. The opportunity to expose pre-service teachers to a PBL pedagogical approach is especially important to the long-term success of New Tech high school programs in preparing students for jobs in STEM fields and in meeting future workforce growth areas for high demand jobs.

New Tech: Capacity and Sustainability

The sustaining components of Student Support revolve around partnerships with community and regional businesses and industry organizations to grow student awareness and readiness for post-secondary options including college and/or entry to the job market. Additionally, goals for creating and sustaining a "culture of empowerment," also involve important messaging for students and their families to incentivize student interest and awareness of applied learning through internships and project based curriculum designed for college and career readiness. Of the New York schools that developed around IHE partnerships, two of the four New Tech High schools report that they are located adjacent to a college campus. Offering dual enrollment or dual-credit coursework to high school students also increases student preparation for college entry, and builds awareness of career pathways. Exposure to career pathways is also reinforced through internships that help students experience innovation in practice and gain understanding of the power of integrated content knowledge and problem solving skills, moving beyond traditional siloed content mastery. Changing a student's expectations for personal development and success as an adult was identified by 50% of survey respondents as a primary goal of the program.

New Tech schools in this study are "schools of choice," involving student recruitment and enrollment from multiple school districts. Survey respondents identified student recruitment and retention to be a high priority for their school in the next five years. Among survey respondents, 60% (n=3) indicated that "planning and coordination" for scale-up has effectively sustained growth of their programs to support mutual goals with program partners for STEM career workforce development. Program growth was also noted by 60% of survey respondents, who expressed the view that PD for teachers targeted to growing and sustaining business partnerships, and increased understanding of effective strategies for community engagement are very important to sustaining the strengths of the program.



New Tech: Theory of Action

The New Tech Network high school model offers a design partner to work with existing schools or new start up schools to provide support and guidance for a planning and implementation process that produces an adaptive school design that reflects regional and local community priorities. A universal dimension of the school common to all New Tech schools centers on developing a vision of student success and preparation for adult life embedded in a student "culture of empowerment" and civic readiness. The 3-5 year implementation process provides educators with leadership training (administrative level) and professional development (classroom teachers) coordinated by an onsite coach during years 1-2. In years 3-5, the program offers support for school leaders and teachers in a range of options that can include remote instructional support as needed, and opportunities to participate in annual conferences for school leaders and teachers where, together with other New Tech educators, they can continue to increase their skills and knowledge through collaborative learning. Additionally, teachers have ongoing access to the New Tech project library providing project based learning curricula. The Echo student-tracking system provides nationally tested, standards based metrics to assess academic preparation for college, as well as broader skill sets associated with workforce, career and civic readiness.

Partnerships with business and industry, as well as with community organizations also forms an essential component of the New Tech school model, connecting students with authentic learning experiences in meaningful exploration of community values and civic life. Exposure to the workplace through internships also adds authenticity to work skills development and career awareness. Additionally, the newest New York high schools have formed a joint higher education partnership that involves the teacher education program, offering pre-service training in project based learning and classroom instructional delivery practices (OCM BOCES 2017). This important development will help to provide New Tech schools with teachers prepared for applied learning through project based curriculum, enabling New Tech teachers to move beyond traditional classroom management skills and siloed content instruction to gain project management skills and increased ability to foster 21st century workforce and career skills.

INNOVATIVE HIGH SCHOOL PROGRAMS COMPARATIVE ANALYSIS

Understanding the *Why, What*, and *How* of learning is directly tied to the interaction of the components within and between each of the innovative school design foundational strategies. *Why* we want students to learn is defined by relevance to the needs of


community and workforce development. *What* we want students to learn is defined by what best prepares them to succeed. *How* we get students to learn is defined by methods of engagement that can be differentiated to reach all students.

Focus on the specific set of core components and related variables and drivers of strategies for each of the innovative high school models provides the context for comparison in terms of how each prioritizes strategies and employs particular components to their advantage. The prioritization of choices contributes to each model's individualistic success. Studying the components as distinctive variables and the strategies as distinctive drivers defines patterns of interactions and ongoing modifications of each innovative model in seeking a successful balance aligned to their aspirations.

In this study, variables were organized by four core components of each program:

- Implementation Model to identify distinctive program attributes of each program;
- Culture of Achievement to define aspirational goals for students;
- Student Support to meet specific needs aligned to aspirational goals; and
- *Program Partners* to provide expanded services and other program support for student success.

The *theory of action* for each innovative school model summarized in the preceding sections of this report are reexamined in this section in a final comparative view to further distill the strengths of each program in context of diverse priorities for student high school education. In this view study findings present multiple benefits of the innovative school design in meeting workforce development needs, and multiple goals shared by communities for viability of civic capacity and growth of 21st century economies.

Tables 4-7 provide an "at-a-glance" view of program variables across the three innovative school models. As noted in the individual program review in the previous sections of this report, school leaders and program coordinators readily recognize that consistency of program services is a challenge from year-to-year. However, all acknowledge that when core components of the model are maintained, including staffing, program services, and engagement of partners, program goals do successfully improve student learning, and gains occur in accelerating student advancement to post-secondary education and regionally aligned career pathways. Furthermore, these innovative school models can impact student awareness and capacity to perceive themselves as "college-going" individuals incentivized to continue a "culture of achievement" and expectations for success in pursuing a more secure future as adults entering careers in STEM fields.

In this study, variation of the universal attributes occurs in relationship to the program context involving student demographics, level of current and future community economic

Transforming Learning			
Table 4. Drogram Implementation Model	Inno	ovative High Sc	hool
Comparative Matrix	Smart Scholars	P-Tech	New Tech
Early College High School Program (grades 9-12/dual enrollment)			
Early College High School Program (grades 9-14/dual enrollment)			
High School Program (grades 9-12/dual enrollment)			
Whole School Program			
School wthin a School			
Underserved/underreresented students			
Dual-credit transferable college courses			
No-cost College Tuition			
Reduced-cost College Tuition			
College Courses on High School Campus (Monday-Friday)			
College Courses on High School Campus (Saturday)			
College Readiness Skills Development Coursework			
College Courses on College Campus			
General Education College Coursework			
STEM or Careers and Technical Education (CTE) Focus			
Degree-Specific College Coursework			
A.A./A.A.S. or Equivalent Career Specific Degree Pathways			
Career Pathways			
Student-centered Learning			
Partnership Steering Committee			
Programmatic "Continuous Development" to Sustain Innovation			
School Coach to Support School Vision/Innovation (Years 1-4)			
National Network to Connect Schools/Leadership/Innovation			
Student Grading System (Echo) Embedded in School Design that Measures Learning Outcomes in Content/21st Century Skills			

	Innovative High School Design		
Matrix	Smart Scholars	P-Tech	New Tech
College-Going Culture			
College Credits Earned by High School Graduation			
College Awareness			
Exposure to College/Career			
College Readiness			
Career Readiness			
Problem Based Learning			
Project Based Learning			
Authentic Learning			
Work Based Learning			

development, and cultural persistence in breaking through generational barriers and personal financial capacity to undertake the costs of post-secondary education and/or career-specific training. The side-by-side view of the program variables presented in Tables 4-7 shows the common elements of these programs in support of advancing students to college and career readiness. The differences are where we find particular stakeholder needs being met in strategic ways that are intended to bridge the gap for students entering 9th grade with different levels of preparation for high school matriculation and potential entry to post-secondary programs. In the simple view of these differences we can see the inherent, critical needs that each program is designed to meet. These are presented below as a final comparative view of differences across the three models.

Model: Smart Scholars Early College High School (Smart Scholars)

Aspiration: College Readiness

Emphasis with Components:

- No cost early college
- Whole school or 'school within a school' program design
- High levels of mentoring, tutoring, and remediation
- Post-secondary partnerships
- Dual-credit courses offered at the high school



• Dual enrollment to expose students to the college environment and the "power of place" to remove barriers to attaining high self-esteem and sense of success

Goals: Broaden career opportunities for at-risk students in low-income communities with low potential for regional economic development or job growth in high skills jobs **Program Attributes**: Early intervention; Remediation in grade level core content and skills; Academic achievement-based instructional strategies; STEM focused course delivery.

Model: Pathways in Technology Early College High Schools (P-Tech)

Aspiration: Career Readiness

Emphasis on Components:

- No cost early college
- Whole school or 'school within a school' program design
- Problem based learning

	Innovative High School Design		
Table 6: Student Support Comparative Matrix	Smart Scholars	P-Tech	New Tech
Focus on Skill Sets for High School Matriculation			
Tutoring			
Mentoring			
Ownership of Learning/Maturity/Responsibility			
Social/Emotional Learning			
Internships			
Internships/Job Shadowing			
Internships/"First in Line" for jobs with A.A./A.A.S. Degree			
Applied Learning			
Growth Mindset			
Career Skills Focused Learning			
Focus on technology skills			
21st Century Skills (Content; Professionalism)			
Culture of Empowerment			



	Innovat	ive High Schoo	ol Design
Table 7: Program Partners Comparative Matrix	Smart Scholars	P-Tech	New Tech
Multiple School Districts			
Institute of Higher Education			
Community Based Groups			
Regional Business & Industry			
High School Teacher Adjunct Certification			
College Faculty Provides Course Specific PD for High School Teachers			
College Faculty Mentoring High School Teachers			
Common Planning Time/High School Teachers & College Faculty			
College Faculty Exposure to Innovation/PBL			
School Leadership/Teacher PD (Pre-Implementation Year)			
Remote/Virtual Support as Needed for High School Teachers (Years 1-5)			•
Curriculum Development/Course Alignment			
Career Infused Curriculum/Regional Alignment/Identify Emerging STEM Fields			•
STEM Workforce Development			
Job/Skill Set Industry Certification			
Award A.A./A.A.S. or Equivalent Career Specific Degree			
STEM Professional Industry Role Models			
STEM Professional Industry Co-Teachers			
STEM Professional Authentic Audiences for Student Engagement			



- Workplace experience
- Post-secondary partnerships
- STEM industry regional partnerships
- STEM professionals as mentors and role models
- Dual enrollment to advance seamless transition from high school to post-secondary in a six-year time frame (grades 9-14)
- Award of A.A./A.A.S. or other career specific industry certifications

Goal: Increase STEM workforce numbers of underrepresented students; Workforce development regionally aligned to STEM growth fields

Program Attributes: Career infused curriculum development; Work-based instructional strategies; STEM focused immersive delivery; "First-in-line" agreement for jobs with industry partners.

Model: New Technologies High Schools (New Tech)

Aspiration: Career Readiness

Emphasis on Components:

- Reduced cost early college; dual credit/dual enrollment (grades 9-12)
- Whole school program design
- Project based learning
- Workplace experience
- Local business and STEM industry regional partnerships
- Community engagement/partnership for civic readiness
- Dual-credit/dual enrollment with higher education partner

Goal: Workforce development for local business and regionally aligned STEM industries **Program Attributes:** Career infused curriculum development; Work-based instructional strategies; STEM focused immersive delivery.

CONCLUDING REMARKS

New York State is pursuing a course of action, implementing innovative education to advance the potential for every young person enrolled in New York K-12 schools to pursue career readiness and entry to the workforce through accelerated coursework in STEM related fields. This study has examined three of the leading innovative school models that have a multipleyear track record showing a level of improved student performance, increased student retention, and increased high school graduation rates. The study findings have also presented the universal components of these three programs, and in so doing magnified the important differences in strategies employed to achieve common goals. The study also



explored how common goals for career readiness is impacted by regional differences in economic growth potential that can pose particular regional challenges and fewer opportunities for young students to find a pathway to job and career. Yet, when students are exposed to post-secondary education thru early college coursework, they are likely to pursue a path to high demand jobs, increasing the talent pool essential for economic viability within the state that promises to secure the future for the next generation entering the workforce.

The issues revolving around education today overlap with alarming gaps in meeting workforce needs that are already occurring in the job market, and will continue to expand should we fail to make strategic changes in the fundamental mission of our K-12 education system to prepare students with appropriate skills for the economy of today and of the future. New York is investing in program innovation in education that can turn the tide for all stakeholders including our youth, multi-generational families, communities, business and industry sectors, all seeking economic growth and prosperity.

This study is intended to inform decision makers in considering the strengths of each of these programs in meeting common goals for workforce development, with recognition that "one size does not fit all." We want to thank our partners in this examination of innovative strategies for education in the state of New York. In seeking new and urgently needed effective education programs, we share a common bond and passion for preparing our youth for a future stamped by fast-past innovation, rapid advances in technological tools, and unbridled and fierce competition on the global landscape. This drive to succeed is fueled by a shared understanding of the importance of giving our youth the best preparation for success as adults to position them to advance our communities toward a secure, economic future. The programs explored in this study offer insight on innovation in a broad-based and collaborative re-envisioning of the role of education, and offer the potential for evolving programs and sustaining actions to a new level of effectiveness in meeting the workforce development challenge for New York State and the nation.



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APPENDIX:

SUNY Study of New York's Innovative High School Programs: Final Report

<u>Appendix A:</u> SUNY Innovative School Design Project Chronology, 2016-2017

> <u>Appendix B:</u> Human Subjects Research Protocols PAST Foundation IRB Consent to Participate in Research Forms SUNY Innovative School Design Survey Web Greeting

> > Appendix C: Communication Catalog May 8, 2017 June 23, 2017 July 28, 2017 August 11, 2017 August 25, 2017

<u>Appendix D:</u> Focus Group Questions

<u>Appendix E:</u> Administrator and Partner Surveys SUNY Innovative School Design Study School Administrator Survey Question Set SUNY Innovative School Design Study School Partner Survey Question Set



Appendix A:

SUNY Innovative School Design Project Chronology, 2016-17



SU	Appendix A: SUNY INNOVATIVE SCHOOL DESIGN RESEARCH STUDY CHRONOLOGY 2016-2017		
Date		Action	Outcome
10/21/16	Preliminary draft and outline for proposed study of innovative school models in NYS	Submitted to SUNY for review and comment	Proposed outline received by SUNY Office of the Chancellor
1/12/17	SUNY notification to PAST to submit budget and scope of work for period 1/1/17 to 6/30/17	Verbal approval to proceed to formal Scope of Work with modifications to the budget and tasks to reflect changes issued in the Ford Foundation grant	Draft Scope of Work initiated including proposed timeline for conducting interviews with project partners, school leader focus groups, survey design and deployment; schedule for data collection to be completed by the end of the spring 2017 school term; analysis of findings and report to be completed by June 30.
1/19/17	Project Scope of Work and contract for study period 1/1/17 to 6/30/17	Submitted to SUNY for review and approval	Project work to begin pending review and approval of final Scope of Work and budget
3/2/17	Verbal approval to proceed with study implementation; modification to study period: March to September 2017	Initiate review of the timeline and options for implementing data collection plan; schedule the first planning session with SUNY	Revised implementation schedule to begin data collection mid-March, and extend study period from June 30 to September 15, 2017.
3/10/17	PAST/SUNY Project Team Planning Session	Review timeline regarding the academic spring term, options to support accelerated outreach to school leaders, and review of potential alternative strategies for completing data collection by the end of spring term.	Approval of list of project interviews with lead individuals for each school model (P-TECH, Smart Scholars and New Tech)
3/10/17	Project web platform for file sharing: Basecamp®	Access to the project web-based file sharing platform for research team, SUNY key personal, and lead individuals associated with P-TECH, Smart Scholars, and New Tech programs	Reports and other materials to be posted to the project Basecamp including P-TECH, Smart Scholars, and New Tech reports for review on background for design of questions for interviews, focus groups, and survey.
3/23/17	Research Study IRB	IRB application submitted for expedited review	IRB approved 4/10/17



	Appendix A:			
SU	SUNY INNOVATIVE SCHOOL DESIGN RESEARCH STUDY CHRONOLOGY 2016-2017			
Date	ltem	Action	Outcome	
3/24/17	Ford Foundation Notification of Grant Reporting Deadline: 8/31/17	Revise Scope of Work regarding Ford Foundation 8/31/17 report deadline	SUNY to receive two reports: 1) Interim report on preliminary survey findings due 8/31/17; and 2) Final report with complete study findings submitted 9/15/17	
3/24/17	SUNY project outreach support	SUNY Project Intern position to support outreach to school leaders is not available; modify implementation plan to conduct outreach with support from lead individuals from SUNY, P-TECH, Smart Scholars, and New Tech programs	Original strategy for phone outreach to school leaders is revised to conduct all outreach by email, with additional support from lead program individuals; timeline revised for focus group outreach is re-scheduled from April to occur in May with support from key SUNY personnel and lead program individuals; implementation schedule revised to conduct focus groups mid-May to June; focus group analysis mid-June following completion of focus groups; survey deployment schedule revised to be conducted July 28 -August 18	
3/27/17	Innovative School Study Project Description (one-page handout)	Design a one-page summary of the project for dissemination to school leaders and others; circulate via email to SUNY and lead program individuals	Draft project description based on revised project timeline; including dates for project focus groups and survey	
3/29/17	SUNY contract for approved Scope of Work	Receipt of signed contract for approval to proceed with project implementation	Project officially launched	
4/3/17	Virtual meeting with SUNY and P-TECH program lead individual	Initiate work plan for support with identifying school leaders including acquiring access to email contact information and planning for outreach	Review schedule for P-TECH school leaders and begin email outreach for May focus groups	
4/27/17	Focus Group Question Set (Final Draft)	Circulate school leader draft questions to SUNY and lead program individuals for review and comment	Final Focus Group questions approved May 8, 2017	

	Appendix A:		
SU	NY INNOVATIVE S	CHOOL DESIGN RESEARCH S	TUDY CHRONOLOGY 2016-2017
Date	ltem	Action	Outcome
5/3/17	Draft Email Message: SUNY Innovative School Study Focus Group	Solicit review and comment from SUNY regarding draft email message for school leaders participation in focus groups, including dates and times; circulate to lead program individuals who will support outreach	Final version approved 5/5/17
5/4/17	Project Update Meeting	Review outreach implementation progress and potential impacts for reaching target numbers for school leader participation	Email outreach is producing small number of responses for focus group participation for P- TECH and Smart Scholars; no New Tech response; revisit timeline for adequate participation
5/8/17	Email outreach: SUNY Innovative School Study Focus Groups	Circulate to school leaders via email; circulate to lead individuals for P-TECH and New Tech programs for support in conducting outreach	Multiple email messaging to school leaders to provide the schedule of dates/time for focus groups from PAST Foundation, SUNY Office of the Chancellor, and lead individuals for the P- TECH and New Tech programs
5/17/17	Focus Group	P-TECH & Smart Scholars	(n=2)
5/26/17	Focus Group	P-TECH & Smart Scholars	(n=5)
6/2/17	Focus Group	Smart Scholars	(n=3)
6/15/17	Open-ended interview	P-TECH	(n=1) In-depth discussion of current status of program goals, challenges and priorities for the program
6/21/17	Open-ended interview	New Tech	(n=1) In-depth discussion of current status of program goals, challenges and priorities for the program
6/22/17	Open-ended interview	Smart Scholars	(n=1) In-depth discussion of current status of program goals, challenges and priorities for the program
6/22/17	Open-ended interview	Smart Scholars Program; P-TECH Program	(n=3) In-depth discussion of current status of program goals, challenges and priorities for the program
6/23/17	Open-ended interview	Smart Scholars Program	(n=1) In-depth discussion of current status of program goals, challenges and priorities for the program



Appendix A:				
SU	SUNY INNOVATIVE SCHOOL DESIGN RESEARCH STUDY CHRONOLOGY 2016-2017			
Date	ltem	Action	Outcome	
6/23/17	Email outreach:	Send email outreach to school	Email outreach prior to the end of the spring	
	School/Partner Survey	leaders notifying them of the	term to request school leaders to check their	
	Launch	upcoming SUNY study survey	emails on 7/28 to access the survey weblink	
		running from 7/27-8/10		
7/25/17	Survey Questions for	Circulate to SUNY and lead	Input gained for final survey question set by	
	Schools/ School	program individuals for review and	7/27	
	Partners (Final Draft)	comment		
7/28/17	Email outreach:	Survey website link circulated via	Initiate data collection via survey for school	
	School/Partner Survey	email to school leaders	leaders and partners	
	Launch			
8/11/17	Email outreach:	Send email outreach to school	Extend survey by (7) days to provide	
	Survey Period	leaders notifying them of the	additional time to gain survey response	
	Extended to August	extended period to participate in		
	25th	the SUNY study survey		
8/25/17	Close School/Partner	Confirm final response rate for	P-TECH (n=13); Smart Scholars (n=3); New	
	Survey	survey	Tech (n=7)	
8/25/17	Email outreach:	Send email outreach to Smart	Extended period for survey data collection to	
	Extend survey period	Scholars school leaders notifying	September 1st for potential increase in total (n)	
	for Smart Scholars	them of the extended period for	for Smart Scholars survey response	
	school leaders and	survey participation		
	partners			



Appendix B: Human Subjects Research Protocols

PAST Foundation IRB Consent to Participate in Research Forms SUNY Innovative School Design Survey Web Greeting



PAST Foundation, 1003 Kinnear Road, Columbus, Ohio 43212Audio and Written ConsentIRB NO: 2017-04-0014ETHIRB APPROVAL DATE: April 10, 2017

PAST Foundation Consent to Participate in Research (Adult Audio Recording, Observation and Written Documentation) Study Title: Study of New York State P-Tech, Smart Scholars, and New Tech Early College Programs (NYSECHS) Researchers: Monica S. Hunter, Ph.D. and Maria Cohen, M.A. Research Organization: PAST Foundation, Columbus, Ohio

Sponsor: State Universities of New York

4

5 **This is a consent form for research participation.** It contains important information about 6 this study and what to expect if you decide to participate.

7 Your participation is voluntary.

8 Please consider the information carefully. Feel free to ask questions before making your

9 decision whether or not to participate. If you decide to participate, you will be asked to sign

10 this form and will receive a copy of the form.

11

12 **Purpose:**

13 This project is intended to provide an understanding of school design of selected early

14 college programs for the Study of New York State P-Tech, New Tech, and Smart Scholars

15 Early College Programs (NYSECHS). The study will explore the experience of administrators

and others engaged in implementation of early college programs in New York State to

17 systematically document the experience of program participants, including understanding

18 fundamental aspects of the program identified by administrators and program partners as

19 key to meeting program goals and objectives. This project will combine the expertise of a

20 team of anthropological ethnographers and educators to insure that variable components of

21 the study are included. The information generated by this study will inform future STEM

22 education studies and will help identify key factors associated with academic excellence, as

23 well as critical information for policy makers and educators engaged in creating new STEM

24 based educational opportunities.

25

26 **Procedures/Tasks:**

27 The study will involve several methods to gain information about early college programs

28 schools, including open-ended, one-on-one interviews or questionnaires; or group

29 discussions in the form of focus groups or facilitated "breakout" groups. Study participants

30 will include administrators and others engaged in early college programs in New York State

31 to systematically document the experience of key program implementers. Ethnographic

32 Research Team members conducting interviews or group discussions will record these

activities by audio recording and/or hand-written or word-processed notes. You may be

Page 1 of 3

Form date: 03.28.2017

PAST Foundation, 1003 Kinnear Road, Columbus, Ohio 43212Audio and Written ConsentIRB NO: 2017-04-0014ETHIRB APPROVAL DATE: April 10, 2017

34 asked to complete a written questionnaire or survey as part of the study. The information

- 35 gathered for this study will not be utilized for any purpose other than to contribute to the
- 36 completion of this research project.
- 37

38 Duration:

- The study will be conducted **during the 2017** school year and will **conclude on September 30, 2017**. If you agree to participate in the study, you may elect to leave the study at any time. If you decide to stop participating in the study, there will be no penalty to you, and you will not lose any benefits to which you are otherwise entitled. Your decision will not affect your future relationship with the PAST Foundation, **SUNY, the Ford Foundation or**
- 44 **New York State early college programs,** or any other organization involved with the study.
- 45

46 **Risks and Benefits:**

47 You will not benefit directly from participating in the study.

48 There are no risks associated with participation in this study.

49

50 **Confidentiality:**

- 51 All study records will be maintained by the Ethnographic Research Team in a secure location,
- 52 and access to research files will be strictly limited to the Ethnographic Research Team. All
- 53 data provided to the Project will be coded utilizing a system that will assure anonymity of
- 54 study participants and will not carry identifying information including the names of
- ⁵⁵ individuals participating in the study. While the results of the research may be presented at
- 56 conferences and/or in published papers, all individual responses will remain confidential.
- 57 Following completion of the study, all original hard copies of study records will be destroyed
- after three years. A single copy of all study materials will be maintained in electronic format
- by the PAST Foundation. If at any time there is a request to utilize this data as part of a
- 60 following study, such as use as part of a larger research project to compare STEM education

61 implementation activities with other schools, you will be contacted and asked to give specific

- 62 permission for use associated with the data request at that time.
- 63
- 64 The PAST Foundation will observe strict protocols to keep your study-related information
- 65 confidential. However, there may be circumstances where this information must be
- ⁶⁶ released. For example, personal information regarding your participation in this study may
- 67 be disclosed if required by *state law or federal law*.
- 68

69 Incentives:

- 70 You will not be compensated in any way to participate in the study.
- 71

72 Participant Rights:

- 73 You may refuse to participate in this study without penalty or loss of benefits to which you
- are otherwise entitled. If you are an employee at the PAST Foundation, **SUNY, the Ford**
- 75 Foundation or New York State early college programs, or any other organization involved
- ⁷⁶ with the study, your decision will not affect your employment status.
- 77

PAST Foundation, 1003 Kinnear Road, Columbus, Ohio 43212Audio and Written ConsentIRB NO: 2017-04-0014ETHIRB APPROVAL DATE: April 10, 2017

⁷⁸ If you choose to participate in the study, you may discontinue participation at any time

- without penalty or loss of benefits. By signing this form, you do not give up any personal
- 80 legal rights you may have as a participant in this study.
- 81
- 82 An Institutional Review Board responsible for human subjects research at The PAST
- 83 Foundation reviewed this research project and found it to be acceptable, according to

applicable state and federal regulations and PAST's policies designed to protect the rights

85 and welfare of participants in research.

86

87 **Contacts and Questions:**

88 For questions, concerns, or complaints about the study you may contact the Human Subjects

89 Institutional Review Board at the PAST Foundation at 614-340-1208 and the appropriate

90 person will respond to your questions and/or concerns.

91

92 Signing the consent form

93 I have read (or someone has read to me) this form and I am aware that I am being asked to

94 participate in a research study. I have had the opportunity to ask questions and have had

95 them answered to my satisfaction. I voluntarily agree to participate in this study.

96

97 I am not giving up any legal rights by signing this form. I will be given a copy of this form.

98

99 100

105

Printed name of subject	Signature of subject	
		AM/PM
	Date and time	
Printed name of person authorized to consent for subject (when applicable)	Signature of person authorized to consent for subject (when applicable)	
		AM/PM
Palationship to the subject	Date and time	

101 Investigator/Researcher

102 I have explained the research to the participant or his/her representative before requesting
 103 the signature(s) above. There are no blanks in this document. A copy of this form has been

104 given to the participant or his/her representative.

Printed name of person obtaining consent Signature of person obtaining consent ______ AM/PM ______ Date and time

Page 3 of 3

PAST Foundation, 1003 Kinnear Road, Columbus, Ohio	43212
IRB NO: 2017-04-0014ETH	IRB APPROVAL DATE: April 10, 2017
www.pastfoundation.org/xxx	

1 2

PAST Foundation Informed Consent to Participate in Research
(Adult Online Survey)

Study Title:	Study of New York State P-Tech, Smart Scholars, and New Tech Early College Programs (NYSECHS)
Researchers:	Monica S. Hunter, Ph.D. and Maria Cohen, M.A.
Research Organization:	PAST Foundation, Columbus, Ohio
Sponsor:	State Universities of New York

3

4 **This is a consent form for research participation.** It contains important information about 5 this study and what to expect if you decide to participate. **Your participation is voluntary.**

6

7 Purpose:

8 The survey is intended to provide an understanding of school design of selected early college

9 programs for the Study of New York State P-Tech, New Tech, and Smart Scholars Early

10 College Programs (NYSECHS). The study will explore the experience of administrators and

- others engaged in implementation of early college programs in New York State to
- 12 systematically document the experience of program participants, including understanding
- 13 fundamental aspects of the program identified by administrators and program partners as
- 14 key to meeting program goals and objectives. The information generated by this study will
- 15 inform future STEM education studies and will help identify key factors associated with
- 16 academic excellence, as well as critical information for policy makers and educators engaged

17 in creating new STEM based educational opportunities.

18

19 **Procedures/Tasks:**

- 20 You will be asked to complete a survey, which should take approximately 10-15 minutes to
- complete; however, you will have the opportunity to respond to open-ended questions and
- you will have the option to take more time to respond to these questions if you so desire.
- 23 You will be answering questions about your experience as an educator and administrator.
- 24 You may be asked questions about challenges you have faced during implementation of New
- 25 York State early college programs, challenges you believe your students may be
- 26 experiencing, and your opinions on areas of additional support that you feel would enhance
- 27 the implementation process for you or for your school as whole.
- 28

29 **Duration:**

- 30 Surveys will be conducted **during the 2017** school year. The study will **conclude on**
- 31 **September 30, 2017.** If you agree to participate in the study, you may elect to leave the
- 32 study at any time. If you decide to stop participating in the study, there will be no penalty to
- 33 you, and you will not lose any benefits to which you are otherwise entitled. Your decision

Form date: 03.28.17

PAST Foundation, 1003 Kinnear Road, Columbus, Ohio 43212IRB NO: 2017-04-0014ETHIRB APPROVAL DATE: April 10, 2017www.pastfoundation.org/xxxIRB APPROVAL DATE: April 10, 2017

- 34 will not affect your future relationship with the PAST Foundation, SUNY, the Ford
- 35 Foundation or New York State early college programs, or any other organization involved
- 36 with the study.
- 37
- 38 **Risks and Benefits:**
- 39 You will not benefit directly from participating in the study.
- 40 There are no risks associated with participation in this study.
- 41
- 42 **Confidentiality:**
- 43 Your responses will be completely anonymous and confidential. The survey will be
- 44 administered online through a SurveyMethods© link as a SurveyMethods.com Certified
- 45 **Anonymous Survey**. This means that your email ID and IP address associated with your
- 46 survey response are not visible to PAST Foundation researchers. All survey records will be
- 47 maintained by the Ethnographic Research Team in a secure location, and access to research
- 48 files will be strictly limited to the Ethnographic Research Team. While the results of the
- 49 research analysis may be presented at conferences and/or in published papers, all individual
- 50 responses will remain confidential.
- 51

52 Incentives:

- 53 You will not be compensated in any way to participate in the study.
- 54
- 55 Participant Rights:
- 56 You may refuse to participate in this survey without penalty or loss of benefits to which you
- are otherwise entitled. If you are an employee at the PAST Foundation, **SUNY, the Ford**
- 58 **Foundation or New York State early college programs,** or any other organization involved
- ⁵⁹ with the study, your decision will not affect your employment status.
- 60
- 61 Once you initiate the online survey, you will be asked to confirm that you have read this
- information and agree to participate in this research, with the knowledge that you are free
- to withdraw your participation at any time without penalty.
- 64
- 65 An Institutional Review Board responsible for human subjects research at the PAST
- 66 Foundation reviewed this research project and found it to meet strict requirements to
- 67 protect confidentiality of the data collected for this study, and are consistent with applicable
- 68 state and federal regulations and PAST's policies designed to protect the rights and welfare
- 69 of participants in research.

70

71 **Contacts and Questions:**

- 72 You may review information about these protocols on the PAST Foundation Basecamp©
- 73 website. You may also direct your questions, concerns, or complaints about the study to the
- 74 Human Subjects Institutional Review Board at the PAST Foundation at 614-340-1208 and the
- 75 appropriate person will respond to your questions and/or concerns.

Page 2 of 2

Form date: 03.28.17



PAST Foundation, 1003 Kinnear Road, Columbus, Ohio 43212IRB NO: 2017-04-0014ETHIRB APPROVAL DATE: April 10, 2017

THE PAST of FOUNDATION access through innovation

Knowledge Capture Program Verbal Consent for Audio Recording Focus Group Questions

Project Title: Study of New York State P-Tech, Smart Scholars, and New Tech Innovative School Design

We appreciate your interest in supporting the PAST Foundation's effort to explore innovative school design and development of P-TECH, Smart Scholars, and New Tech high school programs in New York State to identify unique strengths and distinct components of each of the three models of innovative school design.

The focus group will be conducted in a virtual online audio-recorded session during a 1 hour to 1.5 hour session designed to explore your perspective and experience with the P-TECH, Smart Scholars, or New Tech programs including the following:

- 1) Strategies and constraints in program implementation;
- 2) Identification of common program components as well unique elements of diversity across the three types of innovative high school programs;
- 3) Particular program components that directly align with the mission and priorities in meeting student needs through the P-TECH, Smart Scholars, or New Tech program; and,
- 4) Impact of exposure to the P-TECH, Smart Scholars, or New Tech program on student preparation for success in college and/or career.

The information we gain through this group discussion process will help identify key factors associated with academic excellence, as well as your insights on particular aspects of your program to inform policy makers and educators and others engaged in expanding and sustaining high school and career preparation educational opportunities in New York State.

This project will observe IRB confidentiality and anonymity protocols for conducting focus groups and surveys. Study participants will be assigned an identity code number at the onset of research (at the initial participation point). Once assigned a code number, study participants will only be identified by that code number and not by name or affiliation to a specific school or program by name in any study documents including transcribed notes, reports or publications. All original research data will be managed by the PAST Foundation ethnographic Knowledge Capture Program staff, and will remain secured under lock and key. In the case of digital data, all electronic files will be maintained by the PAST Foundation and archived in passcode protected files. Acccess to primary data records will be restricted to the PAST Knowledge Capture Program research staff, including the Director of Research, the Assistant Director of Research and Research Assistant. If you have any questions, or if you wish to withdraw from the study at any time, you may contact the IRB Officer at the PAST Foundation, 614-340-1208.

May 2017



IRB 2017-04-0014ETH

PAST Foundation Informed Consent to Participate in Research

(Adult Online Survey)

IRB No: 2017-04-0014ETH IRB Approval Date: 4.3.2017

Study Title: *Study of New York State P-Tech, Smart Scholars, and New Tech Early College Programs (NYSECHS)* Researchers: Monica S. Hunter, Ph.D. and Maria Cohen, M.A. Research Organization: PAST Foundation, Columbus, Ohio Sponsor: State Universities of New York

This is a consent form for research participation. It contains important information about this study and what to expect if you decide to participate. **Your participation is voluntary.**

Purpose:

The survey is intended to provide an understanding of school design of selected early college programs for the Study of New York State P-Tech, New Tech, and Smart Scholars Early College Programs (NYSECHS). The study will explore the experience of administrators



and others engaged in implementation of early college programs in New York State to systematically document the experience of program participants, including understanding fundamental aspects of the program identified by administrators and program partners as key to meeting program goals and objectives. The information generated by this study will inform future STEM education studies and will help identify key factors associated with academic excellence, as well as critical information for policy makers and educators engaged in creating new STEM based educational opportunities.

Procedures/Tasks:

You will be asked to complete a survey, which should take approximately 10-15 minutes to complete; however, you will have the opportunity to respond to open-ended questions and you will have the option to take more time to respond to these questions if you so desire. You will be answering questions about your experience as an educator and administrator. You may be asked questions about challenges you have faced during implementation of New York State early college programs, challenges you believe your students may be experiencing, and your opinions on areas of additional support that you feel would enhance the implementation process for you or for your school as whole.

Duration:

Surveys will be conducted **during the 2017** school year. The study will **conclude on September 30, 2017.** If you agree to participate in the study, you may elect to leave the study at any time. If you decide to stop participating in the study, there will be no penalty to you, and you will not lose any benefits to which you are otherwise entitled. Your decision will not affect your future relationship with



the PAST Foundation, SUNY, the Ford Foundation or New York State early college programs, or any other organization involved with the study.

Risks and Benefits:

You will not benefit directly from participating in the study. There are no risks associated with participation in this study.

Confidentiality:

Your responses will be completely anonymous and confidential. The survey will be administered online through a SurveyMethods© link as a **SurveyMethods.com Certified Anonymous Survey**. This means that your email ID and IP address associated with your survey response are not visible to PAST Foundation researchers. All survey records will be maintained by the Ethnographic Research Team in a secure location, and access to research files will be strictly limited to the Ethnographic Research Team. While the results of the research analysis may be presented at conferences and/or in published papers, all individual responses will remain confidential.

Incentives:

You will not be compensated in any way to participate in the study.

Participant Rights:

You may refuse to participate in this survey without penalty or loss of benefits to which you are otherwise entitled. If you are an employee at the PAST Foundation, **SUNY, the Ford Foundation or New York State early college programs,** or any other organization involved with the study, your decision will not affect your employment status.

Once you initiate the online survey, you will be asked to confirm that you have read this information and agree to participate in this research, with the knowledge that you are free to withdraw your



participation at any time without penalty.

An Institutional Review Board responsible for human subjects research at the PAST Foundation reviewed this research project and found it to meet strict requirements to protect confidentiality of the data collected for this study, and are consistent with applicable state and federal regulations and PAST's policies designed to protect the rights and welfare of participants in research.

Contacts and Questions:

You may review information about these protocols on the PAST Foundation Basecamp© website. You may also direct your questions, concerns, or complaints about the study to the Human Subjects Institutional Review Board at the PAST Foundation at 614-340-1208 and the appropriate person will respond to your questions and/or concerns.

Please print this page for your record



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Marketing







Appendix C:

Communication Catalog

May 8, 2017 June 23, 2017 July 28, 2017 August 11, 2017 August 25, 2017



New York State Innovative High School Designs Study

The PAST Foundation is partnering with the State University of New York to conduct a study of New York's Smart Scholars Early College High Schools, P-TECH, and New Tech schools. The study will focus on aspects of design and development of each of the three school designs to identify unique strengths and distinct components of each of the innovative high schools. We invite school administrators to support this study in participating in focus groups, and in completing a survey to explore perspectives on successes and challenges of New York's innovative high school designs.

How can I participate? Focus Groups

PAST will conduct virtual focus groups with school leaders to gain insights on issues related to the innovative high school designs. Proposed focus group dates include:

May 15, 16, 17, 23 & 25 - 3:30-4:30 pm May 26 – Noon to 1 pm

We will be recruiting participants from P-TECH (15 participants), Smart Scholars (10 participants), and New Tech (5 participants).

Survey

A survey will be conducted with Smart Scholars, P-TECH and New Tech school leaders via an online web platform, SurveyMethods.com®. The survey will be launched **July 28** and will remain open through **August 10, 2017.**

Protocols

This project is designed to observe IRB confidentiality protocols for conducting interviews, focus groups, and surveys. Information will be provided to each study participant with essential information about the project's 'informed consent' practices, and a description of the purpose of the study, constraints on use of data, as well as important details about voluntary participation.

Projected Outcomes

The project studies the sustaining attributes of each school model, providing greater understanding of interactions among the principles of school design for the three distinctive types. The study considers how each model successfully meets the needs of diverse student audiences in preparation for college and career.

This study is supported by a grant from the Ford Foundation.





SUNY INNOVATIVE HS DESIGNS STUDY EMAIL MESSAGE #1 sent by SUNY project liaison **REVISED 5/5/17**

[SUBJECT LINE:]

You are invited to participate in the NEW YORK STATE INNOVATIVE HIGH SCHOOLS DESIGNS STUDY

[MESSAGE]

The **State University of New York** is partnering with the **PAST Foundation** to conduct a study of New York's Smart Scholars Early College High Schools, P-TECH, and New Tech schools.

The study will focus on aspects of design and development of each of the three school designs to identify unique strengths and distinct components of each of the innovative high schools. We invite school administrators to support this study in participating in focus groups, and in completing a survey to explore perspectives on successes and challenges of New York's innovative high school designs.

Please see the attached document with details about the study, and information about the focus groups (conducted in May), and the survey to be administered prior to the start of the fall term (July 28 - August 10, 2017). The focus groups will be conducted by Dr. Monica Hunter of the PAST Foundation via a virtual web conferencing platform (ZOOM®) that is accessible via a free conferencing service to participants. The virtual platform offers the convenience of joining a group discussion for one hour from your desktop computer or via phone line. I have attached a PDF document with the focus group questions for your review.

The focus group is being offered on the following dates: [each email group will only show the dates for their group]

NEW TECH (5 Participants) 5/15: 3:30p-4:30p 5:26: noon-1p

SMART SCHOLARS (10 Participants) 5/16: 3:30p-4:30p 5/23: 3:30p-4:30p

P-TECH (15 Participants) 5/17: 3:30p-4:30p 5/25: 3:30p-4:30p

Please follow the DOODLE POLL link to sign up to participate in the focus group: [each group will each have their own link so the poll will offer only the dates shown in the email message for their group]

Once you select best date to participate in a focus group, you will receive an invite by email with confirmation of the date and time, as well as login/dial-in details. The invitation will be sent out prior to the date and time of your focus group directly from the PAST FOUNDATION. The email will be identified by the SUBJECT LINE: **PAST** Foundation Innovative HS Focus Group Confirmation

Please contact [SUNY PROJECT LIAISON] by email or by phone with any questions you may have about the study. [SIGNED BY SUNY LIAISON]



PAST FOUNDATION - June 23, 2017 email text to School Leaders

(SUBJECT) Reminder: SUNY Ford Foundation Study Survey July 28-August 10, 2017

Hi all:

PLEASE check your email on Friday, July 28th for an online survey weblink administered by the PAST Foundation via SurveyMethods[®] - a secure, online platform that will allow you access to the survey 24/7 including weekends through August 10^{th} .

This opportunity will allow you to provide feedback on your experience as a leader for innovative high school programs in New York in an anonymous and confidential survey guided by human subjects research protocols. Additional information about anonymity will be available via the weblink where you can access a full disclosure on confidentiality and secure data protocols. The survey should take 20 to 30 minutes to complete.

Thanks to those of you who were able to participate in the focus groups/interviews during May and June. We value your time and appreciate your insights on your experiences and views about the programs in your schools in meeting our common goals for a more meaningful education for our students whether college bound or on a pathway to a job through our wideranging industry partnerships across the New York State.

Again – please mark your calendar for JULY 28, 2017 to access the survey weblink. We urge you to find a convenient time to complete the online survey by August 10 when the survey period comes to an end.



PAST FOUNDATION - EMAIL REMINDER TO SCHOOL LEADERS 8/11/17

[SUBJECT] Reminder: SUNY Ford Foundation Study Survey July 28-August 25, 2017

[MESSAGE]

To: Smart Scholar, P-TECH and New Tech school leaders and program partners

The **PAST Foundation** is partnering with the **State University of New York** to conduct a study of New York's Innovative School Programs. The study focuses on aspects of design and development of each of the three school models to identify unique strengths and distinct components of the Innovative School Programs.

We are inviting you to share your insights as a school leader and/or program partner by completing a survey designed to explore program attributes.

Please click on the link below to access the anonymous survey, which will remain open 24/7 through **<u>9am, Friday, August 25th</u>**. Protocols are in place to ensure that you will not be identified by name or school/organization name. Please click on the link below to access the survey:

http://app.surveymethods.com/EndUser.aspx?CEEA869ECA8B9995CE

Once you enter the survey web page, please be sure to review the confidentiality protocols provided in the embedded link in the introduction to the survey.

The survey should take approximately 15-20 minutes to complete. Note that you may start the survey and stop at any time, using the "Save and Resume" feature that gives you the option of completing the survey at your convenience.

Thank you for your time and for supporting the New York State Innovative High School Designs Study.

Please contact Dr. Monica Hunter at the PAST FOUNDATION if you have any questions. $614\mathchar`a\mbox{4}0\mathchar`a\mbox{4}0\mathchar`a\mbox{4}0\mbox{4}$



PAST FOUNDATION – Survey extension text to Smart Scholars School Leaders 8/25/17

[SUBJECT]

EXTENSION for Survey/Smart Scholars School Leaders: SUNY/Ford Foundation Innovative School Study

[MESSAGE]

Dear Smart Scholars school leaders and program partners:

We need your help with developing a clearer picture of the Smart Scholars program! Due to a low response rate, the PAST Foundation is extending the window for Smart Scholars school leaders and program partners to take our survey.

For your convenience, the survey will remain open 24/7 through Friday, 1pm, September 1.

PAST is partnering with the State University of New York to conduct a study of New York's Innovative School Programs. The study focuses on aspects of design and development of each of the three school models to identify unique strengths and distinct components of the Innovative School Programs. Please share your insights as a school leader and/or program partner by completing a survey designed to explore program attributes. You can click on the link below to access the anonymous survey, Protocols are in place to ensure that you will not be identified by name or school/organization name. Please click on the link below to access the survey: <u>http://app.surveymethods.com/EndUser.aspx?CEEA869ECA8B9995CE</u> Once you enter the survey web page, please be sure to review the confidentiality protocols provided in the embedded link in the introduction to the survey.

Note that you may start the survey and stop at any time, using the "Save and Resume" feature that gives you the option of completing the survey at your convenience—but it must be done no later than 1pm on Friday, September 1.

Thank you for your time and for supporting the New York State Innovative High School Designs Study.

Please contact Dr. Monica Hunter if you have any questions. See contact information below.



Appendix D: Focus Group Questions
SUNY Innovative School Design Study Focus Group Questions – School Leaders PAST FOUNDATION Monica Hunter, Director of Research PAST FOUNDATION May 2017

Thank you for your interest in participating in the *SUNY Innovative School Design Study*. As part of the study we will conduct focus group discussions to hear from school leaders with on-the-ground knowledge and insights on the successes and challenges for continuous improvement and sustaining strategies for the Smart Scholars, P-TECH, and New Tech schools.

Four focus groups will be conducted during May 2017 as follows: New Tech (5 participants), Smart Scholars (10 participants) and P-TECH (15 participants).

There are (8) focus group questions, and each question includes a short list of prompts to help frame the focus of the discussion.

Focus groups will be approximately one-hour in length and will be conducted via a virtual platform (ZOOM®). You will receive an invitation with instructions for participation in the focus group based on the date and time you selected. The invitation will provide instructions for login to a web-based platform or you may join via phone conference line.

Focus group discussion data is confidential and participant identity will be coded for anonymity. Each participant will be provided with 'informed consent' information as part of the materials sent with your participant invitation in advance of the focus group.

- 1. In your view, what is the cornerstone of the [Smart Scholars, P-TECH, New Tech] school design that distinguishes it from other exemplary school models in New York? Consider the following aspects of innovative school design:
 - a. Rigorous instructional strategies/practices
 - b. Project-based learning as a mode of instruction
 - c. Problem-based learning as a mode of instruction
 - d. Cultural strategies that incentivize student engagement
 - e. Integration of technology with instruction
 - f. Data driven outcomes and continuous improvement
 - g. Business and industry partnerships and authentic engagement
 - h. Embedded focus on culture of student achievement
 - i. Focus on college/career pathways
 - j. Focus on completing the first college credential
 - k. Any other aspect of the [SS/P-T/NT] school design

2. What is your view on the type of professional development for teachers most relevant for the [SS/P-T/NT] school design?

- a. Content/Disciplinary literacy
- b. Deconstructing content core standards/curriculum design
- c. Project-based learning
- d. Problem-based learning
- e. Design Thinking
- f. Backward design
- g. Blended Learning
- h. Grow and sustain business partnerships
- i. Grow relevance in community engagement
- j. Other

3. What other types of resources/support have been most effective to sustain innovation and the quality of education for students offered by the [SS/P-T/NT]?

- a. High level policy [SS/P-T/NT] leadership/engagement
- b. Community engagement
- c. Partnerships with 2-year & 4-year education institutions, and/or vocation education/certificate programs
- d. Partnerships with business and industry to support workforce development/job pipeline
- e. Access to school leaders statewide network
- f. Ongoing professional development/support for your teachers
- g. Other program supports (e.g., dual enrollment/reduced or free tuition, funding strategies for scale-up and sustainability)
- h. Other aspects of the school design

4. If you were to lead the start up of a new [SS/P-T/NT] school, what would you focus on as the foundational principle for creating an innovative [SS/P-T/NT] school?

- a. Relevancy of instruction to real world problems
- b. Authentic Partnerships
- c. Rigorous Instructional delivery
- d. Culture of achievement
- e. Commitment to continuous academic improvement
- f. Use of multiple indicators of college readiness
- g. Engaging high level leadership in innovative education policy
- h. Other aspects of the school design
- 5. Looking ahead to the next five years, what are your highest aspirations as a [SS/P-T/NT] school leader?
- 6. How would you describe your greatest challenge in growing and sustaining your school's innovative design?
 - a. Developing instruction around relevant community problems/solutions
 - b. Growing authentic partnerships
 - c. Maintaining and improving rigorous Instructional delivery
 - d. Strengthening a culture of achievement
 - e. Maintaining high level student outcomes and continuous improvement
 - f. Improving high school/college coursework alignment
 - g. Integrating innovative policy guidance with school vision/planning
 - h. Other aspects of the school design

7. In your view, what are the major constraints in attaining your aspirations for your school over the next five years?

- a. Inspired instructional relevancy
- b. Sustaining business partnerships
- c. Rigorous delivery practices
- d. Strengthening school culture of achievement
- e. Continuous development of innovative curriculum
- f. Improving high school/college coursework alignment
- g. Other aspects of the school design

8. Looking back, what would you say has emerged as the most successful component of the [SS/P-T/NT] innovative school design?

- a. Inspired instructional relevancy
- b. Sustaining business partnerships
- c. Rigorous delivery practices
- d. Strengthening school culture of achievement
- e. Continuous development of innovative curriculum
- f. Other aspects of the school design



Appendix E:

Administrator and Partner Surveys

SUNY Innovative School Design Study School Administrator Survey Question Set SUNY Innovative School Design Study Partner Survey Question Set



SUNY Innovative School Design Study

Page 1 - Innovative School Profile

* 1. This is an anonymous survey. The PAST Foundation will use this survey data to further understanding of Innovative School Programs in New York State. Completing this survey will give you the opportunity to share your insights and concerns anonymously.

Your participation in this research is voluntary. You may choose not to participate. By checking the response below that states you agree to participate in this survey, you confirm that you have read and understand the PAST Foundation's Online Survey Anonymity Protocols provided for your review on the PAST Foundation website. You may review these protocols at any time on the PAST Foundation website (https://pastfoundation.org/irb-2017-04-0014eth)

OI agree to participate in this anonymous survey

- 2. Please select the Innovative School designation that applies to the school with which you are affiliated? Please choose all that apply.
 - P-TECH
 - □ Smart Scholars
 - D New Tech
 - □ If other, please describe briefly

3. If applicable, in which Cohort is the Innovative School Program?

- O Cohort 1
- O Cohort 2

O Cohort 3

ONot applicable

O If other, please describe briefly

4. Which best describes the Innovative School Program? Please choose all that apply.

- □ School within a school
- □ Whole school
- $\hfill\square$ High school located on or adjacent to a partner college campus
- □ If other, please describe briefly

5. What was the first year the school participated in the Innovative School Program? If the school has participated in multiple Innovative School Programs (e.g., P-TECH and Smart Scholars), please list program and start dates.

6. Are you an administrator or staff member with the Innovative School program at the high school or district level?

O Yes O No

Page 2 - Innovative School Profile Part 2

7. What is your title and role within the Innovative School Program?

8. What do you view as the cornerstone of the school program design that distinguishes the school as a model innovative program? *Please select the TOP FOUR options.*

- $\hfill\square$ Rigorous instructional strategies/practices
- □ Project-based learning as integral to instruction
- Problem-based learning as integral to instruction
- Cultural strategies that incentivize student engagement
- □ Integration of technology with instruction
- Data driven outcomes and continuous improvement
- \square Business and industry partnerships and authentic engagement
- □ Focus on culture of student achievement
- □ Focus on college readiness
- □ Focus on college/career pathways
- Focus on completing a career-based college credential
- □ If other, please describe briefly

- 9. What best describes the mission of the Innovative School Program for students? Please choose all that apply.
 - Early college high school/six-year integrated scope and sequence leading to A.A. degree
 - Dual enrollment/dual credit for courses conducted at the high school campus (reduced or no cost)
 - Dual enrollment/dual credit for courses conducted on a college campus (reduced or no/cost)
 - Exposure to college campus environment
 - Exposure to career pathways
 - □ Exposure to specific job certification programs (non-degree)
 - Exposure to workplace environments
 - □ If other, please describe briefly

10. Please indicate dedicated staffing for the Innovative School Program and how many per category.

	How many staff per category
Science teacher	_
Math teacher	_
English Language Arts teacher	_
Social Studies teacher	-
History teacher	_
Dedicated full time program coordinator	-
Program coordinator split position (e.g., coordinator/program teacher, guidance counselor, etc.)	_
Guidance Counselor	_
Special education instructor	_
If other, please list	_

11. What is the staff recruitment process specific to this program?

12. What do you view as the most relevant type of professional development for teachers in the Innovative School Program? Please choose all that apply.

- □ Content/Disciplinary literacy
- Deconstructing content core standards/curriculum design
- □ Project-based learning
- □ Problem-based learning
- Design thinking
- Backward design
- Blended learning
- $\hfill\square$ Curriculum alignment conducted with higher education partner
- □ Growing and sustaining business partnerships
- Growing understanding of community and strategies for engagement
- Cultural training to work more effectively with students who represent underserved, underrepresented, first generation college
- □ Focus on creating a "culture of achievement"
- □ Focus on creating a "college-going-culture"
- □ If other, please describe briefly

Community engagement
Partnerships with 2-year & 4-year education institutions and/or vocational education/certificate programs
Partnerships with business and industry to inform curriculum for regional workforce development/job pipeline
□ Access to statewide network of school leaders through annual/bi-annual/quarterly meetings
□ Access to regional network of school leaders through annual/bi-annual/quarterly meetings
Ongoing professional development/support for program teachers
□ Planning/coordination of curriculum alignment between secondary/post-secondary faculty

What types of resources/support have been most effective in sustaining innovation and the quality of education for

Dual enrollment/dual credit

13.

- Reduced or free college course tuition
- Planning, coordination and funding to create strategies for scale-up and sustainability

students in the Innovative School Program? Please choose all that apply.

High level educator leadership/engagement with the program

□ If other, please describe briefly

14. Please list other programs that are integral to success for students enrolled in the Innovative School Program. Please identify funding or sponsoring entity (e.g., Department of Education, Higher Education partner, Program partner, private foundation, etc.).

Mentoring	_
Tutoring	_
Special college readiness courses at the high school including enhanced study skills	_
Special college readiness courses offered at the college	_
Other, please list with funding source or sponsoring entity	-
Other, please list with funding source or sponsoring entity	-
Other, please list with funding source or sponsoring entity	-
Other, please list with funding source or sponsoring entity	_

15. If the program is considered an "school within a school," has the Innovative School Program impacted the school as a whole?

O Yes O No

If yes, please describe briefly

Page 3 - Outreach and Recruitment

16. Please describe outreach to parents/families to increase awareness of high school program opportunities or other benefits associated with exposure to a partner college, preparation for college coursework, career pathways, etc. offered through the Innovative School Program.

17. What is the primary message to parents/families about the Innovative School Program? Please describe briefly.

18. What is the recruitment process for enrolling students in the program?

19. How many students are typically enrolled in the Innovative School Program by grade level? Please give your best estimate, averaging over the past two years, if applicable. NOTE: If 2017-2018 is the first year of the Innovative School Program student enrollment, please give anticipated enrollment by grade level. Average enrollment numbers

9th grade	-
10th grade	_
11th grade	_
12th grade	_

Page 4 - Student Profile

20. Please list the most commonly offered college-level courses open to enrollment for Innovative School students by grade level. NOTE: If 2017-2018 is the first year of the school program, please list anticipated courses to be offered by grade level.

th grade	_
0th grade	_
1th grade	_
2th grade	-

21. How would you describe the college courses offered through the program? Please choose all that apply.

□ Skill building

- □ Remediation
- Content-based, e.g. General Education courses
- Credit-bearing courses for designated A.A. degree
- □ If other, please describe briefly

22. Please estimate current retention rate by grade level for Innovative School Program students. Has the retention rate increased, decreased, or stayed the same by grade level since the program was initiated?

	Current retention rate	Increased, decreased or stayed the same
9th grade	_	_
10th grade	_	_
11th grade	_	_
12th grade	_	_

23. What are the key factors associated with student retention (including a brief description of special types of student intervention, family intervention, etc.)?

24. Has your high school graduation rate improved since the Innovative School Program was initiated?

O Yes O No

If yes, what was the graduation rate before the program was initiated and what is it now?

25. How many college credits are possible for an Innovative School Program student to earn by grade level?

	Number of college credits	
9th grade	_	
10th grade	_	
11th grade	_	
12th grade	_	

26. What is the typical number of total college credits earned by Innovative School Program students by graduation from high school? NOTE: you may answer this question with a range, e.g., 15-20 credits, etc.

27. Does the Innovative School Program offer internships for students?

O Yes O No

28. If the program offers internships, please select all that apply.

□ Industry partners

Business partners

□ Community partners

□ If other, please describe briefly

Page 5 - Challenges, Successes and Aspirations

- 29. If you were to lead the start up of a new Innovative School Program similar to the one you are currently affiliated with, what would you focus on as the founding principle for creating this Innovative School Program? *Please select FOUR of the options below.*
 - □ Relevancy of instruction to real world problems
 - □ Authentic partnerships
 - □ Rigorous instructional delivery
 - Creating a culture of achievement
 - □ Creating a "college-going-culture"
 - Commitment to continuous academic improvement
 - Establishing multiple indicators of student college readiness
 - Engaging high level leadership in innovative education policy
 - Recruitment strategies for teachers
 - Recruitment strategies for students
 - Effective support strategies to retain students
 - \Box Scheduling to assure sequence of access to high school/college coursework
 - Early College Curriculum development
 - □ Problem based program focus
 - □ Curriculum alignment (secondary/post-secondary)
 - Establishing and coordinating engagement with community/business partners in school design
 - \Box Focus on regional career potential through college or specific job credentials
 - □ If other, please describe briefly

30. How would you describe the greatest challenge in growing and sustaining the program's innovative design? Please choose all that apply.

- Developing instruction around relevant community problems/solutions
- □ Growing authentic partnerships
- Maintaining and improving rigorous instructional delivery
- Integrating innovative policy guidance with school vision/planning
- □ Staffing
- Recruiting students
- Retaining students
- □ Changing student mindset/expectations for college/career success
- □ Changing student mindset/expectations for personal development and success as an adult
- \square Scheduling to assure sequence of access to high school/college coursework
- Curriculum development

- □ Curriculum alignment (secondary/post-secondary)
- \square Establishing and coordinating engagement with community/business partners in school design
- □ If other, please describe briefly

31. What do you view as the major constraints in attaining aspirations for the innovative school over the next five years? Please choose all that apply.

- $\hfill\square$ Creating and sustaining inspired instructional relevancy
- Creating and sustaining rigorous delivery practices
- □ Strengthening school culture of achievement
- □ Changing student mindset/expectations for college/career success
- □ Changing student mindset/expectations for personal development and success as an adult
- Continuous development of innovative curriculum
- Improving secondary/post-secondary coursework alignment
- □ Staffing
- Recruiting students
- □ Retaining students
- □ Scheduling to assure sequence of access to high school/college coursework
- Curriculum development
- Curriculum alignment (secondary/post-secondary)
- Establishing and coordinating program community/business partners
- □ Sustaining business partnership buy-in
- Measuring program success
- Overall program sustainability
- □ If other, please describe briefly

32. If you've been able to address any of the constraints identified in question 31, please describe briefly what actions, if any, you have taken or plan to initiate.

33. In your view, what has emerged as the most successful component of the Innovative School Program design? *Please* select up to FOUR of the options below.

- □ Inspired instructional relevancy
- \Box Sustaining business partnerships in establishing and coordinating engagement with school design
- □ Rigorous delivery practices
- □ Strengthening school culture of achievement
- □ Building a "college-going-culture"
- Continuous development of innovative curriculum
- □ Authentic student engagement
- $\hfill\square$ Changing student mindset/expectations for college/career success
- \square Changing student mindset/expectations for personal development and success as an adult
- Parent engagement
- □ Exposure to career pathways
- □ Exposure to specific job certification programs (non-degree)
- □ Exposure to workplace environments
- □ If other, please describe briefly

34. What are your highest aspirations as an Innovative Program school leader?



SUNY Innovative School Design Study: Partner

Page 1 - Innovative School Profile

1. Are you affiliated with the Innovative School Program as a partner? Please choose all that apply.

- □ Higher education 2-year institution
- □ Higher education 4-year institution
- □ Government agency/program
- □ Industry organization
- □ Business entity
- □ Community organization
- □ If other, please describe briefly

2. What is your title and role as a partner within the Innovative School Program?

3. What do you view as the cornerstone of the school program design that distinguishes the school as a model innovative program? *Please select the TOP FOUR options.*

- □ Rigorous instructional strategies/practices
- □ Project-based learning as integral to instruction
- Problem-based learning as integral to instruction
- Cultural strategies that incentivize student engagement
- ☐ Integration of technology with instruction

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- Business and industry partnerships and authentic engagement
- □ Focus on culture of student achievement
- □ Focus on college readiness
- □ Focus on college/career pathways
- □ Focus on completing a career-based college credential
- □ If other, please describe briefly

4. What best describes the mission of the Innovative School Program for students? Please choose all that apply.

- Early college high school/Six-year integrated scope and sequence leading to an A.A. degree
- Dual enrollment/dual credit for courses conducted at the high school campus (reduced or no cost)
- Dual enrollment/dual credit for courses conducted on a college campus (reduced or no/cost)
- □ Exposure to college campus environment
- □ Exposure to career pathways
- □ Exposure to specific job certification programs (non-degree)
- □ Exposure to workplace environments
- □ If other, please describe briefly

5. If a higher education partner, please indicate faculty by discipline and administrative staff that participate in the Innovative School Program.

	How many staff per category
Science	_
Math	_
English Language Arts	_
Social Studies	_
History	_
Dedicated full time program coordinator	_
Program coordinator split position (e.g., coordinator/faculty, guidance counselor, etc.)	_
Guidance Counselor	_
Special education instructor/remediation	_
If other, please list	_

6.	What is the faculty	and staff recruitment	process specific to	this program?
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What types of resources/support have been most effective in sustaining innovation and the quality of education f students in the Innovative School Program? Please choose all that apply.
Partnerships with 2-year & 4-year education institutions and/or vocational education/certificate programs
□ Partnerships with business and industry to inform curriculum for regional workforce development/job pipeline
□ Access to statewide network of school leaders through annual/bi-annual/guarterly meetings
□ Access to regional network of school leaders through annual/bi-annual/quarterly meetings
□ Ongoing professional development/support for program teachers
□ Planning/coordination of curriculum alignment between secondary/post-secondary faculty
□ Dual enrollment/dual credit
□ Reduced or free college course tuition
Planning, coordination and funding to create strategies for scale-up and sustainability

8. Please list other programs that are integral to success for students enrolled in the Innovative School Program. Please identify funding or sponsoring entity (e.g., Department of Education, private foundation, etc.).

	Funding source or sponsoring entity
Mentoring	_
Tutoring	_
Special college readiness courses at the high school including enhanced study skills	_
Special college readiness courses offered at the college	_
Other, please list with funding source or sponsoring entity	-
Other, please list with funding source or sponsoring entity	_
Other, please list with funding source or sponsoring entity	_
Other, please list with funding source or sponsoring entity	-

Page 2 - Outreach and Recruitment

9. If you are a higher education partner, please describe outreach to parents/families to increase awareness of high school program opportunities or other benefits associated with exposure to a partner college, preparation for college coursework, career pathways, etc. offered through the Innovative School Program.

10. If you are a higher education partner, what is the primary message about the Innovative School Program for students/parents? Please describe briefly.

11. What is the recruitment process for enrolling students in the program?

Page 3 - Student Profile

12. How many students are typically enrolled in college courses through the Innovative School Program by grade level? Please give your best estimate, averaging over the past two years, if applicable. NOTE: If 2017-2018 is the first year of the Innovative School Program student enrollment, please give anticipated enrollment by grade level. Average enrollment numbers

	•
9th grade	_
10th grade	_
11th grade	_
12th grade	_

13. Please list the most commonly offered college-level courses open to enrollment for Innovative School students by grade level. NOTE: If 2017-2018 is the first year of the Innovative School Program, please list anticipated courses to be offered by grade level.

	Commonly offered college-level courses by grade level	
9th grade	_	
10th grade	_	
11th grade	_	
12th grade	_	

- 14. How would you describe the college courses offered through the program? Please choose all that apply.
 - □ Skill building
 - □ Remediation
 - Content-based, e.g. General Education courses
 - Credit-bearing courses for designated A.A. degree
 - □ If other, please describe briefly

15. Please estimate current retention rate by grade level for Innovative School Program students. Has the retention rate increased, decreased, or stayed the same by grade level since the program was initiated?

	Current retention rate	increased, decreased or stayed the same
9th grade	_	_
10th grade	_	_
11th grade	_	_
12th grade	_	_

16. What are the key factors associated with student retention (including a brief description of special types of student intervention, family intervention, etc.)?

17. How many college credits are possible for an Innovative School Program student to earn by grade level?

18. What is the typical number of total college credits earned by Innovative School Program students by graduation from high school? NOTE: you may answer this question with a range, e.g., 15-20 credits, etc.

19. If you are a higher education partner, does the program offer college enrollment at:

OFull tuition

O Reduced tuition

O No cost

O If other, please describe briefly

20. Does the Innovative School Program offer internships for students?

O Yes O No

21. If the program offers internships, please select all that apply.

□ Industry partners

- \square Business partners
- □ Community partners
- □ If other, please describe briefly

Page 4 - Challenges, Successes and Aspirations

22. How would you describe the greatest challenge in growing and sustaining the Innovative School Program partnership?

years?

What do you view as the major constraints in attaining aspirations for the Innovative School partnership over the next five

24. If you've been able to address any of the constraints identified in question 23, please describe briefly what actions, if any, you have taken or plan to initiate.

- 25. In your view, what has emerged as the most successful component of the Innovative School Program design? *Please* select up to FOUR of the options below.
 - □ Inspired instructional relevancy
 - □ Sustaining business partnerships in establishing and coordinating engagement with school design
 - □ Rigorous delivery practices

23.

- □ Strengthening school culture of achievement
- □ Building a "college-going-culture"
- Continuous development of innovative curriculum
- □ Authentic student engagement
- □ Changing student mindset/expectations for college/career success
- □ Changing student mindset/expectations for personal development and success as an adult
- Parent engagement

- □ Exposure to career pathways
- $\hfill\square$ Exposure to specific job certification programs (non-degree)
- □ Exposure to workplace environments
- \Box If other, please describe briefly