

Demonstration and Evaluation of Community College Interventions for Youth and Young Adults with Disabilities

Final Interim Report

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Executive Summary

Transitioning to college and employment can be challenging for youth and young adults with disabilities due to low student expectations, limited awareness of options, lack of access, and lackluster opportunities. In addition, the transition from secondary to postsecondary education involves navigating changes in disability policy and practices as students move from a system of entitlement to a system of eligibility (Oertle and Bragg, 2014). Given the link between postsecondary attainment and gainful employment, it is important for secondary students with disabilities to continue their education at the postsecondary level (Newman, 2005).

Background

In 2014, the Department of Labor Office of Disability Employment Policy (ODEP) awarded two five-year cooperative agreements (grants) to Pellissippi State Community College (Pellissippi) and Onondaga Community College (Onondaga) under the Pathways to Careers: Community College Interventions for Youth and Young Adults with Disabilities demonstration project (Pathways). The grants provide each college with up to \$1,041,650 per year (renewable at the discretion of ODEP). Onondaga calls its program Onondaga Pathways to Careers (OPC) and Pellissippi calls its program Universal Pathways to Employment Project (UPEP).

The goal of the grant program was to increase the capacity of community colleges to provide inclusive integrated education and career development and training services to young adults with disabilities. ODEP required grantees to design program models that increase credential and job attainment of students with disabilities (ages 14-24), increase their job placement, and decrease the wage-earning differential between students with and without disabilities, and between students with different types of disabilities. In addition, ODEP sought to build evidence about program models for the benefit of other community colleges.¹ To contribute to a growing evidence base of programs that integrate education and career development for individuals with disabilities, ODEP, in collaboration with the Department of Labor Chief Evaluation Office, contracted with Westat to conduct an evaluation of the Pathways program.

¹ ODEP Solicitation for Cooperative Agreement (SCA 14-03).

Approach

This report presents interim findings of the Pathways evaluation consisting of an implementation study and a descriptive outcomes study. The purpose of the outcomes study is to document program outputs and participant outcomes. The purpose of the implementation study is to:

- Document the extent of institutional change at the two colleges;
- Assess the fidelity of the implemented programs to the intended program model;
- Assess the potential for replicability and scalability; and
- Determine the extent to which the grantees incorporated Universal Design for Learning principles and the Guideposts for Success² in the development and operation of their programs.

This interim report documents program components, system-level characteristics and reported challenges to implementation. In addition, it documents preliminary program outputs and participant outcomes, including summaries of participant survey data related to utilization and satisfaction with Pathways services. In the final report, the implementation study results will focus on the changes in program and system-level characteristics, and implications for scalability and replicability. Likewise, the outcomes study will provide outputs and outcomes covering a longer observation period.

The evaluation incorporates an overall design using a number of data collection methods and multiple data collection points matched to the requirements of the two interrelated and interwoven studies focused on implementation processes and programmatic outcomes. The implementation study also provides the context for the outcome findings.

Westat coordinated with the Pathways grantees to collect data needed for the evaluation, including access to the community college records of Pathways participants; access to program administrators, staff and instructors and partner organizations; and data on Pathways program operations and performance available in quarterly performance reports. Primary data collection activities for the implementation study included site visits and/or telephone interviews of a purposive sample of program administrators and staff, instructors, and partner organizations. Grantee administrators identified the appropriate individuals with knowledge and experience for each interview, including academic and career advisors and support staff. To support the

² The Guideposts for Success, identified by the National Collaborative on Workforce and Disability for Youth, provides a framework to address the needs of all youth for successfully transitioning to adulthood. See <http://www.ncwd-youth.info/guideposts>.

outcomes study, Westat administered a longitudinal participant survey and conducted telephone interviews with up to five participants per college every six months. For the outcomes study, Westat also used the college records provided each semester, and the Pathways program quarterly performance reports.

For this interim report, Westat used interviews conducted during site visits in spring 2017 and telephone interviews conducted in fall 2017, on-site meetings at the grantees with ODEP in fall 2016 and fall 2017. In addition, Westat used quarterly performance reports submitted by grantees to ODEP from January 2016 through June 2017, Pathways administrative data covering the fall 2015 semester through the spring 2017 semester, participant interviews conducted in spring 2017, and participant surveys conducted in spring 2017 and fall 2017.

Findings

The **implementation study** focuses on three dimensions of implementation: fidelity, incorporation, and operation.

The **Fidelity** dimension documents the planned and implemented models, and compares and contrasts the two colleges' models.

- The colleges designed the OPC and UPEP programs to expand the colleges' capacity to deliver integrated education and career training to students with disabilities. Both programs reach out to local area high schools and to students with disabilities in their own colleges to recruit for the Pathways program. Both programs offer academic and other supports, career advising, job shadowing and other work-based learning activities, and job placement. The programs differ in the structure to deliver services (e.g., program staffing), methods of outreach, and use of performance-based incentives to participants.
- The number of new participant enrollment in both OPC (88) and UPEP (129) over four semesters (based on quarterly reports) was much lower than the approximate 200 to 250 proposed by each grantee for the same period. At OPC, enrollment in the third and fourth semesters combined (45) was slightly higher than the first two semesters combined (43). At UPEP, new participant enrollment in the third and fourth semesters combined was 51 students compared to 78 for the first two semesters. These results indicate that despite much effort to reach out to potential students, the programs did not enroll their targeted number of students with disabilities. However, the colleges report improved numbers for fall 2017.

- UPEP staff instituted a student contract to address a perceived lack of commitment among the first cohort of UPEP participants. There are three levels of contracts, based in part of the length of time in the program. Following the UPEP example, OPC also developed a student contract (called a student menu) in which participants select one of three plans. The plan commits the student to attend a certain number of meetings with the OPC Coordinator, take advantage of OPC services, and attend workshops and complete activities. Program staff view the contracts as effective in raising participation in the various workshops and services provided.
- All five UPEP participants interviewed in spring 2017 expressed positive views about the career and academic coaches, noting that the coaches want them to succeed academically and to pursue their career dreams. UPEP staff view increased student engagement as resulting from these personal relationships.³
- At OPC, the establishment of work-based learning opportunities for participants was slower than originally planned—arising mostly in the second year, not the first year—in part due to taking about one year for OPC to be fully staffed, and difficulty working with Onondaga’s Career Services office. Program staff have been working on developing opportunities in the spring and fall semesters of 2017 and believe more students will have internships available as they advance in their studies (implying that they will be prepared for the positions as they approach completion of their program of study).

Incorporation addresses the key elements of program design, including Universal Design for Learning principles, the Guideposts for Success, and engagement with employers and other workforce development partners.

- OPC staff reported that the demand among faculty for Universal Design for Learning training exceeded the number of training slots available. However, OPC only offered about 20 training slots per annual session. Faculty members reported that the Universal Design for Learning training was helpful with their teaching beyond serving students with disabilities.
- UPEP staff successfully created and adopted a college-wide Universal Design for Learning policy. The Policy includes a five-year commitment to make all campus information and technology accessible for people with disabilities following the concepts

³ OPC does not have academic coaches—they have two academic advisors that serve a different role (available if students want them, but students are not required to meet with them). None of the interviewed OPC participant commented about the academic advisors.

and practices of Universal Design for Learning and to provide training to faculty and staff. UPEP staff reported that faculty did not seem to be serious about the training.

- The OPC Scholars Program, created for outreach to secondary students, incorporates Guideposts for Success principles for recruitment and identification of students' needs. The UPEP Community Liaison Specialist built relationships with area secondary school systems to identify and recruit potential participants. The specialist's role is also an example of incorporating Guideposts for Success principles.
- At UPEP, the Business Liaison Specialist built relationships with area employers to generate work-based learning opportunities for students. At OPC, an employment specialist forged a partnership with the Economic Workforce Development group at Onondaga and was in the process of building partnerships with employers. Employers were engaged in the validation of curriculum and credentials required for targeted occupations.

Operation focuses on perceived implementation challenges and the extent to which grantees accomplish programmatic change, policy change, and systemic institutional change. This interim report begins to address systemic change using information from staff interviews. The final report will address these in more detail as the program matures.

- Staffing has been OPC's major challenge in operating its program. OPC leadership described a slow process of first identifying the need for more staff, and then a slow pace of filling staff positions due to the bureaucracy that hiring within a community college system and grant funding entails.
- At UPEP, a major challenge for the program at the start was a lack of support from Pellissippi administration and opposition from some of the faculty to Universal Design for Learning. Although some Pellissippi leaders have been supportive, UPEP staff felt that the program does not have the backing of the college as a whole.
- Pellissippi had planned for the Business Liaison Specialist to work with the Placement Office to find placements for students. However, UPEP feels there is resistance and a lack of capacity at the Placement Office. In response, the UPEP Business Liaison Specialist created a separate placement database for UPEP that provides for work-based learning opportunities and job placements for UPEP students.
- An additional challenge for UPEP has been the low or lacking participation of the Tennessee Vocational Rehabilitation agency in support of UPEP participants. UPEP staff reported that the agency was defining eligibility and providing services based on income

and, according to program staff, the state did not approve the drawdown of federal dollars for vocational rehabilitation (and the agency had many vacancies). The agency has not provided career services for UPEP as planned.

- At Onondaga, OPC staff planned to work with the Career Services office to provide career coaching. However, they encountered difficulties working with Onondaga's Career Services office; staff commented during interviews that Onondaga Career Services staff focused on business and criminal justice students and were not interested in others. OPC staff turned to the Economic Workforce Development group, a four-year grant funded organization on campus, and OPC hired its own Career Readiness Coach to provide career-coaching services.
- Westat observed two areas of institutional change at Onondaga thus far, the OPC Scholars program and partnership with other programs. Onondaga is using the OPC Scholars program to reach out to high school students with disabilities and prepare them for entry to community college and automatic placement into OPC. OPC has built valuable partnerships with other programs, both at Onondaga and in the Syracuse community.
- Several interviewed Pellissippi and Onondaga staff raised concerns about the sustainability of their programs. Onondaga staff reported a concern that the entire program may not continue beyond the end of the grant, but they are hopeful that policy changes will persist and some components will continue, such as the OPC Scholars program for recruitment to Onondaga. At Pellissippi, staff fear that the program will not continue beyond the period of the grant without alternative funding to cover staffing costs. UPEP staff are working with the Pellissippi State Community College Foundation in a search for sources of funding.

The Outputs/Outcomes Study addresses three dimensions: satisfaction, academic, and employment. This interim report provides preliminary results on the first two dimensions. The final report will provide more details on the outcomes as Westat completes additional rounds of surveys and interviews and receives additional semester data files.

Satisfaction

- Westat found evidence that participants are satisfied with the programs. Two-thirds of respondents said that instructors and staff often assist students with disabilities to get

needed accommodations, provide supports needed for student success, and support their academic needs.⁴

- A majority of the 65 enrolled respondents (53.8%) provided a rating of excellent for their experience in the Pathways program, and another 40 percent said it was good. Activities with the highest satisfaction included tutoring services (40.0%), followed by computer lab (33.9%), and career exploration (29.2%).

Academic

- According to the survey, nearly 90 percent of the 65 enrolled respondents participated in a workshop or course specifically designed to teach skills and strategies to help students succeed in college and half of respondents participated in campus clubs and activities.
- At least half of respondents indicated that they agreed or strongly agreed with four statements measuring self-advocacy, self-determination, and self-disclosure.
- The fall 2015 to fall 2016 persistence rate (i.e., enrollment) was greater at UPEP (64.2%) than at OPC (32.3%).

⁴ Westat did not make comparisons across colleges because of the small number of respondents to the survey per college. Tests of differences are statistically insignificant in most instances.

1. Introduction

In 2014, the Department of Labor Office of Disability Employment Policy (ODEP) awarded cooperative agreements (grants) to Pellissippi State Community College (Pellissippi) located in Knoxville, Tennessee and Onondaga Community College (Onondaga) located in Syracuse, New York, under the Pathways to Careers: Community College Interventions for Youth and Young Adults with Disabilities demonstration project (Pathways). The grants provide each college with up to \$1,041,650 per year (at the discretion of ODEP). The goal was to increase the capacity of community colleges to provide inclusive integrated education and career development and training services to young adults with disabilities. ODEP required grantees to design program models that increase credential and job attainment of students with disabilities, increase their job placement, and decrease the wage-earning differential between students with and without disabilities, and between students with different types of disabilities. In addition, ODEP sought to build evidence about program models for the benefit of other community colleges.

To contribute to a growing evidence base of programs that integrate education and career development for individuals with disabilities, ODEP, in collaboration with the Department of Labor Chief Evaluation Office, contracted with Westat to conduct an evaluation of the Pathways program. This report presents interim findings of the Pathways evaluation. First, the report provides a brief overview of challenges faced by students with disabilities as they transition to higher education, the programmatic components of Pathways, and the expected linkages between those components and outcomes. Next, it provides interim findings of the implementation study. These findings preview early results summarizing the implementation of the Pathways programs at Pellissippi and Onondaga, providing key lessons from the experiences of each of these grantees. The report also provides the interim findings from the outcomes study as they relate to the research questions. The report concludes with a summary of interim findings and next steps in the evaluation.

1.1 Background on students with disabilities

For youth and young adults with disabilities, transitioning to college and employment can be challenging due to low student expectations, limited awareness of options, lack of access, and lackluster opportunities. These ongoing transition challenges lead to lower educational attainment for individuals with disabilities compared to their peers without disabilities (Oertle and Bragg, 2014). In addition, the transition from secondary to postsecondary education involves navigating changes in disability policy and practices as students move from a system of

entitlement in secondary education to a system of eligibility in postsecondary education requiring them to advocate for themselves (Oertle and Bragg, 2014). Federal legislation (Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and their amendments) provide guidelines relevant to students with disabilities who access community colleges, but the emphasis is on providing equal access and preventing discrimination, not on the success of the student.

Given the link between postsecondary attainment and gainful employment, it is important for secondary students with disabilities to continue their education (Newman, 2005). The literature suggests a number of promising strategies to assist young adults with disabilities with the transition to postsecondary education, such as inclusive education, individualized education plans, dual enrollment, and career mentoring. Students with disabilities who spend more time being educated alongside their peers without disabilities are more likely to enroll in postsecondary education (Baer, et al., 2003). Individualized learning plan models (aligning course-taking and postsecondary plans with career goals and documenting the range of college and career readiness skills the student has developed) have long been shown to prepare students for postsecondary education and to facilitate their transition into higher education or employment training (Wills, et al., 2012). Dual enrollment models that permit high school students to take courses and obtain inclusionary experiences on a college campus, while simultaneously progressing toward completion of their high school requirements, have been found to be effective (Brand, Valent, and Danielson, 2013). Individual support programs that address specific challenges, facilitate participation in the college experience, and/or provide academic and career guidance are also important and can take numerous forms (e.g., case management, tutoring, job readiness training).

1.2 Pathways to Careers grant program

To enhance the policies and services designed to increase the enrollment in and completion of community college programs by students with disabilities, ODEP awarded Pathways grants to Onondaga and Pellissippi (“grantees”). These institutions are using the grant funds to develop innovative systems models for providing inclusive, integrated education and career development services to youth and young adults with disabilities. Onondaga calls its program Onondaga Pathways to Careers (OPC). Pellissippi calls its program Universal Pathways to Employment Project (UPEP).

According to the ODEP Solicitation for Cooperative Agreement (SCA 14-03), the funded programs should (1) increase credential and job attainment of students with disabilities,

(2) increase their job placement, and (3) decrease the wage-earning differential between students with and without disabilities, and between students with different types of disabilities. These two institutions have experience developing new, or replicating existing, education and career training programs as grantees under the Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant program. One criterion for receiving a Pathways grant was that the college be a TAACCCT grant recipient so it could leverage and build upon its recent experiences in developing infrastructure needed to expand and improve education and career development programs. TAACCCT grants were intended to build and expand the capacity of community colleges to meet the needs of workers who lost their jobs or are threatened with job loss as a result of foreign trade, and others workers seeking skilled training for jobs in demand. TAACCCT grantees follow a career pathways framework that includes several common principles and approaches to vocational, academic, and soft-skills training. These principles encompass the content and delivery of training and the characteristics of participants for whom the program are most appropriate (Werner, et al., 2013):

- Provide training designed to expedite credentialing and placement.
- Combine training with provision of support services.
- Engage employers in a variety of ways.
- Collaborate with other key stakeholders and training and service providers.
- Design training to fit the schedule and life circumstances of participants.
- Focus on serving economically and educationally disadvantaged target populations.

Grantees should design approaches that shift practice and policy across the institution. This involves transforming the entire college's approach for providing services, as opposed to a single division, and enlisting support from and engagement of administrators, deans, department chairs, faculty, student services, and other divisions that have a role in ensuring students' success.⁵ Grantees should leverage their partnerships and relationships with national affiliates, association members or business organizations, and a variety of other entities including the public workforce system. Grantees are also required to capture and use data to assess and manage their program performance, and to participate in an independent evaluation.

⁵ Oertle and Bragg (2014) offer a Transition to Community College model as a tool to assist in the development and evaluation of disability transition policies and practices. The foundation is continuous planning, with internal and external communication and collaboration as primary components.

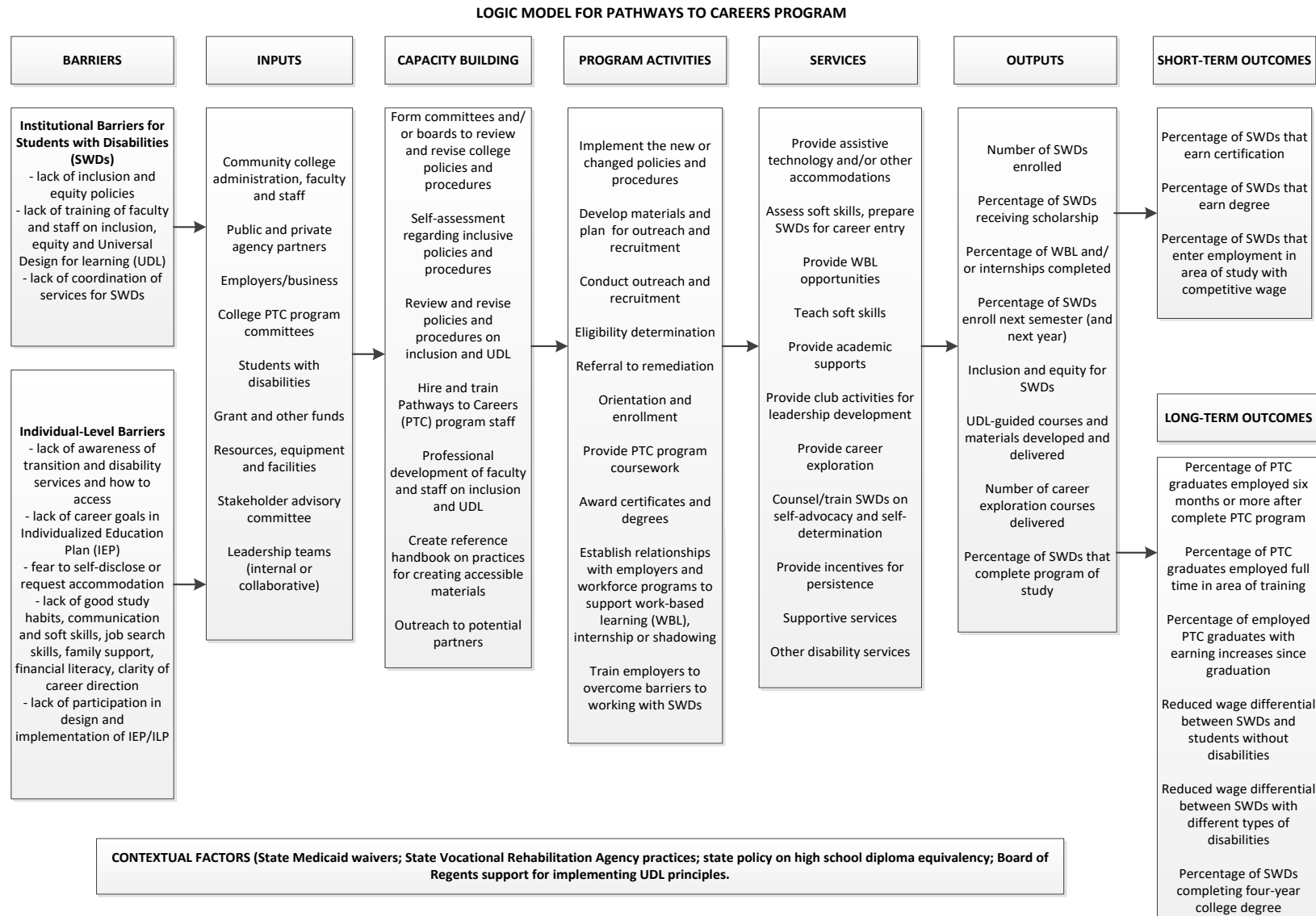
Working from the Solicitation for Cooperative Agreement, grant applications and the literature, Westat developed the logic model presented in Figure 1-1 for the Pathways grant program, describing individual and institutional inputs to the community college programs, capacity building, program activities, services, outputs and outcomes. The model identifies institutional barriers, such as the lack of inclusion and equity policies at a college, the lack of training for faculty and staff on inclusion and equity and the use of Universal Design for Learning (UDL)⁶ principles, and the lack of coordination of services for students with disabilities. The model also identifies a number of individual-level barriers, such as a lack of awareness of transition and availability of disability services or a lack of career goals in an Individualized Education Plan (IEP).

To address these barriers, the colleges will draw on their available resources, including the Pathways grant, public and private partners, employers, stakeholder advisory committees, and leadership teams. Major activities include implementing changes in policies and procedures, building capacity of the college to address institutional barriers, providing program activities to reach/recruit students with disabilities and build the Pathways program and delivering services or specific interventions to assist students with disabilities. At the same time, various contextual factors will influence the development and operation of the program, such as state practices that affect individuals with disabilities (e.g., Board of Regents support of implementing Universal Design for Learning principles, state policy on high school diploma equivalency, state Medicaid waiver policy, and state vocational rehabilitation agency practices).

We expect multiple outputs resulting from the program activities, ranging from qualitative changes in program delivery to quantitative counts of program participation and milestones. Qualitative outputs include policies and practices designed to enhance educational equity and inclusion. Educational equity is a measure of fairness and opportunity in education; equity for students with disabilities includes how community colleges help students with disabilities secure their rights to education and realize their potential and aspirations. Inclusive education is achieved when students with and without disabilities participate and learn together in the same classes. Research shows that when students with disabilities attend classes alongside peers who do not have disabilities, students with disabilities perform better (Baer, et al., 2003). The community colleges promote inclusion when they respond to the diversity of needs across all learners through increased efforts to improve access to academic programs, social supports, and communication and by reducing exclusion from and within education.

⁶ UDL is an approach to education that addresses and redresses the primary barrier to making expert learners of all students: inflexible, one-size-fits-all curricula that raise unintentional barriers to learning.

Figure 1-1. Logic model for the Pathways to Careers Programs



Quantitative outputs include the number of students with disabilities enrolled in the respective programs (enrollment), the percentages of students with disabilities that enroll the following quarter and the next year (retention), the percentage that complete the program of study (completion), the number of students with disabilities who receive retention scholarships, and the proportion of faculty who incorporate Universal Design for Learning principles into their courses and materials.

The logic model identifies both short-term and long-term outcomes. Short-term outcomes include, but are not limited to, the percentage of students with disabilities that earn a certification, that earn an Associate degree, and that enter employment in their area of study and at a competitive wage rate (i.e., an employer offers similar or higher wage rate than competitors, or just above the average wage rate). Long-term outcomes focus on maintaining employment, working full time in the area of study, obtaining increases in earnings over time, and reducing the wage differential relative to students without disabilities. A long-term outcome might also include completing a four-year college degree or further training, such as registered apprenticeship.

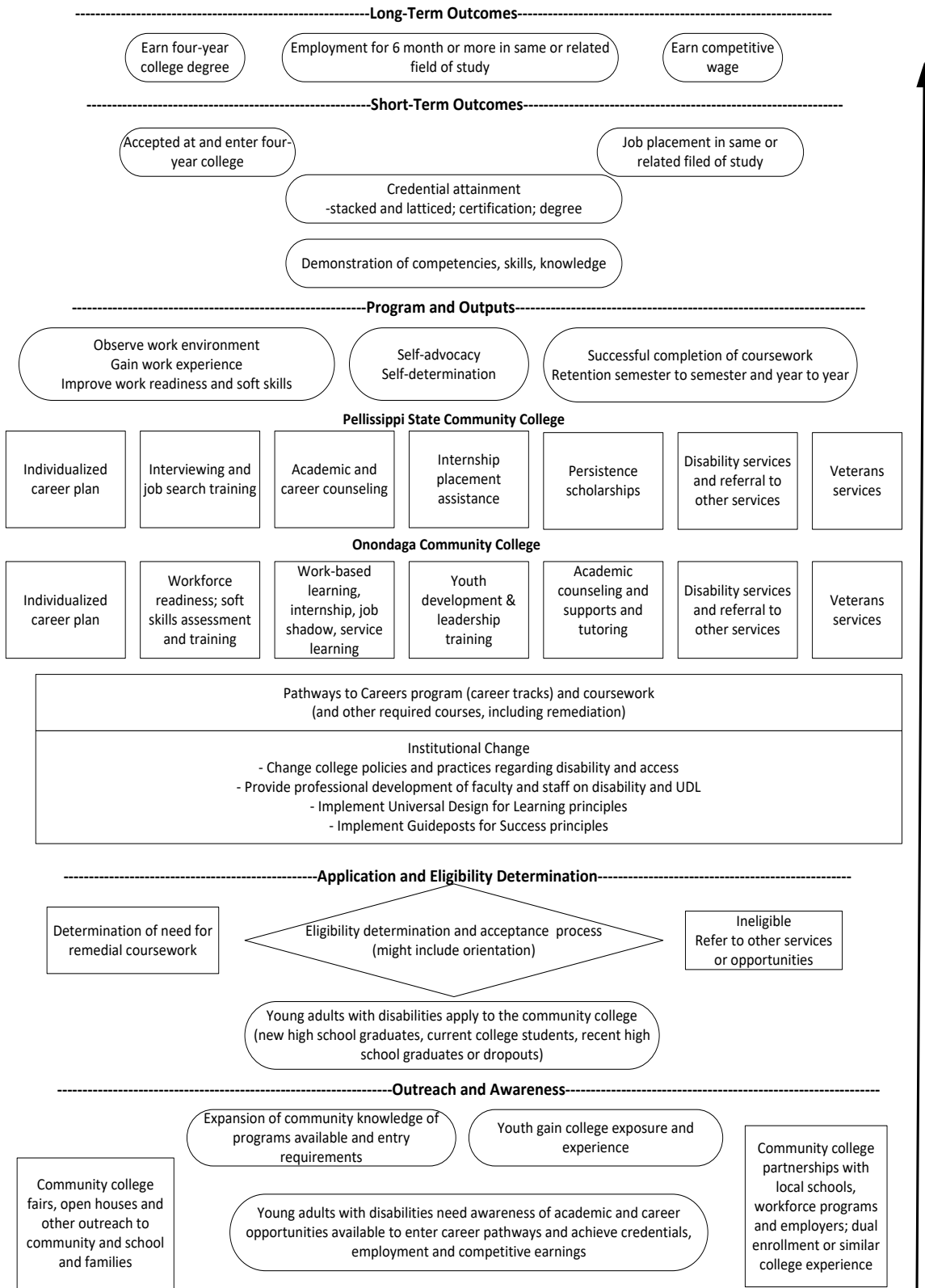
1.3 Theory of Change

Also based on the Solicitation for Cooperative Agreement and grant applications, we developed the graphic presentation of a theory of change shown in Figure 1-2 for the grant programs at Onondaga and Pellissippi. The figure reads from the bottom to the top to reflect how outcomes build on the preceding program activities.

Outreach and Recruitment. To improve awareness and interest in community college attendance and specific programs of study, the community college provides outreach to the local community through open houses, fairs, and direct outreach activities such as visits to schools, community-based organizations and the state vocational rehabilitation agency. In addition, through a partnership with secondary schools, the college may participate in dual enrollment programs and other means of providing secondary students with the opportunity to take college courses while in high school. The assumption is that increased awareness and exposure will lead to more students with disabilities applying to community college and coming to college better prepared to enter college courses.

Application and Eligibility Determination. The grantee will consider each applicant relative to its eligibility criteria for admission to the Pathways program (e.g., age 14-24; high school graduate; enrollment in specific major; student with a disability). Some students might be required to complete remedial coursework (to meet prerequisites for their program of study) before admission to the Pathways program. Alternatively, an eligible student might decide to not enter the Pathways program, but pursue a different program of study at the college.

Figure 1-2. Theory of change for Pathways to Careers Programs



Pathways Program and Outputs. The grantees will design the Pathways program interventions to change the institution, support students with disabilities, and increase the likelihood of retention in school and successful course completion. Through these efforts, the participating students with disabilities will improve their work readiness, gain workplace experience, learn important soft skills, use self-advocacy and self-determination skills, successfully complete coursework, and persist semester to semester. The interventions include institutional reforms, such as changes in policies, practices and procedures, capacity building (through professional development of faculty and staff, and implementing Universal Design for Learning principles and the Guideposts for Success) and services and activities for students with disabilities. Although Onondaga and Pellissippi offer similar interventions, there are some differences. For example, the Pellissippi provides persistence scholarships, which are unique to that program.

Short- and Long-Term Outcomes. Successful completion of courses and retention of students from one semester to the next should lead to the demonstration of competencies, skills and knowledge and therefore to short-term outcomes of attainment of certifications and degrees. Long-term outcomes include employment in the field of study, or closely related field, and at a competitive wage in an integrated workplace, or receipt of a four-year college degree.

2. Study Design

Given the circumstances of the Pathways grant program, the most practical design is to conduct an implementation study and a descriptive outcomes study. The implementation study, based on repeated visits to grantees and interviews with program staff and partners, documents the extent of institutional change at the two colleges. It also assesses the fidelity of the implemented programs to the intended program model; assesses the potential for replicability and scalability; and determines the extent to which the grantees incorporated Universal Design for Learning principles and the Guideposts for Success⁷ in the development and operation of their programs. The outcomes study documents Pathways participant outcomes and examine the extent to which the grantees meet target goals.

2.1 Research Questions

We address two sets of research questions through two interrelated and interwoven studies. The implementation study focuses on assessing the progress of the grantees towards full operation and institutionalization of their respective Pathways program. The outputs and outcomes study focuses on assessing progress toward meeting broad program goals and accomplishing project objectives. Each of these studies contain three analytical dimensions that focus on specific facets of the Pathways program. Table 2-1 provides a crosswalk of questions by study and dimension.

The three dimensions of the implementation study are fidelity, incorporation, and operation. Fidelity refers to the faithfulness of actual implementation to intended design. Under Fidelity, the questions of interest address how the implemented models compare to their respective intended models, how the models were developed and put into practice, as well as what role technical assistance, capacity building, and new or revised policies and procedures have in maintaining fidelity or model enhancement. Incorporation refers to the development and structure of program elements. Under Incorporation, the questions revolve around how grantees incorporated critical elements of program design, namely Universal Design for Learning principles, the Guideposts for Success,⁸ and engagement of employers and workforce development partners into the Pathways programs.

⁷ The Guideposts for Success, identified by the National Collaborative on Workforce and Disability for Youth, provides a framework to address the needs of all youth for successfully transitioning to adulthood. See <http://www.ncwd-youth.info/guideposts>.

⁸ The Guideposts include: School-based preparatory experiences – all youth need to participate in educational programs grounded in standards, clear performance expectations, and graduation exit options; Career preparation

Table 2-1. Primary research questions by study and dimension

Study	Dimension	Research Question
Implementation	Fidelity	What was the intended program model of each grantee (i.e., its essential components, activities, and processes) and how does the intended model compare to the actual operational model?
		How did the grantees and their partners develop, modify, and implement their Pathways program models?
		What role did technical assistance and capacity building play in maintaining fidelity and/or program model enhancement?
	Incorporation	To what extent did the grantee program models incorporate the Guideposts for Success framework? (i.e., school-based prep; career prep and work-based learning; youth development; connecting activities; family involvement)
		To what extent did the grantees follow Universal Design for Learning guidelines and/or implement the practices? (i.e., Multiple means of engagement; representation; action and expression)
		To what extent did the grantees engage employers and other workforce development partners in designing and operating their programs?
	Operation	What were the major implementation challenges and how did grantees address them?
		To what extent did the grantees accomplish programmatic change, policy change (e.g., accessibility) and systemic institutional change?
		Are the grantee programs scalable and replicable? What are the lessons learned for other community colleges?
Outputs and Outcomes	Satisfaction	How satisfied are program participants (i.e., students, faculty, and staff) with the program?
		Which program components do participants perceive as most satisfactory and beneficial?
	Academic	Did the grantees meet their academic target goals for student outcomes? (e.g., persistence, certifications, degrees, transfers to 4-year programs)
		To what extent did the programs offer services to increase student engagement, self-advocacy, self-determination, and self-disclosure?
	Employment	Did the grantees meet their employment target goals for student outcomes? (e.g., employment and relationship to training, wages, advancement)
		How did outcomes differ for Pathways participants by interventions received?
		How did outcomes differ for Pathways participants than for students with disabilities enrolled in prior years at the same college?

and work-based learning experiences—in order to identify and attain career goals, youth need to be exposed to a range of experiences; Youth development and leadership—all youth need opportunities that allow them to exercise leadership and build self-esteem; Connecting activities—young people need to be connected to programs, services, activities, and supports that help them gain access to chosen post-school options; Family involvement and supports—all youth need the support of parents, family members, and other caring adults.

Operation focuses on major implementation challenges, the extent to which grantees accomplish programmatic change, policy change, and systemic institutional change, and whether the programs are scalable and replicable.

The outputs and outcomes study looks at satisfaction, academic outcomes, and employment. Satisfaction refers to the subjective experiences of Pathways stakeholders, including students, faculty, and program staff. Questions of interest include measuring the degree of satisfaction among these stakeholders and assessing which program components students perceived as the most satisfactory. Academic outputs and outcomes refer to short-term outputs and outcomes achieved while still enrolled in college. Questions of interest range from measuring target goals of course completion, retention, certification and degree achievement to process goals of increased engagement and self-advocacy. Lastly, employment outcomes refer to longer term, post-program outcomes. Employment questions of interest focus on the degree to which participating students achieve increased employment, wages, and workplace advancement.

This interim report addresses the fidelity, incorporation and operation dimensions of the implementation study and the satisfaction and academic dimensions of the outcomes study. This report will not address scalability and replicability. A final report (forthcoming in 2019) will address these, as well as longer term outcomes, including employment after college.

2.2 Approach to the Evaluation

The evaluation incorporates an overall design based on mixed data collection methods matched to the requirements of two interrelated and interwoven studies focused on implementation processes and programmatic outcomes. Westat bases both studies on multiple data collection points. The design is for a descriptive study only. Use of comparative data is for contextual purposes only.

Westat coordinated with the Pathways grantees to gain cooperation on collecting data needed for the evaluation, including access to the community college records of Pathways participants and access to administrators, faculty and staff for interviews. In addition, we coordinated with them for the collection of data about Pathways program operations and performance. Data collection included site visits to the colleges in spring 2017 to conduct interviews with program leadership and staff, instructors/faculty, and partner organizations, and telephone calls with program staff in fall 2017. In addition, we accompanied ODEP on its annual visits to the grantees in November/December 2016 and November/December 2017. To support the outcomes study, we

administer a longitudinal participant survey⁹, telephone interviews with five UPEP participants and three OPC participants in spring 2017, and collected college records and Pathways program data for fall 2015 through spring 2017 semesters. In addition, ODEP provided access to the grantees' quarterly performance reports.

Westat worked with the grantees from the start of the evaluation project to discuss data needs and arrange for access to community college administrative data, including personally identifiable information about participants so Westat could contact them directly for interviews and surveys. In addition, we obtained individual-level information on demographic characteristics; completion of courses; grades; services received; and program activities.

Onondaga said that under the Family Educational Rights and Privacy Act (FERPA)¹⁰ evaluation exemption, the college could provide Westat with personally identifiable data. In contrast, Pellissippi said that the exemption did not apply and UPEP would rely on securing the consent of participants for (1) the release of individual level administrative data to Westat and (2) the release of contact information to support outreach for surveys and interviews. Participants sign the consent forms each semester at Pellissippi.

Our study plan stated that we would evaluate the program by tracking and surveying participants from the first four cohorts. Based on grantee goals and enrollment in the first semester, we estimated that to be about 213 participants. The administrative data received from OPC included all Pathways participants. In contrast, the UPEP administrative data are limited to those participants that signed a consent form for the release of their administrative data.¹¹

Both grantees agreed to provide college record information about Pathways participants for each semester, starting with fall 2015. We provided the grantees with the same list of recommended variables to include in the semester data files. However, we did not require the grantees to collect data on variables that they did not have. We accepted the data they could provide. As a result, the data provided by the schools are not identical.

One challenge in using the semester data files from Pellissippi is that they are limited to only those participants that signed a consent form for sharing their information, and Pellissippi

⁹ The participant surveys occur during spring 2017, fall 2017, spring 2018, and fall 2019. We intended that the sample include all Pathways program participants enrolled in the first four semesters of the program.

¹⁰ The Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99) is a Federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education.

¹¹ As described more fully later in the report, quarterly progress reports indicate 129 Pellissippi students enrolled in UPEP between fall 2015 and spring 2017. In contrast, 102 participants signed a consent for the release of their administrative data for the evaluation.

required them to sign the form each semester. If a participant does not sign the waiver for each semester, then we observe gaps in the longitudinal data collected. For example, five UPEP participants appear in the semester file for fall 2015 but not in the spring 2016 file, but later appear in the fall of 2016 or spring of 2017 files. We are also aware of one student that appears in earlier semesters but not the fourth semester file because he/she did not sign the consent form.

We cannot attribute outcomes to the Pathways program because we did not collect data on a control group or comparison group of students with disabilities who did not participate in the Pathways program. The colleges recruited from among their existing students with disabilities. Use of non-participants as a comparison group would introduce selection bias. Therefore, this outcomes study is only descriptive about the outcomes of individuals represented in the semester data files and in the survey.

3. Implementation Study Findings

In this chapter, we detail interim results from the implementation evaluation. We discuss implementation for each site separately, and we organize the results according to the major components of the Pathways Theory of Change: Outreach and Awareness; Application and Eligibility Determination; and Program. We discuss outputs separately in Chapter 4. For each component, we discuss the grantee’s proposed plan and address implementation research questions under the dimensions of fidelity, incorporation, and operation.

3.1 Onondaga Pathways to Careers (OPC)

Onondaga designed the OPC program to provide an opportunity for students with disabilities to enroll at Onondaga, earn an industry-recognized credential, and acquire a job that pays a living wage in the local workforce. Onondaga collaborated with Syracuse University, the Syracuse City School District, the public workforce system, disability service agencies, and regional employers to prepare students with disabilities for skilled careers.

To be eligible to participate, students with disabilities must have a high school diploma or its equivalent; have a documented disability that substantially limits a major life activity; and ages 18-24. In addition, OPC is limited to those who enroll in one of nine specific programs:

- Advanced Manufacturing Certificate
- Computer Information Systems, A.A.S.
- Computer Forensics, A.S.
- Computer Science, A.S.
- Electrical Technology, A.A.S
- Electronic Media Communications, A.A.S.
- Health Information Technology, A.A.S.
- Hospitality Management, A.A.S
- Mechanical Technology, A.A.S.

OPC offers summer orientation programs; comprehensive disability service supports, accommodations, and adaptive technology; academic advising, tutoring, study skill and self-advocacy development; financial aid, literacy and benefits counseling; individualized career

planning, resume and interview preparation, service learning, job shadowing, leadership development, and internship opportunities.

3.1.1 Outreach and Awareness—OPC

Fidelity. Onondaga Pathways to Careers (OPC) planned to work with local educational agencies and community organizations to reach out and inform the community of high school students with disabilities about the program. During the planning phase, OPC and its partners would develop a coordinated recruitment, referral and enrollment strategy following the Guideposts for Success and Universal Design for Learning Guidelines. OPC planned to leverage partnerships with Syracuse City School District and Syracuse Educational Opportunity Centers to raise awareness of the program among high school students and adult learners.

In the first semester of the OPC program (October 2015), OPC sent 500 brochures to transition coordinators in the Syracuse City School District. However, it received only eight applications to the OPC Program before January 2016.

OPC responded to this recruitment challenge by developing an “OPC Scholars” Program. OPC provided online information for interested high school students and encouraged participation among individual families and potential students by directing them towards Onondaga campus tours, information sessions, and meeting with faculty, students, and peer mentors. OPC also contracted with a company to develop a short outreach video designed to increase awareness of the program.

OPC proactively recruits high school student to be OPC Scholars Program each quarter and holds regular events to discuss the college and the admissions process and other topics relating to college and career exploration and awareness. The events include guest speakers, collaborative learning and self-assessment. Enrollment in OPC Scholars during spring 2017 was 30 students.

The OPC Scholars Program represents a significant enhancement to the proposed program design for outreach. Onondaga has begun the process to prepare a pipeline of informed high school students and increase the potential to improve retention of students with disabilities. Retention might improve because the OPC Scholars Program prepares students to enter college and provides information about the college and careers.

Incorporation. The OPC Scholars program is an example of incorporation of the Guideposts to Success principles, offering greater recruitment and school-based preparation for college, connecting activities and family involvement. The OPC Scholars Program targets high school students in the Syracuse City School District. Students do not have to be interested in one of the OPC fields; rather, the program helps them explore college while they are still in high school,

understanding the requirements to getting a college degree. Students attend sessions to learn about the transition to college and about the college and the OPC program. Students who complete the Scholars program will receive OPC services if they enroll at Onondaga. Program staff members are very excited about the program. One said, “[Scholars] will drive student engagement from day one,” meaning that newly arrived students will already be engaged with OPC and Onondaga. Based on the enrollment numbers for fall 2017, Onondaga estimates that up to 20 of the new OPC participants are former OPC Scholars.

Operation. Multiple program and college leaders mentioned the OPC Scholars Program as an important way that Onondaga is changing the way it serves students with disabilities. They see the OPC Scholars Program as an effective tool for recruiting students with disabilities and for identifying their needs early:

“The development of the Scholars program will have very positive results come the fall. That bridge program where high school students are giving up their one Saturday a month to participate and get to know Pathways to Careers and what it has to offer and who’s involved to a certain extent. Those students, when they’re here, are no longer high school students. Now, it’s college students.”

Transition planning prior to graduation from high school is another important component from the Guideposts to Success. Onondaga Pathways to Careers (OPC) provides workshops on transition planning workshops to special education teachers in area high schools. The workshops provide information about transition services and educational opportunities available to students with disabilities.

3.1.2 *Application and Eligibility Determination—OPC*

Fidelity. According to the OPC grant application, the OPC program would initially recruit and serve students pursuing degrees in advanced manufacturing and health care, identified by Onondaga as two of seven of New York’s priority industry clusters (and viewed as having a high demand for labor). The majors would lead to the Advanced Manufacturing Certificate and an Associate’s degree in Health Information Technology, Medical Technology, Computer Information Systems, Electrical Technology, Computer Science, and Computer Forensics.

In addition to the degrees listed in the plan, OPC added Electronic Media Communications and Hospitality Management as eligible degree programs in fall 2016 and spring 2017, respectively. A desire to reach more students with disabilities drove this change. As one program staff member said, “Now that we offer a couple of academic majors out of the STEM fields, that’s

helped us reach a wider audience...Students who didn't think they were strong in math and science, it didn't seem like a good option for them."

OPC planned to implement an orientation process for incoming students, to include career assessments, educational planning, financial literacy workshops, introduction to disability services, and mandatory advisement (in-person or virtual). Incoming students would also participate in placement testing (unless exempted due to high school grades, state testing, or other standardized test scores).

As planned, all incoming OPC students had access to placement testing, academic advising, assessment of accommodations, the services of the Learning Center (individualized tutoring, study skills, and peer-assisted study sessions), financial advising, and accessible informational materials (e.g., presentations, online programs, videos and teaching/training tools). Section 3.1.4 provides output information in several tables. OPC added several components to the orientation process. During the summer of 2016, six incoming OPC students participated in Connect Sessions, which are opportunities to meet with an advisor, register for classes, learn about campus resources, and tour the campus.

OPC also facilitated Summer Academy sessions in which OPC recruits and their families received information about OPC programmatic elements and met OPC staff members. In July and August 2016, OPC held three Summer Academy sessions, each lasting one day (the three session dates were July 20 and 26, and August 3). During the sessions, the OPC team met with new OPC recruits and their support persons, providing a comprehensive overview of all OPC program elements. Seventeen new OPC students attended the Summer Academy sessions in 2016.

OPC proposed to enroll 125 participants in the first year (fall 2015 and spring 2016 semesters) and another 125 participants in the second year (fall 2016 and spring 2017 semesters). The grant application proposed to recruit the first cohort from a mix of Syracuse City School District seniors, current Onondaga students, young adults aged 18 to 24 who had finished high school or dropped out early, and veterans with disabilities aged 18 to 24 who sought a new career path. The initial plan called for further cohort recruitment focusing primarily on Syracuse City School District seniors. These initial enrollment goals were very ambitious and likely stated to be responsive to the Solicitation for Cooperative Agreement. The Solicitation for Cooperative Agreement stated, "Grantees are expected to enroll and deliver services to approximately 200-250 participants in two cohorts or cycles (100-125 students per cohort or cycle) with the second cohort or cycle commencing approximately 12 months after the start of the first."

Using the semester data files provided to us by Onondaga, we identified 88 students as OPC participants across the four semesters of fall 2015, spring 2016, fall 2016, and spring 2017. This number is lower than the stated goal of at least 250. Upon closer inspection of the semester data files and data coding, we determined that 16 students should not be considered as participants,¹² leaving only 72 OPC participants over the four semesters.

Table 3-1 indicates the number of students enrolled as OPC participants based on quarterly progress reports submitted by Onondaga Pathways to Careers (OPC) to ODEP. There were 37 in fall 2015, six in spring 2016, 39 in fall 2016, and 6 in spring 2017; a total of 88. However, the quarterly report for fall 2017 indicates 80 new enrollees at OPC, however, these are not part of the first two cohorts of participants that are the focus this evaluation.

Table 3-1. Number of students enrolling in Onondaga Pathways to Careers (OPC) by quarter

Fiscal Year	Fiscal Quarter	Calendar Months	Number of Students Enrolling in OPC this Quarter
2016	1	July – December 2015	37
2016	2	January – March 2016	6
2016	3	April – June 2016	0
2016	4	July – September 2016	38
2017	1	October – December 2016	1
2017	2	January – March 2017	6
2017	3	April – June 2017	0

Source: Quarterly progress reports submitted by OPC to ODEP.

Note: The first quarterly report covered the period of July through December 2015.

Incorporation. Students and potential employers have responded positively to the broadening of degree programs considered for OPC eligibility, with more students joining OPC and several hospitality industry employers offering job shadowing and internship opportunities. Program leadership is considering expanding eligible degree programs further, potentially including Business Administration or other fields. These changes have the potential to increase the number of students eligible for OPC and that apply to enroll in OPC.

Operation. OPC team members noted that one challenge with the eligibility determination process and serving students with disabilities was the perceived stigma of identifying oneself as a disabled student in need of accommodations. This perceived stigma may discourage students from giving a faculty member an accommodation letter, for example, or going to the learning

¹² Onondaga Pathways to Careers (OPC) included individuals on the list that it offered services to but the individuals did not accept. We consider only those Onondaga students with “confirmed intent to participate” indicated in the semester data file to be OPC participants.

center for tutoring. This presents a challenge for OPC team members trying to identify student needs and direct students towards appropriate OPC program services. To address this, OPC coordinators interact with students regularly, encouraging them to advocate for themselves and be aware of available services.

A challenge for OPC among the first year cohort of participants was a lack of commitment to the program. In a call with Universal Pathways to Employment Project (UPEP) leadership in July 2016, OPC learned about an approach that UPEP was developing (instituting student contracts) for the same issue. The OPC approach is to offer participants a student menu where they select one of three plans. The selected plan (Standard, Advanced, or “LAZER”)¹³ determines the minimum number of meetings the student will attend with their OPC Coordinator and the services the student agrees to receive. The menu also includes additional requirements, such as attending career-focused workshops. Students must also select at least three “add-on” activities, including attending social events, joining Onondaga clubs, or joining professional organizations. The student signs an agreement stating that they understand that they are responsible for completing the menu items they chose.

3.1.3 Program—OPC

Plan. Onondaga designed the Onondaga Pathways to Careers (OPC) program to meet five goals: capacity building; career exploration and educational access; educational attainment; employment; and dissemination of information about the program. Three of these (career exploration and educational access, educational attainment, and employment) are goals for students enrolled in the program and two (capacity building and dissemination) are goals about changing the college itself and other colleges interested in similar programs. OPC also considered the Guideposts for Success in the design of the program.

The plan called for student supports to meet the five key goals; these include:

Academic supports. These would include an orientation for all incoming participants, career assessments, educational planning assistance, financial literacy workshops, an introduction to Disability Services at Onondaga, and mandatory advisement.

Other supports. The proposal suggested supporting club activity participation as a way to develop leadership among students; providing access to wraparound services through contacts to

¹³ The Standard plan requires a minimum of six meetings per semester with OPC coordinator and attendance of at least four workshops. The Advanced plan increases the minimum number of meetings with OPC coordinator to eight per semester and the Lazer plan requires weekly meetings. Participants are also responsible for being prepared for all scheduled meetings and completing an Office of Accessibility Resources intake meeting and returning a faculty-signed accommodation form back to the Office of Accessibility Resources office.

other organizations; and providing performance incentives such as bookstore and dining center cards for student performance (up to \$150 per semester per participant).

The plan called for three types of career services for students:

Career advising. This includes career exploration; access to multi-media materials and activities such as site visits; soft skills assessment (making eye contact, interviewing, etc.); and career entry preparation (job search training) or transfer preparation (researching other schools and requirements).

Internships, job shadowing, and other work-based opportunities. OPC would help students find internships, make connections to employers for job shadowing, and bring in employers to talk about different fields and work-based opportunities (including service learning).

Job placement. OPC would offer access to Onondaga's Career and Applied Learning Center, and particularly the Center's database with hundreds of local postings. In addition, OPC would host career panels and job fairs. Through partnerships with CenterState Corporation for Economic Opportunity, Central New York's economic development corporation, OPC would also build connections to employers with the goal of expanding work-based learning and employment for students with disabilities. Also, OPC would offer closer ties with ACCESS-VR, JOBSplus!, and CNY Works, all employment connecting organizations.¹⁴

In addition to these program components for students, the proposal identified three changes at the college-level, primarily in aid of capacity building:

Universal Design for Learning. OPC would lead training sessions in Universal Design for Learning pedagogy with Onondaga faculty. Rather than have all faculty undergo training, OPC would use a train-the-trainer model. Key faculty from different departments would undergo training and train others.

Improving technology. While Onondaga already had some adaptive technology, OPC proposed introducing more adaptive technology and to improve accommodations with money from the Barrier Removal Fund (e.g., voice recorders, headsets, live-scribe echo pen, specialized software).

Accessibility. Onondaga proposed to improve accessibility by making physical changes to the college campus.

¹⁴ ACCESS-VR is a state agency—Adult Career and Continuing Education Services—Vocational Rehabilitation. JOBSPlus! is a contractor of the Onondaga County Department of Social Services with a mission to assist individuals in the welfare system to find and keep employment. CNY Works is a non-profit organization that works with community partners to help make the employment goals of job seekers and businesses a reality.

Fidelity. OPC made some changes to the original plan in response to unanticipated challenges. We discuss significant changes to the program and the rationale for the change.

Other supports. The proposal did not discuss family engagement, one of the elements of the Guideposts to Success framework. At the request of ODEP, OPC added workshops and made other efforts to engage parents. These efforts focus mostly on engaging parents at the recruitment and orientation stage—information sessions at high schools for parents, and during the OPC orientation. Parental engagement has been a challenge for Onondaga; like other colleges, the Family Educational Rights and Privacy Act (FERPA) requires the college to guard student privacy, and restricts it from sharing certain information with parents without student consent. Some staff members were also hesitant to reach out to parents after students enrolled because they feel such engagement could come at the price of student independence.

Students report having little time for club activity, as many hold jobs in addition to attending school. Program leaders have recognized this limitation and chosen not to emphasize club participation.

Although all three interviewed participants responded positively to performance incentives, feeling they helped their attendance of OPC events and progress at school, OPC encountered a problem in providing the incentives equally to all participants because of federal regulations on financial aid (OPC made awards of bus passes and gift cards in spring 2016 and fall 2016). OPC said students with full funding through financial aid were required to report OPC incentives (such as bus passes or bookstore gift cards) to the financial aid office as additional financial aid, leading to a reduction in the student's financial aid package. Therefore, OPC discontinued the incentives. However, OPC provides a link for students to other wraparound services, such as the Community Care Hub on campus. Community Care Hub staff reported receiving referrals from OPC and connecting students to needed supports such as food banks and transportation.

Career services. OPC proposed to work with Onondaga's Career Services office to provide services to OPC students. However, multiple staff members commented that working with Career Services has been difficult, in part due to the focus of many Career Services staff. One OPC staff member said, "*Their focus is on business and criminal justice students.*" There is a further sense that Career Services staff are not interested in non-traditional Onondaga students, those in OPC or those with other challenges. Another staff member commented, "Career Services is really designed for the Onondaga student [without special needs]."

OPC turned to the Economic Workforce Development group, a four-year grant-funded organization on campus to help with establishment of work-based learning opportunities and career services. This partnership led recently to more employer contacts. In addition, OPC hired

its own Career Readiness Coach. Although the source of the career services has changed, the content has not—the focus is on career exploration, work-based opportunities, and job placement. Program staff believe more students will have internships available as they advance in their studies (implying that they will be prepared for the positions as they approach completion of their program of study).

Accessibility. OPC made accessibility improvements through better signage and other changes. However, the change was slower than desired. As one program official said, *“The [college] bureaucracy has been very slow to respond to our offering to help with the variety of needs around campus.”* This seems to stem from the perception that any change requires consulting multiple groups, and the general sense that the college as a whole is understaffed. *“If [Onondaga] has some more staffing in some areas, then they could be more responsive in a more timely manner to various things that the project is needed, but that’s simply not been the case.”*

Universal Design for Learning. The original plan was to conduct Universal Design for Learning training for faculty during the school term, but union provisions for college faculty altered that plan. As one program officer stated, *“There are union provisions that are fairly restrictive in how their time is spent other than within teaching. That was not an anticipated issue.”* OPC changed course and offers the Universal Design for Learning training during the summer with a cash incentive to encourage faculty attendance. Because of the limited number of faculty invited each summer, there have been waitlists for training.

Incorporation. Technical assistance and capacity building appears to have been very important in the OPC program. The National Collaborative on Workforce and Disability, the ODEP technical assistance provider, assisted both grantees with family engagement materials and guest speakers for Universal Design for Learning training. In addition, National Collaborative on Workforce and Disability assists OPC and its partner, the Burton Blatt Institute, with their Community of Practice, including cross-grantee discussions and a research conference.

Onondaga increased its capacity to implement the program. OPC proposed a lean operational team (project director/coordinator; educational advisor; and employment engagement manager/career coach), but the demands of running the program on a day-to-day basis, as well as disappointment with some departments/program in the college led to hiring more support staff (data support specialists, recruiting specialist, and career specialist). Some OPC leaders felt that the proposal did not correctly anticipate the level of effort needed to get the project operational. As one program officer said, *“We see that the job of the project coordinator...is at least two people.”* The data coordinator will help with both budgeting and providing support for the data

collection requirements of the grant. Program leaders hope that splitting the employment and career coaching from recruitment will allow each staff to focus on his or her unique tasks and to provide significant support to students.

The Career Readiness Coach has taken responsibility for reaching out to employers in concert with the Economic Workforce Development Group. The most recent quarterly report for OPC, as of third quarter of Fiscal Year 2017, reports outreach to 76 different employers across manufacturing, healthcare, finance, transportation, news/broadcasting, information technology, entertainment, marketing, warehousing, hospitality, human services, and engineering fields.

Onondaga Pathways to Careers (OPC) held two summer Universal Design for Learning Academies. Seventeen faculty members attended the first training and 20 attended the second. Participating faculty received an introduction to Universal Design for Learning, engaged in discussion about applying it to their coursework, and developed specific plans to apply the principles to upcoming classes. OPC staff reported that there is a greater demand for Universal Design for Learning training than the 20 available slots provided and OPC hopes to increase training capacity to meet this demand in the future.

Faculty who have attended Universal Design for Learning (UDL) training are enthusiastic about it. One professor noted, *“Through the UDL...I have been revising my courses to incorporate some of those things in there. I also discovered that I was doing some things that already fit in there. What I found is that I can speak about them much differently, to my students and in my classroom present them in a different way.”*

A Universal Design for Learning instructor explained how faculty became interested:

“Once she became involved, she was even more intrigued by it. She had heard about it at a conference in my understanding, and so was intrigued and was interested. She’s done a few different things. One, she’s especially taken an interest in multiple means of action expression. She’s looking at, how can students express their knowledge? How can they demonstrate knowledge of the constructive interest but through different means of representation?”

In fall 2015, Onondaga draft and approved a new policy that requires captioning for all videos shown in any class or required for viewing by students. It came about from OPC’s acquiring of captioning services for faculty instructional materials. Onondaga added the policy to the faculty handbook.

Operation. Staffing was a major challenge in operating the OPC program, requiring about one year for the program to fill all staff positions. OPC leadership described the pace of staffing as

slow, due to the bureaucracy that hiring within a community college system and grant funding entails. As one program official said, “*We had problems with hiring. It’s been affected by a fairly slow-moving hiring process.*” These problems did not reflect opposition to the new hires by ODEP or Onondaga.

The two areas for institutional change perceived by program leadership as the most promising thus far are the OPC Scholars Program and partnership with other programs. OPC Scholars has reached out to high school students with disabilities and prepared them for entry to community college and automatic placement into OPC. Program staff view OPC Scholars as a relatively low-cost part of the OPC program, and believe that it will likely continue after the grant ends.

OPC has built valuable partnerships with other programs, both at Onondaga and in the Syracuse community. At Onondaga, OPC works closely with the Workforce Development Office and the Office of Accessibility Resources and built partnerships with programs at Onondaga targeting other populations, including the Community Care Hub. Outside Onondaga, OPC works with ARISE, a disability services nonprofit, as well as Onondaga Community Living and Access CNY,¹⁵ to spread information about OPC and learn about the needs of people involved with these partners. OPC also works with the Vocational Rehabilitation system in New York as well as with particular employers to match students with careers. The goal is to ensure that the college meets all of the students’ needs and targets services effectively. As one official said, “*[it’s] how do we pool resources together to really give our students what’s available and what options are.*” These partnerships have the potential for lasting institutional change if the current level of communication and coordination moves to a stage where the organizations plan future projects together.

In its grant application, OPC described using the DACUM (Developing A Curriculum) process to engage employers in validating the curriculum and credentials by focusing on competencies required of targeted occupations. This would support developing detailed job profiles to support career exploration, and to enhance materials and tools that support preparation for work-based learning experiences. The Economic and Workforce Development department at Onondaga has used the process with employers covering several fields (e.g., Advanced Manufacturing; Electrical Technology) related to the OPC program.

Despite strides in the provision of services and recruiting, OPC leadership has concerns about sustainability. They expressed skepticism that the program would continue in its current form beyond the term of the grant: “*The program as it stands right now, I don’t know if it’s*

¹⁵ Access CNY is a community agency that provides person-centered services.

sustainable the way it is...The way we have pretty robust funding to fund personnel, and our programs, and the things that we do. Without that funding, if it's just sustained on the college on its own, I don't know how that would happen."

When asked, several program staff expect that the college will incorporate at least some of the program aspects, particularly the OPC Scholars Program, described as fitting neatly with other college transition programs at Onondaga and requiring relatively few resources to continue. The college may also keep some program staff on in other capacities, likely through Office of Accessibility Resources and Career Services.

3.1.4 Outputs—OPC

In its grant application and work plan, OPC did not set specific targets for most outputs and outcomes, other than enrollment and employment after graduation. Below, we provide information drawn from OPC's quarterly reports and semester data files on program outputs. Because we relied on available data from the college, there are instances of missing data (as noted) for some measures.

Demographics. The semester data files provided information about sex, age, race, and ethnicity for OPC participants. Table 3-2 provides a summary of these for each of four semesters. About two-thirds of OPC participants are male. Only about 12 to 15 percent are age 22 or older. The data files did always include race information, but most participants are white, and blacks became a larger percentage in the latter two semesters.

The semester data files also provided information about the types of disabilities that OPC participants have. Table 3-3 provides a summary. Because participants can have multiple disabilities, the percentages do not sum to 100. The largest percentage is for participants with attention deficit hyperactivity disorder and participants with learning disabilities, primarily in reading and writing.

Persistence. At Onondaga, among 72 OPC participants identified in semester data files, 25 left the program, including one who graduated and one deceased. The 47 that remained as of the end of the spring 2017 semester represent 65.3 percent of the 72 participants.¹⁶ Among the other reasons provided for the other 23 who left OPC are medical withdrawal, academically dismissed, suspended, and left for unknown reason but expected to return.

¹⁶ The 72 participants include those who entered after the fall 2015 semester and so the 65.3 percent retention rate is much greater than the fall 2015 to fall 2016 persistence rate shown in Table 3-2.

Table 3-2. Demographic characteristics of Onondaga Pathways to Careers (OPC) participants, by semester

Characteristic	College Semester			
	Fall 2015	Spring 2016	Fall 2016	Spring 2017
Male	64.5%	66.7%	73.7%	71.7%
Female	35.5%	33.3%	26.3%	28.3%
Age				
16-18	25.8%	9.1%	28.1%	20.8%
19-21	61.3%	78.8%	59.6%	64.1%
22-24	12.9%	12.1%	12.3%	15.1%
Race				
White	80.6%	75.7%	68.4%	64.2%
Black	9.7%	12.1%	22.8%	28.3%
Asian	6.5%	6.1%	1.8%	0%
Not reported	3.2%	6.1%	7.0%	7.5%
Ethnicity				
Hispanic	0%	3.0%	8.8%	9.4%
Non-Hispanic	0%	0%	0%	0%
Not reported	100%	97.0%	91.2%	90.6%
Total number	31	33	57	53

Source: Semester data files provided by OPC.

Table 3-3. Type of disability among Onondaga Pathways to Careers (OPC) participants, by semester

Disability Type	College Semester			
	Fall 2015	Spring 2016	Fall 2016	Spring 2017
Hearing	6.5%	3.9%	1.9%	2.2%
Epilepsy or Seizure Disorder	3.2%	0%	1.9%	2.2%
Developmental Disorders				
Autism Spectrum Disorders	16.1%	19.2%	21.1%	27.1%
Mental Disorders				
Anxiety	29.0%	26.9%	13.5%	15.2%
Depression	3.2%	7.7%	5.8%	6.5%
Bipolar	6.5%	7.7%	3.9%	4.4%
Obsessive-Compulsive Disorder	6.5%	7.7%	1.9%	2.2%
Substance Abuse Disorder	3.2%	0%	0%	0%
Learning Disabilities				
Writing	22.6%	26.9%	28.9%	30.4%
Math	19.4%	11.5%	13.5%	15.2%
Reading	32.3%	34.6%	30.8%	26.1%
Unspecified	16.1%	11.5%	5.8%	6.4%
Attention Deficit Hyperactivity Disorder	32.3%	30.8%	36.5%	38.0%
Other Unspecified	19.4%	23.1%	26.9%	28.6%
Total Number	31	33	57	53

Source: Semester data files provided by OPC. Note: Percentages do not sum to 100 percent because participants may have multiple disabilities.

Table 3-4 presents semester-to-semester persistence rates at OPC based on the semester data files. The rates are higher for fall to spring (63.3% and 74.4%) as expected and lower for fall 2015 to fall 2016, suggesting only a minority of the participants from fall 2015 returned in fall 2016.

Table 3-4. Semester to semester persistence rates for Onondaga Pathways to Careers (OPC) participants

Persistence period	Persistence Rate
Fall 2015 to Spring 2016	63.3%
Spring 2016 to Fall 2016	59.1%
Fall 2016 to Spring 2017	74.4%
Fall 2015 to Fall 2016	32.3%

Source: Semester data files provided by OPC (n = 72).

OPC provided fall-to-fall retention rates for first time, full-time degree seeking students with disabilities at OPC. See Table 3-5. The retention rates range from a low of 52.9 percent in fall 2012 to a high of 65.6 percent in fall 2009. The table also indicates that the number of first time, full-time students with disabilities varied over time, from a low of 95 in the fall of 2008 to a high of 226 in fall 2011. We present these values only as a contrast to the OPC program. One should not compare these fall to fall retention rates to those under OPC because the historical numbers are likely higher because they are limited to only first-time, full-time degree seeking students. The values provide a general trend.

Table 3-5. Historical fall to fall retentions rates of first-time, full-time degree seeking students with disabilities at Onondaga Community College

Retention Rate	Fall 08	Fall 09	Fall 10	Fall 11	Fall 12	Fall 13	Fall 14
Percent	57.9%	65.6%	65.1%	56.2%	52.9%	54.3%	61.6%
Number of students with disabilities	95	128	169	226	221	140	112

Source: Historical data provided by OPC.

College completion. The semester data files provide some information about the progress of OPC participants. Table 3-6 provides the mean number of courses attempted and completed and the estimated course completion rate, by semester. Generally, the number of courses attempted per semester was in the range of 4 to 6, and the number of courses completed was about four. Course completion per semester was higher in the second academic year than the first.

Table 3-6. Mean number of courses attempted, completed and course completion rate for Onondaga Pathways to Careers (OPC) participants, by semester

Semester	Mean Number of Courses Attempted	Mean Number of Courses Completed	Course Completion Rate	Number of OPC participants
Fall 2015	6.16	3.77	61.2%	31
Spring 2016	4.54	4.08	89.9%	26
Fall 2016	4.04	4.04	100%	52
Spring 2017	3.95	3.90	98.7%	39

Source: Semester data files provided by OPC.

Note: The number of OPC participants is limited to the number for which information is available on courses attempted and completed.

Table 3-7 provides the grade point averages (GPAs) per semester at OPC. Overall, the GPA values are at least 2.0 or higher, and increase from one semester to the next.

Table 3-7. Grade point average per semester among Onondaga Pathways to Careers (OPC) participants

Semester	Grade Point Average	Number of Participants
Fall 2015	2.04	30
Spring 2016	2.10	25
Fall 2016	2.14	52
Spring 2017	2.50	38

Source: Semester data files provided by OPC.

Note: The number of OPC participants is limited to the number for which GPA information is available.

Academic supports. Many of the OPC students received academic supports. Table 3-8 indicates over half in each quarter received academic advising; over a quarter also received individual tutoring; and an increasing number received developmental courses.

Accommodations. As expected with serving students with disabilities, OPC provided accommodations to most participants. Example of such accommodations include providing assistive technology, accessible materials, and extended time on assignments. Table 3-9 provides the number of OPC participants that received accommodations. The number was constant for the first four quarters (36-38) then increased into 2017 (59 in January-March and 51 in April-June), reflecting the increase in program enrollment.

Table 3-8. Number of Onondaga Pathways to Careers (OPC) participants receiving academic supports, by quarter

Fiscal Year	Fiscal Quarter	Calendar Months	Number of OPC participants				
			Received Academic Advising	Received Individual Tutoring	In Developmental Courses	At start of quarter	At end of quarter
2016	1	October – December 2015	21	14	9	36	36
2016	2	January – March 2016	21	20	9	36	36
2016	3	April – June 2016	16	13	9	36	36
2016	4	July – September 2016	17	13	29	20	58
2017	1	October – December 2016	35	27	29	58	58
2017	2	January – March 2017	26	16	12	50	51
2017	3	April – June 2017	32	12	13	52	51

Source: Quarterly progress reports submitted by OPC to ODEP.

Table 3-9. Number of Onondaga Pathways to Careers (OPC) participants receiving accommodations, by quarter

Fiscal Year	Fiscal Quarter	Calendar Months	Number of OPC participants		
			Received Accommodations	At start of quarter	At end of quarter
2016	1	October – December 2015	NR	36	36
2016	2	January – March 2016	38	36	36
2016	3	April – June 2016	36	36	36
2016	4	July – September 2016	36	20	58
2017	1	October – December 2016	38	58	58
2017	2	January – March 2017	59	50	51
2017	3	April – June 2017	51	52	51

Source: Quarterly progress reports submitted by OPC to ODEP.

Note: NR indicates data not reported.

Other supports. OPC provides advising and workshops on a number of topics. Financial aid advising, provided by the Financial Aid Office, is particularly popular. These workshops took the place of individual financial literacy advising also provided by the Financial Aid Office. The Educational Coordinator at OPC provided one-on-one self-determination skills training in the second academic year and students are increasingly taking advantage of this support, perhaps a result of the student contracts. Table 3-10 indicates that no more than seven respondents received financial literacy advising, and self-determination training did not occur until fall 2016 and spring 2017.

Career services. Table 3-11 indicates the number of OPC participants that received an array of career services per quarter. Most received an individualized career plan, and between a fifth and a quarter typically received career planning and management each quarter and individual career counseling and coaching services. Only a few participants overall received work-based learning

(job shadowing and internships). This likely reflects the time it has taken OPC to establish relationships with employers in the community, and the staff perception of participants not prepared for work-based learning opportunities until later in their college careers.

Table 3-10. Number of Onondaga Pathways to Careers (OPC) participants receiving other supports, by quarter

Fiscal Year	Fiscal Quarter	Calendar Months	Number of OPC participants				
			Received Financial Aid Advising	Received Financial Literacy Advising	Received Self-Determination Training	At start of quarter	At end of quarter
2016	1	October – December 2015	NR	7	NR	36	36
2016	2	January – March 2016	13	7	NR	36	36
2016	3	April – June 2016	4	0	NR	36	36
2016	4	July – September 2016	11	0	9	20	58
2017	1	October – December 2016	15	0	6	58	58
2017	2	January – March 2017	18	3	27	50	51
2017	3	April – June 2017	11	0	14	52	51

Source: Quarterly progress reports submitted by OPC to ODEP.

Note: NR indicates data not reported.

Table 3-11. Number of Onondaga Pathways to Careers (OPC) participants receiving career services, by quarter

Fiscal Year	Fiscal Quarter	Calendar Months	Number of OPC participants					
			Received Career Planning and Management	Received Career Counseling and Coaching	Received Individualized Career Plan	Received Work-Based Learning	At start of quarter	At end of quarter
2016	1	October – December 2015	10	7	14	0	36	36
2016	2	January – March 2016	7	15	14	3	36	36
2016	3	April – June 2016	8	9	0	3	36	36
2016	4	July – September 2016	0	0	18	0	20	58
2017	1	October – December 2016	12	10	5	0	58	58
2017	2	January – March 2017	9	7	7	5	50	51
2017	3	April – June 2017	18	5	28	2	52	51

Source: Quarterly progress reports submitted by OPC to ODEP.

Universal Design for Learning. Table 3-12 below shows the number of Onondaga faculty receiving Universal Design for Learning training each quarter. There are about 835 faculty at Onondaga, of which about 660 are full-time faculty. The college did not provide a measure of the actual level of Universal Design for Learning knowledge among the faculty.

Table 3-12. Number of Onondaga faculty receiving Universal Design for Learning training, by quarter

Fiscal Year	Fiscal Quarter	Faculty Receiving UDL Training
2015	4	6
2016	1	17
2016	2	0
2016	3	0
2016	4	20
2017	1	124
2017	2	60
2017	3	NR

Source: Quarterly progress reports submitted by OPC to ODEP.

Note: UDL indicates Universal Design for Learning. NR indicates data not reported. Counts for fiscal quarters 1 and 2 of 2017 are higher because they include students invited to hear the guest speakers.

Completion of Training Certification. In its quarterly progress reporting, OPC indicated the number of participants that completed a training certification program. Twelve participants completed training certification in spring 2017.

3.2 Universal Pathways to Employment Program (UPEP)

Universal Pathways to Employment Program (UPEP) is design to expand Pellissippi’s capacity to deliver integrated education and career training to students with disabilities. UPEP supports students with disabilities and helps them in obtaining an Associate of Applied Science degree, internship opportunities and career field employment.

UPEP provides participants with individual career plans, interviewing and job search training, academic and career coaching, internship placement assistance and persistence scholarships. To be eligible to participate, students with disabilities must be (1) Pellissippi students ages 14-24 with a documented disabling condition and registered with Disability Services; and (2) students enrolled, or planning to enroll in an Applied Technical Program at Pellissippi.

3.2.1 Outreach and Awareness—UPEP

Fidelity. UPEP proposed to have a Community Liaison Specialist build relationships with regional secondary school systems, identify potential students with disabilities, and recruit them. The specialist would also strengthen existing relations with public agencies that serve students with disabilities. More specifically, UPEP would address transition barriers by working with middle and high school principals to recruit students with disabilities and work with their parents. The project would host “student find” events at feeder schools (and on the Pellissippi campuses) to educate students about receiving accommodations and refer them to programs that assist in the transition, including vocational rehabilitation services and agencies that provide diagnostics and testing. Further outreach would focus on Pellissippi students served the college’s three rounds of Trade Adjustment Assistance Community College and Career Training grants.

As planned, the Community Liaison Specialist conducts outreach events to local high schools and five Pellissippi campuses to discuss UPEP and to identify potential UPEP participants. In addition, the liaison holds new student orientations on each campus and provides parent orientations. The Community Liaison Specialist meets with teachers and students at high schools and speaks at local educational fairs. To assist high school staff on professional development, the Community Liaison Specialist provides the UPEP Transition Toolkit and the Universal Design for Learning Handbook. In August, before the semester begins, UPEP hosts a two-week Summer Academy for students new to Pellissippi and to UPEP. For fall 2017, 27 UPEP participants attended.

Incorporation. The activities of the Community Liaison Specialist are examples of incorporation of the Guideposts to Success principles, offering recruitment, school-based preparation for college, connecting activities, and family involvement. The Learning Handbook reflects the role of Universal Design for Learning Guidelines in the UPEP.

Operation. One challenge expressed by UPEP staff has been that many incoming students are unprepared for college level work, and the staff attribute this in part to the effect of the Tennessee Promise bringing in students with a diploma that does not meet academic goals, but rather meet individualized education plan (IEP) goals.¹⁷ In addition, interviewed UPEP staff described the high schools as not providing students with disabilities with what they need to transition to college. The UPEP Transition Toolkit may be a step toward improving the situation at high schools, but it is not likely to have an effect for immediate UPEP recruitment.

¹⁷ The Tennessee Promise is a scholarship program that provides high school graduates with last-dollar scholarships to attend the state’s community colleges.

3.2.2 *Application and Eligibility Determination—UPEP*

Fidelity. The plan for UPEP is to be open to any student studying toward an Associate of Applied Science degree or technical credential, including all non-transfer and non-certificate programs. About 29 majors meet this criterion at the college at the time of the grant application.

UPEP proposed testing every project participant in four basic areas to determine any remediation needs: reading, writing, math, and computer skills. All Pellissippi students are required to take the college’s COMPASS¹⁸ entrance test or a placement test. UPEP staff would provide college readiness and test-taking strategies in preparation for taking the ACT, COMPASS, or placement tests to help reduce the number of developmental courses participants might be required to complete. Students would also complete an evaluation to determine interests, abilities, and learning styles, and meet with a Career Coach to discuss formulating a Career Plan.

UPEP leadership made no changes to the target population as described in the plan and conducted the testing as planned. For example, in the fall 2017 semester, 13 students received placement testing services and 32 students enrolled in integrated developmental courses.

UPEP proposed to enroll 100 to 110 participants in first cohort beginning in August 2015 and an additional 100 to 110 participants in the second cohort beginning in August 2016. The number of UPEP participants enrolled between fall 2015 and spring 2017, based on quarterly progress reports, is 74 in fall 2015, four in spring 2016, 39 in fall 2016, and 12 in spring 2017, or a total of 129. See Table 3-13. This is lower than the target of 200 to 220 stated in the grant application. However, the quarterly report for fall 2017 indicates 48 new enrollees at UPEP, however, these are not part of the first two cohorts of participants that are the focus this evaluation.

Table 3-13. Number of students enrolling in Universal Pathways to Employment Program (UPEP) by quarter

Fiscal Year	Fiscal Quarter	Calendar Months	Number of Students Enrolling in UPEP this Quarter
2016	1	October – December 2015	74
2016	2	January – March 2016	3
2016	3	April – June 2016	1
2016	4	July – September 2016	39
2017	1	October – December 2016	0
2017	2	January – March 2017	12
2017	3	April – June 2017	0

Source: Quarterly progress reports submitted by UPEP to ODEP.

Note: The first quarterly progress report covered July through December 2015.

¹⁸ COMPASS is a registered trademark for a set of college placement tests.

In contrast, the semester data files provided by Pellissippi cover only those participants that signed a consent form to allow Pellissippi to release their information to us for the evaluation. The four UPEP semester data files (fall 2015, spring 2016, fall 2016, and spring 2017) included 116 individuals. We consider only those students identified by Pellissippi as having participated in at least one UPEP activity to be UPEP participants. Using this criterion, we removed 14 individuals from our analysis of the UPEP semester data files. After removing the 14 non-participants, there are 102 participants for the analysis.¹⁹

Operation. One major modification to the model was to develop and implement the UPEP student participant contract in the fall 2016 semester as a way to engage students more effectively. In the first program year, participants did not regularly attend offered workshops. In the second year, students sign a contract at enrollment (or at start of school year for existing participants) that specifies expectations for their participation, including how many workshops they will attend, how much contact they will have with Career and Academic Coaches, and other interaction with the program. Two of five interviewed participants acknowledge that they prefer having more structure to the program. UPEP staff feel that the participant contract has been important for retaining participants in the program. *“It’s the only way we could get the students to take advantage of the services and take ownership for them.”*

3.2.3 *Program—UPEP*

Fidelity. The UPEP proposal describes a program designed to integrate education and career training for students with disabilities. It has five distinct goals: screen and identify students with disabilities; provide supports and connecting activities; engage employers; implement Universal Design for Learning; and collect and maintain college data on outcomes. The main components of the proposed program include:²⁰

Academic supports. Upon enrollment, the program would evaluate all students to assess the level of their needs and provide referrals for additional medical or psychological support as needed. The program would assign each enrolled UPEP student to an academic coach (also called an education coach). The proposal calls for hiring twenty Education Coaches who are to “provide specialized teaching for students with disabilities to reduce the number placed in developmental classes, to help students with disabilities be successful in barrier classes, and to improve their overall education experience.” The counseling may include advising on registering for courses

¹⁹ When we remove the 14 nonparticipants from the 129 reported in the quarterly progress reports, total enrollment is 115 and the 102 in the semester files represent 88.7 percent of UPEP participants.

²⁰ The prior section described pre-enrollment supports.

and course planning. The proposal also calls for workshops on college readiness, test taking, and other academic skills.

Other supports. UPEP proposes to offer performance-based scholarships for up to three semesters after the first enrolled semester for students. UPEP awards the \$500 scholarship based on maintaining full-time status and a 2.0 GPA. In addition, UPEP proposes to offer smaller stipends for the purchase of books and transportation.

Three types of career services were proposed:

Career advising. Pellissippi said it would hire six Career Coaches as well as two Career Counselors. Career Counselors would help enrolled students explore career options. Career Coaches would focus on soft skills (such as interview skills) and helping students develop resumes and cover letters. Participants would be required to attend ten hours of training on career soft skills per year and coaches would have 10 hours of professional development per year. Career Coaches would go with participants to internships, at least at the beginning, to help ensure they understand expectations.

Internships, job shadowing, and other work-based opportunities. Career Coaches would help students find internships and other work-based opportunities, and accompany students on many of these opportunities. Pellissippi also detailed in their proposal connections made with businesses for work-based opportunities, as well as possible service learning opportunities.

Job placement. UPEP proposed to hire a Business Liaison Specialist whose job would be to make connections with employers leading to employment offers for students. Several businesses had already provided commitments to help provide opportunities, including Oak Ridge Associated Universities, Staffing Solutions, and the Regional Advanced Manufacturing Partnership. The Business Liaison Specialist would also work with Pellissippi's Business and Community Services Office and Placement Office to find opportunities. The proposal called for outreach to employers to raise awareness of the program and to understand employers' needs, in an effort to improve job placement rates. UPEP planned to conduct outreach to employers in the Knoxville area, which is home to several federal employers who may be likely to hire people with disabilities.

The UPEP proposal also calls for a change in the academic culture through the professional development of all employees about issues related to students with disabilities and the adoption of new policies and procedures. Specifically, it called for a college-wide Universal Design for Learning policy for instructional design and delivery, purchasing, student services, and physical design and professional development for all Pellissippi employees to implement Universal Design for Learning policy. In addition, UPEP proposed the purchase of Universal Design for

Learning-compatible career exploration software, more Universal Design for Learning-compatible textbooks, virtual training equipment, and interactive human patient simulators for nursing students.

UPEP has followed its program model closely, hiring career counselors, career coaches, education coaches, community liaison and business liaison. It has been successful in recruiting and engaging employers for the program, both as advisors and as employers providing internships and other work-based learning and built a close relationship with the American Job Center. An American Job Center staff person praised the UPEP Business Liaison Specialist, saying, *“She just pulls people together, and is just a masterful workman at that.”* The quarterly report for Q3 2017 indicates contact with 81 employers, of which 25 provided job shadowing, internships, or workshops for students.

The community liaison specialist regularly conducts outreach events to local high schools and to the five Pellissippi campuses, as well as providing materials to the schools for professional development. Career specialists and career coaches provide personal career counseling and one-on-one training, and UPEP provides a variety of workshops, including on self-advocacy.

The five UPEP students we interviewed were engaged and positive about the program, highlighting their relationships with the Career and Academic Coaches. *“They were really friendly and nice...If I needed help with anything, they would teach me or help me better understand the skills at hand;” “[UPEP] has been very, very beneficial for me, especially this past spring semester because I had really great coaches, academic and career-wise...They really wanted me to succeed academically and also pursue my career dreams.”* They found it easy to interact with the coaches and thought the program was helping them.

After several attempts, UPEP has finally secured a contractor to provide an online, fully accessible career assessment tool. The contractor is developing the assessment and manipulatives for the tool. In addition, UPEP provided participants with assistive technology, including laptops, live scribe pens, iPads, and assistive technology software, along with training on new assistive technology.

UPEP is providing performance-based scholarships and stipends to its participants. Students received the scholarship for meeting all contract requirements and getting at least a C grade or better in every class and receive book stipends for meeting all contract requirements. UPEP has provided scholarships and stipends at the end of each semester (between 14 and 28 participants received scholarships and between 32 and 49 received stipends).

Incorporation. Following the Guideposts for Success and encouragement from ODEP, UPEP added more family engagement components, including a parent orientation as part of the

Summer Academy to assist incoming students with the transition to Pellissippi, and a parent newsletter to parents who signed up to receive the email about upcoming events and important dates. Some parents are more directly involved if their child signs a Family Educational Rights and Privacy Act (FERPA) waiver to allow Pellissippi to inform parents about the student's activities and progress. To foster youth development and leadership, UPEP instituted a peer mentor program. UPEP recruited returning UPEP students (in their 2nd or 3rd year) to serve as a peer mentor to other UPEP students.

Regarding Universal Design for Learning, in April 2015 UPEP drafted a policy statement on behalf of Pellissippi committing all campus information and technology be fully accessible for all persons with disabilities. Pellissippi approved the plan the same month. As part of the Tennessee Board of Regents' required five-year accessibility plan, Pellissippi will develop a learning environment that provides accessible informational materials and technology using the concepts of Universal Design for Learning and provide related training for all faculty and staff.

UPEP provided five Universal Design for Learning presentations, three webinars and five professional development trainings to faculty and staff along with materials, including a reference handbook of best practices for creating accessible materials. In addition, UPEP sponsored six faculty members to attend the Tennessee Board of Regents' two-day Universal Design for Learning conference in Nashville in late October 2017.

Operation. One major challenge for the UPEP program from the start was a lack of support from the college administration and opposition from some of the faculty. UPEP leadership describe the faculty as having a role in governing the college and some were opposed to Universal Design for Learning because it was viewed as a lot of work (mostly the view of full time faculty, not adjuncts). Although some college leaders have been supportive, UPEP staff felt that the program does not have the backing of the college as a whole. Comments from staff included: *“lack of buy-in from the upper administration”* and *“This campus has a real problem with buy-in. The problem lies with administration. They don't want to do it.”* UPEP leadership reached out to college officials with data on the program and invited them to UPEP events.

Attendance at the Universal Design for Learning training sessions varied, ranging from a low of 14 to a high of 176. It appears that the topics of each session are different, but it is not clear if the sessions are cumulative, building upon prior sessions.

UPEP leadership also report resistance from the Pellissippi Placement Office and a lack of capacity at the Placement Office to help with contacts. The plan was for the Business Liaison Specialist to work with the Placement Office to find placements for students. In response, the

UPEP Business Liaison Specialist created a separate placement database for UPEP that provides for work-based learning opportunities and job placements for UPEP students.

However, more recently, the college president told the Pellissippi Foundation that he was very interested in keeping UPEP going and wanted the Foundation to assist UPEP in finding sources of funding. However, the Foundation is also leading a new capital campaign to build a new building and redesign two others, creating some competition for sources of funding. Given the perceived lack of administrative support and uncertainty about funding, UPEP staff are skeptical about the future of UPEP after the end of the Pathways grant.

An additional challenge for UPEP has been the low or lacking participation of the Tennessee Vocational Rehabilitation (VR) agency in support of UPEP participants. UPEP staff said that the vocational rehabilitation agency defined eligibility and provided services based on income and had many vacant staff positions. The state did not approve the drawdown of federal dollars for vocational rehabilitation. The agency has not provided career services for UPEP as planned.

UPEP staff do not feel that the program will continue beyond the period of the grant without alternative funding to cover staffing costs. UPEP staff are working with the Pellissippi State Community College Foundation in a search for sources of funding.

3.2.4 *Outputs—UPEP*

In its grant application and work plan, UPEP did not set specific targets for most outputs and outcomes, other than enrollment. Below, we provide information drawn from UPEP's quarterly reports and semester data files on program outputs. Because we relied on available data from the college, there are instances of missing data (as noted) for some measures.

Demographics. The quarterly survey data provided information about sex, age, race, and ethnicity for UPEP participants. Table 3-14 provides a summary of these for each of four semesters. About 60 percent of UPEP participants are male. Less than 10 percent of participants were age 22 or older in the first 2 semesters, but increased to 19 percent by the fourth semester. Most participants (at least 82%) are white and blacks became a larger percentage in the latter two semesters.

Table 3-14. Demographic characteristics of Universal Pathways to Employment Program (UPEP) participants, by semester

Characteristic	College Semester			
	Fall 2015	Spring 2016	Fall 2016	Spring 2017
Male	62.3%	59.3%	60.5%	60.3%
Female	37.7%	40.7%	39.5%	39.7%
Age				
16-18	17.0%	16.9%	16.3%	9.0%
19-21	77.3%	74.6%	66.3%	71.8%
22-24	5.7%	8.5%	17.4%	19.2%
Race				
White	84.9%	86.4%	82.6%	82.0%
Black	9.4%	8.5%	11.6%	14.1%
Asian	0%	0%	1.2%	1.3%
Multiracial	5.7%	5.1%	4.6%	2.6%
Ethnicity				
Hispanic	30.2%	30.5%	24.4%	9.0%
Non-Hispanic	62.3%	64.4%	74.4%	91.0%
Not reported	7.5%	5.1%	1.2%	0%
Total number	53	59	86	78

Source: Semester data files provided by UPEP.

The semester data files also provided information about the types of disabilities that UPEP participants have. Table 3-15 provides a summary. Because participants can have multiple disabilities, the percentages do not sum to 100. The largest percentages are for bipolar disorder, attention deficit hyperactivity disorder, autism spectrum disorders and participants with unspecified learning disabilities.

Table 3-15. Type of disability among Universal Pathways to Employment Program (UPEP) participants, by semester

Disability Type	College Semester			
	Fall 2015	Spring 2016	Fall 2016	Spring 2017
Deafness	3.8%	2.0%	0%	0%
Hearing	11.3%	10.0%	4.8%	5.3%
Visual Impairment	0%	0%	1.2%	1.3%
Developmental Disorders				
Autism Spectrum Disorders	24.5%	24.0%	26.5%	30.7%
Mental Disorders				
Anxiety	5.7%	8.0%	0	0%
Bipolar	0%	32.0%	27.7%	28.0%
Learning Disabilities				
Writing	1.9%	2.0%	0%	0%
Reading	7.6%	8.0%	0%	0%
Unspecified	26.4%	28.0%	20.5%	22.7%
Attention Deficit Hyperactivity Disorder	28.3%	28.0%	13.3%	14.7%
Other Unspecified	7.6%	8.0%	15.7%	20.0%
Total Number	53	59	86	78

Source: Semester data files provided by UPEP. Note: Percentages do not sum to 100 percent because participants may have multiple disabilities.

Persistence. At Pellissippi, among the 102 participants in the semester data files, 33 left the program, including eight that graduated (7.8%) and 25 (24.5%) for other reasons including financial, changed major, inactivity, work full time, attend college elsewhere, and academic performance. The 69 that remained as of the end of the spring 2017 semester represent 67.6 percent of the 102 participants.²¹

Table 3-16 presents semester-to-semester persistence rates at UPEP based on the semester data files. As one would expect, fall to spring persistence is higher (82.3% and 89.7%), as students complete a single academic year, than spring to fall and fall-to-fall persistence. Spring to fall and fall-to-fall persistence reflects decisions not to return to school after completion of an academic year. The fall 2015 to fall 2016 persistence rate for UPEP participants is 64.2 percent.²²

²¹ The 102 participants include those who entered after the fall 2015 semester and so the 67.6 percent retention rate is slightly higher than the fall 2015 to fall 2016 persistence rate shown in Table 3-16.

²² Semester to semester persistence rates were not included in the historical data provided by Pellissippi State Community College.

Table 3-16. Semester to semester persistence rates for Universal Pathways to Employment Program (UPEP) participants

Persistence period	Persistence Rate
Fall 2015 to Spring 2016	82.3%
Spring 2016 to Fall 2016	69.4%
Fall 2016 to Spring 2017	89.7%
Fall 2015 to Fall 2016	64.2%

Source: Semester data files provided by UPEP (n = 102)

Graduation. Based on our analysis of semester data files, among those participants who enrolled in UPEP in fall 2015 four graduated in the spring of 2016 and four graduated in the spring of 2017. Those that graduated in the spring of 2016 started at Pellissippi in the fall of 2013, taking three years to graduate, and spending two semesters in UPEP. Among the other four graduates, three started at Pellissippi in the fall of 2014 (taking three years to graduate) and one student took seven years to graduate.

Academic supports. According to UPEP quarterly progress reports to ODEP, a majority of UPEP participants received academic support in the form of individual tutoring. A substantial number of UPEP participants each quarter also participated in development courses. UPEP does not report on academic advising, as all students will receive such advising through their Academic Coaches each semester. Table 3-17 provides the number of UPEP participants reported to have received individual tutoring and the number in developmental courses. The number receiving tutoring varied between 40 and 73. The number in developmental courses was highest in fall 2015 (more than 80% of participants), but was lower since spring 2016, involving about one-third of participants.

Accommodations. As expected for serving students with disabilities, UPEP provided accommodations to most participants. Example of such accommodations include providing assistive technology, accessible materials, and extended time on assignments. Table 3-18 provides the number of UPEP participants that received accommodations. The number of participants that received accommodations ranged between 56 and 77, nearly all participants for most quarters.

Table 3-17. Number of Universal Pathways to Employment Program (UPEP) participants receiving academic supports, by quarter

Fiscal Year	Fiscal Quarter	Calendar Months	Number of UPEP Participants			
			Received Individual Tutoring	In Developmental Courses	At start of quarter	At end of quarter
2016	1	October – December 2015	42	45	74	60
2016	2	January – March 2016	44	22	61	64
2016	3	April – June 2016	40	23	62	63
2016	4	July – September 2016	66	29	63	75
2017	1	October – December 2016	62	27	75	69
2017	2	January – March 2017	73	25	64	76
2017	3	April – June 2017	51	25	76	62

Source: Quarterly progress reports submitted by UPEP to ODEP.

Table 3-18. Number of Universal Pathways to Employment Program (UPEP) participants receiving accommodations, by quarter

Fiscal Year	Fiscal Quarter	Calendar Months	Number of UPEP participants		
			Received Accommodations	At start of quarter	At end of quarter
2016	1	October – December 2015	NR	74	60
2016	2	January – March 2016	64	61	64
2016	3	April – June 2016	73	62	63
2016	4	July – September 2016	56	63	75
2017	1	October – December 2016	77	75	69
2017	2	January – March 2017	69	64	76
2017	3	April – June 2017	57	76	62

Source: Quarterly progress reports submitted by UPEP to ODEP.

Note: NR indicates data not reported.

Other supports. UPEP staff provide one-on-one training sessions on the use of assistive technology and self-exploration, typically provided by Career Coaches. Staff envision continuing these supports in the future. Table 3-19 indicates the number of participants receiving these supports by quarter. The numbers suggest that nearly all received self-exploration.

Table 3-19. Number of Universal Pathways to Employment Program (UPEP) participants receiving other supports, by quarter

Fiscal Year	Fiscal Quarter	Calendar Months	Number of UPEP Participants			
			Received Assistive Technology Training	Received Self-Exploration	At start of quarter	At end of quarter
2016	1	October – December 2015	28	68	74	60
2016	2	January – March 2016	10	28	61	64
2016	3	April – June 2016	2	20	62	63
2016	4	July – September 2016	22	63	63	75
2017	1	October – December 2016	10	60	75	69
2017	2	January – March 2017	15	68	64	76
2017	3	April – June 2017	1	37	76	62

Source: Quarterly progress reports submitted by UPEP to ODEP.

Career services. The structure of UPEP, with each participant assigned a Career Coach, ensures that students receive extensive career services. As shown in Table 3-20, nearly all students receive career counseling and coaching each semester. A few participants experience work-based learning. UPEP staff believe that such experiences are better suited to the latter part of students’ college careers. They anticipate greater participation in work-based learning as the grant continues.

Credit accumulation and college completion. The semester data files provide some information about the progress of UPEP participants in terms of the grade point average, number of courses attempted and completed, and the number of credits earned. Table 3-21 provides the mean number of courses attempted and completed and the estimated course completion rate, by semester. Generally, the number of courses attempted per semester was in the range of 4 to 6, and the mean number of courses completed was about four.

Table 3-20. Number of Universal Pathways to Employment Program (UPEP) participants receiving career services, by quarter

Fiscal Year	Fiscal Quarter	Calendar Months	Number of UPEP Participants					
			Received Career Planning and Management	Received Career Counseling and Coaching	Received Individualized Career Plan	Received Work-Based Learning	At start of quarter	At end of quarter
2016	1	October – December 2015	67	61	67	0	74	60
2016	2	January – March 2016	34	59	10	5	61	64
2016	3	April – June 2016	2	27	2	7	62	63
2016	4	July – September 2016	36	67	24	3	63	75
2017	1	October – December 2016	5	36	8	5	75	69
2017	2	January – March 2017	55	68	11	7	64	76
2017	3	April – June 2017	10	25	0	6	76	62

Source: Quarterly progress reports submitted by UPEP to ODEP.

Table 3-21. Mean number of courses attempted, completed and course completion rate for Universal Pathways to Employment Program (UPEP) participants, by semester

Semester	Mean Number of Courses Attempted	Mean Number of Courses Completed	Course Completion Rate (%)	Number of Pathways participants
Fall 2015	4.04	3.96	98.0	53
Spring 2016	3.82	3.62	94.8	50
Fall 2016	3.92	3.71	95.1	68
Spring 2017	3.85	3.70	96.1	71

Source: Semester data files provided by UPEP.

Note: The number of UPEP participants is limited to the number for which information is available on courses attempted and completed.

Table 3-22 provides the grade point averages per semester and the number of credits earned for UPEP participants. Overall, the GPA values are greater than 2.0. For UPEP participants, the mean number of credits earned per semester was about nine.

Table 3-22. Grade point average per semester and the number of credits earned, among Universal Pathways to Employment Program (UPEP) participants

Semester	Grade Point Average	Number of Participants	Mean Credits Earned at Pellissippi	
			Semester	Accumulated
Fall 2015	2.24	53	9.81	9.81
Spring 2016	2.41	50	9.14	17.62
Fall 2016	2.63	67	9.15	18.68
Spring 2017	2.29	71	8.97	25.87

Source: Semester data files provided by UPEP.

Note: The number of UPEP participants is limited to the number for which information is available about GPA and credits earned.

Universal design for learning. Table 3-23 below shows the number of Pellissippi faculty receiving Universal Design for Learning training each quarter. There are about 450 faculty at Pellissippi (across five campuses), of which about 185 are full-time faculty and 265 are adjunct faculty. The college did not provide a measure of the actual level of Universal Design for Learning knowledge among the faculty.

Table 3-23. Number of Pellissippi faculty receiving Universal Design for Learning (UDL) training, by quarter

Fiscal Year	Fiscal Quarter	Faculty Receiving UDL Training
2016	1	32
2016	2	17
2016	3	NR
2016	4	65
2017	1	47
2017	2	20
2017	3	16

Source: Quarterly progress reports submitted by UPEP to ODEP.

Note: UDL indicates Universal Design for Learning. NR indicates not reported.

Completion of Training Certification. In its quarterly progress reporting, UPEP indicated the number of participants that completed a training certification program. Six participants completed training certification in spring 2016, 6 in fall 2016, and 10 in spring 2017.

4. Survey Findings for the Outcomes Study

For the evaluation, we developed a survey to ask Pathways program participants about their experience with the program, persistence, satisfaction, additional education and training, engagement, self-disclosure and self-advocacy, and employment. We discuss the survey results in this chapter.

The four semester data files indicated 88 total participants at OPC and 116 at UPEP. Because of time lags in our receipt of the semester data files, we did not have information about “non-participants” among the participants in the semester data files. For the first wave of the participant survey (March - June 2017), we reached out to all 87 Onondaga students²³ and the 47 Pellissippi students that signed a consent form for the release of their contact information for the survey.

There were 81 responses to this first round of the survey. For the survey analysis, we exclude seven OPC non-participants that completed the survey (ineligible), and we exclude six partial completes (did not answer more than 50% of questions), leaving 68 completed surveys (or 52.7% of 129 eligible participants). With the small number of respondents to the survey, especially at the college level, we do not make comparisons across colleges. Test of statistical significance of differences will be insignificant in most, if not all, instances.²⁴ In addition, less than half of UPEP participants agreed to be contacted for the survey.

Table 4-1. Summary counts of students in semester files by survey status, by grant program

Grant program	Number of students					
	In semester data files	Targeted for survey	Submitted survey	Ineligible for survey	Excluded - incomplete response	Used for analysis
OPC	88	87	41	7	4	30
UPEP	116	47	40	0	2	38
All	204	81	81	7	6	68

²³ One student was ineligible—deceased.

²⁴ A preliminary test of the difference in two proportions ($0.76 - 0.61 = 0.15$) across Onondaga and Pellissippi on participants being “very likely to complete the Pathways program” was statistically insignificant at the 0.05 level.

4.1 Comparison of survey respondents to all Pathways participants

The survey is not representative of all Pathways participants, only those who responded to the survey. Selection bias is possible for two reasons. First, we contacted only UPEP students who signed a consent form for the survey. To the extent that those who signed a consent differ (attitude, motivation, demographic characteristics) from those who did not sign a consent, the survey results will not be representative for those participants who did not sign a consent. Considering that less than half of UPEP participants signed a consent, the likelihood of selection bias is real. Second, about 96 percent of the 68 survey respondents were Pathways participants still enrolled in college (93% for OPC and 97% for UPEP), not providing a good representation of all Pathways participants because few of those that left the program (at least 30%) responded to the survey.

Using information about Pathways participants in the semester data files, we compare survey respondents to non-respondents—Pathways participants identified in the semester data files who did not respond to the survey. We used the chi-square statistic to test for significant differences between the groups.²⁵ Chi-square tests with p-values less than 0.10 indicate that the groups have statistically significant differences on the given characteristic. Ideally, there should be no significant differences of the characteristics between groups if the respondents are representative of the population of participants. Significant differences indicate that the survey results are not representative. Unlike Pellissippi, we had contact information and semester data file information for all OPC participants. Therefore, we expect less response bias for OPC than for UPEP survey results.²⁶

Our analysis of demographic characteristics of survey respondents and non-respondents indicates that the only statistically significant difference in demographic characteristic between groups was ethnicity. Non-respondents were significantly more likely to be Hispanic (24.5%) than were respondents (5.9%). The difference is attributable to the difference at Pellissippi ($p < .01$) and not at Onondaga. While 35.9 percent of Pellissippi non-respondents are Hispanic, only 5.3 percent of Pellissippi respondents are Hispanic.

²⁵ The number of observations per group is small (106 non-respondents and 68 respondents). Thus, the ability to detect significant differences from the chi-squared tests is not strong.

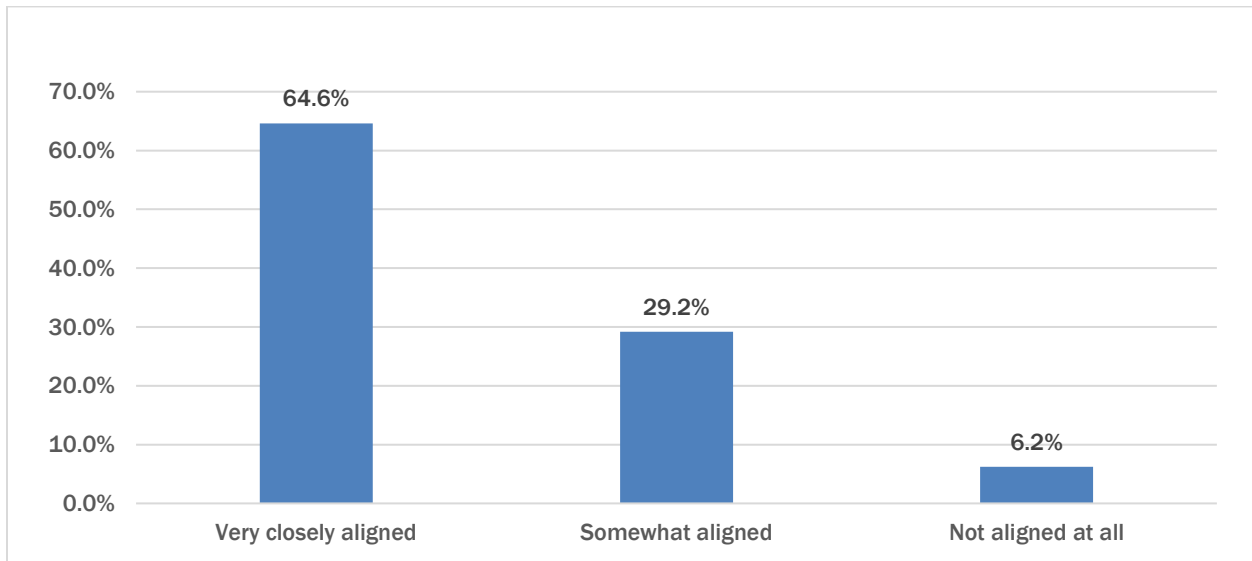
²⁶ Because of the small number of participants and respondents, we do not attempt to adjust for response bias. Rather, we interpret the survey results as representative of only those participants who responded.

Other statistically significant differences include academic major and disability status. The difference on academic major between respondents and non-respondents is mainly due to the difference at OPC ($p < 0.05$ level). OPC respondents were less likely to be enrolled in Computer Science/IT (13.3% vs. 33.3%) and much more likely to be enrolled in Media than OPC non-respondents (26.7% vs. 7.1%).²⁷ The difference on disability status between respondents and non-respondents is due to differences at UPEP ($p < 0.01$). UPEP respondents were more likely to have bipolar disorder (34.2% vs. 12.5%) and an unspecified learning disability than UPEP non-respondents (28.9% vs. 9.4%).

4.2 Experience at the Pathways community college

We asked enrolled participants ($n = 65$) how closely the Pathways program aligned with their career goals, the likelihood of completing the Pathways program, and their plan for future education. As shown in Figure 4-1, the program was “very closely aligned” with personal career goals for 64.6 percent of respondents and was “somewhat aligned” for 29.2 percent. Only 6 percent said that the program did not align with their career goals.

Figure 4-1. Alignment of Pathways program with respondent’s career goals among enrolled participants

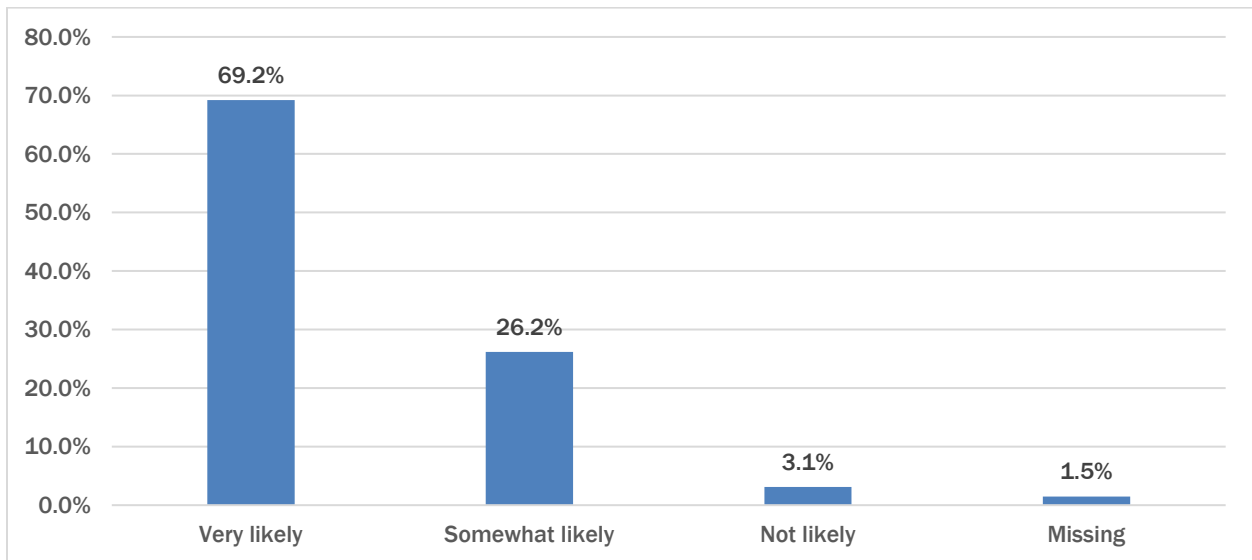


Source: Participant survey-wave 1. $N = 65$.

²⁷ We view a comparison on academic major with caution because the participant’s academic major can change over time.

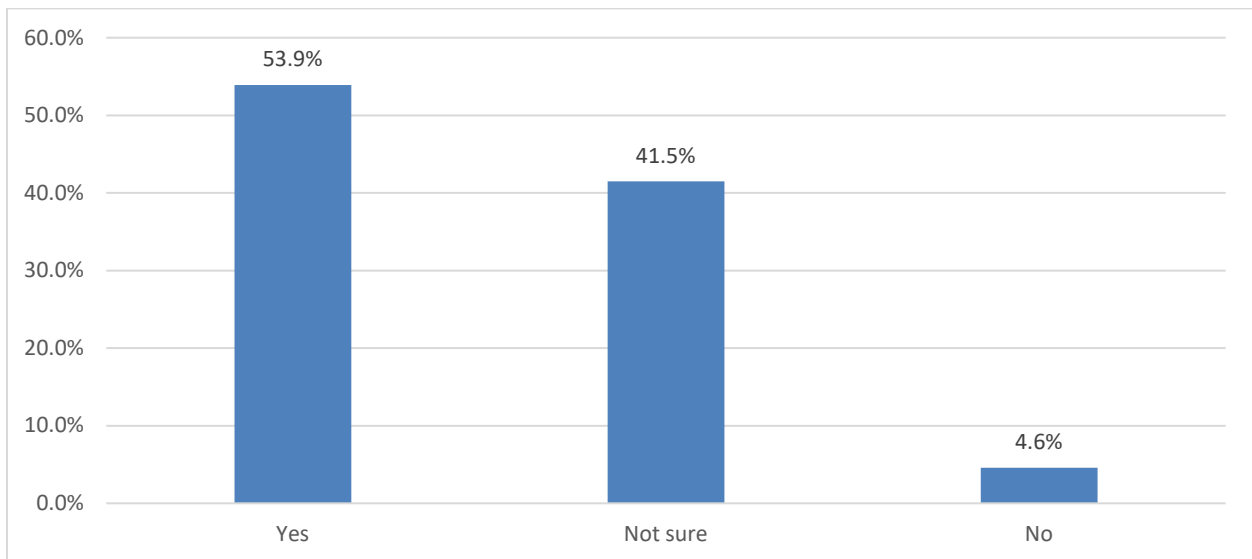
Almost all of the enrolled survey respondents said they were at least “somewhat likely” to complete the Pathways program (95.4%) with 69.2 percent saying that they were “very likely” to complete the Pathways program. See Figure 4-2. Just over half of respondents, 53.9 percent, said they have plans to continue their education in the future, 41.5 percent were not sure of their plans for future education, and 4.6 percent had no plans. See Figure 4-3. Due to small cell sizes, we did not find any significant differences when controlling for Pathways program (college).

Figure 4-2. Likelihood of completing the Pathways program among enrolled participants



Source: Participant survey-wave 1. N =65.

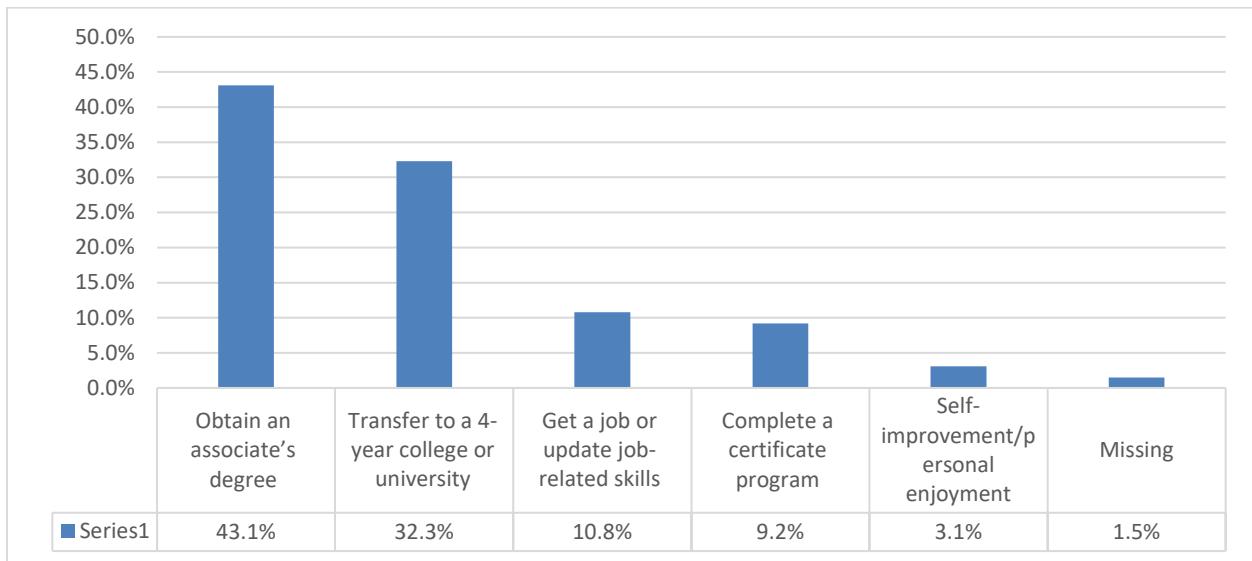
Figure 4-3. Have plans to continue education in the future



Source: Participant survey-wave 1. N =65.

Survey respondents identified the main reason they were attending their college. Most (43.1%) said they were attending to obtain an associate’s degree and another 32.3% said to transfer to a 4-year college or university. Other reasons included to complete a certificate program; get a job or update job-related skills; and self-improvement/personal enjoyment. See Figure 4-4.

Figure 4-4. Main reason for attending college



Source: Participant survey-wave 1. N =65.

4.3 Outreach and Recruitment

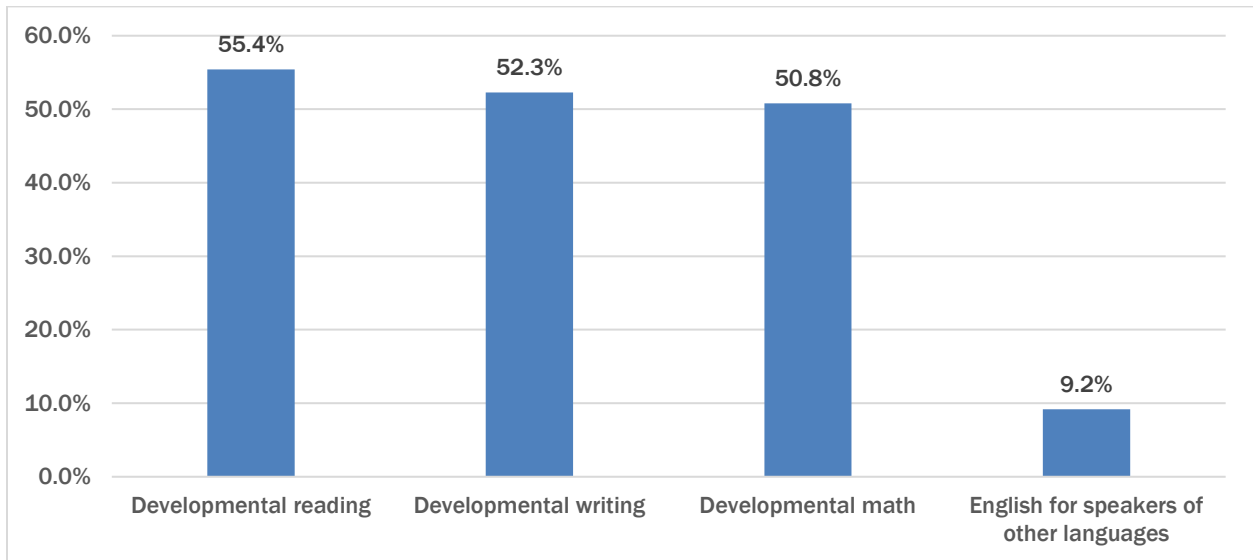
Providing students with disabilities increased awareness of, and exposure to, a community college may lead to more students with disabilities applying to community colleges and arriving better prepared. About 83 percent of survey respondents (54 respondents) said they attended a college orientation for new students. Among these, 52 percent rated the orientation as very useful and another 48 percent said it was somewhat useful.

4.4 Remediation

The literature on students with disabilities suggests that many of them enter college unprepared for the demands of college level work despite having met high school graduation requirements. In addition, students with disabilities typically take more remedial courses, on average, than their non-disabled peers (Madaus and Shaw, 2010). We asked participants if they enrolled in any of four types of developmental courses listed during their first semester at the college. (Note that grantees recruited many of the first year Pathways participants from among the existing student body of the college.) As shown in Figure 4-5, about half of respondents reported participating in

developmental reading, writing or math, and nine percent identified participating in English for speakers of other languages.²⁸

Figure 4-5. Percentage of enrolled Pathways respondents participating in developmental coursework



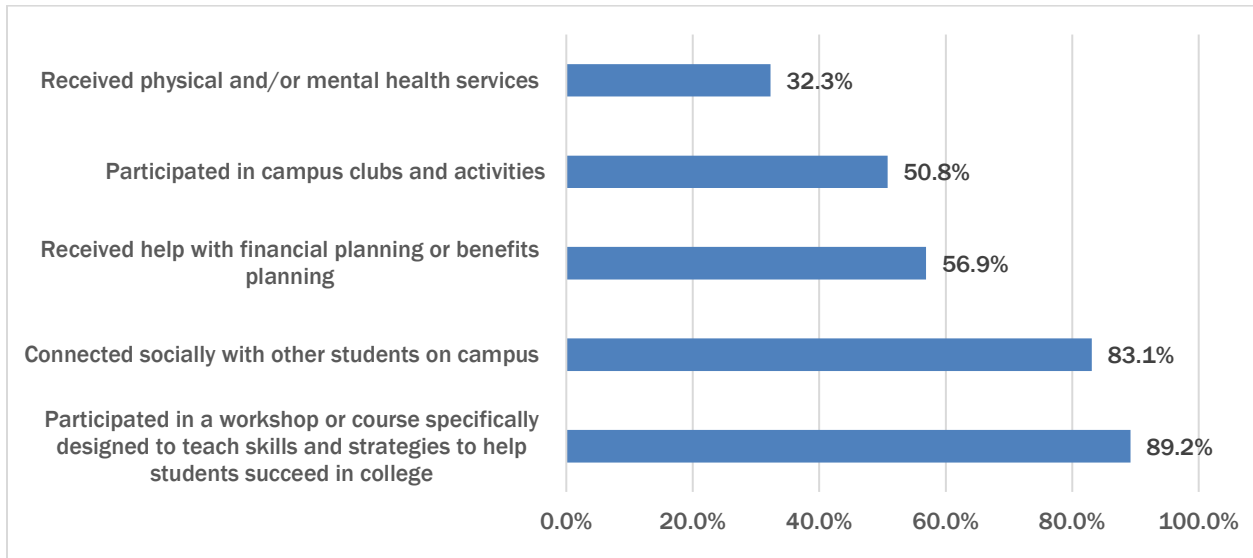
Source: Participant survey-wave 1. N =65.

4.5 Engagement

One aim of a Pathways program is to help students with disabilities persist in college by providing various activities and services and promoting self-determination and self-advocacy. Through the survey, we asked respondents about their participation in these activities. Figure 4-6 indicates that nearly 90 percent of respondents participated in a workshop or course specifically designed to teach skills and strategies to help students succeed in college and half of respondents participated in campus clubs and activities. About one-third (32.3%) received physical and/or mental health services and more than half (56.9%) received help with financial planning or benefits planning.

²⁸ Only six respondents reported using English as a second language at home.

Figure 4-6. Extent of engagement with Pathways program activities and services among enrolled participants

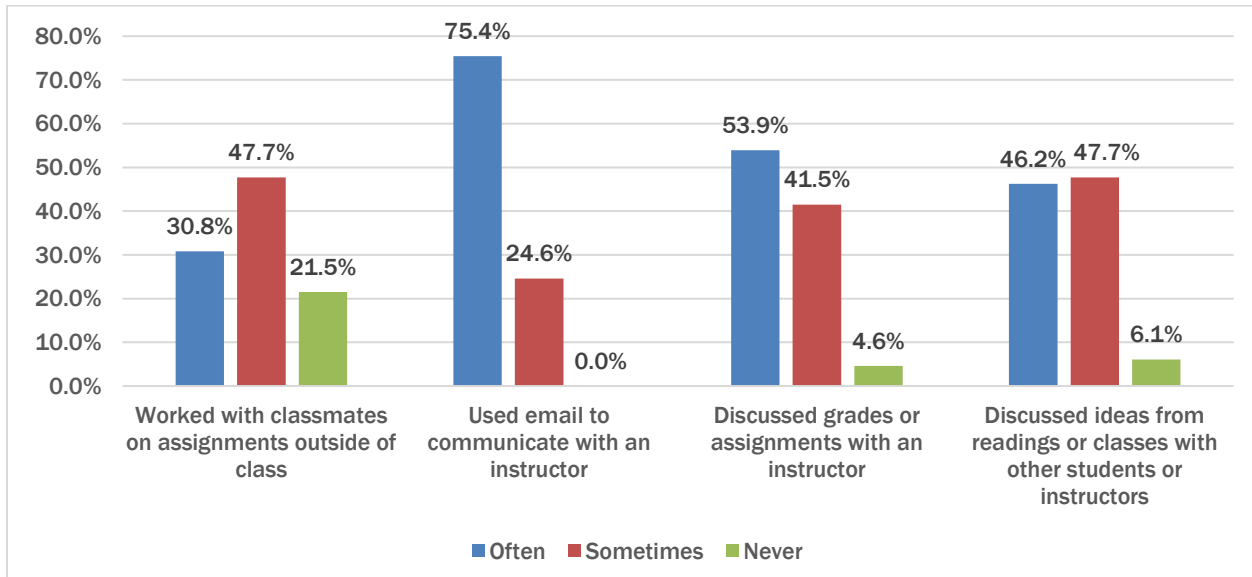


Source: Participant survey-wave 1. N =65.

To explore engagement further, we asked respondents about their interaction with other students and with instructors; about their study habits; and how often they sought help from various types of people. Figure 4-7 indicates the frequency of interactions respondents had with other students and instructors. One-fifth of respondents said that they did not work with classmates on assignments outside of class. All said they communicated by email with instructors, of which three-quarters do so often. More than half of respondents said they often discussed grades or assignments with an instructor. About 94 percent of respondents said they sometimes or often discuss ideas from readings or classes with other students or instructors.

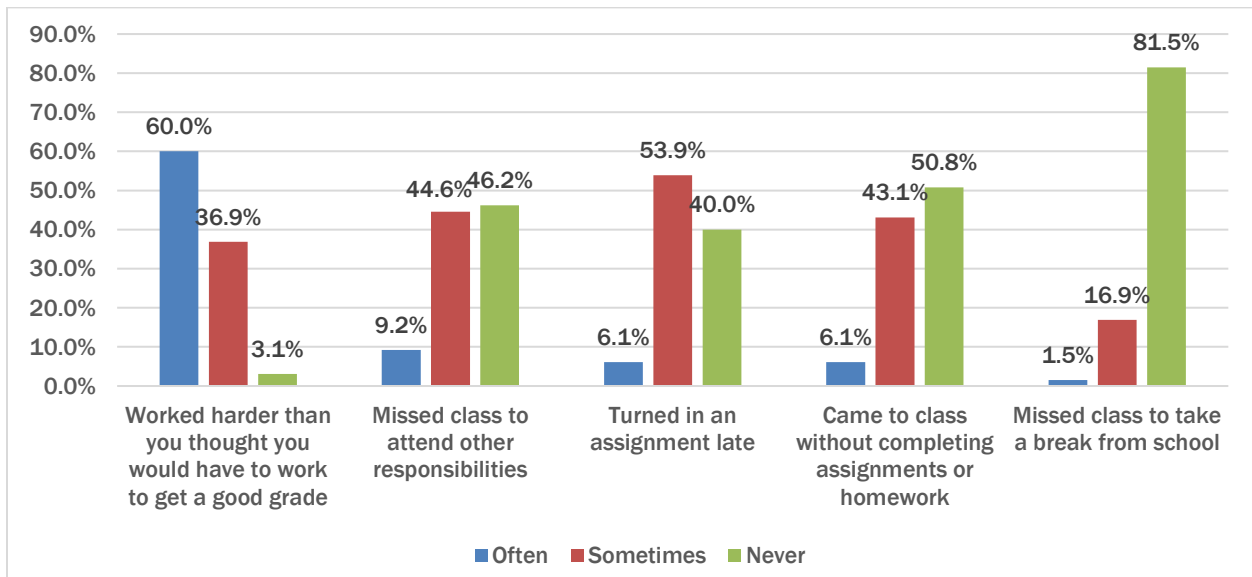
Figure 4-8 indicates the frequency of certain study habits of respondents. Sixty percent of respondents said they often worked harder than they thought they would to get a good grade, and another 37 percent said they sometimes worked harder. At least half of respondents sometimes or often missed class to attend to other responsibilities, or they turned in an assignment late, or went to class without completing assignments or homework. About 18 percent missed class to take a break from school.

Figure 4-7. Frequency of enrolled Pathways respondent’s interaction with other students and instructors



Source: Participant survey-wave 1. N =65.

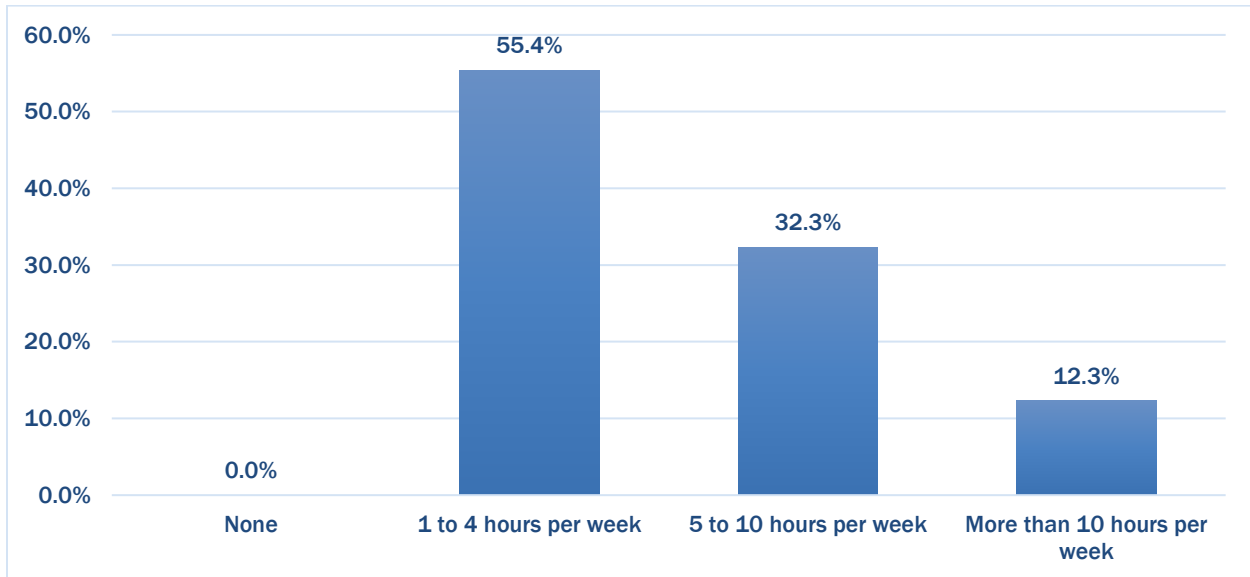
Figure 4-8. Frequency of enrolled Pathways respondent’s study habits



Source: Participant survey-wave 1. N =65.

Figure 4-9 indicates that more than half (55%) of respondents spend, on average, 1 to 4 hours per week studying outside of class. About a third (32%) said they spend 5 to 10 hours per week and another 12 percent spend more than 10 hours per week, on average, studying outside of class.

Figure 4-9. Average amount of time enrolled Pathways respondents spend studying outside of class



Source: Participant survey-wave 1. N =65.

4.6 Perceptions of Assistance and Support at Community College

Table 4-2 indicates that about two-thirds of enrolled Pathways respondents say that instructors and staff often assist students with disabilities to get needed accommodations, provide supports needed for student success and support their academic needs. About 59 percent of respondents said that instructors and staff often supported career development of students with disabilities.

Table 4-2. Percentage of enrolled Pathways respondents rating the frequency of instructors and staff on emphasizing assistance and support for students with disabilities

Type of emphasis from instructors and staff	Often (%)	Sometimes (%)	Never (%)	Total (%)
Assisting students with disabilities to get needed accommodations	66.2	27.7	6.1	100
Providing supports needed for student success	66.1	30.8	3.1	100
Supporting the academic needs of students with disabilities	67.7	29.2	3.1	100
Supporting the career development of students with disabilities	58.5	40.0	1.5	100

Source: Participant survey-wave 1. N =65.

Table 4-3 indicates that enrolled Pathways respondents, since their time of enrollment at the college, most often turn to instructors when seeking help with coursework. They are less likely to turn to family members, academic advisors and the Office of Disability Services.

We asked respondents to rate on a scale of 1 to 7, where “1” is unsupportive and 7 is supportive, how supportive others at the college are toward them. Table 4-4 indicates that most respondents provide a rating of “5” or higher for other students (73.8%), instructors (89.3%), and other staff at the community college (89.2%).

Table 4-3. Percentage of enrolled Pathways respondents rating their frequency of seeking help with coursework from others since the time of enrollment at college

Who respondent turned to for help	Often (%)	Sometimes (%)	Never (%)	Missing (%)	Total (%)
Instructors	55.4	40.0	4.6	0	100
Academic advisors	35.4	43.1	21.5	0	100
Tutors, learning centers or learning labs	36.9	43.1	20.0	0	100
Friends or other students	36.9	43.1	20.0	0	100
Family members	29.2	41.5	27.7	1.5	100
The Office of Disability Services	23.1	50.8	26.1	0	100
Other persons or offices	10.8	40.0	46.1	3.1	100

Source: Participant survey-wave 1. N =65. Note: Percentages do not sum to 100 due to rounding.

Table 4-4. Percentage of enrolled Pathways respondents rating the supportiveness of others at the community college

Other at the community college	1 Unsupportive	2	3	4	5	6	7 Supportive	Total
Students	1.5%	4.6%	4.6%	15.4%	20.0%	29.2%	24.6%	100%
Instructors	1.5%	0%	3.1%	6.1%	23.1%	33.9%	32.3%	100%
Other staff	3.1%	0%	3.1%	4.6%	13.8%	33.9%	41.5%	100%

Source: Participant survey-wave 1. N =65. Note: Percentages do not sum to 100 due to rounding.

4.7 Participant Use and Satisfaction with Pathways Activities and Services

The survey included a question that asked how the 65 enrolled respondents would rate their experience with the Pathways program. A majority (53.8%) rated their experience as excellent; 40 percent rated it as good; and 6.2 percent as fair. None said poor.

We asked respondents about the frequency of their use of services and activities. Then, we asked them to rank their satisfaction with the services and activities. Tables 4-5 and 4-6 provide the results. The activities with the largest percentage of respondents saying “often” were academic advising/planning (40.0%); computer lab (33.9%); career exploration, planning or counseling (29.2%); and tutoring (26.2%). Respondents reported being very satisfied with these services.

Table 4-5. Percentage of enrolled Pathways respondents indicating how often they participated in activities or services in Pathways program or at the college

Activity or Service	Often (%)	Somewhat (%)	Rarely/never (%)	Not applicable (%)	Missing (%)	Total (%)
Academic advising/planning	40.0	43.1	12.3	3.1	1.5	100
Tutoring	26.2	41.5	27.7	3.1	1.5	100
Mentoring others	7.7	21.5	44.6	23.1	3.1	100
Being mentored	18.5	23.1	35.4	18.4	4.6	100
Skill labs (writing, math, etc.)	21.5	40.0	20.0	13.9	4.6	100
Computer lab	33.9	33.9	20.0	9.2	3.0	100
Career exploration, planning or counseling	29.2	46.2	12.3	9.2	3.1	100
Job placement assistance	16.9	21.5	38.5	21.5	1.5	100
Internships and other work-based learning opportunities	12.3	23.1	36.9	24.6	3.1	100
Child care	4.6	3.1	29.2	58.5	4.6	100
Transportation assistance	18.5	9.2	27.7	43.1	1.5	100
Financial aid advising	21.5	29.2	29.2	16.9	3.2	100
Student clubs and organizations	20.0	21.5	35.4	20.0	3.1	100

Source: Participant survey-wave 1. N =65.

Table 4-6. Percentage of enrolled Pathways respondents indicating their level of satisfaction with activities or services they participated in at Pathways program or the college

Activity or Service	Very satisfied (%)	Somewhat satisfied (%)	Not at all satisfied (%)	Not applicable (%)	Missing (%)	Total (%)
Academic advising/planning	41.5	35.4	6.1	6.1	10.8	100
Tutoring	50.8	20.0	7.7	13.8	7.7	100
Mentoring others	16.9	18.5	12.3	41.5	10.8	100
Being mentored	26.2	21.5	7.7	32.3	12.3	100
Skill labs (writing, math, etc.)	35.4	29.2	4.6	23.1	13.8	100
Computer lab	49.2	24.6	1.5	12.3	12.3	100
Career exploration, planning or counseling	44.6	26.2	0	15.4	13.8	100
Job placement assistance	21.5	27.7	3.1	36.9	10.8	100
Internships and other work-based learning opportunities	24.6	23.1	9.2	33.9	9.2	100
Child care	9.2	4.6	7.7	63.1	14.4	100
Transportation assistance	21.5	9.2	4.6	49.2	15.4	100
Financial aid advising	36.9	23.1	4.6	24.6	10.8	100
Student clubs and organizations	29.2	15.4	10.8	27.7	16.9	100

Source: Participant survey-wave 1. N =65.

4.8 Self-advocacy and independent living skills

The survey includes questions to assess self-advocacy, self-determination, and self-disclosure, areas of attention in the Pathways grant programs. Respondents indicated how much they agree or disagree with the four statements. See Table 4-7.²⁹ At least half of all respondents strongly agreed with each statement.

Table 4-7. Percentage of enrolled Pathways respondents indicating their degree of agreement with statements on self-advocacy, self-determination and self-disclosure

Statements on self-advocacy, self-determination and self-disclosure	Strongly agree (%)	Agree (%)	Disagree (%)	Strongly disagree (%)	Total (%)
I am aware of my rights for reasonable academic accommodations under the law	63.1	35.4	1.5	0	100
I know how to get the information I need about the support services available at my school	56.9	38.5	4.6	0	100
I feel comfortable identifying myself as a person with a disability to get the support service I may need	53.9	41.5	4.6	0	100
I feel that I can get instructors and staff to listen to me so that I obtain the accommodations I may need to be successful in my classes	50.8	43.1	6.1	0	100

Source: Participant survey-wave 1. N =65.

We also asked respondents, since starting their education program at the community college, if they had told any of their instructors that they have a learning problem, disability or other special need. Among the 65 respondents asked, 81.5 percent said yes. Also, 84.6 percent of them said they received accommodations or other help from the college or instructors because of a learning problem, disability, or other special need.

4.9 Independent Living

To assess the level of independent living among Pathways program participants, we asked respondents about their financial position, having a driver’s license, and being a registered voter. See Table 4-8. At least two-thirds of respondents reported having their own savings and checking account. Less than half (42.7%) had a credit card in their own name, and 35.3 percent received bills in their own name (they had the responsibility to pay the bill). Most (85.3%) said they had a

²⁹ We cannot attribute these behaviors to Pathways program participation because there is no control or comparison group.

driver’s license or learner’s permit and 86.8 percent were registered voters. When asked about having reliable and accessible transportation to school, 89.2 percent said they do. See Table 4-9.

Table 4-8. Percentage of enrolled Pathways respondents identifying specific measures of independent living

Measures for assessing independent living	No (%)	Yes (%)	Missing (%)	Total (%)
Student has a savings account	27.9	67.7	4.4	100
Student has a checking account	23.5	72.1	4.4	100
Student has a credit card in own name	54.4	42.7	2.9	100
Student gets bills in own name that he/she is responsible for paying	60.3	35.3	4.4	100
Student has a driver’s license or learner’s permit	13.2	85.3	1.5	100
Student is registered to vote	11.8	86.8	1.4	100

Source: Participant survey-wave 1. N =65.

Table 4-9. Number and percentage of enrolled Pathways respondents with reliable access to transportation

Respondent has reliable and accessible transportation to school	Number	Percent
No	7	10.8
Yes	58	89.2
Total	65	100

Source: Participant survey-wave 1. N =65.

4.10 Additional formal education or training

We asked respondents not currently enrolled at the time of the survey if they had enrolled in additional formal education and training over the past six months. Two of the three respondents not currently enrolled said they had enrolled in additional formal education. When asked what type of program they enrolled in, they said an Associate’s degree, but did not answer additional questions about the program of study.

4.11 Employment

The survey includes questions about employment and earnings. Among the 68 respondents, 38 (55.9%) said they worked for pay at a job in the past six months (see Table 4-10). Another seven respondents said they did any work for pay, even for as little as one hour (see Table 4-11). Among these 45 (38 and 7) respondents with work, 37 (80.4%) described the work as formal employment and eight (17.4%) described it as informal, within the household or family (see Tables 4-12).

Among those with formal employment, industries included: food service; retail; customer service;

delivery; education; business; utility; information technology; cinemas/theaters; newspaper; engineering fabrication; and carwash.

Table 4-10. Number and percentage of respondents that worked for pay in the past six months

In past 6 months, respondent worked for pay at a job	Frequency	Percent
No	29	42.6
Yes	38	55.9
Missing	1	1.5
Total	68	100

Source: Participant survey-wave 1.

Table 4-11. Number and percentage of respondents that did any work for pay in the past six months, even for as little as one hour

In past 6 months, respondent did any work for pay, even for as little as one hour	Frequency	Percent
No	22	73.3
Yes	7	23.3
Missing	1	3.3
Total	30	100

Source: Participant survey-wave 1.

Note: N = 30 is based on “No” and “Missing” in Table 4-10.

Table 4-12. Number and percentage of respondents that worked, by type of work

Type of work done in past 6 months	Frequency	Percent
Informal, within household or family	8	17.4
Formal employment	37	80.4
Missing	1	2.2
Total	46	100

Source: Participant survey-wave 1.

Note: N = 46 is based on “Yes” in Table 4-10 and “Yes” and “Missing” in Table 4-11.

5. Conclusion

This report provides interim results from the implementation and outcomes studies of the Pathways programs established at Onondaga and Pellissippi. In this chapter, Westat provides several conclusions.

5.1 Implementation

The implementation research questions relate to Fidelity, Incorporation, and Operation.

5.1.1 *Fidelity*

What was the intended program model of each grantee (i.e., its essential components, activities, and processes) and how does the intended model compare to the actual operational model? The intended program models of each grantee are similar because the Solicitation for Cooperative Agreement guided both. Essential components include summer orientation programs; comprehensive disability service supports, accommodations, and adaptive technology; academic advising, tutoring, study skill and self-advocacy development; counseling; individualized career planning, resume and interview preparation, service learning, job shadowing, leadership development, and internship opportunities. For the most part, the actual operational models are comparable to the intended model. However, the grantees did not reach the targeted number of program participants stated in their grant applications.

- One possible explanation for missing the target for the first cohort is not having sufficient time to conduct outreach to potential incoming students from local schools before recruitment into the Pathways program. First year recruitment was mostly from among existing students with disabilities at the colleges.
- Even with the outreach and recruitment efforts conducted during the first year of Pathways program operation, enrollment for the second year was nearly identical to the first year at OPC. At UPEP, the number of students entering the second cohort was less than those that entered the first cohort.

How did the grantees and their partners develop, modify, and implement their Pathways program models? The implementation study findings indicate that the grantees followed the

Solicitation for Cooperative Agreement in the development of their own program models, differing more in the structure for service delivery than in what is provided to the participants.

- For example, both programs reach out to local area high schools and to students with disabilities in their own colleges to recruit for the Pathways program, and they offer academic and other supports, career advising, job shadowing and other work-based learning activities, and job placement.
- OPC and UPEP differ in the staffing to deliver these services and supports, the methods used for outreach, and the use of performance-based incentives to participants.

What role did technical assistance and capacity building play in maintaining fidelity and/or program model enhancement? We observed that technical assistance to the grantees helped the grantees shape their programs, providing guidance on family engagement and providing guest speakers for Universal Design for Learning training.

- The technical assistance provider also supported the grantees through the OPC Community of Practice to exchange ideas and share their experiences with other community colleges. Through this Community of Practice, OPC learned about UPEP's participant contracts as an approach to improving participation in the Pathways program, and later adopted a similar strategy to increase participant commitment.

5.1.2 *Incorporation*

To what extent did the grantee program models incorporate the Guideposts for Success framework? OPC and UPEP followed the Guideposts for Success framework in their grant applications and in the programs. Applying the framework is evident in the emphasis on outreach and recruitment and efforts to provide for youth development and leadership. In addition, following encouragement from ODEP, the grantees added more family engagement components.

- UPEP added a parent orientation as part of the Summer Academy to assist incoming students with the transition to Pellissippi, and a parent newsletter to parents who signed up to receive the email about upcoming events and important dates. To foster youth development and leadership, UPEP instituted a peer mentor program, recruiting returning UPEP students (in their 2nd or 3rd year) to serve as a peer mentor to other UPEP students.
- The OPC Scholars Program is an example of incorporation of the Guideposts to Success principles, offering focused recruitment of high school students and school-based preparation for college, connecting activities and family involvement. OPC leaders see

the OPC Scholars Program as an important way that Onondaga is changing the way it reaches and serves students with disabilities.

- Transition planning prior to high school graduation is another important component from the Guideposts to Success and OPC and UPEP provide workshops on transition planning to special education teachers in the high schools. The workshops provide information about transition services and educational opportunities available to students with disabilities.

To what extent did the grantees follow Universal Design for Learning guidelines and/or implement the practices? OPC and UPEP are following Universal Design for Learning Guidelines and implementing the practices.

- OPC is demonstrating an institutional commitment to implement Universal Design for Learning practices, which is progress toward systemic institutional change. In fall 2015, the college approved a new policy that required captioning on all videos viewed by students. Onondaga staff are providing technical assistance on Universal Design for Learning to faculty and tracking how faculty are putting into practice what has been learned through the training.
- UPEP drafted a policy statement on behalf of Pellissippi (and its five campuses) committing all campus information and technology be fully accessible for all persons with disabilities. The plan calls for Pellissippi to provide Universal Design for Learning training for all faculty and staff, and, as part of the Tennessee Board of Regents' required five-year accessibility plan, develop a learning environment that provides accessible informational materials and technology. Pellissippi adopted the UPEP policy statement. Toward this goal, UPEP provides training sessions and materials to faculty and staff, both in-person and through webinars. One challenge is to overcome pushback from some faculty members on implementing Universal Design for Learning principles.

To what extent did the grantees engage employers and other workforce development partners in designing and operating their programs? OPC and UPEP are engaging employers and workforce development partners in the operation of their programs.

- Both grantees had letters of commitment from community partners and employers at the time of their grant applications. The role of these partners appears to be limited based on interviews with some of the partners.
- OPC forged a partnership with the Economic Workforce Development group at Onondaga for career services, and was in the process of building partnerships with

employers to provide opportunities for work-based learning (job shadow, practicum, internship) and employment. Onondaga is also engaging employers to validate job skills for specific fields of study that impact OPC participants.

- At UPEP, the Business Liaison Specialist is building relationships with area employers, resulting in work-based learning opportunities for students. Both grantees maintain a list of employers and those that are providing work-based learning opportunities for Pathways program participants.

5.1.3 Operation

What were the major implementation challenges and how did grantees address them? The grantees encountered several challenges in the first year of the program and addressed some immediately and others in the second year.

- Dissatisfied with its initial efforts at outreach for participants, OPC decided to reinvent its approach in the second semester, in part by creating the OPC Scholars Program. In the first semester of the OPC program operation, staff sent 500 brochures to transition coordinators in the Syracuse City School District, but resulted in only eight applications. OPC responded by developing online information and encouraging participation among families and potential students, directing them towards Onondaga campus tours, information sessions, and meeting with faculty, students, and peer mentors. OPC also contracted with a company to develop a short outreach video designed to increase awareness of the program. OPC Scholars are high school students who attend OPC events to discuss the college and the admissions process and other topics relating to college and career exploration and awareness.
- Staffing was a challenge for OPC in getting the program operational. OPC leadership described the pace of staffing as slow, due to the bureaucracy of hiring within a community college system. OPC leadership said it took about one year to fill all staff positions, and then needed to replace the education coordinator who left OPC. Initially, the plan was to have staff members do multiple tasks. OPC learned that it needed more staff than planned.
- Lack of commitment by participants to attend the workshops and other Pathways services in the first year led to the adoption of a signed contract between the participant and the program. UPEP developed the idea, and OPC adopted it. The contract specifies the level of commitment of the individual participants per semester.
- Pellissippi had planned for the Business Liaison Specialist to work with the Placement Office to find placements for students. However, UPEP feels there is resistance and a

lack of capacity at the Placement Office. In response, the UPEP Business Liaison Specialist created a separate placement database for UPEP that provides for work-based learning opportunities and job placements for UPEP students.

- An additional challenge for UPEP has been the lack of participation of the Tennessee Vocational Rehabilitation agency in support of UPEP participants. The agency is currently only providing services based on income and the state has not approved the drawdown of federal dollars for vocational rehabilitation. The agency is not providing career services for UPEP as planned.

To what extent did the grantees accomplish programmatic change, policy change (e.g., accessibility) and systemic institutional change? OPC and UPEP are working toward programmatic, policy, and systemic institutional change.

- UPEP has drafted a Universal Design for Learning policy that has been approved by the college president, and OPC is providing training to faculty and staff to fulfill the five-year plan stated in the policy. The challenge will be in accomplishing systemic change at the college in light of perceived indifference and/or opposition.
- We are not aware of any specific policy development linked to OPC, but there is a commitment from leadership to promote Universal Design for Learning practices. OPC provides Universal Design for Learning Summer Academies and webinars and presentations as well. In addition, Onondaga staff are providing technical assistance on Universal Design for Learning to faculty and tracking how faculty are putting into practice what has been learned through the training.

Are the grantee programs scalable and replicable? What are the lessons learned for other community colleges? This report does not address scalability and replicability. A final report (forthcoming in 2019) will address scalability and replicability.

5.2 Outputs and Outcomes

We organize our conclusions on outputs and outcomes around the research questions covering satisfaction, academic, and employment topics. The final report (forthcoming in 2019) will address employment outcomes in greater depth.

5.2.1 *Satisfaction*

How satisfied are program participants (i.e. students, faculty, and staff) with the program? We find evidence that survey respondents are satisfied with the Pathways programs.

- A majority of the enrolled respondents (53.8%) rated their experience in the Pathways program as excellent, and another 40 percent said it was good.

Which program components do participants perceive as most satisfactory and beneficial?

Survey respondents are satisfied with specific components of the programs.

- Two-thirds of the 65 enrolled respondents say that instructors and staff often assist students with disabilities to get needed accommodations, provide supports needed for student success, and support their academic needs.
- Areas with the highest satisfaction included tutoring services, followed by computer lab, and career exploration.

5.2.2 Academic

Did the grantees meet their academic target goals for student outcomes? Persistence for the first cohort of Pathways participants from fall 2015 to fall 2016 was much lower than planned at OPC, only about one-third of participants enrolled in both semesters. In contrast, the rate was slightly less than two-thirds for UPEP.

- OPC has retained 65.3 percent of the 72 participants that enrolled in each of the four semesters, but the fall 2015 to fall 2016 persistence rate (for those enrolled in fall 2015) was only 32.3 percent.
- UPEP has retained 67.6 percent of the 102 participants we can track through semester data files. The fall 2015 to fall 2016 persistence rate was is 64.2 percent.

Both programs have had participants complete training certifications:

- OPC had 12 complete in spring 2017.
- UPEP had 6 complete in spring 2016, 6 in fall 2016, and 10 in spring 2017.

To what extent did the programs offer services to increase student engagement, self-advocacy, self-determination, and self-disclosure? Both, OPC and UPEP, are providing services to increase student engagement, self-advocacy, self-determination, and self-disclosure.

- According to the survey, nearly 90 percent of respondents participated in a workshop or course specifically designed to teach skills and strategies to help students succeed in college and half of respondents participated in campus clubs and activities.

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