

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

## Final Report

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# Executive Summary

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The Office of Disability Employment Policy's (ODEP's) mission is to develop and influence policies and practices that increase the number and quality of employment opportunities for people with disabilities. ODEP's approach is to drive systems and practice changes by disseminating policy strategies and effective practices, sharing information, and providing technical assistance to government agencies, service providers, and non-governmental entities, as well as public and private employers.

In 2014, ODEP awarded cooperative agreements (grants) to two community colleges under the Pathways to Careers: Community Colleges for Youth and Young Adults with Disabilities demonstration project (Pathways). The two grantees for this initiative were Onondaga Community College (Onondaga) located in Syracuse, New York and Pellissippi State Community College (Pellissippi) located in Knoxville, Tennessee. Onondaga called its project Onondaga Pathways to Careers (OPC). Pellissippi called its project Universal Pathways to Employment Project (UPEP). The grants provide a yearly maximum of \$1,024,323 to Onondaga and \$1,028,869 to Pellissippi for up to five years. The goal of these grants was to increase the capacity of community colleges to provide inclusive integrated education and career development and training services to young adults with disabilities. Each project included several major components: outreach and recruitment activities, provision of academic and career counseling and support services (including opportunities for work-based learning), incorporation of Universal Design for Learning, and other technology and accessibility components.

To contribute to a growing evidence base of projects that integrate education and career development for individuals with disabilities, ODEP, in collaboration with the Department of Labor's Chief Evaluation Office, contracted with Westat to conduct an evaluation of the Pathways project.

## Approach

This report presents findings of the Pathways evaluation consisting of an implementation study and a descriptive outcomes study. The evaluation is descriptive only, given the small numbers of participants included in the Pathways project and lack of a comparison group to measure impacts. The evaluation incorporates an overall design based on mixed data collection methods to support two interrelated and interwoven studies focused on implementation processes and programmatic outputs and outcomes.

The implementation study, based on repeated visits to grantees and interviews with project staff and partners, documents the extent of institutional change at the two colleges. It also assesses the fidelity

of the implemented projects to the intended project model and determines the extent to which the grantees incorporated Universal Design for Learning principles and the Guideposts for Success<sup>1</sup> in the development and operation of their projects. The outputs and outcomes study documents Pathways project outputs and participant outcomes, including the extent to which the grantees meet target goals.

We coordinated with the Pathways grantees to collect data to support the evaluation, including the community college records of Pathways participants and project operations and performance. In addition, we conducted interviews and coordinated with them for the collection of data about Pathways.

## Findings

The overarching goal of the Pathways project is to enhance the policies and services designed to increase the enrollment and completion of community college programs among students with disabilities. Specifically, ODEP intends for the Pathways project to increase community college capacity to provide inclusive integrated education and career development for young adults with disabilities. Project outcomes include: (1) increased credential and job attainment of students with disabilities, (2) increased job placement, and (3) decreased wage-earning differentials between students with and without disabilities, and between students with different types of disabilities. The experience of the two grantees contributes to ODEP's vision to build evidence about effective program models for the benefit of other community colleges.

## Implementation

Both grantees used the Guidepost for Success framework to develop services and support for Pathways participants. Grantees utilized the Universal Design for Learning (UDL) principle for the training of faculty and staff to ensure greater student access to the curriculum. Both continued to develop capacity-building efforts and refine their projects throughout implementation. As a result, project design, development and implementation did not occur in a linear fashion, but rather evolved over time. OPC modifications included reworking the outreach and recruitment approach, broadening eligibility to include additional academic programs, expanding career exploration opportunities, emphasizing family engagement to better support participants, strengthening employment opportunities through changes to career services, and broadly disseminating information about the project and about Universal Design for Learning. UPEP changes focused particularly on the provision of supports for participants, the introduction and subsequent modification of student contracts, and how it would implement training on Universal Design for Learning.

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<sup>1</sup> The Guideposts for Success, identified by the National Collaborative on Workforce and Disability for Youth, provide a framework to address the needs of all youth for successfully transitioning to adulthood. See <http://www.ncwd-youth.info/guideposts>.

Two primary goals of the Pathways project are to increase the capacity of the colleges to serve students with disabilities and drive institutional change. Most of OPC's capacity-building occurred at the college level. OPC's greatest impacts on capacity during the period are the OPC Scholars program and Universal Design for Learning training through the five-day Summer Academy. The OPC Scholars program created a new pipeline for students with disabilities. About 30 Scholars have enrolled at Onondaga each year since the project's inception. The UDL Summer Academy increased capacity by providing faculty and staff with training on Universal Design for Learning. Twenty faculty and staff attended each session, with up to two sessions per summer. Faculty and staff learn what Universal Design for Learning is, where its value lies in engaging students, and how to incorporate its principles in their own work.

In contrast, UPEP emphasized increasing capacity to provide comprehensive student services. With its larger staff, all UPEP students receive extensive one-on-one support, with individualized counseling tailored to their own needs and aspirations. UPEP students are required to meet weekly with academic coaches in their first year, and regularly with career coaches from their second year onward. UPEP staff individualize their counseling with the aid of project and student data. The project's Data Specialist tracks both project offerings (and attendance at offerings) and student outcomes, allowing the project to be responsive and easily adapt to project requirements and resources based on data.

Because Onondaga devoted substantial effort to building college-level capacity, Onondaga has experienced significant institutional change as a result of the grant. While the evaluation is not designed to assess sustainability of the projects given the grants are ongoing, Onondaga administration officials speak positively of their desire to sustain several elements of OPC. There is strong interest in maintaining the OPC Scholars program and the UDL Academy. At the same time, OPC might not be able to sustain the same level of intensive support for participants after the grant. In particular, the positions of Recruitment Specialist, Educational Coordinator, and Career Readiness Coach are grant-funded. Although Onondaga is moving to embed these staff in other departments—and the Recruitment Specialist has already embedded in the Advising Department—these staff are not likely to devote the same amount of time advising OPC participants, as some staff told us during our interviews. Their responsibilities will include more than serving OPC participants. In addition, it is not apparent that these positions will have funding at a level to support the same intensive support after the grant.

Pellissippi has experienced more challenges with institutional change relative to Onondaga. Staffing costs represent the vast majority of project expenses, and the college has not indicated that it would help find permanent positions at the college for UPEP staff. Although project staff continue to search for outside sources of funding, most believe that direct service provision to students with disabilities provided by UPEP will end after the 2019-2020 academic year. This is not to say that UPEP has not achieved any institutional change. UPEP staff wrote a college-wide Universal Design for Learning policy, which was adopted by the college in 2015. Other materials developed by and for the project will also be shared with the college at large. UPEP also established a contract to use

inclusive career assessment software, the Educational and Industrial Testing Service system, but requires additional funding to continue the contract beyond the grant period.

## **Outputs**

According to the grantee quarterly reports submitted to ODEP, a total of 457 students were enrolled in the two projects between fall 2015 and fall 2018, 245 at OPC and 212 at UPEP. Enrollment in the first two years was much less than the target of 200 students per project. The predominant disabilities or impairments among participants were learning disabilities and attention deficit disorder/attention deficit hyperactivity disorder at OPC (38.1% and 19.3%, respectively) and autism and learning disabilities at UPEP (29.8% and 25.4%, respectively). On average, more than half of all participants received academic supports in a given quarter. About one-third of participants participated in developmental coursework.

At OPC, less than 20 percent of participants received career planning in a given quarter, and less than 10 percent received career counseling and coaching or work-based learning. In contrast, at UPEP, more than half of participants received career counseling and coaching in a given quarter and 30 percent received career planning. The higher engagement rates that UPEP achieved may be connected to its student contracts that mandated meetings with career coaches.

## **Outcomes**

Among participants who started the Pathways project in fall 2015, 58.8 percent were still enrolled through fall 2016; 37.7 percent through fall 2017; and 17.9 percent through fall 2018. Among participants who started Pathways in fall 2016, 67.2 percent were still enrolled through fall 2017 and 45.2 percent through fall 2018. The college persistence rates at fall 2018 are greater at Pellissippi than at Onondaga, especially for 2-year (fall 2016 through fall 2018) and 3-year (fall 2015 through fall 2018) persistence rates (55.2% vs. 36.4% and 29.3% vs. 3.3%, respectively).

Participants in both colleges maintained at least a C grade overall. At Pellissippi, participants could earn scholarships for taking at least 12 credit hours and getting a C grade or better in every class. The mean grade point average (GPA) for OPC participants ranged between 2.03 and 2.47, and the mean GPA for UPEP participants ranged between 2.24 and 2.63. About half of respondents participated in developmental reading, writing or math classes, and nine percent participated in English for speakers of other languages.

In the participant survey, we asked enrolled participants<sup>2</sup> how closely the Pathways project aligned with their career goals, the likelihood of completing the Pathways project, and their plan for future education. More than half (57.1%) of respondents said the project was “very closely aligned” with personal career goals and 39.0 percent said it was “somewhat aligned.” Only 3.9 percent said that the project did not align with their career goals.

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<sup>2</sup> These results are limited to the 77 respondents in the last wave of the survey for which they were currently enrolled.

Finally, when asked how they would rate their experience with the Pathways project, a more than half (53.2%) rated their experience as excellent; 39.0 percent rated it as good; 6.5 percent as fair; and 1.3 percent as poor.



# 1. Introduction

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The Office of Disability Employment Policy's (ODEP's) mission is to develop and influence policies and practices that increase the number and quality of employment opportunities for people with disabilities. ODEP's approach is to drive systems and practice changes by disseminating policy strategies and effective practices, sharing information, and providing technical assistance to government agencies, service providers, and non-governmental entities, as well as public and private employers.

In 2014, ODEP awarded cooperative agreements (grants) to two community colleges under the Pathways to Careers: Community College Interventions for Youth and Young Adults with Disabilities demonstration project (Pathways). The two grantees for this initiative were Onondaga Community College (Onondaga) located in Syracuse, New York and Pellissippi State Community College (Pellissippi) located in Knoxville, Tennessee. Onondaga called its project Onondaga Pathways to Careers (OPC). Pellissippi called its project Universal Pathways to Employment Project (UPEP). The grants provide a yearly maximum of \$1,024,323 to Onondaga and \$1,028,869 to Pellissippi per year for up to five years. The goal of these grants was to increase the capacity of community colleges to provide inclusive integrated education and career development and training services to young adults with disabilities.

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's Chief Evaluation Office, contracted with Westat to conduct an implementation and outcomes evaluation of the Pathways project.

## 1.1. Integration of students with disabilities in community colleges

America's community colleges are an important resource for increasing the educational attainment and enhancing the skill sets of America's youth and young adults, particularly those with disabilities. Students with disabilities face several unique challenges in obtaining postsecondary education, and research has suggested several approaches to successfully addressing those challenges.

**Needs of 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 few opportunities. These 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, where students must 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) provides 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.

**Approaches for serving students with disabilities.** 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 (which 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).

**Needs of community colleges.** To address the needs of students with disabilities, community colleges will likely need to build capacity in specific areas and undertake changes to institutional policies and procedures. These changes are to support providing inclusion and equity and building the capacity to provide coordinated services for students with disabilities.

## **1.2. Pathways to Career grant project**

**Purpose.** To help enhance the policies and services designed to increase the enrollment and completion of community college programs by students with disabilities, ODEP issued a Solicitation for Cooperative Agreement to fund the “Pathways to Careers: Community Colleges for Youth and Young Adults with Disabilities Demonstration Project.” Under this initiative, ODEP provided funding to two community colleges that would develop innovative systems models for providing inclusive integrated education and career development services to youth and young adults with disabilities. These grantees would design project models intended to 1) increase credential and job attainment of students with disabilities, 2) increase their job placement, and 3) decrease the earnings differential between students with and without disabilities, and between students with different types of disabilities.

ODEP expected grantees to design approaches that work to shift practice and policy “across the institution.” This type of system-wide change involves transforming the entire institution of higher education’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. ODEP expected grantees to leverage their partnerships and relationships with national affiliates, association members or business organizations, and other entities including state and local public workforce systems.

The selected colleges were required to 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. 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, as well as other workers seeking skilled training for jobs in demand. TAACCCT grantees follow a career pathways framework that includes common principles and approaches to vocational, academic, and soft-skills training. Under the Pathways grants, ODEP also expected the grantees to design approaches that shift practice and policy across the institution, transforming the entire college’s approach for providing services.<sup>3</sup>

**Logic model.** Working from the Solicitation for Cooperative Agreement, grant applications and the relevant literature, we developed the logic model presented in Figure 1-1 for the Pathways grant project, describing individual and institutional inputs to the community college projects, capacity building, project 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)<sup>4</sup> 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 were to draw on their available resources, including the Pathways grant, public and private partners, employers, stakeholder advisory committees, and leadership teams. Major activities were to include implementing changes in policies and procedures, building capacity of the college to address institutional barriers, providing project activities to reach/recruit students with disabilities and build the Pathways project and delivering services or specific interventions to assist students with disabilities. At the same time, various contextual factors would influence the development and operation of the project, such as state practices that affect individuals with disabilities (e.g., Board of Regents support of implementing Universal Design for

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<sup>3</sup> 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.

<sup>4</sup> Universal Design for Learning 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.

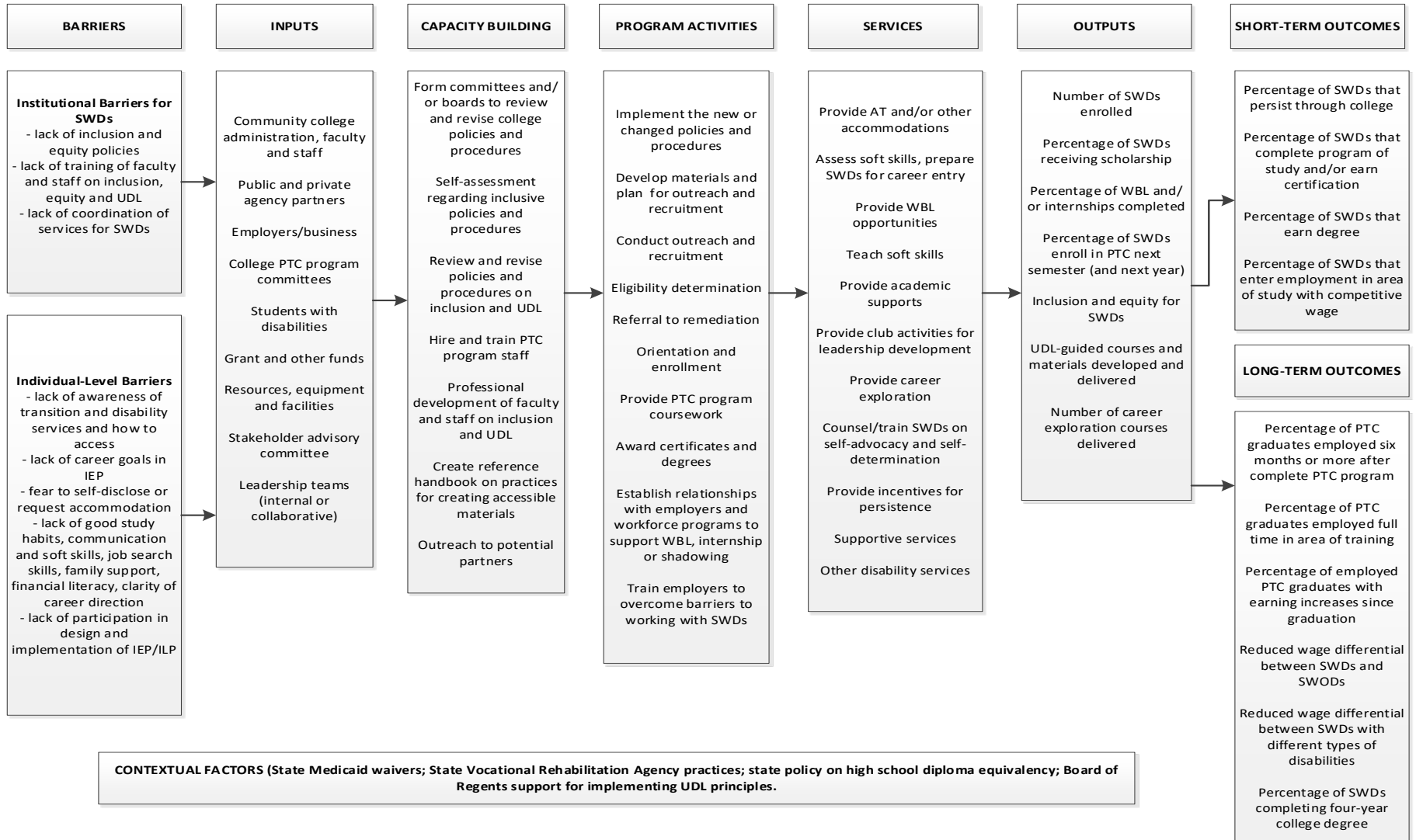
Learning principles, state policy on high school diploma equivalency, state Medicaid waiver policy, and state vocational rehabilitation agency practices).

We expect multiple outputs resulting from the project activities, ranging from qualitative changes in project delivery to quantitative counts of project 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. 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.

Quantitative outputs include the number of students with disabilities enrolled in the respective projects (enrollment), the percentages of students with disabilities that enroll in the project the following quarter and the next year (retention), and the number of students with disabilities who receive retention scholarships.

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, earn an Associate's degree (completing their program of study), and 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). Another short-term outcome is the proportion of faculty who incorporate Universal Design for Learning principles into their courses and materials.

**Figure 1-1. Logic model for the Pathways to Careers Projects**



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. Study design**

The evaluation design is for a descriptive study only, given the Pathways grant project includes a small number of participants and no comparison group. The evaluation incorporates an overall design based on mixed data collection methods to support two interrelated and interwoven studies focused on implementation processes and programmatic outputs and outcomes. We based both studies on multiple data collection points.

The implementation study, based on repeated visits to grantees and interviews with project staff and partners, documents the extent of institutional change at the two colleges. It also assesses the fidelity of the implemented projects to the intended project model and determines the extent to which the grantees incorporated Universal Design for Learning principles and the Guideposts for Success<sup>5</sup> in the development and operation of their projects. The outputs and outcomes study documents Pathways project outputs and participant outcomes, including the extent to which the grantees meet target goals.

### **1.3.1. Research questions**

We address two sets of research questions. The implementation study assesses the progress of the grantees on implementation and operation, and institutionalization of their respective Pathways project. The outputs and outcomes study assesses progress toward meeting broad project goals and accomplishing project objectives. Each of these studies contain three analytical dimensions that focus on specific facets of the Pathways project. Table 1-1 provides a crosswalk of research 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 project elements. Under Incorporation, the questions revolve around how grantees incorporated critical elements of project

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<sup>5</sup> The Guideposts for Success, identified by the National Collaborative on Workforce and Disability for Youth, provide a framework to address the needs of all youth for successfully transitioning to adulthood. See <http://www.ncwd-youth.info/guideposts>.

design, namely Universal Design for Learning principles, the Guideposts for Success,<sup>6</sup> and engagement of employers and workforce development partners into the Pathways projects.

Operation focuses on major implementation challenges, the extent to which grantees accomplish programmatic change, policy change, and systemic institutional change, and whether the projects 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 participants, faculty, and project staff. Questions of interest include measuring the degree of satisfaction among these stakeholders and assessing which project components participants 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, persistence, certification, and degree achievement to process goals of increased engagement and self-advocacy. Lastly, employment outcomes refer to longer term, post-project outcomes. Employment questions of interest focus on the degree to which participating students achieve increased employment, wages, and workplace advancement.

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<sup>6</sup> 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 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.

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

Study	Dimension	Research Question
<b>Implementation</b>	Fidelity	What was the intended project 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 project models?
		What role did technical assistance and capacity building play in maintaining fidelity and/or project model enhancement?
	Incorporation	To what extent did the grantee project 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 projects?
	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 projects scalable and replicable? What are the lessons learned for other community colleges?
<b>Outputs and Outcomes</b>	Satisfaction	How satisfied are project participants (i.e., students, faculty, and staff) with the project?
		Which project 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 projects 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?



### 1.3.2. Methods and data sources

We coordinated with the Pathways grantees to collect data to support the evaluation, including the community college records of Pathways participants and interviews with administrators, faculty, and staff. In addition, we coordinated with them for the collection of data about Pathways project operations and performance.

We conducted in-person and telephone interviews, attended ODEP's visits to grantee sites, and reviewed grantee quarterly reports to support the implementation study. Table 1-2 provides details about these activities.

**Table 1-2. Data collection activities for the implementation study**

Activity	Time frame	Number of persons interviewed
<b>In-person interviews with project staff and project partners</b>	Spring 2017	29
	Spring 2018	27
	Fall 2018	21
<b>Attended ODEP site visits to grantees</b>	Fall 2016	
	Fall 2017	
	Fall 2018	
<b>Telephone interviews with project leadership</b>	Fall 2017	3
<b>In-person interviews with student project participants</b>	Spring 2017	8
	Spring 2018	9
	Fall 2018	9

We recorded and transcribed all interviews, then coded interview transcriptions and observation notes. In addition, we used NVivo11 and Microsoft Excel for the analysis. We developed themes based on interview topics and interviewee responses. We also analyzed the Quarterly Reports that grantees submitted to ODEP by topic using Microsoft Excel.

The outputs and outcomes study focused on project outputs and participant outcomes. Table 1-3 provides a summary of the data sources for the outputs and outcomes study.

*Quarterly Data.* Grantees included data tables and narratives in the Quarterly Reports submitted to ODEP. These covered the period from July 2015 through December 2018.

Westat reviewed each quarterly report and used Excel to compile and analyze the data. Even though the quarterly report form was the same for both grantees, their reporting was not consistent, usually due to differences across the grantees in the data they had available for reporting.

**Table 1-3. Data sources for outputs and outcomes**

<b>Data type</b>	<b>Time frame</b>	<b>Content</b>	<b>Comment</b>
<b>Semester-based administrative data</b>	Fall 2015 through fall 2018	Individual-level data on demographics, academics, services, supports	All participants at Onondaga; only Pellissippi participants that signed consent to release their data
<b>Quarterly performance reports to ODEP</b>	July 2015 through December 2018	Narrative descriptions and data tables on outputs and outcomes	
<b>Longitudinal survey of participants</b>	Spring 2017, fall 2017, spring 2018, fall 2018	Participants' experience with the project; persistence; satisfaction; additional education and training; engagement, self-disclosure and self-advocacy; and employment.	Target all participants at Onondaga; only Pellissippi participants that signed consent to be contacted

*Semester Data.* Grantees provided seven semester data files that included individual-level information about project participants, beginning with the fall 2015 semester through the fall 2018 semester. The files included all participants at Onondaga, but only participants at Pellissippi who signed a consent form each semester for the release of their information to Westat. Onondaga said that under the Family Educational Rights and Privacy Act (FERPA)<sup>7</sup> evaluation exemption, the college could provide Westat with personally identifiable data. Pellissippi said that the exemption did not apply and UPEP would rely on securing the consent of participants each semester 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.<sup>8</sup> If a participant does not sign the consent for each semester, then we observe gaps in the data collected.<sup>9</sup>

We linked the seven semester data files for each individual by their identification number to create a longitudinal file of semester data. Each individual has seven records, one for each semester file unless the student was not enrolled that semester, or at Pellissippi, the student did not provide consent to release their semester data.

There are 411 students identified in the semester data files: 217 from Onondaga and 194 from Pellissippi. Among the 411, 204 are for the original cohort for the survey of participants, first entering the semester files between fall 2015 and spring 2017 (four semesters). Another 207 first

<sup>7</sup> 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.

<sup>8</sup> Quarterly progress reports indicate 129 Pellissippi students enrolled in UPEP between fall 2015 and spring 2017, however only 102 participants signed a consent for the release of their administrative data for the evaluation.

<sup>9</sup> 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.

appeared in the files for fall 2017 through fall 2018 (three semesters). After excluding the 31 individuals we determined to be non-participants, the analysis includes 380 project participants.

*Survey Data.* Westat developed a longitudinal survey of project participants and administered it during spring 2017, fall 2017, spring 2018, and fall 2018. The first wave of the survey targeted Pathways participants who entered the project in fall 2015, spring 2016, fall 2016, or spring 2017. These semesters covered the first two years of the projects.<sup>10</sup> Only participants at Pellissippi that signed a consent form stating that they agreed to have Westat contact them received the survey invitation. We linked each wave of survey data to create a longitudinal file for the analysis. We analyzed the data by college and for both colleges combined. Because the survey is not representative of all Pathways participants, but only of those who responded to the survey, selection bias is likely.

Table 1-4 provides the number of completed interviews per survey wave and the number of respondents that indicated in the survey that they were “currently enrolled” in the college. Most of the survey is intended for currently enrolled students, asking about their college experience. Students not currently enrolled receive fewer questions. Table 1-5 indicates that 29 students responded to every wave of the survey, and that the number “currently enrolled” decreased in the last two waves.<sup>11</sup> These small and decreasing numbers do not support longitudinal analyses.

Our approach to analyzing the survey data is to maximize the number of respondents who answer the questions asked of enrolled students. We restrict the analysis to the 77 respondents that indicated in the survey that they were “enrolled in college” (and were in their last semester of college enrollment based on our analysis of the semester data files). If not in their last semester, we used their Wave 4 survey data. This approach provides aggregate information about students for the same time frame of their college career, at, or near to their last semester of enrollment.

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<sup>10</sup>Each grant project was expected to enrollment about 200 participants within the first two years of the project. The actual enrollment for this same period for the two projects combined was 204 (about half).

<sup>11</sup> The grantees recruited many existing college students with accumulated college credits to participate in the project. The effect was that some graduated quickly because they had enrolled in the college years before entering Pathways.

**Table 1-4. Number of completed interviews per wave of participant survey**

	Wave 1	Wave 2	Wave 3	Wave 4
<b>Number of respondents</b>	68	61	42	39
<b>Onondaga students</b>	30	23	16	15
<b>Pellissippi students</b>	38	38	26	24
<b>Number enrolled at time of survey</b>	65	56	36	20
<b>Onondaga students</b>	28	20	13	6
<b>Pellissippi students</b>	37	36	23	14

**Table 1-5. Number of completed interviews per wave of participant survey for longitudinal analysis**

	Wave 1	Wave 2	Wave 3	Wave 4
<b>Number of respondents</b>	29	29	29	29
<b>Onondaga students</b>	13	13	13	13
<b>Pellissippi students</b>	16	16	16	16
<b>Number enrolled at time of survey</b>	27	27	25	17
<b>Onondaga students</b>	11	11	11	5
<b>Pellissippi students</b>	16	16	14	12

A second approach to the analysis of the survey data is to maximize the number of respondents to several questions asked in the first round only that focus on the reason for attending college, outreach and recruitment, and developmental coursework. There are 81 completed surveys for this analysis from respondents in waves 1 or 2.

Finally, we do not attribute outcomes to the Pathways project because we did not collect data on a control group or comparison group of students with disabilities who did not participate in the Pathways project. The colleges recruited from among their existing students with disabilities. Use of non-participants as a comparison group would introduce selection bias. Therefore, this study provides descriptive information only about the outcomes of individuals represented in the semester data files and in the survey from August 2015 through December 2018. We cannot draw conclusions about project sustainability because the grants continue through May 2020.

## **1.4. Organization of the report**

Chapter 2 provides the results of the implementation study, focusing on development, implementation, and project services. Chapter 3 provides the results of the outputs and outcomes study. Chapter 4 discusses challenges and lessons learned. Chapter 5 gives a summary of findings by research question.

## 2. Design and Implementation of the Pathways to Careers Projects

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The two grantees, Onondaga and Pellissippi, sought to achieve the goals of the Pathways project by developing innovative systems models that provide inclusive, integrated education and career development services. Because both institutions were TAACCCT grant recipients, they were able to leverage and build upon their recent experiences in developing infrastructure needed to expand and improve education and career development programs.

Both grantees used established frameworks and principles to design their projects. However, they both continued to develop capacity-building efforts and refine their projects simultaneously with project implementation. As a result, project design, development and implementation did not occur in a linear fashion. Instead, it was dynamic, incorporating changes to planned implementation activities over time. Section 2.2 will highlight some of the key changes over time as a result of this dynamic process. While this approach may pose a challenge for assessing project fidelity, it provided the institutions with flexibility to identify the evolving needs of project participants in real time and implement changes to meet those needs.

### 2.1. Theory of change

Figure 2-1 provides an illustration of the conceptual theory of change model upon which the projects were built. The figure reads from the bottom to the top to reflect how outputs and outcomes build on the preceding project activities. The four main components of the theory of change are: 1) outreach and recruitment, 2) application and eligibility determination, 3) Pathways project and outputs, and 4) short- and long-term outcomes.

**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 grantees consider each applicant relative to the eligibility criteria for admission to the Pathways project (e.g., age 14-24; high school graduate; enrollment is specific major; student with a disability). Some students may need to complete developmental coursework (to meet prerequisites for their program of study) before admission to

the Pathways project. Alternatively, an eligible student might decide to not enter the Pathways project, but pursue a different program of study at the college.

**Pathways Project and Outputs.** The grantees designed the Pathways project interventions to facilitate institutional change, support students with disabilities through policies and practices that enhance educational equity and inclusion, and retain participants in the project. Through these efforts, the participating students with disabilities improve their work readiness, gain workplace experience, and learn important soft skills. The interventions include institutional reforms, such as changes in policies, practices and procedures, capacity building, and services and activities for students with disabilities.

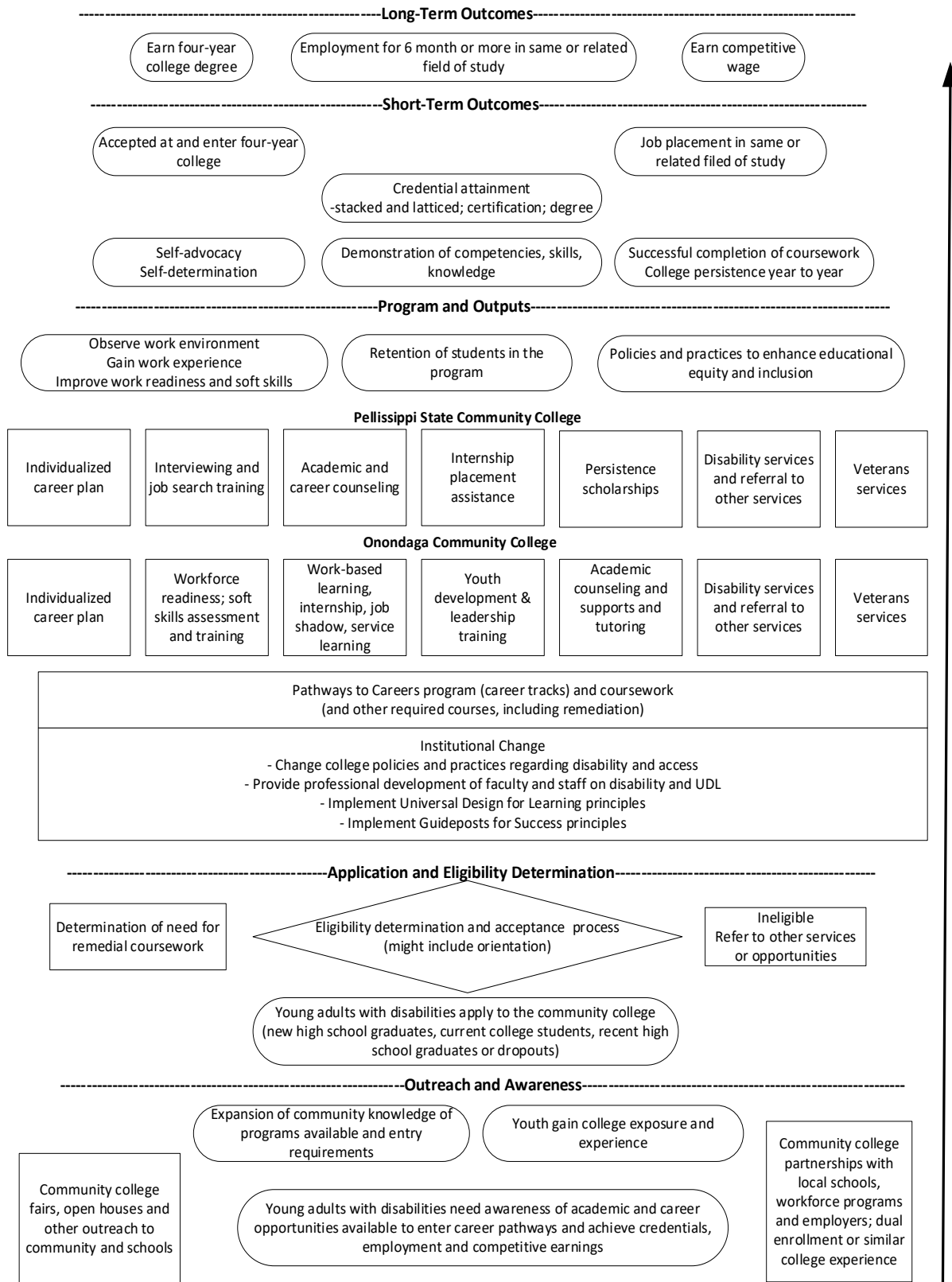
**Short- and Long-Term Outcomes.** The grantees expect project participation to result in increased use of self-advocacy and self-determination skills, successful completion of courses, college persistence from one year to the next, and demonstration of competencies, skills and knowledge through course completion, passing GPAs, and attainment of certifications and degrees. Long-term outcomes include employment in the field of study (or a closely related field) at a competitive wage in an integrated workplace, or receipt of a four-year college degree.

The next section of this chapter provides the frameworks used to design the projects and how these frameworks were integrated into the Pathways projects. We follow this discussion with a review of project implementation and the services provided to project participants.

## **2.2. Project development and design**

ODEP required both projects to incorporate critical elements of the Guideposts for Success and Universal Design for Learning principles. The Guideposts for Success are a set of principles for helping students, particularly students with disabilities, transition from youth to adulthood. In the Pathways project, the Guideposts are most relevant to transition activities including recruitment, orientation, and workshops. ODEP believed that a key part of the Pathways project should include incorporation of the principles of Universal Design for Learning into instruction and, more broadly, into the creation of policies and procedures to support sustainable change. This section provides a summary of these principles and how the grantees applied them in their projects.

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



### 2.2.1. Guideposts for Success

The Guideposts for Success provide a) statements of principles; b) directions that will lead to better outcomes for all young people, and c) ways to organize policy and practice. The five guideposts are as follows:

- 1) **School-based preparatory experiences.** All youth need to participate in educational programs grounded in standards, clear performance expectations, and graduation exit options.
- 2) **Career preparation and work-based learning experiences.** In order to identify and attain career goals, youth need to be exposed to a range of experiences.
- 3) **Youth development and leadership.** All youth need opportunities that allow them to exercise leadership and build self-esteem.
- 4) **Connecting activities.** Young people need to be connected to programs, services, activities, and supports that help them gain access to chosen post-school options;
- 5) **Family involvement and supports.** All youth need the support of parents, family members, and other caring adults.

The OPC Scholars program is perhaps OPC's most prominent application of the Guideposts for Success in its provision of connecting activities. The program recruits students with disabilities from area high schools and, over the course of their senior year, helps them with the transition to college by offering workshops and sessions one day per month that discuss Onondaga Community College, the OPC project, and broader transition skills. OPC also holds one-day Summer Academy sessions where prospective OPC students and their families can learn about OPC and the transition to college. OPC staff and college faculty lead sessions on the supports offered by OPC and the Office of Accessibility Resources, as well as provide college tours and answer questions. The OPC Recruitment Specialist also offers transition planning workshops to special education teachers in area high schools, that provide information on resources at Onondaga for students with disabilities so that they may better guide their students.

Similarly, UPEP offers connecting activities through its recruiting. The Community Liaison Specialist works with area high schools to connect both students and special education teachers with transition resources. Information sessions at high schools introduce the project to interested students with disabilities and connect students to broader resources. In addition, UPEP conducts a two-week Summer Academy for incoming UPEP students. This early orientation introduces prospective students to UPEP staff, college resources, and most crucially according to UPEP staff, college expectations. The Summer Academy also includes parent workshops, to facilitate parent transition as well. For students who enroll after the Summer Academy, UPEP provides a shorter orientation that also includes an introduction to college resources and transition skills. Finally, UPEP leads several workshops throughout the school year on transition topics, including living independently, available Pellissippi resources, and health insurance.



## 2.2.2. Universal Design for Learning

ODEP required that the grantees include Universal Design for Learning principles into their project designs. Universal Design for Learning is “a framework to improve and optimize teaching and learning for all people based on scientific insights into how humans learn.”<sup>12</sup> The approach incorporates flexibility and variety in how students access and engage with study materials, as well as the use of different formats to assess knowledge and understanding. The three main principles of Universal Design for Learning are:

- 1) **Representation.** Use multiple and varied methods to present information in a way that is suited to different learning styles.
- 2) **Action and expression.** Provide students with multiple ways to interact with the material and demonstrate their learning and understanding.
- 3) **Engagement.** Use multiple ways to motivate students by tapping into their interests, offering choices, and varying the levels of challenge.

At Onondaga, the primary framework for applying Universal Design for Learning is the UDL Academy for faculty (later open to administrative staff as well). The UDL Academy includes a three-to four-day training on Universal Design for Learning principles, held during the summer. Attendees receive a stipend and are required to present their findings in the semester following their training. In addition to faculty and staff, the entire Career Services department received the training in summer 2018. Pellissippi provides Universal Design for Learning training to faculty through in-person trainings and presentations as well as through webinars. In addition, faculty have presented on their experience incorporating Universal Design for Learning in their classes during college in service days. Pellissippi also applied Universal Design for Learning concepts to support its online career development program for self-assessment, career exploration, and skill/career matching. The contract software provides universal access.

## 2.3. Project Implementation

Both grantees designed their Pathways projects to achieve the common objective of aiding students with disabilities in succeeding in career-focused educational programs and finding employment. ODEP requested innovative models for providing inclusive integrated education and career development services to youth and young adults with disabilities. However, each project uses different approaches to accomplish this goal. Further, as both projects launched, project staff made significant modifications because of changing student needs, feedback from students and faculty, and institutional challenges. As described earlier, the Pathways projects were developmental projects with capacity building and project refinement occurring simultaneously with project implementation. This section provides a summary of the key project components implemented by the grantees.

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<sup>12</sup> CAST. <http://www.cast.org/our-work/about-udl.html#.XWVUwChKhPY>

### 2.3.1. Project goals

Table 2-1 lists the project goals of the two Pathways projects. Three of the OPC goals (career exploration and educational access, educational attainment, and employment) are goals for project participants and two (capacity building and dissemination) are goals for the institution. The OPC project based these goals on the City University of New York’s Accelerated Study in Associate Programs (ASAP) model, with a focus on personalized academic and career support.<sup>13</sup> The UPEP goals also focus on services to students and building capacity.

**Table 2-1. Project goals at OPC and UPEP**

OPC project goals	UPEP project goals
Capacity-building – developing a sustainable system of support	Screen and identify students with disabilities
Career exploration and educational access	Provide supports and connecting activities
Educational attainment – increasing persistence and completion rates	Engage employers
Employment	Implement Universal Design for Learning
Dissemination – enabling community colleges to adopt the OPC model	Collect and maintain college data on outcomes

### 2.3.2. Project components

Each project included several major components focused on participants or capacity-building efforts. The project components included outreach and recruitment activities, provision of academic counseling and career and support services, incorporation of Universal Design for Learning, and other technology and accessibility components, institutional change, and building partnerships. Table 2-2 provides a summary of the key components of each project. While it varied over the course of the project, for OPC, it was mainly the project director, the recruitment specialist, the educational coordinator, and the career readiness coach that implemented the project. For UPEP, the project director, the community liaison specialist, the two career specialists, the five academic and two career coaches, and the business liaison implemented the project.

ODEP encouraged grantees to collaborate with employers and other organizations representing an industry sector, including labor management organizations, and organizations representing existing industry sector partnerships, economic development clusters, or regional innovation clusters, to ensure that program participants obtain the skills needed in the community. These activities would align with the priorities of the Workforce Innovation and Opportunity Act around partnerships and systematic approaches to career pathways.

Building partnerships with employers and other community stakeholders reinforced some of the project components. At OPC, the Career Readiness Coach developed connections to Acces-VR, the

<sup>13</sup> [http://www1.cuny.edu/sites/asap/wp-content/uploads/sites/8/2019/03/ASAP-Fast-Facts\\_February-2019.pdf](http://www1.cuny.edu/sites/asap/wp-content/uploads/sites/8/2019/03/ASAP-Fast-Facts_February-2019.pdf)

state vocational rehabilitation agency. Some OPC students also have Acces-VR counselors, and the Career Readiness Coach and the Educational Coordinator work with those counselors to make sure students are meeting requirements and having their own needs met. However, OPC and Acces-VR do not have a formal relationship. The Career Readiness Coach provides career outreach to employers on behalf of project participants.

At UPEP, the Business Liaison continually contacts local employers to find job shadowing and internship opportunities for UPEP participants. The Business Liaison is also a member of the Mayor’s Council on Disability and is currently serving as the chair of the Knoxville Area Employment Consortium that works to develop opportunities for youth with disabilities in industry specific settings. The Business Liaison’s close relationship with this group provides access to employers and others to serve as speakers about careers, contact for work-based learning opportunities, and make job referrals. UPEP also created partnerships with the Knoxville American Job Center, which is part of part of the Tennessee Department of Labor and Workforce Development. UPEP and the Knoxville American Job Center co-hosted job fairs and provide referrals to each other.

**Table 2-2. Key components of the Pathways projects**

Component	Onondaga	Pellissippi
<b>Recruitment</b>	<ul style="list-style-type: none"> <li>• Cooperative recruitment and referrals through schools and organizations</li> <li>• OPC Scholars program</li> </ul>	<ul style="list-style-type: none"> <li>• Cooperative recruitment and referrals through schools and organizations</li> <li>• Summer academy/orientation</li> </ul>
<b>Academic Support</b>	<ul style="list-style-type: none"> <li>• Orientation programs</li> <li>• Career assessments</li> <li>• Education planning assistance</li> <li>• Financial literacy workshops</li> <li>• Disability services</li> <li>• Academic advisor</li> </ul>	<ul style="list-style-type: none"> <li>• Assessments and referrals</li> <li>• Academic coach</li> <li>• Workshops</li> <li>• Scholarships &amp; Stipends</li> </ul>
<b>Career Services</b>	<ul style="list-style-type: none"> <li>• Career advising</li> <li>• Work based learning</li> <li>• Job placement</li> <li>• Career exploration</li> <li>• Multi-media materials</li> <li>• Site visits</li> <li>• Soft skills assessments</li> <li>• Career entry preparation</li> <li>• Transfer preparation</li> </ul>	<ul style="list-style-type: none"> <li>• Career advising</li> <li>• Work based learning</li> <li>• Career coaches</li> <li>• Soft skills assessments</li> <li>• Resume building</li> <li>• Employment connections</li> </ul>
<b>Universal Design for Learning (UDL)</b>	<ul style="list-style-type: none"> <li>• UDL training for faculty and staff</li> <li>• Adaptive technology</li> <li>• Physical changes to campus</li> <li>• Improved signage and infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• UDL policy at college level</li> <li>• Dissemination of UDL principles</li> <li>• UDL compatible textbooks and equipment</li> <li>• UDL training for faculty</li> </ul>
<b>Institutional Change with Policies &amp; Procedures</b>	<ul style="list-style-type: none"> <li>• Embedding staff in different departments</li> <li>• Accessibility Audits</li> </ul>	<ul style="list-style-type: none"> <li>• College-wide UDL policy</li> <li>• Shared technology and best practices</li> </ul>

Component	Onondaga	Pellissippi
<b>Partnerships</b>	<ul style="list-style-type: none"> <li>• Internal coordination with other departments</li> <li>• External partnership with local school districts and VR</li> </ul>	<ul style="list-style-type: none"> <li>• External partnerships with area businesses, organizations, and government agencies</li> </ul>

Capacity building and project development evolved over time in an effort to maximize the benefit and impact of the project in the short term. Table 2-3 highlights a few of the continuous improvement modifications over time. OPC modifications included reworking the outreach and recruitment approach, broadening eligibility to include a few more academic programs, expanding career exploration opportunities, emphasizing family engagement to better support participants, strengthening employment opportunities through changes to career services, and broadly disseminating information about the project and about Universal Design for Learning. UPEP changes focused particularly on the provision of supports for participants, the introduction and subsequent modification of student contracts, and the implementation of Universal Design for Learning.

**Table 2-3. Summary of key project modifications over time**

Type of Modification	Description
<b>Eligibility Criteria</b>	OPC added Electronic Media Communications and Hospitality Management as eligible degree programs. This increased the number of eligible degree programs from 7 to 9, enabling the project to reach more students with disabilities.
<b>Recruitment</b>	Addition of the OPC Scholars program, a college transition program offered while students are still in high school. This provided a more customized and focused recruitment effort. UPEP added its Summer Academy for incoming students.
<b>Parent Engagement</b>	OPC modified its recruitment approach to include outreach to parents as part of the recruitment efforts. This allowed parents to be more engaged and supportive of student's transition.  UPEP modified its approach to provide families with information about the project and its services to facilitate their support of the students.
<b>Career Services</b>	To augment career services, OPC formed a partnership with the Economic Workforce Development Group on campus, and also hired a Career Readiness Coach. This alleviated some of the challenges, and burden, on the college's Career Services department and facilitated more attention for students with disabilities.
<b>UDL Integration</b>	OPC modified the timing of the faculty and staff training on UDL to summer, and included incentives for participation. This enabled increased participation by eliminating the demand on faculty time during the school term.  UPEP shifted its focus on UDL training to adjunct and junior faculty who were perceived to be more receptive and creative with UDL and could serve as agents of change to percolate UDL principles throughout the college.

Type of Modification	Description
<b>Student Engagement</b>	UPEP introduced student contracts that specified how many workshops a participant will attend, the level of contact with career and academic coaches, and other interaction with the project. UPEP provides stipends and scholarships as incentives for completing the agreed upon activities. This initiative improved participation in project services.

### 2.3.3. Project services

This section provides a summary of the services provided by the two Pathways projects. Consistent with the project components, the projects provided seven types of services: 1) outreach and awareness; 2) application and eligibility; 3) enrollment and menus or contracts; 4) coaching and advising; 5) workshops; 6) assistive technology; and 7) supportive services. Table 2-4 provides a summary of the services offered by each project.

**Table 2-4. Pathways to Career project services**

Project Service	Description	
	Onondaga	Pellissippi
<b>Outreach and Awareness</b>	<ul style="list-style-type: none"> <li>• Educational Coordinator outreach to existing Onondaga students</li> <li>• Office of Accessibility Resources educate and conduct intake with potential students</li> <li>• Recruitment Specialist outreach to local area high school students and teachers</li> <li>• Recruitment Specialist raise awareness with community disability organizations, and referrals</li> <li>• Summary Academy</li> <li>• OPC Scholars program</li> </ul>	<ul style="list-style-type: none"> <li>• Disability Services Office outreach through schools and partnerships</li> <li>• Community Liaison Specialist engagement in local disability community, college fairs, and high schools</li> <li>• Referrals from local workforce development agency</li> <li>• Summer Academy</li> <li>• High school student trips to Pellissippi</li> </ul>
<b>Application and Eligibility</b>	<ul style="list-style-type: none"> <li>• 9 majors from Advanced Manufacturing Program and Health Care Program</li> <li>• General Studies</li> <li>• Academic advising and planning</li> </ul>	<ul style="list-style-type: none"> <li>• 28 majors from Applied Science Program</li> <li>• Career specialist provides academic advising and planning sessions to help ensure students enroll in the appropriate classes for their major</li> </ul>
<b>Enrollment and Menus/Contracts</b>	<ul style="list-style-type: none"> <li>• Customized menu plan for participation</li> <li>• Chromebook provided as an incentive</li> </ul>	<ul style="list-style-type: none"> <li>• Contract that specifics details of project participation, with three levels based on student year</li> <li>• Book stipends and scholarships as incentives</li> </ul>
<b>Coaching and</b>	<ul style="list-style-type: none"> <li>• Academic advising from Educational</li> </ul>	<ul style="list-style-type: none"> <li>• Academic advising from Academic</li> </ul>

Project Service	Description	
	Onondaga	Pellissippi
<b>Advising</b>	<b>Coordinator</b> <ul style="list-style-type: none"> <li>• Career coaching with Career Readiness Coach</li> </ul>	<b>Coach</b> <ul style="list-style-type: none"> <li>• Career coaching from Career Coach</li> <li>• Consultations with Career specialists (including on work-based learning opportunities)</li> </ul>
<b>Workshops</b>	<ul style="list-style-type: none"> <li>• Workshops and special events on career exploration and work-based learning; how to succeed in college; soft skills for career success; study skills; bypassing barriers</li> </ul>	<ul style="list-style-type: none"> <li>• Workshops and special events on self-advocacy; study skills for school, work, and beyond; time management; financial literacy</li> <li>• Special topics added based on observed need (e.g., dressing for interviews, body language, etc.)</li> </ul>
<b>Assistive Technology</b>	<ul style="list-style-type: none"> <li>• Provision of personalized assistive technology to students as needed</li> <li>• Evaluations and referrals by the Office of Accessibility Resources</li> <li>• Recommendations by the Educational Coordinator</li> <li>• Provision of assistive technology for use by departments and faculty</li> </ul>	<ul style="list-style-type: none"> <li>• Provision of personalized assistive technology to students as needed</li> <li>• Intake and recommendation through Disability Services</li> <li>• Supported through local partnerships</li> </ul>
<b>Supportive Services</b>	<ul style="list-style-type: none"> <li>• Partnerships with: Community Care Hub, Access-VR, and ARISE (nonprofit disability advocacy organization).</li> </ul>	<ul style="list-style-type: none"> <li>• Partnerships with: mental health providers, Human Resource Agency, TRiO, (grant-funded disability support program on campus)</li> </ul>

Both projects provide **outreach and awareness** services through existing relationships with area schools, local organizations, and summer programs for incoming college students, as well as outreach on the campuses themselves to recruit existing students. The outreach and awareness services include the OPC Scholars program and summer academies offered by both projects. The OPC Scholars program provides the information to prospective students on OPC, Onondaga, and the transition to college in sessions held one day per month over the course of the student's senior year. The summer academies at both projects are sessions where prospective students and their families can learn about the Pathways projects and the transition to college. At OPC, it is a one-day session. At UPEP, it is a two-week summer academy for incoming students and includes an introduction to staff, resources, and a series of workshops.

**Application and eligibility** refers to the application process and eligibility criteria to select project participants. Specifically, students must select certain career-focused academic paths to qualify for the Pathways project. OPC serves nine majors from two academic programs: advanced manufacturing and health. OPC added two of the nine majors in the second year of the project to promote increased enrollment. UPEP serves 28 majors from the applied science academic program.

**Enrollment and menus or contracts** refers to active enrollment, engagement, and participation in the project. To facilitate engagement, UPEP was the first of the grantees to introduce student contracts as an engagement mechanism, with OPC following that example by implementing a menu option. The menus and contracts facilitated a shift from using an open-ended model of service participation to a more targeted, personalized plan. UPEP implemented a contract model, where participants agree to a very specific level of participation in meetings, coaching sessions, workshops and work-based learning. UPEP included three contract levels (then expanded to four levels) based on the participant's year in the project, varying in workshop attendance requirements and activities. Students who complete their contract can receive financial stipends and scholarships. OPC implemented a 'menu' of services model by providing participants with a complete list of services and then allowing them to select specific services from this list to which they agree to participate. Initially, OPC offered no incentives for completing menus, but they are piloting an incentive program where students are given Chromebooks.

**Coaching and advising** are the key student-level components and services of the project. Academic advising included support with course selection, career exploration, study skills, time management, accommodations, and other academic supports. Career coaching includes support with resumes, job searching, work-based learning experiences, and other career skills. UPEP students are assigned an academic coach and a career coach with whom they work one-on-one; students are required by their contracts to meet regularly with both. OPC students are not required to meet with the Educational Coordinator or Career Readiness Coach, but many do work closely with them.

**Workshops** are a supplement to individual coaching and advising. The workshops cover a range of topics related to career exploration, career preparation, academic skills, soft skills, college resources, and health/well-being.

Both projects provide **assistive technology** as appropriate to meet the specific needs of students with a wide range of disabilities, as this is a core feature of Universal Design for Learning. The projects provide assistive devices and resources to both students and faculty, such as laptops, iPads, assistive software, digital recorders, headsets, standing desks, listening devices, LiveScribe pens (record and connect to written notes), and a note taker.

Both projects, primarily through connections to community resources and partnerships, provide **supportive services**. These services help mitigate problems that may be more frequent among students with disabilities, or place a greater burden on students with disabilities. These services may include but are not limited to transportation, access to health care, a food pantry, scholarships, tutoring, and other social services.



The project models reflect the theory of change framework underpinning the grant project; the components operationalize the theory; the processes explain how students, faculty, and staff encounter the project and receive the services spelled out by the components. For both projects, the processes operate on two or more tracks. Student-level components operate on one track, with specific project staff administering specific student services. College-level components, such as Universal Design for Learning and accessibility changes, operate on a different track, often with different project staff.

## **2.4. Capacity-building and institutional change**

The goals of the Pathways grants are to increase institutional capacity to provide students with disabilities opportunities for an inclusive, integrated college education and career development. A second aim is to effect institutional change that will pave the road to a more inclusive environment for students with all types of educational, social, and career needs after the grant ends. The activities undertaken by the colleges are designed to serve these two needs. In this section, we discuss the capacity-building activities of the colleges and the institutional change they have implemented.

### **2.4.1. Capacity-building**

Both projects have aimed to increase their college's capacity for serving students with disabilities. Most of OPC's capacity-building has occurred at the college level. OPC's greatest impacts on capacity during the period are the OPC Scholars program and development and provision of training on Universal Design for Learning through the Summer Academy. The OPC Scholars program has created a new pipeline for students with disabilities to Onondaga. About 30 Scholars have enrolled at Onondaga each year since the program's inception.

The three- to four-day UDL Summer Academy increased capacity at the college through instruction in Universal Design for Learning. Twenty faculty and staff attend each session, with up to two sessions per summer. Faculty and staff learn what Universal Design for Learning is, where its value lies in engaging students, and how to incorporate Universal Design for Learning principles in their own work. All attendees must "report out" on their learning to their department or the college through a presentation the following semester. In polling faculty who participated in the UDL Academy, project staff found that faculty report greater knowledge of the principles and increased interest in applying the principles to their classes. Faculty created accessible materials not only for their own classes but for the college as a whole during the Academy, including one faculty member who created a video tour of campus for students with mobility impairments. The acquisition of new assistive technology also represents an increase in college capacity to serve students with disabilities. Training materials developed to help students learn to use assistive technology are also crucial for allowing both OPC students and non-OPC students with disabilities to access more resources. Finally, OPC developed a "modified model of embedded tutoring" for developmental math classes. This model allows students to receive tutoring on specific classes on a regular basis from tutors who



attend class meetings. For other subjects, OPC organized course-specific study groups to serve students with disabilities.

In contrast to OPC, UPEP has focused most of its attention on increasing capacity through student services. With its larger staff, all UPEP students receive extensive one-on-one support, with individualized counseling tailored to their own needs and aspirations. UPEP students are required to meet weekly with their academic coaches in their first year, and regularly with their career coaches from their second year onward. UPEP staff individualize their counseling with the aid of project and student data. The project's Data Specialist tracks both project offerings (and attendance at offerings) and student outcomes, allowing the project to be responsive and adapt to project requirements and resources based on data.

UPEP staff told us that they initially faced resistance from faculty on attending training on Universal Design for Learning because the faculty viewed it as burdensome to make changes to their classes. However, UPEP conducted at least 11 trainings and presentations on Universal Design for Learning, with over 200 faculty and staff attending. UPEP's approach, a mixture of webinars, outside speakers, and departmental trainings to provide exposure to UDL principles, is less formal than OPC's UDL Academy. UPEP staff also created a handbook for faculty on how to create accessible class materials. Finally, like OPC, UPEP has also acquired assistive technology and aided students in learning to use it.

## **2.4.2. Institutional change**

Onondaga devoted substantial effort toward building college-level capacity, and experienced significant institutional change as a result of the grant. While the ultimate sustainability of the projects cannot be assessed at this time, as the grants are ongoing, Onondaga administration officials speak positively of sustaining several elements of OPC. There is strong interest in maintaining the OPC Scholars program and the UDL Academy, perhaps by broadening it to faculty at other colleges for a fee. Changes to the physical campus, through new signage and ramps, also represent lasting institutional change.

At the same time, OPC might not be able to sustain the same level of intensive support for participants after the grant. In particular, the positions of Recruitment Specialist, Educational Coordinator, and Career Readiness Coach are currently structured as grant-funded. Although Onondaga is moving to embed these staff in other departments—and the Recruitment Specialist has been embedded in the Advising Department—these staff are not likely to devote the same amount of time advising OPC participants, as some staff told us. Their responsibilities will include more than serving OPC participants. In addition, it is not apparent to us that these positions will have funding after the end of the grant at a level to support the same intensive level.

Relative to OPC, UPEP experienced more challenges with institutional change. Staffing costs represent the vast majority of project expenses, and the college has not indicated that it would help

find permanent positions at the college for any UPEP staff. Other college funding priorities, including capital improvements, have also prevented project staff from soliciting funding from many local and regional philanthropies. Although staff continue to search for outside sources of funding, most believe that direct service provision to students with disabilities provided by UPEP will end after the 2019-2020 academic year.

In spite of the challenges related to sustaining UPEP staff positions, UPEP has achieved institutional change in other areas. UPEP staff wrote a college-wide Universal Design for Learning policy, that was adopted by the college in 2015. It also developed materials that can persist at the college after the grant, such as the accessibility handbook, workshop handouts, career assessment guides and guidelines on Universal Design for Learning. UPEP also established relationships with many employers and with workforce development systems. The inclusive career assessment software (the Educational and Industrial Testing Service system) secured through a contract using grant funds will need funding for the college to continue its use.

## **3. Project Outputs and Participant Outcomes**

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This chapter provides information about project outputs associated with the operation of the Pathways to Careers grant project based on the quarterly reports grantees submitted to ODEP. We focus on enrollment, demographic characteristics, receipt of academic and other supports, receipt of career services and faculty and staff participation in training on Universal Design for Learning.

The chapter also provides findings on participant outcomes, including a) persistence of college enrollment, b) coursework, grades and college completion, c) additional formal education (among those no longer enrolled) and d) employment. These findings are based on individual level data contained in the semester data files provided by the grantees. Then we present findings from survey data on student perspectives, student engagement and self-advocacy, and perceptions and satisfaction with Pathways and their college.

The semester data do not represent all Pathways participants, especially at UPEP, where the data represent only those participants giving consent for the release of their data. Therefore, the results presented based on semester data do not match those describing outputs based on quarterly reports.

### **3.1. Project outputs**

#### **3.1.1. Pathways enrollment**

According to the grantee quarterly reports, a total of 457 students were enrolled in the two projects, 245 enrolled at OPC and 212 enrolled at UPEP between fall 2015 and fall 2018. Table 3-1 provides a summary of the number of enrollees by quarter and project. Enrollment in the first two years (89 at OPC and 129 at UPEP) was much less than the target of 200 – 250 students per project. The table also indicates substantial variation across the quarters, with higher enrollment numbers at the start of each fall semester (July through September).

**Table 3-1. Number of students enrolling in Pathways to Careers, by grant project and by quarter**

Fiscal Year	Fiscal Quarter	Calendar Months	Number of Students Enrolling in OPC this Quarter	Number of Students Enrolling in UPEP this Quarter
2016	1	July – December 2015	38	74
2016	2	January – March 2016	6	3
2016	3	April – June 2016	0	1
2016	4	July – September 2016	38	39
2017	1	October – December 2016	1	0
2017	2	January – March 2017	6	12
2017	3	April – June 2017	0	0
2017	4	July – September 2017	80	48
2018	1	October – December 2017	10	1
2018	2	January – March 2018	1	6
2018	3	April – June 2018	0	0
2018	4	July – September 2018	63	27
2019	1	October – December 2018	2	1
<b>Total</b>			<b>245</b>	<b>212</b>

Source: Quarterly progress reports submitted by OPC and UPEP to ODEP.

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

### 3.1.2. Demographic characteristics of participants

Table 3-2 provides the demographic characteristics of Pathways enrollees at the time of Pathways project enrollment. Onondaga enrollees tend to be slightly younger than enrollees at Pellissippi. At Onondaga, 43.7 percent of participants are ages 16 to 18 compared to 32.1 percent at Pellissippi within the same age range. Participants at both colleges were also more likely to be male, and more likely to be White. The next largest race category was Black; the data on Hispanic participation are not reported because missing values made it unreliable.

Most project enrollees entered the Pathways project as a high school graduate (required for eligibility). At Onondaga, more than a quarter already had some college education completed, compared to 15.6 percent at Pellissippi. A scholarship covering community college tuition introduced just prior to grant kickoff, Tennessee Promise, may be one reason why Pellissippi has a greater percentage of enrollees with only a high school diploma, relative to Onondaga. The scholarship was available only to high school graduates entering college immediately.

**Table 3-2. Demographic characteristics of project enrollees at enrollment, by college**

Demographic characteristic	Onondaga	Pellissippi
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Demographic characteristic	Onondaga	Pellissippi
<b>Age</b>		
<b>16-18</b>	<b>43.7%</b>	<b>32.1%</b>
<b>19-21</b>	<b>45.7%</b>	<b>58.5%</b>
<b>22-24</b>	<b>7.3%</b>	<b>9.0%</b>
<b>Other/not reported</b>	<b>3.3%</b>	<b>0.5%</b>
<b>Gender</b>		
<b>Male</b>	<b>73.0%</b>	<b>66.4%</b>
<b>Female</b>	<b>27.0%</b>	<b>33.6%</b>
<b>Education level at enrollment</b>		
<b>High school graduate</b>	<b>69.0%</b>	<b>84.4%</b>
<b>Some college</b>	<b>29.4%</b>	<b>15.6%</b>
<b>Certificate program</b>	<b>0.0%</b>	<b>0.9%</b>
<b>Not reported</b>	<b>1.6%</b>	<b>0.0%</b>
<b>Race</b>		
<b>White</b>	<b>65.9%</b>	<b>79.8%</b>
<b>Black</b>	<b>22.1%</b>	<b>14.4%</b>
<b>American Indian/Alaskan Native</b>	<b>2.1%</b>	<b>2.5%</b>
<b>Asian</b>	<b>2.5%</b>	<b>2.5%</b>
<b>Native Hawaiian/other Pacific Islander</b>	<b>0.0%</b>	<b>0.5%</b>
<b>Not reported</b>	<b>7.3%</b>	<b>0.3%</b>

Source: Aggregation of quarterly progress reports submitted by colleges to ODEP.

Table 3-3 provides the percentage of enrollees with specific disabilities or impairments as reported in the quarterly reports.<sup>14</sup> The predominant disabilities or impairments are learning disabilities and attention deficit disorder/attention deficit hyperactivity disorder at OPC (38.1% and 19.3%, respectively) and autism and learning disabilities at UPEP (29.8% and 25.4%, respectively).

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<sup>14</sup> The sum of the number of enrollees reported for each disability/impairment is greater than the number of enrollees because enrollees can have more than one disability or impairment. We tallied the number of enrollees per disability category across quarters. Then, divided the category sum by the grand total number of enrollees (and multiplied by 100) to provide the percentages reported in the table.

**Table 3-3. Type of disabilities or impairment among enrollees, by college**

<b>Disability/Impairment</b>	<b>Onondaga</b>	<b>Pellissippi</b>
<b>Autism spectrum</b>	<b>9.9%</b>	<b>29.8%</b>
<b>Cognitive disabilities (e.g., traumatic brain injury; intellectual disabilities)</b>	<b>3.3%</b>	<b>6.2%</b>
<b>Chronic health conditions (lasts anywhere from 3 months to a lifetime)</b>	<b>6.1%</b>	<b>2.7%</b>
<b>Hearing impairments (including deafness)</b>	<b>1.3%</b>	<b>4.5%</b>
<b>Learning disabilities</b>	<b>38.1%</b>	<b>25.4%</b>
<b>Mental health needs</b>	<b>18.6%</b>	<b>11.4%</b>
<b>Orthopedic impairments</b>	<b>0.8%</b>	<b>0.0%</b>
<b>Speech or language impairments</b>	<b>0.3%</b>	<b>0.8%</b>
<b>Visual impairments (including blindness)</b>	<b>0.4%</b>	<b>0.9%</b>
<b>Attention deficit disorder/attention deficit hyperactivity disorder</b>	<b>19.3%</b>	<b>12.4%</b>
<b>Mobility impairments</b>	<b>NR</b>	<b>5.8%</b>
<b>Not Reported</b>	<b>1.8%</b>	<b>0.1%</b>

Source: Aggregation of quarterly progress reports submitted by colleges to ODEP.

NR indicates not reported by the grantee.

Note: These categories are not mutually exclusive. Multiple categories may apply because participants may have multiple impairments.

### **3.1.3. Academic and other supports**

Table 3-4 provides mean values of Pathways participants receiving or participating in various supports between July 2015 and December 2018. Comparing the mean values to total enrollment, we see that, on average, more than half of participants per quarter at both projects received academic supports  $[(40.9/80.1) \times 100 = 51.1\%]$ . About one-third of participants participated in developmental coursework.

Most participants received accommodations, and at OPC, about three-quarters received case management. At UPEP, 13.4 percent of participants (11 out of 82) received training on assistive technology. Slightly less than half of OPC participants received self-determination training. About 60 percent of UPEP participants received support in self-exploration.

**Table 3-4. Mean, minimum and maximum number of Pathways participants involved in supports, fall 2015 – fall 2018, by project**

Type of support	OPC			UPEP		
	Mean	Minimum	Maximum	Mean	Minimum	Maximum
<b>Academic advising</b>	40.9	16	98	48.1	8	83
<b>Individual tutoring</b>	19.5	12	33	65.3	40	93
<b>Developmental coursework</b>	22.5	9	66	27.8	22	45
<b>Placement testing</b>	3.2	0	78	6.5	0	28
<b>Study skills</b>	16.4	0	87	13.8	0	45
<b>Accommodations</b>	62.2	36	117	69.5	56	102
<b>Case management</b>	55.9	27	93	NR	NR	NR
<b>Assistive technology training</b>	NR	NR	NR	10.8	0	33
<b>Financial aid advising</b>	7.7	0	18	NR	NR	NR
<b>Financial literacy advising/training</b>	1.4	0	7	7.8	0	20
<b>Self-determination training</b>	37.7	6	87	NR	NR	NR
<b>Self-exploration</b>	NR	NR	NR	49.4	20	68
<b>Enrollment</b>	<b>80.1</b>	<b>36</b>	<b>138</b>	<b>81.8</b>	<b>63</b>	<b>110</b>

Source: Aggregation of quarterly progress reports submitted by colleges to ODEP.  
NR indicates not reported by the grantee.

### 3.1.4. Career services

As a grant project with an employment focus, career services are a major component to prepare youth for employment after graduation. The mean values presented in Table 3-5 indicate that at OPC, less than one-fifth of participants per quarter received career planning, and less than one-tenth received career counseling and coaching or work-based learning. In contrast, at UPEP, more than half of participants per quarter received career counseling and coaching and almost a third received career planning. This increased level of participation in career services by UPEP participants might be related to its use of student contracts that mandate meetings with career coaches.

Work-based learning includes internship, service learning, job shadowing, and direct interaction with an employer such as site visit, informational interview, or employer mentor meeting. The lower half of Table 3-5 indicates that among the 18 UPEP participants (on average) that received work-based learning per quarter, most were involved in service learning as the form of work-based learning, and about four per quarter were in internships.

**Table 3-5. Mean, minimum and maximum number of Pathways participants receiving career services, fall 2015 – fall 2018, by project**

Support	OPC			UPEP		
	Mean	Minimum	Maximum	Mean	Minimum	Maximum
<b>Career planning</b>	16.7	0	34	30.8	2	67
<b>Career counseling and coaching</b>	7.4	0	15	55.4	25	73
<b>Individualized career plan</b>	11.1	0	28	28.2	0	67
<b>Work-based learning</b>	2.4	0	8	17.6	0	58
<b>Enrollment</b>	80.1	36	138	81.8	63	110
<b>Work-based learning</b>						
<b>Internship</b>	1.5	0	5	4.0	0	13
<b>Service learning</b>	0	0	0	13.6	0	47
<b>Job shadowing</b>	2.7	0	11	2.8	0	14
<b>Employer interaction</b>	0.2	0	2	4.2	0	21

Source: Aggregation of quarterly progress reports submitted by colleges to ODEP.

Note: Projects did not focus on work-based experiences during the earlier years; the focus was on enrollment and academic achievement.

### 3.1.5. Universal Design for Learning training of faculty and staff

Both projects sought to promote the use of Universal Design for Learning by providing training to college faculty and staff. On average, the OPC Universal Design for Learning Summer Academy trains 20 faculty and staff (about 120 in total) during intensive one-week programs focused on the implementation of a post-academic project. UPEP held about a dozen Universal Design for Learning professional development sessions attended by about 350 faculty and staff.

## 3.2. Participant outcomes

### 3.2.1. Persistence of college enrollment

Persistence in the participant’s chosen academic program is a strong desired outcome of OPC and UPEP efforts. The theory is that sustained access and supports for students with disabilities will yield higher rates of college completion. To address Pathways participant persistence of college enrollment, we use the semester data files because they provide participant-specific information for up to seven semesters (fall 2015 through fall 2018). First, to set the context, we look at the number of participants enrolling each semester, participation numbers per semester, exits, and college attendance status. Then, we consider project retention (the number of participants who stay in the Pathways projects from one semester to another) and college persistence (the number of participants who remain enrolled at their college from one semester to another). We view project retention as an output and college persistence as a participant outcome.



## Project participation and exits

Table 3-6 presents the number of participants that started Pathways each semester, overall and by project based on the semester data files. Most students enroll in Pathways in the fall semesters. The total of 380 is less than the 457 identified in the quarterly reports because not all UPEP participants signed a consent for the release of their data and some enrollees were later determined to be non-participants.

**Table 3-6. Number of participants that started Pathways by semester and by project**

Semester started Pathways	Number that started Pathways	Pathways project	
		OPC	UPEP
Fall 2015	85	31	54
Spring 2016	9	2	7
Fall 2016	65	34	31
Spring 2017	15	4	11
Fall 2017	125	75	50
Spring 2018	13	7	6
Fall 2018	68	49	19
<b>Total</b>	<b>380</b>	<b>202</b>	<b>178</b>

Source: Semester data files

Table 3-7 provides the number of Pathways participants, by semester and college. Project participation varied across semesters as new students entered the project and others left for various reasons (e.g., health, finances, academic performance, and graduation). Participation numbers at Pellissippi varied between 50 and 97 students per semester. At Onondaga, enrollment varied between 26 and 116 students. Enrollment at Onondaga was much higher in fall 2017 and fall 2018 than in the prior two fall semesters, reflecting growth of the project over the grant period. However, it should be noted that OPC's definition of a participant include students that OPC has contacted to participate and have not directly refused services.

**Table 3-7. Pathways project participation by semester and school, number of participants**

College	Semester						
	Fall 2015	Spring 2016	Fall 2016	Spring 2017	Fall 2017	Spring 2018	Fall 2018
<b>Onondaga</b>	31	26	52	46	107	75	116
<b>Pellissippi</b>	54	50	68	72	97	77	67
<b>Both</b>	<b>85</b>	<b>76</b>	<b>120</b>	<b>118</b>	<b>204</b>	<b>152</b>	<b>183</b>

Source: Semester data files

The top half of Table 3-8 provides the enrollment status of Pathways participants that exited the Pathways project after at least one semester of participation. Among the 72 participants who left the Pathways project, 31 (43.1%) remained enrolled in college, 19 at Onondaga and 12 at Pellissippi

(44.2% and 41.4%, respectively). A majority (41, or 56.9%) of those who left Pathways did not remain enrolled in college.

**Table 3-8. Enrollment status of Pathways project participants after exiting Pathways or the college, by Pathways project**

Enrollment status after exiting Pathways or college	Pathways Project				Total	
	Onondaga		Pellissippi		Number	Percent
	Number	Percent	Number	Percent		
<b>Remained in college after exiting Pathways project</b>						
<b>Yes</b>	19	44.2	12	41.4	31	43.1
<b>No</b>	24	55.8	17	58.6	41	56.9
<b>Total</b>	43	100	29	100	72	100
<b>Returned to college after exiting earlier</b>						
<b>Yes</b>	8	33.3	3	11.1	11	21.6
<b>No</b>	16	66.7	24	88.9	40	78.4
<b>Total</b>	24	100	27	100	51	100

Source: Semester data files

The lower half of the table also provides the number of enrollees who returned to college after participating in Pathways for at least one semester and exited college. Among the 51 participants who exited, 11 (21.6%) returned to the college, and 10 of the 11 participated in Pathways upon their return. Among the 40 who exited college without reentering college, the data indicate that five left for academic performance, three due to a financial issue, two for a medical issue, and three were suspended. The remaining 27 exited without a stated reason.

### College attendance status

The time to complete an Associate's degree varies based on the attendance pattern of the individual. Some attend full-time, some attend part-time, and some attend for a mix of both. Table 3-9 provides the number and percentage of Pathways participants that attended college consistently as a full-time attendee in all semesters attended, or consistently as a part-time attendee, or as a mix of full-time and part-time attendance. The largest percentage of participants (40.6%) attended full-time in all semesters. The table also indicates that close to one-third of participants attended part-time and a little more than a quarter attended a mix of full-time and part-time. The figures reported are across both projects.

**Table 3-9. College attendance status for Pathways participants across all semester attended**

<b>College attendance status</b>	<b>Number</b>	<b>Percent</b>
<b>Participant attended full-time in all semesters</b>	<b>153</b>	<b>40.6%</b>
<b>Participant attended part-time (3/4 or less) in all semesters</b>	<b>120</b>	<b>31.8%</b>
<b>Participant attended sometimes full-time and sometimes part-time</b>	<b>104</b>	<b>27.6%</b>
<b>Total</b>	<b>377</b>	<b>100%</b>

Source: Semester data files

N= 377; enrollment status missing on 3 people.

### **Project retention**

Table 3-10 provides the number of Pathways participants who remained continuously in the Pathways project through the end of each of the semesters of Pathways project operation, by the semester participants started the Pathways project. In fall 2015, 85 participants started Pathways but only 73 remained as participants at the end of the semester. By fall 2016, 37 remained in the project, dropping to 21 in fall 2017 and to 5 in 2018.

Note that the numbers presented in the top half of the table include participants that exited the project upon graduation. We remove the number of graduates to calculate the project retention rates presented in the lower half of the table. The retention rates for participants who started Pathways in fall 2015 indicate that 85.9 percent remained as participants through the end of fall 2015; 45.7 percent through the end of fall 2016; 26.9 percent through the end of fall 2017; and 7.5 percent through the end of fall 2018. One potential reason for a decrease over time in Pathways project participation may be increased confidence among participants to handle issues on their own, no longer needing the assistance or services of the project.

**Table 3-10. Number of Pathways participants who remained continuously in the Pathways project through the end of subsequent semesters and their retention rates**

Semester started Pathways	Number that started Pathways	Semester of Pathways participation						
		Fall 2015	Spring 2016	Fall 2016	Spring 2017	Fall 2017	Spring 2018	Fall 2018
<b>Fall 2015</b>	85	73	56	37	31	21	14	5
<b>Spring 2016</b>	9		9	6	4	2	1	1
<b>Fall 2016</b>	65			57	49	29	24	18
<b>Spring 2017</b>	15				14	10	5	3
<b>Fall 2017</b>	125					119	77	61
<b>Spring 2018</b>	13						9	4
<b>Fall 2018</b>	68							58
<b>Retention rate for consecutive Pathways enrollment</b>								
Semester started Pathways	Number that started Pathways	Fall 2015	Spring 2016	Fall 2016	Spring 2017	Fall 2017	Spring 2018	Fall 2018
	85	85.9	69.1	45.7	38.8	26.9	18.4	7.5
<b>Spring 2016</b>	9		100.0	66.7	50.0	28.6	14.3	14.3
<b>Fall 2016</b>	65			87.7	76.6	45.3	38.7	29.0
<b>Spring 2017</b>	15				93.3	71.4	38.5	23.1
<b>Fall 2017</b>	125					95.2	61.6	48.8
<b>Spring 2018</b>	13						69.2	30.8
<b>Fall 2018</b>	68							85.3

Source: Semester data files

Note: Denominators used to calculate retention rates do not include graduates.

### **Persistence of college enrollment**

Table 3-11 provides the number of Pathways participants who remained continuously enrolled in college through the end of each fall semester, covering fall 2015 through fall 2018. We focus only on fall enrollments to consider persistence from one academic year to the next. The numbers indicate a general decrease in college persistence over time. However, part of the decrease is due to some participants graduating.

In the lower half of the table are the percentages of participants enrolled in college each fall semester from the semester they started the Pathways project. We remove the number of graduates from the denominators to calculate these persistence rates. Among participants who started the Pathways project in fall 2015, 58.8 percent were still enrolled through fall 2016; 37.7 percent were still enrolled through fall 2017; and 17.9 percent were still enrolled through fall 2018. Among participants who started Pathways in fall 2016, 67.2 percent were still enrolled through fall 2017 and 45.2 percent were still enrolled through fall 2018.

**Table 3-11. Number of Pathways participants with consecutive college enrollment, by semester first started in Pathways project**

Semester started Pathways	Number that started Pathways	Fall 2015	Fall 2016	Fall 2017	Fall 2018
<b>Fall 2015</b>	85	85	47	29	12
<b>Spring 2016</b>	9		7	2	1
<b>Fall 2016</b>	65		65	43	28
<b>Spring 2017</b>	15			12	7
<b>Fall 2017</b>	125			125	71
<b>Spring 2018</b>	13				8
<b>Fall 2018</b>	68				68
<b>Total</b>	<b>380</b>	<b>85</b>	<b>119</b>	<b>210</b>	<b>196</b>
<b>Persistence rate for consecutive college enrollment</b>					
Semester started Pathways	Number that started Pathways	Fall 2015	Fall 2016	Fall 2017	Fall 2018
<b>Fall 2015</b>	85	100.0	58.8	37.7	17.9
<b>Spring 2016</b>	9		77.8	25.0	14.3
<b>Fall 2016</b>	65		100.0	67.2	45.2
<b>Spring 2017</b>	15			80.0	53.8
<b>Fall 2017</b>	124			100.0	57.3
<b>Spring 2018</b>	14				66.7
<b>Fall 2018</b>	68				100.0

Source: Semester data files

Note: Denominators used to calculate persistence rates do not include graduates.

Table 3-12 provides college enrollment persistence rates, by college. The persistence rates at fall 2018 are greater at Pellissippi than at Onondaga, especially for 2-year (fall 2016 through fall 2018) and 3-year (fall 2015 through fall 2018) persistence rates (2-year rate of 55.2% at Pellissippi vs. 36.4% at Onondaga and 3-year rate of 29.3% at Pellissippi vs. 3.3% at Onondaga).

**Table 3-12. Percentage of participants who remained continuously enrolled in college through the end of current and subsequent semesters, by college**

Semester started Pathways	Number that started Pathways	Persistence rate for consecutive college enrollment			
		Fall 2015	Fall 2016	Fall 2017	Fall 2018
<b>Onondaga</b>					
<b>Fall 2015</b>	31	100.0	53.3	16.7	3.3
<b>Spring 2016</b>	2		100.0	50.0	50.0
<b>Fall 2016</b>	34		100.0	61.8	36.4
<b>Spring 2017</b>	4			50.0	0.0
<b>Fall 2017</b>	75			100.0	52.7
<b>Spring 2018</b>	7				66.7
<b>Fall 2018</b>	49				100.0
<b>Pellissippi</b>					
<b>Fall 2015</b>	54	100.0	62.0	52.2	29.7
<b>Spring 2016</b>	7		71.4	16.7	0.0
<b>Fall 2016</b>	31		100.0	73.3	55.2
<b>Spring 2017</b>	11			100.0	70.0
<b>Fall 2017</b>	49			100.0	65.3
<b>Spring 2018</b>	6				66.7
<b>Fall 2018</b>	19				100.0

Source: Semester data files

Note: Denominators used to calculate persistence rates do not include graduates.

### 3.2.2. Coursework, grades and college completion

To assess participant progress in college, we look at coursework completion, GPA, and graduation. We begin by comparing the mean number of courses attempted and the mean number of courses completed to see if participants completed the same number of courses as they attempted. If the mean number of courses completed is less, then it suggests that participants attempted more than they could handle.

#### Coursework completion and grade point average (GPA)

Table 3-13 provides the mean number of courses attempted and completed, and mean GPA for Onondaga and Pellissippi participants, by semester. The change in number of participants across semesters reflects the inflow and outflow of participants in Pathways, and the values are representative of only those participants for whom data were provided, not all Pathways participants.

At Pellissippi, the mean number of courses attempted and completed were the same for each semester. In contrast, at Onondaga, the mean number of courses attempted was greater than the

mean number of courses completed in three of the seven semesters. However, OPC participants attempted more courses than Pellissippi participants for those three semesters.

Participants in both colleges maintained at least a C grade overall. At Pellissippi, participants could earn scholarships for taking at least 12 credit hours and getting a C grade or better in every class. The Onondaga mean GPA ranged from a low of 2.03 (in fall 2015) to a high of 2.47 (in fall 2017), or a spread of 0.43 points, and the Pellissippi GPA ranged from a low of 2.24 (in fall 2015) to a high of 2.63 (in fall 2016), or a spread of 0.39 points.

**Table 3-13. Mean number of courses OPC participants attempted and completed, and GPA**

Semester	Courses attempted		Courses completed		GPA	
	Number of participants	Mean number of courses	Number of participants	Mean number of courses	Number of participants	Mean GPA
<b>Onondaga</b>						
<b>Fall 2015</b>	31	6	31	4	31	2.03
<b>Spring 2016</b>	26	5	26	4	26	2.08
<b>Fall 2016</b>	52	4	52	4	52	2.17
<b>Spring 2017</b>	40	4	40	4	42	2.33
<b>Fall 2017</b>	107	4	107	4	105	2.47
<b>Spring 2018</b>	75	4	74	4	74	2.08
<b>Fall 2018</b>	115	5	83	3	94	2.49
<b>Pellissippi</b>						
<b>Fall 2015</b>	53	4	53	4	53	2.24
<b>Spring 2016</b>	50	4	50	4	50	2.41
<b>Fall 2016</b>	68	4	68	4	67	2.63
<b>Spring 2017</b>	71	4	71	4	71	2.29
<b>Fall 2017</b>	96	4	96	4	91	2.56
<b>Spring 2018</b>	76	4	76	4	75	2.43
<b>Fall 2018</b>	61	4	61	4	61	2.54

Source: Semester data files

The narrative sections of the Quarterly Reports highlighted the numbers of Pathways participants with high GPAs. There were two OPC narratives indicating 2 participants with a GPA at or above 3.4 and 6 participants at 3.7 or higher for (federal fiscal year) quarter 1 of 2017 and 2 participants in quarter 1 of 2018, 1 participant at 3.4 or higher and 1 participant at 3.7 or higher. There were five UPEP narratives indicating participants with a GPA of 3.5 or higher: 4 in quarter 1 of 2016; 11 in quarter 3 of 2017; 18 in quarter 1 of 2018; 14 in quarter 3 of 2018, and 6 in quarter 1 of 2019.

## Graduation

We look at graduation by college based on the semester participants started Pathways and the semester they graduated. Table 3-14 indicates that for fall 2015 through fall 2018, 32 participants graduated college. Among those, 23 were at Pellissippi and nine were at Onondaga. Most of the graduations occurred in spring 2018. Most of the Pellissippi graduates (18 graduates) began the Pathways project in fall 2015.

**Table 3-14. Number of Pathways participants that graduated, per semester of starting Pathways and semester of graduation, by college**

Number of participants that graduated								
College	Semester started Pathways							Total
	Fall 2015	Spring 2016	Fall 2016	Spring 2017	Fall 2017	Spring 2018	Fall 2018	
<b>Onondaga</b>	1	0	1	1	5	1	0	9
<b>Pellissippi</b>	18	2	2	1	0	0	0	23
<b>Both</b>	19	2	2	2	5	1	0	32
Semester of graduation								
<b>Onondaga</b>	0	0	1	0	0	4	4	9
<b>Pellissippi</b>	0	4	0	4	4	10	1	23
<b>Both</b>	0	4	1	4	4	14	5	32

Source: Semester data files

When the Pathways projects recruited participants, they targeted both incoming students and current college students. As a result, some of the participants started college in semesters prior to their enrollment in Pathways. Among the 380 participants, 77, or 20.3 percent, started prior to the fall 2015 semester. Among these 77 participants, 24 graduated (75.0% of the 32 graduates). See Table 3-15 for the number of participants that graduated, by the semester that they started college. Ten participants that started college in fall 2014 were the largest number of graduates for any one semester and nine of those were at Pellissippi.

We also considered the length of time to graduate by calculating the number of Pathways participants who graduated based on the semester of graduation and the semester they started college. Considering the highest number of graduates (8), the most frequent length of time to graduate is 7 semesters and 8 semesters, or about 3.5 to 4 years. See Table 3-16. Some participants were able to complete in less time (e.g., if they attend full-time continuously).



**Table 3-15. Number of Pathways participants enrolled and number that graduated, by college and semester of starting college**

Semester started college	Number of participants enrolled			Number of participants that graduated		
	Onondaga	Pellissippi	Both	Onondaga	Pellissippi	Both
<b>Fall 2011</b>	1	2	3	0	1	1
<b>Fall 2012</b>	0	2	2	0	0	0
<b>Spring 2013</b>	1	9	10	0	6	6
<b>Fall 2013</b>	7	10	17	1	5	6
<b>Spring 2014</b>	0	1	1	0	0	0
<b>Fall 2014</b>	9	33	42	1	9	10
<b>Spring 2015</b>	2	0	2	1	0	1
<b>Fall 2015</b>	41	12	53	4	0	4
<b>Spring 2016</b>	4	10	14	0	1	1
<b>Fall 2016</b>	35	27	62	0	1	1
<b>Spring 2017</b>	5	1	6	1	0	1
<b>Fall 2017</b>	62	49	111	1	0	1
<b>Spring 2018</b>	14	6	20	0	0	0
<b>Fall 2018</b>	21	16	37	0	0	0
<b>Total</b>	202	178	380	9	23	32

Source: Semester data files

**Table 3-16. Number of Pathways participants that graduated, by the number of semesters to graduation from start of college**

Number of semesters to graduation from start of college	Number of graduates		
	Both colleges	Onondaga	Pellissippi
<b>3</b>	1	1	0
<b>4</b>	3	2	1
<b>5</b>	1	1	0
<b>6</b>	3	2	1
<b>7</b>	8	3	5
<b>8</b>	8	0	8
<b>9</b>	2	0	2
<b>10</b>	4	0	4
<b>11</b>	1	0	1
<b>12</b>	1	0	1

Source: Semester data files

### 3.2.3. Additional formal education or training

The survey of Pathways participants asked respondents who were not currently enrolled in community college at the time of the survey if they had, or were, enrolled in an education or training

program in the past six months. If they said yes, they were asked further about the type of education or training program. The number of survey respondents not currently enrolled in community college at the time of the survey was very small in the earlier waves of the survey (3 in wave 1; 5 in wave 2; 7 in wave 3; and 19 in wave 4). The number of respondents who said they were in an education or training program in the past 6 months was also very small but indicates that some who left continued their education:

- 2 in wave 1 in a program for an Associate’s degree;
- 1 in wave 2 in a Bachelor’s degree program;
- 4 in wave 3, of which 2 were in an Associate’s degree program and 2 were in a Bachelor’s degree program; and
- 9 in wave 4, of which 5 were in an Associate’s degree program, 3 were in a Bachelor’s degree program and one was in a program for a certificate or another diploma.

### 3.2.4. Employment

The survey of Pathways participants includes questions on employment and earnings.<sup>15</sup> Among the 77 respondents (29 at OPC and 48 at UPEP), 35 (64.8%) said they were currently working. See Table 3-17. The survey also asked if they worked for pay at a job in the past six months. Among the 77 respondents, 46 (59.7%) said they worked for pay at a job in the past six months. Another six respondents said they “did any work for pay, even for as little as one hour.” Among these 52 (46 + 6) respondents with work, 41 (77.4%) described the work as formal employment and 11 (20.7%) described it as informal, within the household or family. Among those with formal employment, industries of work included: food service; retail; customer service; delivery; education; business; utility; information technology; cinemas/theaters; newspaper; engineering fabrication; and carwash. Among the 24 who did no work, 5 said they participated in college-sponsored work activities.

**Table 3-17. Number and percentage of respondents that worked for pay in the past six months**

Work experience	Yes	No	Missing	Total
<b>In past 6 months, respondent worked for pay at a job</b>	<b>46</b> (59.7%)	<b>30</b> (39.0%)	<b>1</b> (1.3%)	<b>77</b> (100%)
<b>In past 6 months, respondent did any work for pay, even for as little as one hour</b>	<b>6</b> (19.4%)	<b>24</b> (77.4%)	<b>1</b> (3.2%)	<b>31<sup>A</sup></b> (100%)
<b>In past 6 months, respondent participated in any college sponsored work activity</b>	<b>5</b> (20.8%)	<b>19</b> (79.2%)	<b>0</b> (0.0%)	<b>24<sup>B</sup></b> (100%)
<b>Respondent is currently working for pay</b>	<b>35</b> (64.8%)	<b>18</b> (33.3%)	<b>1</b> (1.9%)	<b>54</b> (100%)

Source: Participant survey-all waves. N = 77.

<sup>A</sup> Those who did not answer Yes to first question.

<sup>B</sup> Those who answer No to second question.

<sup>15</sup> Eighteen of 77 survey respondents included Pathways participants that graduated, but only 2 graduates responded to the survey after graduation. Therefore, we do not report on post-graduation earnings.

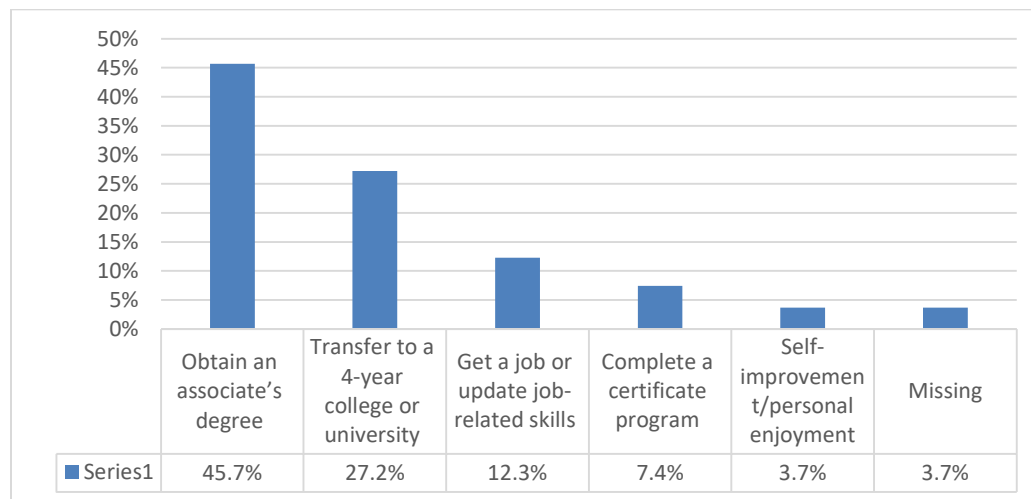
### 3.2.5. Early participant perspectives

The participant survey contained five questions asked only in the first survey the participant completed, not in any follow ups. These pertained to the early college experience (attending an orientation for new students, reason for attending college, and enrollment in developmental courses).

#### Main reason for attending

Survey respondents identified the main reason they were attending college. Figure 3-1 presents the main reason respondents reported for attending college. Most (45.7%) said they were attending to obtain an Associate’s degree and another 27.2 percent 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.

**Figure 3-1. Main reason for attending college**



Source: Participant survey. N = 81.

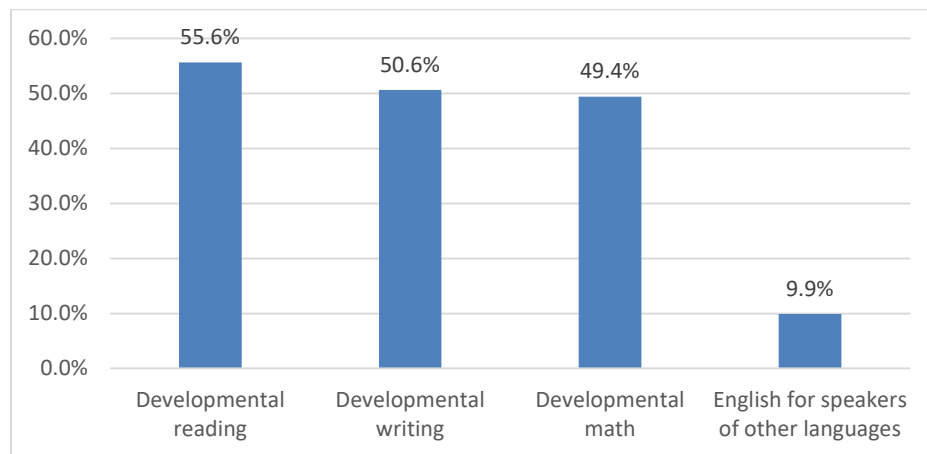
#### Outreach and recruitment—attend orientation

The survey asked if respondents attended a college orientation for new students and, if so, how useful was it. Sixty-seven respondents, or 82.7 percent, said they attended a college orientation for new students. Among those, 35, or 52.2 percent, said it was very useful and 32, or 47.8 percent, said it was somewhat useful.

## Developmental coursework

The literature on students with disabilities suggests that many 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 listed developmental courses during their first semester at the college. As shown in Figure 3-2, about half of respondents reported participating in developmental reading, writing or math, and 10 percent identified participating in English for speakers of other languages.<sup>16</sup> The percentages for the three developmental courses combined are consistent with the values given based on the quarterly reports.

**Figure 3-2. Percentage of enrolled Pathways respondents participating in developmental coursework**



Source: Participant survey. N = 81.

## Alignment with career goals

We asked enrolled participants<sup>17</sup> how closely the Pathways project aligned with their career goals, the likelihood of completing the Pathways project, and their plan for future education. A majority of respondents (57.1%) said the project was “very closely aligned” with personal career goals and 39.0 percent said it was “somewhat aligned.” Only 3.9 percent said that the project did not align with their career goals.

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<sup>16</sup> Only six respondents reported using English as a second language at home.

<sup>17</sup> These results are limited to the 77 respondents in the last wave of the survey for which they were currently enrolled.

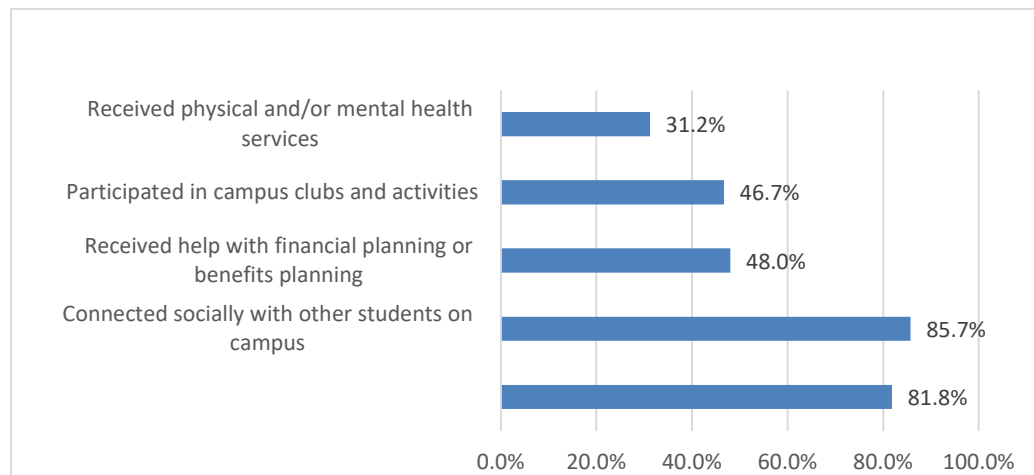
## Likelihood to complete Pathways to Careers project

Almost all of the enrolled survey respondents said they were at least “somewhat likely” to complete the Pathways project (95.4%) with 69.2 percent saying that they were “very likely” to complete the Pathways project. 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. Due to small cell sizes, we did not find any significant differences by college.

### 3.2.6. Student engagement and self-advocacy

One aim of the Pathways project 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 3-3 indicates that more than four-fifths 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 (31.2%) received physical and/or mental health services and almost half (48.0%) received help with financial planning or benefits planning.

**Figure 3-3. Extent of engagement with Pathways project activities and services among enrolled participants**



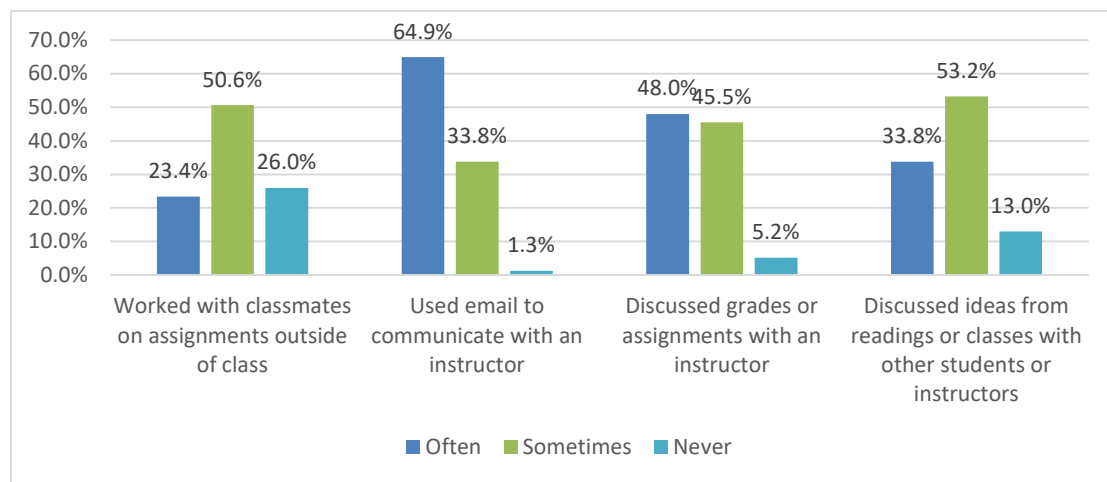
Source: Participant survey-all waves. N = 77.

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 3-4 indicates the frequency of interactions respondents had with other students and instructors. About three-quarters of respondents said that they worked with classmates on assignments outside of class at least sometimes. Almost 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 87 percent of respondents said they sometimes or often discuss ideas from readings or classes with other students or instructors.

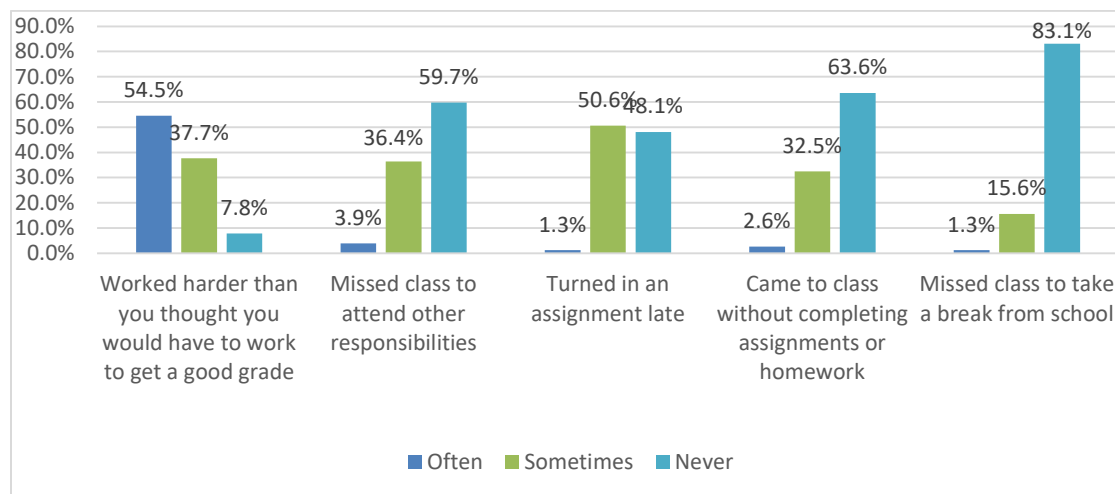
Figure 3-5 indicates the frequency of certain study habits of respondents. More than half of respondents said they often worked harder than they thought they would to get a good grade, and more than one-third said they sometimes worked harder. About two-fifths of respondents sometimes or often missed class to attend to other responsibilities; more than half turned in an assignment late; and more than one-third went to class without completing assignments or homework. A little less than one-fifth missed class to take a break from school.

**Figure 3-4. Frequency of enrolled Pathways respondent’s interaction with other students and instructors**



Source: Participant survey-all waves. N = 77. One missing value not shown for “discussed grades...”

**Figure 3-5. Frequency of enrolled Pathways respondent’s study habits**



Source: Participant survey-all waves. N = 77. One missing value not shown for “came to class...”

Survey results indicate that less than half (45.5%) of respondents spend, on average, 1 to 4 hours per week studying outside of class. More than one-third (37.7%) said they spend 5 to 10 hours per week and about one-tenth (10.4%) spend more than 10 hours per week, on average, studying outside of class.

The survey includes questions to assess self-advocacy, self-determination, and self-disclosure, areas of attention in the Pathways grant projects. Respondents indicated how much they agree or disagree with the four statements listed in Table 3-18.<sup>18</sup> More than half of all respondents strongly agreed with each statement.

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 77 respondents asked, 85.7 percent said yes, and 80.5 percent said they received accommodations or other help from the college or instructors because of a learning problem, disability, or other special need.

**Table 3-18. 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 (%)
<b>I am aware of my rights for reasonable academic accommodations under the law</b>	58.4	40.3	1.3	0	100
<b>I know how to get the information I need about the support services available at my school</b>	58.4	36.4	3.9	1.3	100
<b>I feel comfortable identifying myself as a person with a disability to get the support service I may need</b>	58.4	39.0	2.6	0	100
<b>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</b>	55.8	33.8	7.8	2.6	100

Source: Participant survey-all waves. N = 77.

Note: Percentages do not sum to 100 due to rounding.

To assess the level of independent living among Pathways project participants, we asked respondents about their financial position, having a driver’s license, and being a registered voter. 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 (i.e., they had the responsibility to pay the bill). Most (85.3%) said they had a driver’s license or learner’s permit and 86.8

<sup>18</sup> We cannot attribute these behaviors to Pathways program participation because there is no control or comparison group.

percent were registered voters. When asked about having reliable and accessible transportation to school, 89.2 percent said they do.

### 3.2.7. Perceptions and satisfaction

To further explore participant outcomes, we included questions in the survey to understand how the participants viewed their college experience by considering their perceptions and satisfaction. Table 3-19 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. More than half of respondents said that instructors and staff often supported career development of students with disabilities.

Further, the survey indicates that enrolled Pathways respondents, since their time of enrollment at the college, most often turn to instructors when seeking help with coursework. They also turn to others, but much less to family members and the Office of Disability Services. See Table 3-20.

**Table 3-19. 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 (%)
<b>Assisting students with disabilities to get needed accommodations</b>	57.1	35.1	7.8	100
<b>Providing supports needed for student success</b>	67.5	27.3	5.2	100
<b>Supporting the academic needs of students with disabilities</b>	64.9	29.9	5.2	100
<b>Supporting the career development of students with disabilities</b>	54.5	42.9	2.6	100

Source: Participant survey-all waves. N = 77.

**Table 3-20. 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 (%)
<b>Instructors</b>	45.5	46.7	7.8	0	100
<b>Academic advisors</b>	27.3	44.2	27.3	1.3	100
<b>Tutors, learning centers or learning labs</b>	23.4	41.6	35.1	0	100
<b>Friends or other students</b>	28.6	50.6	19.5	1.3	100
<b>Family members</b>	26.0	40.3	32.5	1.3	100
<b>The Office of Disability Services</b>	10.4	46.7	41.6	1.3	100
<b>Other persons or offices</b>	3.9	37.7	57.1	1.3	100

Source: Participant survey-all waves. N = 77. Note: Percentages do not sum to 100 due to rounding.



We asked respondents to rate on a scale of 1 (unsupportive) to 7 (supportive), how supportive others at the college are toward them. 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%). See Table 3-21.

**Table 3-21. 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
<b>Students</b>	2.6%	0%	5.2%	18.2%	16.9%	27.3%	29.9%	100%
<b>Instructors</b>	0%	0%	3.9%	3.9%	11.7%	36.4%	44.2%	100%
<b>Other staff</b>	0%	1.3%	2.6%	7.8%	23.4%	27.3%	37.7%	100%

Source: Participant survey-all waves. N = 77. Note: Percentages do not sum to 100 due to rounding.

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 3-22 and 3-23 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 3-22. Percentage of enrolled Pathways respondents indicating how often they participated in activities or services in Pathways project or at the college**

Activity or Service	Often (%)	Somewhat (%)	Rarely/never (%)	Not applicable (%)	Missing (%)	Total (%)
<b>Academic advising/planning</b>	37.7	39.0	15.6	3.9	3.9	100
<b>Tutoring</b>	22.1	29.9	41.6	3.9	2.6	100
<b>Mentoring others</b>	7.8	23.4	37.7	27.3	3.9	100
<b>Being mentored</b>	10.4	27.3	31.2	27.8	3.9	100
<b>Skill labs (writing, math, etc.)</b>	15.6	28.6	36.4	15.6	3.9	100
<b>Computer lab</b>	35.1	28.6	26.0	7.8	2.6	100
<b>Career exploration, planning or counseling</b>	22.1	46.7	19.5	10.4	1.3	100
<b>Job placement assistance</b>	14.3	32.5	27.3	23.4	2.6	100
<b>Internships and other work-based learning opportunities</b>	22.1	27.3	27.3	20.8	2.6	100
<b>Child care</b>	3.9	3.9	24.7	64.9	2.6	100
<b>Transportation assistance</b>	11.7	3.9	27.3	54.5	2.6	100
<b>Financial aid advising</b>	19.5	28.6	29.9	19.5	2.6	100
<b>Student clubs and organizations</b>	19.5	14.3	37.7	26.0	2.6	100

Source: Participant survey-all waves. N = 77. Note: Percentages do not sum to 100 due to rounding.

**Table 3-23. Percentage of enrolled Pathways respondents indicating their level of satisfaction with activities or services they participated in at Pathways project or the college**

Activity or Service	Very satisfied (%)	Somewhat satisfied (%)	Not at all satisfied (%)	Not applicable (%)	Missing (%)	Total (%)
<b>Academic advising/planning</b>	46.7	24.7	7.8	9.1	11.7	100
<b>Tutoring</b>	36.4	22.1	10.4	22.1	9.1	100
<b>Mentoring others</b>	15.6	14.3	11.7	46.7	11.7	100
<b>Being mentored</b>	18.2	20.8	7.8	40.3	13.0	100
<b>Skill labs (writing, math, etc.)</b>	18.2	24.7	6.5	39.0	11.7	100
<b>Computer lab</b>	42.9	23.4	3.9	16.9	13.0	100
<b>Career exploration, planning or counseling</b>	32.5	29.9	2.6	19.5	15.6	100
<b>Job placement assistance</b>	18.2	20.8	5.2	40.3	15.6	100
<b>Internships and other work-based learning opportunities</b>	28.6	14.3	13.0	31.2	13.0	100
<b>Child care</b>	2.6	2.6	9.1	72.7	13.0	100
<b>Transportation assistance</b>	11.7	6.5	3.9	64.9	13.0	100
<b>Financial aid advising</b>	24.7	18.2	10.4	32.5	14.3	100
<b>Student clubs and organizations</b>	20.8	14.3	11.7	40.3	13.0	100

Source: Participant survey-all waves. N = 77. Note: Percentages do not sum to 100 due to rounding.

Finally, one overall question asked how the enrolled respondents would rate their experience with the Pathways project. A majority (53.2%) rated their experience as excellent; 39.0 percent rated it as good; 6.5 percent as fair; and 1.3 percent as poor.

## 4. Key implementation challenges and lessons

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In this chapter, we review the key implementation challenges and lessons learned. We briefly touch on challenges and lessons identified in the interim report, with greater focus on the changes made since that point. Though different in approach and particulars, the two projects have faced similar challenges and learned many similar lessons. These challenges and lessons should be viewed as points to be considered by other colleges and universities trying to improve outcomes for students with disabilities. The lessons learned fall into the following categories: 1) college readiness; 2) student engagement; 3) social support; 4) faculty engagement; 5) college support; and 6) sustainability.

### 4.1. College readiness

Staff from both projects faced difficulties in managing students' transitions to college successfully. They report that many graduating high school seniors are not adequately prepared for college in terms of their academic skills, experience, and confidence. Therefore, many require more support than the Pathways projects can provide. This lack of preparedness may have led to some participants to exit both the project and college.

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*“I think that, a lot of our students that are in resource classes or in special education classes [in high school] are not pushed to their potential. They come in thinking they can't, they are already set out to fail.”  
(UPEP staff member)*

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To address this challenge, both projects have worked to improve the transition to college through OPC Scholars and the UPEP Summer Academy. The Summer Academy is offered for two weeks before the fall semester begins, and the OPC Scholars program runs throughout a student's last year in high school. Staff credit these programs for increasing student success in the project, though additional support may be necessary.

### 4.2. Maintaining student engagement

OPC and UPEP both encountered difficulty in engaging enrolled Pathways students in project activities. Student involvement in the projects varies significantly both across and within the projects. Both projects offered a multitude of services, including one-on-one academic and career counseling, group workshops (on topics including financial literacy, career exploration, and managing stress, among others), peer mentoring, and work-based learning. From the start of the project, participants decide which services to use. Many participants at both projects chose only a

limited number of services, and even among those services they were not consistently engaged. In an effort to increase student engagement to ensure participants were getting more support and were utilizing the resources of the projects to the fullest, both projects implemented “student contracts” or “agreements.” At UPEP, contracts became mandatory— participants were required to sign contracts where they selected the activities they would agree to participate in to be counted as UPEP participants. UPEP further mandated a base number and type of activities to be completed, such as the number of workshops and one-on-one academic counseling sessions to attend. Participants worked with their coaches to choose their workshops and the content of the academic counseling sessions. The contract was the “stick”; whereas stipends and scholarships for those who met the requirements were the “carrot.”

Like UPEP, OPC implemented student agreements to increase engagement. However, OPC’s student agreements were voluntary. Due to university regulations, OPC was unable to offer financial incentives for signing or fulfilling these agreements. The project continued to report difficulties maintaining student engagement. Beginning in 2019, OPC introduced a pilot program offering participants Chromebooks to foster student engagement and assist with school and OPC-related work. For both projects, the objective for the incentives was to motivate participants to increase their engagement in the project initially and over time.

### **4.3. Building social support for students**

Though it was not a primary objective at the onset of the project, over time, both projects developed strategies to increase social support in an effort to improve student engagement and outcomes. To this end, both projects worked to better engage students’ families and to offer greater social support from peers to project participants.

OPC and UPEP engaged families through multiple channels including newsletters, orientation sessions geared toward family engagement, and workshops for families about student transition and

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*“Those students without family support tend to struggle more.”*  
(OPC staff member)

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family support. Further, if participants agreed, families were copied on correspondence to the participants. Staff at both projects commented that engaged families can be an asset to both students and the project.

Challenges arose for OPC and UPEP in finding a balance between engaging families and fostering student autonomy. One of their goals was to help participants become independent, self-sustaining individuals. To that end, part of the process of college is separation from families. At the same time, many students with disabilities have significant needs for support and have relied on familial support

extensively throughout their lives. Harnessing that support can help students succeed in college, but students are also learning how to support themselves.

At UPEP, students on the autism spectrum represented a growing proportion of participants. UPEP staff made an effort to find balance between family engagement and student autonomy, recognizing that parents of students on the autism spectrum were more likely to be highly involved. UPEP increased programming focused on student self-advocacy, without cutting back on family engagement activities that teach families how to better support students, including a video of parents encouraging other parents on how to promote youth autonomy. They also modified the student contracts to include workshops to address specific needs.

Providing greater social support for participants from peers was another area that OPC and UPEP focused on more over time. UPEP introduced social support through a peer mentor program. In that program, participants in their second year and above served as mentors for new participants, checking in to offer help and advice, and assist the new participants with navigating the Pathways project. Mentors were required to spend at least five hours with their mentees over the course of the semester. UPEP officials found it to be a mutually beneficial experience for both students. The mentor had the opportunity to be in a leadership position. The mentee had the opportunity to connect with a student who has “been there.” As a result, both students had an increased sense of connection to UPEP.

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*“Honestly, I think the social is every bit as important as any other piece...I think every time we have seen students that interact with each other, they start to support each other.”*  
(UPEP staff member)

*“Being able to do kind of fun things with [the students] I think would create more of a cohort that they wanted to be a part of rather, rather than just, “Here come to this meeting and hear [from] an employer.” [The latter] is still really beneficial, but I think adding that other part in would be really helpful.”*  
(OPC staff member)

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OPC offered a peer mentoring program in the fall 2018 semester, with 4 mentors and 11 participants. However, the participants did not feel they had a need for a mentor in spring 2019 because they were now familiar with the college and the project, suggesting a challenge in

maintaining a peer mentoring program. However, peer mentor programs, as well as other informal opportunities for socialization, can be tools for improving engagement and student outcomes.

## 4.4. Faculty engagement

Engaging faculty at the project is a three-pronged proposition. First, project staff try to engage professors in the projects themselves, as a way to improve recruitment into the project (as professors can recommend the project to existing students) and to increase the number of work-based opportunities for students (through faculty contacts at workplaces). Second, project staff try to engage professors in Universal Design for Learning teaching philosophies, to improve student access to learning. There have been challenges and lessons learned with both types of faculty engagement. Third, some faculty are involved in student internships because some of the academic programs require completion of an internship.

To engage faculty in the projects, staff at both schools made presentations to academic departments, invited faculty to workshops, and sought to build one-on-one relationships with faculty that teach the most frequently-taken courses. Responses were mixed. Some faculty were very interested in the project and reached out to project staff to learn more about it, including the resources available to their students and the faculty. Other faculty were more resistant. Staff at both colleges expressed the belief that some faculty think that these support projects are either not needed, or that they detract from the mission of making students autonomous. Generally speaking, project staff found that junior faculty were more open to the project and its resources.

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*“The faculty wants the students to be as independent as possible and they put some sort of negative value judgment on [the students] if they seem to need extra help.”*  
*(OPC staff member)*

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Similar mixed results were found with faculty engagement in Universal Design for Learning. The Universal Design for Learning framework is designed to encourage teachers to present material in new and different ways. While Universal Design for Learning is often used in the context of serving students with disabilities, implementation of Universal Design for Learning should help all students learn better. However, Universal Design for Learning involves rethinking pedagogy and in many cases changing curricula significantly, something that some faculty may view as a barrier and a burden. Other faculty may be open to the principles of Universal Design for Learning but feel that

they lack the time to learn new techniques. At OPC, some of these challenges were overcome by moving Universal Design for Learning training to the summer thereby alleviating time burden during the school year and offering a stipend for attendance. Since introducing these incentives, interest in the training increased, with all 20 training slots per UDL Academy filled.

Similarly, UPEP encountered some faculty resistance to Universal Design for Learning. Initially, faculty confused the Universal Design for Learning training with the requirements of the Tennessee Board of Regents' Accessibility Initiative that was occurring about the same time as the UPEP project. They worked to overcome this resistance by developing training that exposed faculty to Universal Design for Learning principles and focused on the more receptive faculty members, particularly adjunct and junior faculty, who expressed greater interest in learning new pedagogical techniques, as well as faculty who had more experience working with students with disabilities. Three UPEP staff reported that those efforts led to growing interest in Universal Design for Learning among targeted faculty members.

## **4.5. College support**

OPC's staff included college administrators, which fostered collaborative ties between the project and the administration. This was quite helpful for capacity building and institutional change. On the other hand, UPEP struggled to gain the administration's support, which staff said makes their project seem isolated. Further, UPEP staff were primarily new hires without pre-existing relationships with college administrators. College level endorsement of Universal Design for Learning principles could have improved faculty engagement. More discussion of college support is included in the related issue brief on building capacity and institutional change.

## **4.6. Sustainability**

Sustaining the Pathways project beyond the grant period is a challenge at both colleges. Beginning in 2018, ODEP and the colleges increased their discussions on sustainability, including on how to continue components of their projects after grant funding ends. In addition, the colleges have been working on building capacity and making institutional changes. In this regard, Onondaga had an advantage in that it provided a pathway for some staff to continue at the college, albeit with an altered role, after the grant ends by working to embed the staff in several college departments. Maintaining these staff positions will lay a foundation for continuing project services.

In contrast, nearly all of UPEP staff were not embedded in college departments and are not likely to be absorbed by departments due to a lack of open positions to fill. More discussion of sustainability is included in the related issue brief.

## 4.7. Summary

Both projects encountered challenges and implemented solutions through the lessons learning process. Table 4.1 provides a summary of the six categories and the salient lessons learned.

**Table 4.1. Summary of Lessons Learned from the Pathways to Careers Projects**

	Category	Key Lessons
1	College Readiness	<ul style="list-style-type: none"><li>• Expect and plan for varying levels of college readiness</li></ul>
2	Student Engagement	<ul style="list-style-type: none"><li>• In addition to providing an array of services, incorporate varies requirements, incentives and motivators to promote sustained engagement</li></ul>
3	Social Support	<ul style="list-style-type: none"><li>• Recognize that social support is as critical as services provided, therefore, incorporate mechanisms for family and peers to provide support and socialization</li></ul>
4	Faculty Engagement	<ul style="list-style-type: none"><li>• Incorporate project features that take into consideration potential burdens and barriers for faculty such as time constraints, resource constraints, and possible misconceptions</li></ul>
5	College Support	<ul style="list-style-type: none"><li>• Garner college level support, participation, and endorsement for project activities before and during project implementation.</li></ul>
6	Sustainability	<ul style="list-style-type: none"><li>• Incorporate existing college staff into project services</li></ul>



## 5. Summary

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### 5.1. Implementation

The research questions for the implementation study 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 project models were largely dictated by ODEP's cooperative agreements. 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.

**How did the grantees and their partners develop, modify, and implement their Pathways project models?**

The grantees developed their projects within the framework created by ODEP, with reference to the Guideposts for Success and Universal Design for Learning principles. Overall, the key differences between OPC and UPEP lie in their allocation of resources.

- OPC devoted substantial efforts toward college-level services and supports (institutional change and building capacity), including programs for recruitment and Universal Design for Learning training.
- UPEP devoted substantial efforts to student-level services and supports, with a larger staff and more required one-on-one coaching for students.

**What role did technical assistance and capacity building play in maintaining fidelity and/or project model enhancement?** We observed that technical assistance to the grantees helped the grantees shape their projects, 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 project, and later adopted a similar strategy to increase participant commitment.

### **5.1.2. Incorporation**

#### **To what extent did the grantee project models incorporate the Guideposts for Success framework?**

OPC and UPEP followed the Guideposts for Success framework in their grant applications and in the projects. 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.

- 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.
- UPEP created the Summer Academy, a two-week program for prospective students, to help students learn about the project and transition skills. To foster youth development and leadership, UPEP instituted a peer mentor program, recruiting returning UPEP students (in their second or third year) to serve as a peer mentor to other UPEP students.

#### **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. OPC instituted its UDL Academy for faculty and staff, and is investigating ways to continue the Academy after the end of the grant.
- 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 projects?** OPC and UPEP are engaging employers and workforce development partners in the operation of their projects.

- At UPEP, the Business Liaison Specialist built relationships with area employers, resulting in work-based learning opportunities for students. She led area employment consortia and brought in employers to present at workshops on career opportunities.
- At OPC, the Career Readiness Coach was moved from a location within the Office of Accessibility Resources to the Career Services department. Once there, he was able to share employer resources and knowledge on serving students with disabilities with Career Services staff and help develop new employer connections.

### **5.1.3. Operation**

**What were the major implementation challenges and how did grantees address them?** The grantees encountered several challenges.

- Both projects struggled with students who were not ready for college. Identifying a need for more transition preparation for high school students, OPC created the OPC Scholars program, a once-a-month series of workshops on transition for students in their senior year of high school. UPEP created the two-week Summer Academy to address the same need for more transition support.
- 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 project. UPEP developed the idea, with individualized contracts specifying level of contact with academic and career coaches and number of workshops attended. Students who complete their contracts are eligible for stipends. OPC adopted a modified contract in the form of a student menu. Signing a menu is not required for OPC participants, and initially participation was low as Onondaga cannot offer financial incentives as Pellissippi does. However, OPC is currently piloting a program offering Chromebooks to students to foster student engagement and assist with school and OPC-related work.
- Both projects have identified a need to help students build social support, as a way of increasing engagement, developing leadership skills, and improve outcomes. UPEP created a Peer Mentor program, and both OPC and UPEP have introduced family engagement components to their projects, through newsletters and family orientations.
- Initially, there was little interest on the part of faculty at both colleges in Universal Design for Learning training. OPC has had success in increasing faculty engagement by creating the

UDL Academy during the summer, when faculty have fewer other commitments, and by offering financial stipends for attendance. UPEP has targeted Universal Design for Learning training at adjunct and younger faculty, who have proven more interested in changing their pedagogy.

**To what extent did the grantees accomplish programmatic change, policy change (e.g., accessibility) and systemic institutional change?** OPC and UPEP have made some programmatic, policy, and systemic institutional change.

- OPC is making efforts to embed several key staff into college departments, bringing with them their particular skills on serving students with disabilities and potentially ensuring continuation of staff positions beyond the grant period.
- UPEP drafted a Universal Design for Learning policy that was approved by the college president, and OPC is providing training to faculty and staff to fulfill the five-year plan stated in their policy.
- Both projects acquired new assistive technology and created training manuals for their use.
- Both colleges increased signage and made their campus more accessible for students with disabilities. Onondaga also eliminated barriers such as step up into buildings and supported captioning for instructional video.
- UPEP adopted an inclusive career assessment software. Funding to continue the contract beyond the grant will be needed.

**Are the grantee projects scalable and replicable? What are the lessons learned for other community colleges?** Sustainability has been a challenge for both projects.

- Onondaga administration officials speak positively of sustaining several elements of OPC. There is strong interest in maintaining the OPC Scholars program, perhaps by opening it up to all students, not just those with disabilities, and UDL Academy, again perhaps by broadening it to faculty at other colleges (for a fee).
- Staffing costs represent the vast majority of UPEP expenses, and the college has not indicated that it would help find permanent positions at the college for any UPEP staff. Other college funding priorities, including capital improvements, have also prevented project staff from soliciting funding from many local and regional philanthropies. Although staff continue to search for outside sources of funding, most believe that direct service provision to students with disabilities of the sort provided by UPEP will end after the 2019-2020 academic year.

- Both projects require significant administration support and funding for sustainability at the colleges.

## 5.2. Outputs and outcomes study

We organize our conclusions on outputs and outcomes around the research questions covering satisfaction, academic achievement, and employment.

### 5.2.1. Satisfaction

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

- A majority of the enrolled respondents (53.2%) rated their experience in the Pathways project as excellent, and another 39 percent said it was good.

**Which project components do participants perceive as most satisfactory and beneficial?**

Survey respondents are satisfied with specific components of the projects.

- Two-thirds of the 77 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.
- Three-fifths of respondents said that instructors and staff often supported career development of students with disabilities.
- Areas with the highest satisfaction included academic advising/planning, planning or counseling, tutoring services, computer lab, and career exploration.

### 5.2.2. Academic

**Did the grantees meet their academic target goals for student outcomes?** The evidence on meeting academic target goals is mixed. Enrollment numbers were low but retention and persistence rates varied.

- The grantees did not reach their enrollment targets of 200 within the first two academic year of project operation. Onondaga enrolled 89 and Pellissippi enrolled 129. However, by the end of December 2018, both had enrolled over 200 students.
- On average, more than half of participants per quarter at both projects received academic supports and about one-third of participants participated in developmental coursework.

- Most participants received accommodations. Slightly less than half of OPC participants received self-determination training. About three-fifths of UPEP participants received support in self-exploration.
- As a grant project with an employment focus, career services are a major component to prepare youth for employment after graduation. Less than one-fifth of OPC participants per quarter received career planning and management, and less than one-tenth received career counseling and coaching or work-based learning. In contrast, at UPEP, more than half of participants per quarter received career counseling and coaching and almost one-third received career planning and management.
- The largest percentage of participants (40.6%) attended full-time in all semesters. Close to one-third of participants attended part-time and more than one-quarter attended a mix of full-time and part-time.
- The project retention rates for participants who started Pathways in fall 2015 indicate that 45.7 percent were still enrolled through the end of fall 2016; 26.9 percent through the end of fall 2017, and 7.5 percent through the end of fall 2018. One potential reason for a decrease over time may be the confidence of the participants to handle issues on their own, no longer needing the assistance or services of the project.
- The college persistence rates are greater at Pellissippi than at Onondaga, especially for 2-year (fall 2016 through fall 2018) and 3-year (fall 2015 through fall 2018) persistence rates (2-year rate: 55.2% at Pellissippi vs. 36.4% at Onondaga; 3-year rate: 29.3% at Pellissippi vs. 3.3% at Onondaga).
- Participants in both colleges maintained at least a C grade overall. At Pellissippi, participants could earn scholarships for taking at least 12 credit hours and getting a C grade or better in every class. The Onondaga mean GPA ranged from a low of 2.03 (in fall 2015) to a high of 2.47 (in fall 2017), and the Pellissippi GPA ranged from a low of 2.24 (in fall 2015) to a high of 2.63 (in fall 2016).
- For fall 2015 through fall 2018, 32 Pathways participants graduated college. Among those, 23 were at Pellissippi and nine were at Onondaga. Most of the graduations occurred in spring 2018. Most of the Pellissippi graduates (18 graduates) began the Pathways project in fall 2015.
- Survey data indicate that several respondents no longer enrolled at the grantee college had enrolled in other education or training, mostly for an Associate's degree or a Bachelor's degree.

**To what extent did the projects offer services to increase student engagement, self-advocacy, self-determination, and self-disclosure?** Both, OPC and UPEP, provide services and activities to increase student engagement, self-advocacy, self-determination, and self-disclosure.

- According to the participant survey, over four-fifths 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.

- The survey included four questions to assess self-advocacy, self-determination, and self-disclosure by asking respondents to indicate how much they agree or disagree with each statements. At least half of all respondents strongly agreed that they:
  - Are aware of their rights for reasonable academic accommodations under the law,
  - Know how to get the information they need about the support services available at their school,
  - Feel comfortable identifying themselves as a person with a disability to get the support services they may need, and
  - Feel that they can get instructors and staff to listen to them so that they obtain the accommodations they need to be successful in their classes.
- Among survey respondents, 85.7 percent indicated that they had told an instructors that they have a learning problem, disability or other special need.

### **5.2.3. Employment**

**Did the grantees meet their employment target goals for student outcomes?** The grantees did not set specific target goals for employment, nor did they track employment information on project leavers or graduates because of difficulty reaching students after exit.

The participant survey provides information on employment for those who responded to the survey, but only 2 of the 18 graduates who completed the survey responded to the survey after their graduation.

## References

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- Brand, B., Valent, A., and Danielson, L. (2013). *Improving college and career readiness for students with disabilities*. Washington, DC: College and Career Readiness and Success Center at American Institutes for Research.
- Baer, R.M., Flexer, R.W., Beck S., Amstutz, N., Hoffman, L., Brothers, J., and Zechman, C. (2003). A collaborative followup study on transition service utilization and post-school outcomes. *Career Development for Exceptional Individuals*, 26, 7-25.
- Fitchen, C.S., Jorgensen, S., Barile, M., Ferraro, V., Landry, M.E., Asuncion, J. (2012). What happens after graduation? Outcomes, employment, and recommendations of recent junior/community college graduates with and without disabilities. *Disability and Rehabilitation*, 34, 917-924.
- Madaus, Joseph and Stan Shaw (2010). College as a Realistic Option for Students with Learning Disabilities. Council for Learning Disabilities. Retrieved from <https://council-for-learning-disabilities.org/college-as-a-realistic-option-for-students-with-learning-disabilities>.
- Newman, L. (2005). Postsecondary education participation of youth with disabilities. In Wagner, M., Newman, L., Cameto, R., Garza, N., and Levine, P. (2005). *After high school: A first look at the postschool experiences of youth with disabilities. A report from the National Longitudinal Transition Study-2 (NLTS2)*. Menlo Park, CA: SRI International. Retrieved from [www.nlts2.org/reports/2005\\_04/nlts2\\_report\\_2005\\_04\\_complete.pdf](http://www.nlts2.org/reports/2005_04/nlts2_report_2005_04_complete.pdf).
- Oertle, K.M. and Bragg, D.D. (2014). Transitioning students with disabilities: Community college policies and practices. *Journal of Disability Policy Studies*. 25(1), 59-67.
- Pellissippi State Community College (2015). Policy 00:04:00 Universal Design For Learning. <http://www.pstcc.edu/ppm/pdf/00-04-00.pdf>
- Tennessee Board of Regents (2015). Accessibility Initiative. <https://www.tbr.edu/student-success/accessibility-initiative>
- Werner, Alan, Rappaport, Jennifer Bagnell Stuart, and Jennifer Lewis (2013). *Literature review: Career Pathways programs*, OPRE Report #2013-24, Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
- Wills, J., Solberg, V.S. and Osman, D. (2012). *Promoting quality individualized learning plans: A "how to guide" focused on the high school years*. Washington, DC: National Collaborative on Workforce and Disability for Youth, Institute for Educational Leadership.