

# Demonstrating the Effectiveness of Short-Term Career and Technical Training in a Residential Setting for Transition-Age Youth with Disabilities

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## Abstract

High quality career and technical education offered in a residential setting can achieve positive employment and earnings outcomes for transition-age youth with disabilities. This paper considers the feasibility of an intervention that combines the key elements of two well-established residential programs whose participants include youth and young adults receiving Supplemental Security Income. This intervention, titled Residential Postsecondary Education and Career Training (ResPECT), combines elements of services provided by the Michigan Career & Technical Institute (MCTI) and the Postsecondary Education Rehabilitation Transition (PERT) program. MCTI has offered high quality postsecondary career and technical education for several decades. PERT, developed at the Woodrow Wilson Rehabilitation Center in the mid 1980s, provides career interest and aptitude assessments for youth in special education or with Section 504 plans at the high school level. The major elements of ResPECT include (1) case management, (2) thorough assessment of skills and interests, (3) rigorous employer-driven career and technical curricula, (4) instructors who come from industry, (5) developmental academic coursework as needed, (6) technological or in-person supports as needed, and (7) independent living in a postsecondary residential setting during training.

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## I. Introduction

Young people receiving Supplemental Security Income (SSI) have three daunting hurdles to overcome as they prepare for and initiate their careers. First, as with all youth, they must make educational and skill development choices as they transition from adolescence into young adulthood. Second, they must make these decisions with significant health conditions that may not be easily accommodated in educational and labor market settings. Third, they and their families have limited resources to invest in educational and career preparation opportunities. Youth receiving SSI and society more broadly will benefit from, and policymakers are interested in, interventions that will help youth to address these hurdles.

The purpose of this paper is to describe an intervention that may be effective in launching youth receiving SSI into a sustainable career and ultimately reducing their reliance on SSI. The intervention focuses on high quality career and technical education in a residential setting. Key connective elements that are important catalysts for the intervention are appropriate skills assessments, counseling, case management, and assistive supports. This paper first describes the intervention in more detail and presents a theory of change that shows how the intervention can alter the life circumstances of transition-age youth. It then presents two demonstrations to test the efficacy of the intervention.

Two existing interventions have been effective in improving employment outcomes for transition-age youth. The first is one- to two-year career and technical training offered in a residential setting by the Michigan Career & Technical Institute (MCTI) that has resulted in high placement rates and initial wages for youth with disabilities who have completed high school (MCTI 2019). The second is the Postsecondary Education Rehabilitation Transition (PERT) program, a short-term residential program that provides career interest and aptitude assessments for youth in special education or with Section 504 plans at the high school level. PERT has resulted in positive long-term earnings outcomes for participants (Dean et al. 2019). This paper considers an intervention that wedges the key elements of the MCTI and PERT programs, that engages out-of-school youth, and that incorporates a case management approach.

The proposed intervention, titled Residential Postsecondary Education and Career Training (ResPECT), expands access to programs such as MCTI and PERT as a way of increasing the sustainable and satisfying lifetime careers and earnings of youth receiving SSI. The intervention achieves this goal through two intermediate outcomes: skills acquired through high quality career and technical education (CTE) at the postsecondary level (see Hollenbeck and Huang 2016) and the self-efficacy gained through independent living and peer socialization (Cobb-Clark 2015). The job skills that employers demand in today's highly competitive economy are generally far more technical than what the poorly resourced secondary CTE offered by most school districts can deliver. Thus, education and training of youth with disabilities must extend beyond high school. Furthermore, because self-efficacy is powerful in reinforcing labor market success (Cobb-Clark 2015), gaining independent living skills along with peer interaction helps to overcome the stigma and insecurities that these youth may have experienced while attending high school and living at home.

The ResPECT intervention described in this paper is not suitable for every youth in transition. The populations served by the intervention are youth receiving SSI or potential SSI applicants with disabilities who have the interest in and aptitude to succeed in technical education. The intervention may not be appropriate for individuals who aspire to careers that require the academic preparation afforded by a four-year college or for very low functioning individuals who may not be able to achieve success in CTE at the postsecondary level. The PERT program currently benefits high school students (generally age 16 to 18) with individualized education programs (IEPs) or with Section 504 plans. The proposed intervention would expand this population to include out-of-school youth. The MCTI model engages young adults age 18 and older with disabilities who have received a high school degree or its equivalent and whose career interests are in an applied field. Upon completing a program at MCTI, students may continue their postsecondary education at a two- or four-year institution, although that does not often occur.

The next section of this paper provides background information about policies and programs that seek to engage transition-age youth with disabilities. That section is followed by a description of the proposed intervention. Next, a theory of change is presented that supports the notion that this intervention may achieve success. The theory of change is followed by a description of two demonstration programs that could be implemented to test the intervention as well as a discussion about how these demonstration programs might be evaluated. The final section concludes.

## II. Background

At the federal level, the Social Security Administration (SSA), the Department of Education (DOE), and the Department of Labor (DOL) separately or, in some cases, collaboratively administer policy or demonstration initiatives for individuals with disabilities. State agencies within the vocational rehabilitation (VR) system and the special education system also administer funds and policies for individuals with disabilities. Finally, nongovernmental entities also serve this population. This section summarizes what we know about the educational and labor market outcomes of the policies and programs administered by these entities and identifies the effective elements of these interventions.

SSA has created several policy initiatives and demonstration programs directed at youth receiving SSI to improve their postsecondary education attainment and career outcomes. Within the SSI program itself, financial provisions are in place to incentivize education and training enrollment (SSA 2019). These provisions include Section 301 payments, Student Earned Income Exclusion, Plan to Achieve Self-Support, Work Incentives Planning and Assistance, and Achieving a Better Life Experience accounts. However, participation in these incentives has been quite limited. In addition to these incentives, SSA has implemented two demonstration programs in the last two decades: the Youth Transition Demonstration (YTD) and Promoting Readiness of Minors in SSI (PROMISE).<sup>1</sup> YTD has shown positive longer-run employment impacts (Fraker et al. 2018; Cobb, Wittenburg, and Stepanczuk 2018). The initial impact analyses of PROMISE suggest positive short-run paid employment impacts, but no impacts on educational enrollment or expectation about high school completion (Mamun et al. 2019). One of the core elements of PROMISE is case management, and

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<sup>1</sup> PROMISE is a joint initiative with the Departments of Education, Health and Human Services, and Labor.

one of the strongest results in the initial impact report is receipt of transition services. The counseling or navigation provided by a caring adult through a case management approach is one of the key elements of the intervention proposed here.

The VR system is administered at the federal level by the Rehabilitation Services Administration (RSA) of the DOE. Under the aegis of RSA, each state has one or two VR agencies that administer and (partially) fund programs within the state. Over the past few decades, the emphasis of VR services has been on supported employment. With the Workforce Investment Act (WIA) of 1998, VR was integrated with other federal workforce development programs in a one-stop approach. In 2014, the Workforce Innovation and Opportunity Act amended WIA and mandated common outcome measures for VR that included employment and earnings.

Many studies have shown that VR services result in positive employment and earnings outcomes.<sup>2</sup> For example, Uvin, Karaaslani, and White (2004) and Hollenbeck and Huang (2003, 2006, 2008, 2014, 2016) report the results of quasi-experimental evaluations of VR in the states of Massachusetts, Washington, and Virginia. The most recent of these studies (Hollenbeck and Huang 2016) found an employment net impact of 10 percentage points, a wage increase of \$0.86 per hour, an increase in hours worked by 24.8 hours per quarter, and an average quarterly earnings increase of about \$250 for VR customers three years after receiving services. These quasi-experimental studies were not able to identify the effectiveness of the different types of services provided by VR agencies. However, Schmidt et al. (2019) rigorously disaggregate employment and earnings impacts in their analyses of VR services in two states and find customers who receive training and/or job support services experience the greatest positive impacts. None of the studies identify the impact of VR services on the subset of its customers who receive SSI, but the SSA Office of the Inspector General (SSA 2017) found that the agency's cost reimbursement program was cost-effective.<sup>3</sup>

The DOE has a smaller role in public secondary and postsecondary education than it does in VR, although it is responsible for funding and administering special education services and for administering the Individuals with Disability Education Act (IDEA). Several studies have examined the effectiveness of public secondary and postsecondary educational institutions for individuals with disabilities, although little is known about the impacts on youth or adults receiving SSI. The IDEA requires states and local school districts to provide free and appropriate education to students with disabilities until age 21 in the least restrictive environment available. Several studies have shown that concentrating on CTE in high school (usually defined as three or more credits in a specific pathway) and inclusion in high school promote positive postsecondary education and employment outcomes for students with disabilities (e.g., Mazzotti et al. 2016; Theobald et al. 2017; Rabren et al. 2014). In some instances, individuals with disabilities have the opportunity to complete their secondary education in postsecondary institutions. Postsecondary environments result in better outcomes for individuals educated under the terms of the IDEA as compared to secondary schools (Thoma et al.

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<sup>2</sup> Note that the studies of the impacts of VR services cited in this paragraph include all customers and are not just limited to youth.

<sup>3</sup> SSA reimburses VR agencies for services provided to recipients of SSI that result in employment for at least 90 days and earnings that reach a specified level (SSA 2020b). The cost-effectiveness finding should be tempered by the fact that the Inspector General's report noted that reimbursements made for many individual cases were not cost-effective.

2012). However, in general, secondary education may have a limited impact on youth receiving SSI, given that more than 30 percent of 17-year-old youth receiving SSI drop out of high school (Hemmeter, Kauf, and Wittenburg 2009).

Two studies provide substantial information about the experiences of individuals with disabilities in postsecondary education. The National Longitudinal Transition Study–2 has a wealth of information about post–high school outcomes for individuals with disabilities (Newman et al. 2011, chapter 2). Within eight years after leaving secondary school, slightly more than 60 percent of individuals with disabilities had attended a postsecondary institution. The largest share of youth enrolled at two-year or community colleges, followed by vocational, business, or technical school and four-year colleges. The completion rate was highest for the vocational, business, or technical schools (about 57 percent); the completion rates for other institution types were lower (41 percent at two-year or community colleges and 34 percent at four-year colleges). Lindsay et al. (2019) conducted an exhaustive review of studies of postsecondary transition programs for youth with disabilities in Canadian, U.S., and Australian institutions. Among the common components of successful interventions are group-based programs with one-to-one support, often through case management. Lindsay et al. (2019) highlight enhanced self-efficacy as a positive outcome.

Since 2010, DOE has supported demonstration programs at various institutions of higher education referred to as the Transition and Postsecondary Programs for Students with Intellectual Disabilities (TPSID). These programs were authorized by the Higher Education Act and use an individual-focused approach to facilitate the transition and inclusion of individuals with intellectual disabilities in higher education settings (Department of Education 2015). Outcome data show that program completers have limited success in entering postsecondary education but significant success in obtaining paid employment (Grigal et al. 2019; Ross et al. 2013). The TPSID uses a limited residential approach, but each campus has a very small number of participants, and none of them focus on the development of CTE skills. The multi-site demonstration proposal suggested in this paper might be a way to test whether a more comprehensive residential component could be added to TPSID. The TPSID institutions are part of the Think College network, which likely includes two-year institutions with high quality applied associate degree programs. The ResPECT intervention could tailor one or more of these programs' curricula and extend the residential component to students with an interest in and ability to benefit from a certificate program.

The Job Corps, administered by DOL, is by far the largest federal training program for disadvantaged youth. It originated in 1964 but, by design, did not serve a large number of youth with disabilities in its first decades. The Job Corps is largely a residential program for youth age 14 to 24 that offers academic training to prepare them for the General Educational Development (GED) test or to earn a high school diploma and CTE in a wide range of program areas. The Job Corps provides participants with a stipend and offers wraparound services such as health care; counseling; food and clothing; social skills development; parenting, world-of-work, and cultural awareness classes; and recreation and center governance opportunities. The per participant cost of the Job Corps is quite high (\$25,000 to \$30,000) and, although its placement rate is high, the job quality of its placements may be an issue (DOL 2018b). A large-scale randomized study of the Job Corps conducted in 1996 found that participation in Job Corps resulted in medium-run improvements in

self-reported labor market outcomes (as well as increased education/training participation and decreased arrests; Schochet, Burghardt, and Glazerman 2001).<sup>4</sup> A follow-up study showed that that subset of youth with medical limitations had large, significant positive employment and earnings outcomes, as well as significant reductions in long-term disability benefits (Hock et al. 2017). Since the mid 1990s, the Job Corps has served substantial numbers of youth with disabilities. In program year 2017, almost 30 percent of participants had a disability (DOL 2018a). A randomized controlled trial is underway to determine the efficacy of Job Corps specifically for VR clients (Mann et al. 2019).

In addition to government programs, private foundations and agencies have identified youth with disabilities for assistance. The Marriott Bridges from School to Work program is a well-known example that has achieved success. This program offers skill assessments, career planning, job development, placement, evaluation, and follow-up services to secondary students with disabilities in 12 U.S. cities. Simonsen, Fabian, and Luecking (2015) note that career preparation and job development were particularly cogent in achieving successful outcomes.

The policy and demonstration program initiatives undertaken by federal, state, and nongovernmental agencies suggest several lessons for interventions for youth receiving SSI, lessons that the proposed intervention incorporates. In programs aimed specifically at SSI recipients, the financial incentives and individual plans that SSA offers seem to have limited effectiveness because of low participation rates. The PROMISE demonstration, sponsored by SSA, suggests that agency collaboration together with a case management approach may be effective, however. For high school age youth with disabilities, a concentrated CTE program, especially one with employer-based learning, can have positive educational and labor market outcomes. Transition programs for youth with disabilities at the postsecondary level suggest that group-based programs, especially those with a case management approach, are effective. Outside the formal secondary and postsecondary education system, the Job Corps program shoulders the largest burden of education and training for out-of-school and other populations of youth who are economically disadvantaged. One study suggests that it may be successful for youth with disabilities, but the extent to which that success is due to its wraparound services, training, or the payment of a stipend is unknown.

### III. Intervention

The proposed intervention, ResPECT, is a combination of and enhancement to two existing residential CTE programs that have resulted in positive outcomes for youth with disabilities for several decades: MCTI and PERT.<sup>5</sup> The intervention borrows several elements from the existing

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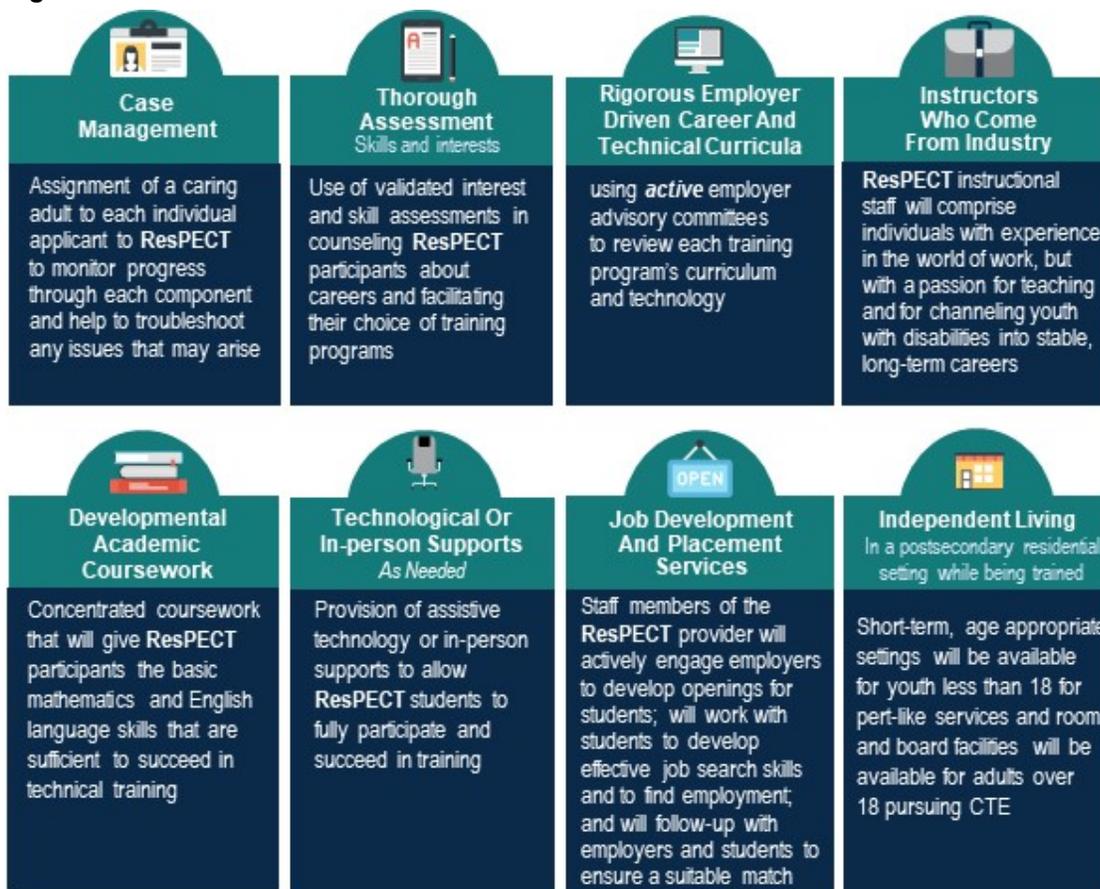
<sup>4</sup> A recent analysis using administrative data showed that individuals who were older (age 21 to 24) at the time of their participation had significantly positive employment and earnings outcomes and significant reductions in Social Security Disability Insurance payments two decades after their participation (Schochet 2021).

<sup>5</sup> MCTI belongs to State Operated Student Rehabilitation Centers, an association with seven or eight member institutions that all, to some extent, offer residential-based CTE. As of this writing, MCTI and the WWRC are the only two member institutions that have the necessary capacity and staff to expand their enrollment in a significant way for youth receiving SSI.

MCTI and PERT models, combines them into a seamless program, extends PERT to out-of-school youth, and adds case management (Figure 1).

The PERT model portion of the intervention focuses mainly on the second element displayed in Figure 1: skill and interest assessment. The Wilson Workforce and Rehabilitation Center (WWRC) in Fishersville, Virginia, pioneered PERT and has delivered services since the mid 1980s. This program is administered by the Virginia Department for Aging and Rehabilitative Services for the Virginia Department of Education. Students who receive services under an IEP or a Section 504 Plan in a public school in Virginia are eligible to participate in PERT. If students' transition teams recommend participation and students choose to pursue the opportunity, they visit the WWRC for a five- or ten-day period during which they reside in a dormitory and participate in various interest and skill assessments. At the end of their visit, the students will have realistic expectations about their future traversal of the postsecondary education environment and a reading on which training areas they are well suited. Using a unique panel data set, Dean et al. (2019) estimate a model of PERT participation and long-run (over five years) employment and earnings and find that participation increases employment by just over 30 percentage points and raises earnings by nearly 30 percent.

**Figure 1. Features of the ResPECT intervention**



CTE = career and technical education; PERT = Postsecondary Education Rehabilitation Transition; ResPECT = Residential Postsecondary Education and Career Training.

MCTI is an accredited<sup>6</sup> postsecondary institution that annually serves approximately 850 individuals with disabilities who have obtained a high school degree or its equivalent. The school operates four ten-week terms during the year. The career training comprises thirteen technical education courses that participants complete in two to four terms. In 2014, MCTI also started offering a PERT-like program for high school students on a limited scale. The main recruitment source for MCTI students is the Michigan Rehabilitation Service, although referrals from other agencies such as the Bureau of Services for Blind Persons, Veterans Affairs, or other private rehabilitation agencies are considered if space is available. In the 2018–2019 academic year, 184 students, approximately 22 percent of the total student body, were receiving SSI.<sup>7</sup> Upon successful application to MCTI, students enroll in their occupational field of interest. Most students are assessed academically either through their PERT experience (if they were one of the few students served by MCTI's PERT) or during their initial days on campus through the Career Assessment Services unit. If they do not have the reading or math skills to succeed in their chosen pathway, they enroll in a developmental course called Step-Up.<sup>8</sup>

MCTI offers training programs in a variety of fields (Box 1). Each program has an active employer advisory committee to review the curriculum and utilized equipment and is instructed by an individual with industry experience. A feature of the MCTI environment is developing close relationships with all students. As students traverse their CTE program, they have the flexibility to transfer to another trade if desired or warranted. Over the last five years, approximately 5 percent of students transferred programs. Upon completion, students earn a Certificate of Completion or Achievement and have access to placement assistance through the Placement Services Unit, which aids students as well as develops employment opportunities.

Perhaps the most important element of the MCTI model is the residential living that is provided to students during training. The typical student comes from a high school situation in which she was living at home and in which she likely had few peers. At MCTI, every student is a peer, and almost every student lives in the dormitory. The dormitory living gives students the opportunity to develop independent living skills, which complement and reinforce the technical skills they learn in training. The dormitory environment promotes

**Box 1. Training programs offered by MCTI**

- Automotive technology
- Cabinetmaking/millwork
- Certified nursing assistant
- Commercial printing
- Construction
- Culinary arts
- Custodial
- Electronics
- Grounds maintenance
- Machine technology assistant
- Office automation
- Pharmacy services
- Retail marketing

<sup>6</sup> MCTI has been fully accredited by the Commission on Accreditation of Rehabilitation Facilities since 1979 and by the North Central Association – Commission on Accreditation and School Improvement since 1999. During the 2013–2014 school year, MCTI moved from the North Central Association to the Council on Occupational Education, obtaining accreditation status on November 3, 2015.

<sup>7</sup> Unpublished data provided by MCTI.

<sup>8</sup> According to MCTI (2019), over the last five years, approximately 60 percent of enrolled students enrolled in Step-Up. The same source indicates that in the latest year, about two-thirds of students improved their math skills and more than half improved reading skills so that they had more training options.

peer socialization, and the institution provides recreational activities for students and facilitates opportunities for student governance. Unlike the Job Corps, MCTI students do not receive a stipend, but MCTI does have several student employment positions in which students gain work experience and job seeking and employment skills while earning money. Approximately 10 percent of students are employed by MCTI each year.

ResPECT's combination of MCTI and PERT into a single intervention will not be straightforward because most of the students served by the former will be under age 18, and they cannot be housed with students older than age 18. Thus, the interest and ability assessment and career counseling elements of the intervention for the younger students must be accomplished between terms, or a separate dormitory facility must be available for them.

Given its effectiveness in many demonstrations involving youth, formal case management is included as a feature of the intervention. Arguably, this service is not new: both MCTI and PERT have relatively small enrollments so that instructors, counselors, and other staff members monitor the progress and effort of all students. Furthermore, most of the students in these programs are VR customers and have agency caseworkers who monitor their activities. However, formalizing case management into a component of ResPECT acknowledges its importance for tracking and encouraging student progress and for having a caring adult to whom a student can turn if or when problems arise. Furthermore, counselors can provide students with benefits counseling to help navigate SSA work incentives and understand how earnings affect benefits.

**Outcomes.** Table 1 displays outcomes for MCTI students over the most recent five years of data. The first row of data provides an unduplicated count of students who enrolled in the academic year. Retention of those students, meaning they graduated or had other positive outcomes or were still enrolled in good standing is more than 90 percent. Around 85 percent of program graduates have been placed into employment; for those placed, the employment is trade related and lasts for at least 90 days for 85 to 90 percent. Employers of MCTI graduates are highly satisfied (from 90 to 98 percent) with the graduates' job performance. The average weekly wage for students who were placed is just over \$400. This wage varies considerably by program area. For example, in the latest year of data, the average weekly wage exceeds \$500 for cabinetmaking, electronics, and machine technology, but is around \$300 for culinary arts, custodial, and retail marketing. As a point of comparison, the level of substantial gainful activity (SGA) for non-blind recipients of SSI is about \$290 per week.

Outcomes similar to those reported in Table 1 for the PERT program are not available because that program serves high school age students. However, Dean et al. (2019) report that the mean levels of quarterly employment and earnings of PERT students four years after application are around 55 percent and \$2,500 (in 2000\$), respectively.

**Table 1. MCTI student outcomes, by academic year**

Outcome	2014–2015	2015–2016	2016–2017	2017–2018	2018–2019
Enrollment (unduplicated count)	522	521	542	550	537
Retention	92%	93%	93%	92%	92%
Percentage withdrew/did not complete	8%	7%	7%	8%	8%
Employed (graduates)	84%	87%	82%	84%	87%
Employed in trade <sup>a</sup>	84%	87%	89%	85%	86%
Employed for 90 days <sup>a</sup>	84%	87%	89%	90%	90%
Employer satisfaction <sup>b</sup>	90%	98%	96%	98%	94%
Average weekly wage at placement	\$366.35	\$376.90	\$414.95	\$404.62	\$415.30

Source: MCTI (2019, page 8).

<sup>a</sup> Expressed as a percentage of graduates who found employment.

<sup>b</sup> MCTI placement staff contact all employers to ask if the employer is satisfied with the graduate's work. If the employer does not respond, then MCTI considers the employer as satisfied if the graduate remains employed for at least 90 days.

**Intervention cost.** According to Dean et al. (2019), the cost of PERT is about \$2,000 per student. The MCTI budget for 2018–2019 was about \$12.75 million, which translates to about \$11,000 per student (MCTI 2019). These costs were borne by federal or state governmental agencies, except in very rare instances when individual students were not VR customers and could afford the tuition.

**Implementation challenges.** To date, MCTI and PERT have produced quite positive labor market outcomes. The premise of the current paper is that the ResPECT intervention will continue and potentially improve these outcomes for youth receiving SSI. However, questions may be raised about the intervention that, if not addressed, may counterbalance its advantages. This section addresses important implementation challenges related to the intervention.

**Possibility of segregated facilities.** Instead of investing in the ResPECT intervention, resources could alternatively be used to provide scholarships for individuals with disabilities to attend community colleges. Indeed, MCTI is comparable to the applied programs in a community college. However, the components of ResPECT modeled after MCTI have the comparative advantage of successfully providing the curriculum, instructional methods, and technology for students with a wide range of disabilities in a variety of program areas. Many of the curricula result in industry-recognized credentials.

Furthermore, the MCTI-like part of the ResPECT intervention includes a residential component to develop independent living skills and peer socialization. Arguably, these aspects of the intervention reinforce the positive labor market outcomes. It is undeniable that the residents would all be individuals with disabilities because (1) the largest source of referrals is from the VR system, which finances tuition and room and board and (2) the CTE that is offered has proven successful for these individuals. However, the housing operates like a college dormitory, and students are independent. Hence, although ResPECT would include separate housing for individuals with disabilities, the advantages of the residential component outweigh potential drawbacks. If the Multi-Site ResPECT

Demonstration (described later) were to be implemented, it would be valuable to test the hypothesis that separate housing facilities for the participants significantly influences program outcomes.

**Variety of disabilities.** MCTI serves students with a wide variety of disabilities. Using RSA criteria, about 78 percent of the 2018–2019 students were classified as “most significantly disabled,” 19 percent as “significantly disabled,” and 3 percent as “not significantly disabled.” A majority of students (85 percent) had a primary impairment of mental disorders, with 25.3 percent having a diagnosis of autism and 8.4 percent having an intellectual disability. According to SSA (2020a), in December 2019, more than three-quarters (77.0 percent) of the SSI recipients ages 18 to 25 had mental disorders. Specifically, 18.2 percent had a diagnosis of autism, and 30.4 percent had an intellectual disability. In short, MCTI serves students with impairments very similar to those of SSI recipients (MCTI 2019; SSA 2020a).

**Cultural sensitivity of training.** An important benefit of the socialization that occurs in educational settings can be the recognition and acceptance of cultural diversity and inclusivity. Having a diverse faculty and student body can accomplish this goal. Because the ResPECT intervention involves the socialization that occurs in classroom/lab settings and that is deliberately designed into the residential setting, it is important to ensure that providers have a diverse faculty and student mix. At MCTI, persons of color make up approximately 25 percent of both the faculty and student enrollment (MCTI 2019).

**Scalability.** The institution that is the basis for most of the ResPECT intervention, MCTI, has a modest enrollment and staff size. Hence, successful replication of ResPECT across multiple states and possibly nationwide must address the intervention’s scalability. However, no legal or institutional barriers prevent other institutions from implementing ResPECT if they invest the necessary resources to develop specialized faculty, curricula, and technology.

**Similarity of program completion to a certificate or degree from a community college.** Like most comparable community colleges, MCTI develops jobs and places its graduates at a fairly stable set of employers. As shown in Table 1, graduates’ wages are relatively high, and employers are quite satisfied. The employer satisfaction rating shown in Table 1 indicates that the placements lasting at least 90 days are highly satisfactory as far as employers are concerned. This evidence points to similar outcomes among program completers and community college graduates.

## IV. Theory of change

The theory of change illustrated in Figure 2 suggests how the intervention will affect young adults in the environments that are associated with SSI receipt. The top panel refers to the theory of change for youth receiving SSI up to age 18 (either in school or out of school), and the bottom panel depicts the same for those ages 18 and older or those applying for the adult SSI program. Both populations will likely have encountered stigma in school and may have suffered food or shelter insecurities.

The referral sources will differ for youth under age 18 depending on whether they are in school. The figure suggests that a transition team within the school setting (composed of special education staff)



As described above, the PERT-like part of the intervention will involve a short (five- or ten-day) campus experience, interest and ability assessment, and career counseling. As warranted, participating students will be encouraged to apply to an institution with the MCTI-like intervention and pursue their training field(s) of interest. Students who are assessed to be unlikely to benefit from the MCTI intervention will be directed to appropriate community resources such as a Ticket to Work Employment Network.

The lower panel pertains to transition-age youth age 18 or older who receive or are applying for SSI. As the figure shows, these individuals will be recruited into the MCTI-like services from two sources. Ideally, many of the individuals receiving PERT-like services will go on to undertake their postsecondary education from a ResPECT provider. Other individuals will be referred from a state VR agency or local workforce development agency. For the most part, these individuals are likely to have had limited educational success, may lack an effective advocate, and have little labor market experience.

Upon enrolling in the ResPECT intervention, youth receive case management assistance and exposure to a set of caring adult faculty and staff. For the adults who did not participate in PERT services, the first activity is a thorough academic ability, skill, and interest assessment. As necessary, they will be enrolled in developmental math or reading. Students without a GED will be expected to obtain their GED, and their developmental coursework will include GED preparation. Incoming students with requisite skill levels and students who upgrade skills successfully will receive high quality CTE that is employer driven and professionally instructed. The majority will be offered residence in a dormitory, where they will develop independent living skills and will have the opportunity to socialize with peers. The intended outcomes include employment with substantial earnings potential and reinforcing independent living skills. The training they receive through participation in CTE will impart job skills that are in demand and consequent positive employment and earnings outcomes (as have been shown in data from MCTI and PERT). The figure shows these labor market outcomes intertwined with the independent living skills that are inculcated by residential living. A residential setting fosters self-efficacy through successful independent living and socialization skills through the peer interaction.

## V. Suggested implementation demonstrations

The components of the intervention described here have had documented success in improving employment outcomes of youth with disabilities in transition. However, it is unclear to what extent a targeted effort could involve (more) individuals on or applying for SSI, which would enhance these individuals' employment and earnings and reduce dependence on SSI. This section details two sequential demonstrations to test elements of the intervention. The first demonstration—the Single-Site ResPECT Demonstration—will evaluate how well ResPECT can develop and enhance a collaboration between a ResPECT provider and SSA, the extent to which out-of-school youth can be served with PERT-like services, and the potential efficacy of ResPECT in influencing SSI receipt.

Building on that foundation, the second demonstration—Multi-Site ResPECT Demonstration—will test the scalability of the intervention as well as estimating its impacts, benefits, and costs.<sup>9</sup>

**Single-Site ResPECT Demonstration.** This demonstration would facilitate a closer collaboration between an institution offering PERT services for youth and postsecondary CTE for adults and local SSA offices in the catchment area of the institution. The institution would alter its current services to adopt the ResPECT model, i.e., commit to case management and to offering PERT services to out-of-school youth receiving SSI. The SSA field office would distribute information about ResPECT to SSI recipients. A key element of the intervention is case management, so it would be important to establish a counselor at the institution to serve in that role.

For youth younger than age 18, local SSA office staff would send descriptive materials about the intervention to individuals on the SSI rolls.<sup>10</sup> Outreach materials would be sent to the youth, who would respond to the designated counselor, if interested. If the student were in school,<sup>11</sup> the counselor would contact the youth's transition team to get an assessment of the likelihood that PERT services would be beneficial for the youth and to coordinate an appointment for the youth to receive those services. As with the current PERT program, the cost of attendance would be covered by the school district. If the young person is out of school without a degree or equivalent, the counselor would meet with the individual to assess the likely benefit of PERT and would arrange for her to receive the PERT services. In this case, the cost of the PERT services would need to be paid with demonstration funding.

For individuals age 18 and older who receive SSI, referrals to the provider will come from the state VR agency or from a local workforce development agency. Individuals who respond would be instructed on how to apply for the ResPECT intervention, and then the provider would enroll the individual through its normal enrollment processes. The tuition, room and board, and fees would be provided by the state VR agency (or workforce development agency) as is the current practice. The expenses might be eligible for reimbursement from SSA once SGA is achieved per the Ticket to Work program.

Because the costs of the services would be borne by VR or education agencies for the most part, the marginal costs of this demonstration would be fairly modest. These costs include outreach materials for all youth and the PERT-like intervention for out-of-school youth. Other costs would arise from

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<sup>9</sup> The premise of this paper is that the ResPECT intervention will reduce youth and young adult participation in SSI, and therefore the suggested demonstration programs are described as though they would be funded at least partially by SSA and that SSA field office staff would participate. Of course, SSA resources are limited and field office staff are stretched thin and may not have the time to participate. Potential alternative sources of support include VR agencies, the TPSID program, and the Department of Labor.

<sup>10</sup> To minimize the time and effort of SSA field office staff, the materials would be developed by the ResPECT contractor or demonstration program evaluator. SSA is prohibited from referring participants to other agencies, except under the Ticket to Work initiative. If this outreach material is considered to be a referral, the communication may require a waiver of administrative rules. If the notification is considered a programmatic administrative communication, then a waiver may not be necessary.

<sup>11</sup> The response from the SSI recipient would identify whether she was in school and, if so, the name of the school. It would furthermore provide an authorization for the counselor to contact the school.

establishing a formal case management system and from potentially hiring the counselor to administer it.

**Multi-Site ResPECT Demonstration.** The second demonstration calls for implementing the intervention at multiple locations. VR agencies and postsecondary institutions would be invited (presumably competitively) to develop the facilities and staffing necessary to provide the key elements of the intervention. More than 5,700 institutions offer CTE at the postsecondary level in the United States (Levesque et al. 2008). Presumably, all of them serve at least some students with disabilities. However, it is likely that many of the postsecondary CTE providers do not have residential facilities, but they could partner with a two- or four-year institution nearby that does have such facilities.

The goal of the demonstration would be to establish a small handful of sites to assess the efficacy of the intervention. It should be noted that establishing new sites that do not already offer PERT or residential postsecondary CTE may be hard to accomplish, however, because of the many regulatory and procedural hurdles that would have to be overcome just for the housing needed for one- or two-week campus visits for youth under age 18 and multi-semester length residential housing for adults. All the housing will need to be Americans with Disabilities Act accessible. The overnight facilities for youth under age 18 will need to be separate from housing that is occupied by adults. The living quarters for students will need to be near each other to facilitate peer socialization. Finally, the provider will need to employ an adequate number of staff to monitor and supervise the student housing.

This demonstration would be administered over a period of several years and would likely require collaboration among several agencies, including SSA. The timeline would, of course, depend on the capabilities and qualifications of the implementing institutions. Presumably, the institutions interested in participating would build on an established initiative (such as Think College), which might include components such as counseling or residential components that would dictate the timeline. At each site, the appropriate outreach and recruitment mechanisms would need to be implemented. Staff with the appropriate training and experience would need to be engaged to conduct assessments, to present career and educational options, and to provide the CTE. Students would be enrolled in the training programs for at least a year, and then it may take at least several months for youth to achieve labor market and other outcomes. Postsecondary institutions will house the demonstration and employ staff to administer it. SSA may be involved in providing recruitment information and providing data to an evaluator. VR agencies would refer customers and fund training, as appropriate. Finally, one of these agencies would need to administer the demonstration and monitor its implementation.

## VI. Evaluation

If the demonstrations were to be conducted, the funding agency(ies) would request a rigorous evaluation of the impacts of the intervention and their economic returns (costs and benefits). For purposes of this paper, the desired evaluation contains two elements: a process evaluation and an outcome evaluation. The former will document the procedures that were followed to implement the

demonstration, and the latter will provide evidence (ideally causal) about the impacts of the intervention on the individuals who participated in it. The major outcomes of interest are employment and earnings, along with SSI and Social Security Disability Insurance reciprocity status. Other outcomes that need to be tracked include GED completion, credential earning, poverty reduction, health outcomes, and educational attainment.

The institution chosen for the Single-Site ResPECT Demonstration would likely be one that has provided PERT and CTE services to youth and adults with disabilities for many decades. Thus, the process evaluation would mainly document the collaboration with local SSA staff and the success of the recruitment efforts to enroll and serve youth, especially out-of-school youth, into the intervention. Questions of interest would include what activities took place; how enhanced collaboration was initiated; receptivity of local staff members—both at the institution and SSA; and, in general, what seemed to work and why.

The process evaluation for the Multi-Site ResPECT Demonstration, on the other hand, will need to cover a larger domain of issues. It would document the establishment of the interventions—how and why institutions decided to offer the intervention—multi-agency collaboration, client outreach and recruitment, establishment of residential facilities, and recruitment of staff, among other issues.

The most rigorous outcome evaluation would be a randomized controlled trial (RCT), in which individuals would be randomized into a group receiving the intervention or a control group receiving usual services. An RCT might be feasible for the Single-Site Demonstration because the institutions offering PERT and postsecondary CTE are at or close to capacity. If effective outreach materials were developed and excess demand for the intervention were generated, there may be a sufficient sample size to conduct an RCT. An alternative approach might be a quasi-experimental evaluation in which administrative data on VR customers could be used to statistically match students who receive the ResPECT intervention to comparison students who did not receive the intervention.

To supplement the outcome evaluation, it may be advisable to assess the economic returns to the intervention. Like most educational interventions, the costs of the ResPECT intervention will be straightforward to measure and monetize, whereas the benefits will be more difficult to measure and value. Furthermore, the benefits and costs will have different perspectives; there will be private as well as social returns. For individuals, the benefits of participation will include technical skills that lead to labor market outcomes (employment and earnings), independent living and social skills, and the positive interaction of independent living skills and labor market outcomes. As noted in Table 1, placement rates over the past five years have been between 82 and 87 percent and the average weekly earnings for the 2018–2019 graduates who were employed for at 90 days is \$415.<sup>12</sup> Furthermore, the labor market and independent living outcomes may result in health insurance benefits, health improvements, improved housing situations, higher education, and positive self-

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<sup>12</sup> These earnings are high enough to generate SSA reimbursements for the MCTI graduates who are receiving SSI. Furthermore, the average cost of MCTI (just less than \$11,000) is less than the average reimbursement provided by SSA in each of the last 10 fiscal years (SSA 2020b).

esteem. For society, the intervention may result in reduced SSI and possibly other means-tested assistance take-up, as well as increases in tax revenues.

Costs of the intervention accrue for individuals and society. For individuals, costs include tuition/fees, room and board, transportation, and miscellaneous expenses.<sup>13</sup> These costs may be modest. At MCTI, for example, tuition, room, and board are currently paid for by the state VR system and individuals' Pell grants. For the individual, transportation and miscellaneous incidental expenses would remain. In the Single-Site ResPECT Demonstration, the costs that society (i.e., taxpayers) would bear are operating costs. These costs would include the development and implementation of case management, the costs of providing PERT services for out-of-school youth, total compensation of instructors and other staff members, facility maintenance, technology and training-related equipment, food preparation, supports needed for students, and other costs. In the Multi-Site ResPECT Demonstration, these costs may be supplemented with capital costs for equipment and/or buildings.

## VII. Conclusion

This paper suggests that high quality career and technical education delivered in a setting that offers residential housing during the training period may be efficacious for many transition-age youth with disabilities receiving SSI. Such an intervention, Residential Postsecondary Education and Career Training, supplements the elements of two existing programs, PERT and MCTI, with formal case management. PERT is an effective program offered to secondary school students with an IEP or Section 504 plan. It involves campus visits to a postsecondary institution that offers CTE, during which student interests and abilities are assessed and career counseling is provided. MCTI comprises employer-driven career and technical education in one of thirteen programs together with residential living during training. The independent living skills and socialization that occurs in the dormitory enhance participants' self-efficacy and reinforce the positive employment outcomes from the training.

This intervention focuses on individuals who have the interest and ability to succeed in technical occupations but who likely had stigmatizing school experiences and who come from households with limited resources. It has the potential to move such youth into solid careers and lifetime earnings, and as they complete their training and gain employment and earnings, they will leave the SSI rolls.

Two sequential demonstrations could be fielded to test the efficacy of this intervention. The first demonstration would consolidate a working relationship between SSA local offices and a single-site provider of services. The second alternative would replicate the intervention at multiple sites. In the short run, before making any decisions about the intervention, a valuable next step would be to conduct an RCT or quasi-experimental evaluation of the MCTI training. As noted, outcomes from

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<sup>13</sup> This discussion abstracts from so-called "lock in" costs, i.e., earnings that individuals may have received if they had been employed instead of participating in the training (van Ours 2004). The discussion assumes that the wages that the individual might have earned if not in training would be minimal given the individual's limited labor market experience. In addition, many MCTI students are in training-related part-time employment during their training.

that institution have been positive; stronger evidence of its effectiveness could be established by conducting a study such as the one described in Mann et al. (2019) or by matching its students to statistically equivalent customers of the state's VR system. If sample sizes allow it, a subgroup analysis of SSI recipients could be implemented within such an evaluation.

## References

- Cobb, Joyanne, David C. Wittenburg, and Cara Stepanczuk. 2018. "Possible State Intervention Options to Serve Transition-Age Youths: Lessons from the West Virginia Youth Works Demonstration Project." *Social Security Bulletin* 78, no. 3: 43–58.
- Cobb-Clark, Deborah A. 2015. "Locus of Control and the Labor Market." *IZA Journal of Labor Economics* 4, no. 3 (February). <https://doi.org/10.1186/s40172-014-0017-x>.
- Dean, David, John Pepper, Robert Schmidt, and Steven Stern. 2019. "The Effects of Youth Transition Programs on Labor Market Outcomes of Youth with Disabilities." *Economics of Education Review* 68, no. 2019: 68–88.
- Department of Education. 2015. "Transition and Postsecondary Programs for Students with Intellectual Disabilities." U.S. Department of Education (website). Accessed June 14, 2020. <https://www2.ed.gov/programs/tpsid/index.html>.
- Department of Labor. 2018a. *Job Corps Health and Wellness and Disability Report: Review of Selected Health and Disability Indicators Program Year 2017*. Washington, DC: U.S. Department of Labor. [https://supportservices.jobcorps.gov/information/Notices/in\\_18\\_03a.pdf](https://supportservices.jobcorps.gov/information/Notices/in_18_03a.pdf).
- Department of Labor. Office of Inspector General. Office of Audit. 2018b. *Job Corps Could Not Demonstrate Beneficial Job Training Outcomes*. Report submitted to the Employment and Training Administration. Report Number 04-18-001-03-370. Washington, DC: U.S. Department of Labor.
- Fraker, Thomas M., Joyanne Cobb, Jeffrey Hemmeter, Richard G. Luecking, and Arif A. Mamun. 2018. "Three-Year Effects of the Youth Demonstration Projects." *Social Security Bulletin* 78, no. 3: 19–41.
- Grigal, Meg, Debra Hart, Clare Papay, Frank Smith, Daria Domin, and Rebecca Lazo. 2019. *Year Four Annual Report of the TPSID Model Demonstration Projects (2018–2019)*. Boston, MA: University of Massachusetts Boston, Institute for Community Inclusion.
- Hemmeter, Jeffrey, Jacqueline Kauf, and David Wittenburg. 2009. "Changing Circumstances: Experiences of Child SSI Recipients Before and After Their Age-18 Redetermination for Adult Benefits." *Journal of Vocational Rehabilitation* 30, no. 3: 201–221.
- Hock, Heinrich, Dara Lee Luca, Tim Kautz, and David Stapleton. 2017. *Improving the Outcomes of Youth with Medical Limitations Through Comprehensive Training and Employment Services: Evidence from the National Job Corps Study*. Washington, DC: Mathematica Policy Research.
- Hollenbeck, Kevin M., and Wei-Jang Huang. 2003. *Net Impact and Benefit-Cost Estimates of the Workforce Development System in Washington State*. Upjohn Institute Technical Report No. TR03-018. Kalamazoo, MI: Upjohn Institute.
- Hollenbeck, Kevin M., and Wei-Jang Huang. 2006. *Net Impact and Benefit-Cost Estimates of the Workforce Development System in Washington State*. Upjohn Institute Technical Report No. TR06-020. Kalamazoo, MI: Upjohn Institute.

- Hollenbeck, Kevin M., and Wei-Jang Huang. 2008. *Workforce Program Performance Indicators for the Commonwealth of Virginia*. Upjohn Institute Technical Report No. 08-024. Kalamazoo, MI: Upjohn Institute.
- Hollenbeck, Kevin M., and Wei-Jang Huang. 2014. *Net Impact and Benefit-Cost Estimates of the Workforce Development System in Washington State*. Upjohn Institute Technical Report No. TR13-029. Kalamazoo, MI: Upjohn Institute.
- Hollenbeck, Kevin M., and Wei-Jang Huang. 2016. *Net Impact and Benefit-Cost Estimates of the Workforce Development System in Washington State*. Final Report submitted to Washington Training and Education Coordinating Board. Kalamazoo, MI: Upjohn Institute.
- Levesque, Karen, Jennifer Laird, Elizabeth Hensley, Susan P. Choy, Emily F. Cataldi, and Lisa Hudson. 2008. *Career and Technical Education in the United States: 1990 to 2005*. NCES 2008-035. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education.
- Lindsay, Sally, De-Lawrence Lamptey, Elaine Cagliostro, Dilakshan Srikanthan, Neda Mortaji, and Leora Karon. 2019. "A Systematic Review of Post-Secondary Transition Interventions for Youth with Disabilities." *Disability and Rehabilitation* 41, no. 21: 2492–2505. <https://doi.org/10.1080/09638288.2018.147260>.
- Mamun, Arif, Ankita Patnaik, Michael Levere, Gina Livermore, Todd Honeycutt, Jacqueline Kauff, Karen Katz, AnnaMaria McCutcheon, Joseph Mastrianni, and Brittney Gionfriddo. 2019. *Promoting Readiness of Minors in SSI (PROMISE) Evaluation: Interim Services and Impact Report*. Washington, DC: Mathematica.
- Mann, David R., Heinrich Hock, David Stapleton, and Anna Hill. 2019. "Job Corps Vocational Rehabilitation Randomized Controlled Trial." OSF (website). Accessed August 6, 2020. <https://osf.io/389zx>.
- Mazzotti, Valerie L., Dawn A. Rowe, James Sinclair, Marcus Poppen, William E. Woods, and Mackenzie L. Shearer. 2016. "Predictors of Post-School Success: A Systematic Review of NLTS2 Secondary Analyses." *Career Development and Transition for Exceptional Individuals* 39, no. 4: 196–215.
- Michigan Career & Technical Institute. 2019. *Annual Report: August 2018–July 2019*. Plainwell, MI: MCTI.
- Newman, Lynn, Mary Wagner, Anne-Marie Knokey, Camille Marder, Katherine Nagle, Debra Shaver, Xin Wei. 2011. *The Post-High School Outcomes of Young Adults with Disabilities up to 8 Years After High School. A Report from the National Longitudinal Transition Study–2 (NLTS2)*. NCSER 2011-3005. Menlo Park, CA: SRI International.
- Rabren, Karen, Jonathan Carpenter, Caroline Dunn, and Jamie Carney. 2014. "Actions Against Poverty: The Impact of Career Technical Education." *Career Development and Transition for Exceptional Individuals* 37, no. 1 (May): 29–39.

- Ross, Jeffrey, Jamia Marcell, Paula Williams, and Dawn Carlson. 2013. "Postsecondary Education Employment and Independent Living Outcomes of Persons with Autism and Intellectual Disability." *Journal of Postsecondary Education and Disability* 26, no. 4: 337–351.
- Schmidt, Robert M., Christopher M. Clapp, John V. Pepper, and Steven N. Stern. 2019. "Applications of the VR-ROI Project: ROI Estimates for Virginia and Maryland." *Journal of Rehabilitation Administration* 40, no. 1: 57–71.
- Schochet, Peter Z. 2021. "Long-Run Labor Market Effects of the Job Corps Program: Evidence from a Nationally Representative Experiment." *Journal of Policy and Management* 40, no. 1: 128–57. <https://doi.org/10.1002/pam.22233>.
- Schochet, Peter Z., John Burghardt, and Steven M. Glazerman. 2001. *National Job Corps Study: The Impacts of Job Corps on Participants' Employment and Related Outcomes*. Princeton, NJ: Mathematica Policy Research.
- Simonsen, Monica, Ellen Fabian, and Richard G. Luecking. 2015. "Employer Preferences in Hiring Youth with Disabilities." *Journal of Rehabilitation* 81, no. 1: 9–18.
- Social Security Administration. 2019. *Red Book: A Summary Guide to Employment Supports for People with Disabilities under the Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI) Programs*. SSA Publication 64-030. Baltimore, MD: Social Security Administration.
- Social Security Administration. 2020a. *SSI Annual Statistical Report, 2019*. SSA Publication No. 13—11827.
- Social Security Administration. 2020b. "State Vocational Rehabilitation Agency Reimbursements." Accessed June 14, 2020. [https://www.ssa.gov/work/vocational\\_rehab.html](https://www.ssa.gov/work/vocational_rehab.html).
- Social Security Administration. Office of the Inspector General. 2017. *The Cost-Effectiveness of Vocational Rehabilitation Services*. Audit Report A-02-17-14048. Baltimore, MD: Social Security Administration.
- Theobald, Roddy, Dan Goldhaber, Trevor Gratz, and Kristian L. Holden. 2017. *Career and Technical Education, Inclusion, and Postsecondary Outcomes for Students with Disabilities*. Working Paper 177. Washington, DC: National Center for Analysis of Longitudinal Data in Education Research.
- Thoma, Colleen A., K. Charlie Lakin, Dawn Carlson, Christine Domzal, and Kira Austin. 2012. "Participation in Postsecondary Education for Students with Intellectual Disabilities: A Review of the Literature 2001–2010." *Journal of Postsecondary Education and Disability* 24, no. 3: 175–191.
- Uvin, Johan, Devrim Karaaslani, and Gene White. 2004. *Evaluation of Massachusetts' Public Vocational Rehabilitation Program: Final Report*. Boston, MA: Massachusetts Rehabilitation Commission.
- van Ours, Jan C. 2004. "The Locking-in Effect of Subsidized Jobs." *Journal of Comparative Economics* 32, no. 1: 37–55. <https://doi.org/10.2016/j.jce.2003.10.002>.