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Exploring the Role of Prevocational Services for People with Intellectual and Developmental Disabilities in Medicaid HCBS Waivers

***Corresponding author*:**
Carli Friedman, PhD
CQL | The Council on Quality and Leadership
100 West Road, Suite 300
Towson, Maryland 21204
cfriedman@thecouncil.org

Kelly Nye-Lengerman, PhD
Institute on Community Integration
Research and Training Center on Community Living
University of Minnesota

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Abstract:
BACKGROUND: Day and employment services provided by state intellectual and developmental disabilities (IDD) agencies, with funding from Medicaid Home and Community Based Services (HCBS), have shown little growth in the employment rate of people with IDD. In attempt to prepare individuals with IDD for employment, prevocational services may be provided. The goal of prevocational is to develop or improve the job and non-job skills, develop work tolerance, and increase preparedness to have a job in a community based and/or competitive setting.
OBJECTIVE: The aim of this study was to examine how prevocational services were allocated in HCBS 1915(c) waivers for people with IDD across the United States in fiscal year (FY) 2014.
METHODS: 111 HCBS IDD waivers were examined to determine if and how they provided prevocational services. Prevocational services were then compared to determine projected expenditures and service utilization.
RESULTS: In FY 2014, approximately $750 million of funding was projected for prevocational services of approximately 87,500 participants; projected allocation varied widely by state and service.
CONCLUSIONS: Without a clear pathway to competitive integrated employment, the very notion of prevocational services does not necessarily fit well within shifting policy paradigms that prioritize inclusion, competitive wages, and funding for integrated employment.

Keywords: Prevocational services; intellectual and developmental disabilities; Medicaid Home and Community Based Services (HCBS) 1915(c) waivers; community living

Exploring the Role of Prevocational Services for People with Intellectual and Developmental Disabilities in Medicaid HCBS Waivers

Having a job is a valued social role in many cultures and communities. The expectation that people work and support themselves is placed upon many groups in society. However, many individuals with disabilities experience systemic and cultural barriers to being employed, including lowered expectations of workforce participation. Barriers can include access to transportation, lack of natural supports, reasonable accommodations, or fear of losing benefits. These and other challenges make having a job even more difficult for individuals with intellectual and developmental disabilities (IDD). In 2015, the employment rate for people without disabilities was 78%, compared to 35% for individuals with any disability, and 26% for individuals with cognitive disabilities (Erickson, Lee, & von Schrader, 2017). Additionally, data collected through the American Community Survey (ACS) reveal that for working aged adults (21-64), 20% are not employed but actively looking for work, comparted to 8% for individuals with any disability, and 9% for individuals with cognitive disabilities (Erickson, Lee, & von Schrader, 2017). Not only are fewer people with IDD employed, but ever fewer are looking for work.

In the United States people with IDD may receive services for day or employment services to help them find or maintain a job. These services may be provided from a variety of different sources, but the primary funder of day and employment services is the Medicaid waiver Home and Community Based Services (HCBS) 1915(c) waiver program (Braddock et al., 2015). Developed as an alternative to institutional service provision, Medicaid HCBS waivers aim to promote *successful* community living by allowing service delivery in integrated community-based settings, including individual, family, and group homes, rather than institutional settings,

such as intermediate care facilities for people with developmental disabilities (ICFDD). States are able to do so because Medicaid HCBS waivers allow states to 'waive' the three main provisions of the Social Security Act – statewideness, comparability of services, and income and resource rules – in order to create a customized package of services (U.S. Department of Health and Human Services, 2000). As a result, states are able to determine target groups, provider qualifications, health and welfare strategies, services furnished, participant direction, and cost-effective delivery (Disabled and Elderly Health Programs Group, Center for Medicaid and State Operations, Centers for Medicare and Medicaid Services, & Department of Health and Human Services, 2015). The flexibility granted by waivers allows states to target particular underserved populations, such as people with IDD, and provide them services in the community. For example, waivers for people with IDD frequently provide services such as personal assistance, residential habilitation, respite care, and day habilitation (Rizzolo, Friedman, Lulinksi Norris, & Braddock, 2013). Because of the preferences of people with IDD, improved community outcomes, and cost effectiveness, HCBS waivers have become one of the largest providers of long-term services and supports (LTSS) for people with IDD, making them a useful vehicle to better understand day and employment services (Braddock et al., 2015; Hemp, Braddock, & King, 2014; Larson & Lakin, 1989, 2012; Lakin, Larson, & Kim, 2011; Mansell & Beadle-Brown, 2004; Rizzolo et al., 2013).

Day and employment services provided by state IDD agencies, with funding from Medicaid HCBS, have shown little growth in the employment rate of individuals with IDD. In fact, there has been a decrease in competitive integrated employment, and an increase in non-work services (Butterworth et al., 2015a). National Core Indicators from 2012-2013 also reveal that of 12,720 surveyed, 44% were in unpaid facility based work, 27% were in a paid facility

based job, 23% were in unpaid community based activities, and 15% were in paid community employment, some individuals participated in more than one setting (Butterworth et al., 2015b). Butterworth et al. (2015b) also reported that 48% of individual who were not working stated they wanted to have a job.

In an attempt to "prepare" individuals with IDD to have a job, prevocational services may be provided. Prevocational services are defined by Medicaid "services that provide learning and work experiences, including volunteer work, where the individual can develop general, non-job-task-specific strengths and skills that contribute to employability in paid employment in integrated community settings" (Disabled and Elderly Health Programs Group et al., 2015, p. 148-151). The goal of prevocational is to develop or improve the job and non-job skills, develop work tolerance, and increase preparedness to have a job in a community based and/or competitive setting (Nazarov, Golden, & Schrader, 2012). The prevocational model adheres to the idea that an individual should be "trained," and then "placed" in a job. However, there is little to no evidence that these types of services actually result in the development of work skills, or lead to positive employment outcomes. In fact, there have been a number of critiques to prevocational services which include, subminimum payment of workers, inability of individuals to transfer skills, lowered expectations of workforce participation, and long term placement in dead-end programming (Bond, Drake, & Becker, 2012; Cannella-Malone & Schaefer, 2015; Novak, 2015).

It is critical to explore the use of prevocational services for people with IDD because the very nature and setting of these types of services comes in to conflict with numerous federal policies and litigation including Workforce Innovation and Opportunity Act (2014), HCBS Final Rule for HCBS, Department of Justice settlements, and state and federal Employment First

initiatives and policies (Kiernan, Hoff, Freeze, & Mank, 2011; Stefan, 2010; U.S. Department of Health and Human Services, 2014; U.S. Department of Justice 2011, 2014). Employment First is sweeping the nation and roughly states that competitive, integrated employment should be the first option for working aged individuals with disabilities (state and agency polices vary slightly) (Nord & Hoff, 2014). In addition to the policy conflicts, prevocational services also ignore more than twenty years of research in supported employment and individual placement support (IPS) that use a rapid engagement approach, focusing on "place" then "train" model of job support (Bond & Dincin, 1986; Bond, Drake, & Becker, 2012; Cannella-Malone& Schaefer, 2015; Nord et al., 2013).

Although Medicaid HCBS waivers are the largest providers of LTSS for people with IDD, the flexibility granted to states in their waivers has resulted in wide variance across states and services (Friedman, in press). The aim of this study is to examine how prevocational services are allocated in Medicaid HCBS 1915(c) waivers for people with IDD across the United States. This study operated under two research questions. The first research question was, how are prevocational services for people with IDD prioritized in Medicaid HCBS waivers in the United States? To answer this question HCBS waivers for people with IDD providing prevocational services in FY 2014 were compared to determine how prevocational services are allocated in waivers, and trends in services, including projected expenditures and service utilization. Comparisons across HCBS waivers are necessary because of the large variation across state waiver programs (Friedman, in press). The second research question was: does prevocational service allocation differ depending on state Employment First initiatives? To explore this research question, data collected and analyzed for the first question were compared with the states' Employment First initiatives (Nord & Hoff, 2014) to determine significant differences.

Methods

We obtained Medicaid Home and Community Based Services (HCBS) 1915(c) waivers over a two-year period (June 2013 to June 2015) from the Centers for Medicare and Medicaid (CMS) Medicaid.gov website. Figure 1 presents a detailed tree of methodology. Waivers that were not 1915(c), and did not serve people with IDD – intellectual disability (ID), "mental retardation[1]" (MR), developmental disability (DD) and/or autism (ASD) – were excluded. Age limitations were not imposed. Next, waivers that did not include 2014 were excluded. To do so, the waiver year that aligned closest with the fiscal year (FY) 2014 (July 1, 2013 to June 30, 2014) was used. While most often this was the state FY, a few other states used the federal FY (October 1, 2013 to September 30, 2014) or the 2014 calendar year (January to December). We use the term fiscal year for consistency. This resulted in a total of 110 FY 2014 HCBS waivers for people with IDD from 45 states and the District of Columbia.

CMS requires all waiver applications describe: CMS assurances and requirements; levels of care; waiver administration and operation; participant access and eligibility; participant services, including limitations and restrictions; service planning and delivery; participant direction of services; participant rights; participant safeguards; quality improvement strategies; financial accountability; and cost-neutrality demonstrations (Disabled and Elderly Health Programs Group et al., 2015). We utilized this information to organize waiver services into Rizzolo et al.'s (2013) HCBS IDD waiver taxonomy (figure 1). The resulting taxonomy reduced data to prevocational services, allowing us to examine prevocational services in depth for the first research question – to determine trends in prevocational service allocation.

[1] The term 'mental retardation' is considered outdated yet remains a necessary search term as many waivers continue to use this language (see Friedman, 2016b). Rosa's Law (Pub. L. 111-256) does not apply to Social Security or Medicaid.

In the ‘Service Specification (scope)’ section of waivers states provide a definition for each service; prevocational service definitions were then qualitatively analyzed for themes using content analysis (Patton, 2002) because although CMS provides guidance to states on core service definitions states are able to create service definitions as they see fit (Rizzolo et al., 2013). Thus, analysis of prevocational service definitions was necessary to determine what was provided within these services as well as trends across FY 2014 services.

Next, waiver cost-neutrality data, in which states detail services offered, units of provision, projected number of users, average cost per unit, average units per user, and total projected spending per service in order to demonstrate their waiver expenditures are equal or less than comparable institutional spending, from prevocational services was then quantitatively analyzed using descriptive statistics to determine trends in service expenditures and utilization across states and services, including projected spending per service, projected spending per participant, reimbursement rates, and annual service provisions per participant.

Finally, to answer the second research question, ANOVAs were utilized to determine if there were differences across waiver allocation of prevocational services depending on the states’ Employment First initiatives at four different levels: 1) no initiative; 2) activity but no policy; 3) directive; or, 4) legislation (Nord & Hoff, 2014). When models were significant, post hoc analyses were utilized to determine differences between specific groups.

Results

Service Definitions

Of the 110 HCBS IDD FY 2014 waivers examined, 44 waivers (40%) from 25 states provided 66 prevocational services. Prevocational services are designed to prepare waiver participants for employment in the most integrated settings possible. However, prevocational

services are not job-task specific and instead focus on generalized skills. Many prevocational services included training about problem solving, safety, compliance, interpersonal relations, and dress code. Prevocational services also included training on skills that would contribute to employability in integrated settings such as attention span, task completion, and motor skills. Thus, these services included a combination of trainings about functional abilities, activities of daily living, and social skills, many of which could be mimicked by other services such as occupational therapy. In fact, many prevocational services included personal care, such as toileting.

In addition to the above general prevocational services trends, we found variability in terms of the settings prevocational services could be provided, the payment of prevocational services participants, and the inclusion of transportation and meals. For example, approximately half of prevocational service definitions (n = 36) specified where the service was to be provided. While a number of services allowed prevocational services to be provided in multiple types of settings, 30 services specified provision in segregated facility based settings, nine services in the community, and 10 in mobile crews. It is important to note that the description of these trends only includes when states purposefully noted these items; it is not clear if an absence of a feature suggests it is not provided or the state simply omitted the description.

Thirty-one services specified participants could be paid for prevocational services. Of these services, 26 services went on to specify that participants could only be paid up to 50% of the minimum wage, while three services simply mentioned if participants were to be paid it must be below the minimum wage according to the Fair Labor Standards Act. Uniquely, California HCBS Waiver for Californians with Developmental Disabilities allowed participants to be paid

more than 50% of the minimum wage. California HCBS Waiver for Californians with Developmental Disabilities' 'Prevocational Services' explained,

> Individuals receive compensation based upon their performance and upon prevailing wage. Accordingly, the rate of compensation for any individual varies, and may exceed 50% of minimum wage, because of variations in the prevailing wage rate for particular tasks and the individual's performance.

A large number of prevocational services also specified inclusion of benefits such as transportation and meals. Thirty-six waivers specified the inclusion of transportation from the participant's residence to the prevocational services site. Twelve services also provided meals as part of their prevocational services. Twelve services mentioned that the prevocational services should be time limited, but only Colorado's two services described an actual time limit (i.e., no longer than five years); the remaining 10 services simply mentioned the service was intended to "occur over a defined period of time" (Michigan Habilitation Supports Waiver).

It is important to note that although many FY 2014 waivers provided prevocational services, in their service descriptions they often clarified that these waivers services could only operate if participants are not eligible under the Rehabilitation Act of 1973 or the Individuals with Disabilities Education Act. For example, Minnesota's Development Disabilities Waiver specified,

> Habilitation services may not include special education and related services as defined in the Individuals with Disabilities Education Act (20 U.S.C. 1401) that otherwise are available through a local educational agency or vocational service funded under Section 110 of the Rehabilitation Act of 1973 (29 U.S.C. 730) as amended. A finding that such services are not otherwise available through a

> program funded under Section 110 of the Rehabilitation Act of 1973 must be based on written documentation that the individual; (1) is not considered an appropriate referral to the Vocational Rehabilitation Services unit because the individual satisfies one or more of the Screen-Out Criteria, or presents an unfavorable Applicant Profile as described in Section 26520.025 of the Social Security Administration Program Operations Manual System; or (2) has been referred to the Vocational Rehabilitation Services unit, but was found to be ineligible for vocational services under Section 110 of Rehabilitation Act; or (3) has been a recipient of section 110 services provided by the Vocational Rehabilitation Services unit, but is no longer eligible for such services; or (4) is a current client of the Vocational Rehabilitation Services unit, but the activities that are provided under the definition of supported employment services are not typically available as Section 110.

Service Expenditures

In FY 2014, Medicaid HCBS IDD waivers projected $747.69 million of funding for the prevocational services. This amounted to 2.4% of total FY 2014 HCBS projected spending for people with IDD (Friedman & Rizzolo, 2015). While the average service projected spending was $11.32 million on prevocational services there was large variance in projected spending by service, ranging from $8,757 for Nebraska HCBS Waiver for Children with Developmental Disabilities and Their Families' 'Vocational Planning habilitation service' (11 participants) to $211.60 million for New York NYS OPWDD Comprehensive Renewal Waiver's 'Prevocational Services' (12,080 participants). There was not a significant relationship between total projected spending and state employment first status, $F(3, 64) = .95$, $p = .42$).

Of those states providing prevocational services, the average spending per capita was $4.86. Table 1 details projected spending and spending per capita by state. According to a one-way ANOVA there was a significant relationship between employment first status and spending per capita $F(3, 64) = 8.60$, $p < .001$. According to a Post Hoc Tukey's HSD, states with no employment first initiative (M = \$11.11, SD = \$5.51) had a higher spending per capita on prevocational services than states with activities (M = \$4.40, SD = \$3.80), directives (M = \$4.92, SD = \$2.96), or legislation (M = \$4.46, SD = \$5.76).

Approximately 87,500 participants were projected to receive prevocational services in FY 2014, ranging from 2 participants (Pennsylvania Consolidated Waiver's 'Prevocational Services 4') to 12,080 per service (New York NYS OPWDD Comprehensive Renewal Waiver's 'Prevocational Services'); the average service projected providing prevocational services for 1,316 people. There was not a significant relationship between number of projected participants and state employment first status, $F(3, 64) = .81$, $p = .49$.

An average of \$9,963 was projected per participant for prevocational services in FY 2014. The projected spending per participant ranged from \$389 (Indiana Family Supports Waiver's 'Prevocational Services-Small Group') to \$54,352 (Pennsylvania Consolidated Waiver's 'Prevocational Services 4'), with 19.7% of services (n = 13) projecting spending between \$0 and \$5,000 per participant, 43.9% of services (n = 29) between \$5,001 and \$10,000, 19.7% of services (n = 13) between \$10,001 and \$15,000, 6.1% of services (n = 4) between \$15,001 and \$20,000, 6.1% of services (n = 4) between \$20,001 and \$25,000, and 4.5% of services (n = 3) \$25,001 and above. According to a one-way ANOVA there was a significant relationship between employment first status and average spending per participant, $F(3, 64) = 3.23$, $p = .029$. According to a Post Hoc Tukey's HSD, states with an activity (M = \$5,755, SD =

$4,305) had a lower spending per participant on average than states with directives (*M* = $14,118, *SD* = $11,738).

Reimbursement rates. Prevocational services were allocated using a number of different rates, including hourly, daily, monthly, and unit/block. The majority of services (*n* = 42 services; 63.6%) were provided by hourly rate. Hourly rates ranged from an average of $2.97 an hour (for Indiana Family Supports Waiver's 'Prevocational Services-Large Group' service) to $62.44 an hour (for Pennsylvania Consolidated Waiver's 'Prevocational Services 4'), averaging $19.16 an hour across hourly rate prevocational services. See figure 2 for more information about hourly rates. According to a one-way ANOVA there was a significant relationship between employment first status and hourly rates, $F(3, 39) = 5.49$, $p = .003$. According to a Post Hoc Tukey's HSD, states with no employment first initiative (*M* = $31.21, *SD* = $12.30) had a higher average hourly rate for prevocational services than states with activities (*M* = $8.50, *SD* = $4.51).

Fifteen prevocational services (22.4%) were provided by daily rate. Daily rates ranged from an average of $35 a day (California HCBS Waiver for Californians with Developmental Disabilities' 'Prevocational Services') to $269 a day (for Nebraska Day Services waiver for adults with DD's 'Prevocational Workshop Habilitation Day' service), averaging $90 a day. Four prevocational services provided daily rates between $31 and $50 a day, six services between $51 and $70 a day, two services between $71 and $90 a day, one service between $91 and $110 a day, and two services between $261 and $290 a day.

Four prevocational services (6.0%) were provided by monthly rates. Monthly rate prevocational services averaged $544 a month, ranging from an average monthly rate of $485 (Washington Community Protection Waiver's 'Prevocational Services') to $589 (Washington Core Waiver's 'Prevocational Services'). Finally, five prevocational services (7.5%) were

provided by unit or block rates. Unit/block rate prevocational services averaged $32 a unit/block, ranging from an average of $26 a unit/block (South Carolina Mental Retardation and Related Disabilities Waiver's 'Career Preparation Services') to $36 a unit/block (Virginia Intellectual Disability Waiver's 'Prevocational Services')

Annual service provision. For hourly rate prevocational services the average participant was projected to receive 567 hours of prevocational services per year. However, this ranged from an average of 26 hours per participant per year (Nebraska HCBS Waiver for Children with Developmental Disabilities and Their Families' 'Vocational Planning habilitation service') to 1,152 hours per participant per year (Georgia New Options Waiver's 'Prevocational Services'). Figure 3 details this variance further. According to a one-way ANOVA there was a significant relationship between employment first status and hours of prevocational services per year, $F(3, 40) = 10.49$, $p < .001$. According to a Post Hoc Tukey's HSD, states employment first directives ($M = 800$, $SD = 284$) provided more hours of prevocational services annually per participant than states with nothing ($M = 197$, $SD = 180$) and states with activities ($M = 440$, $SD = 365$).

For daily rate prevocational services, the average participant was projected to receive 174 days of prevocational services per year. Ranging from an average of 78 days per participant per year (Nebraska Day Services waiver for adults with DD' 'Prevocational Workshop Habilitation Day' service) to 352 days per participant per year (Individual and Family Support Waiver's 'Prevocational Per diem' service), six daily rate services provided between 76 and 150 days of prevocational services per participant per year, five services between 151 and 225 days a year, three services between 226 to 300 days a year, and 1 service between 301 and 365 days a year.

For monthly rate services, the average participant was projected to receive 10.2 months of prevocational services per year. Washington Community Protection Waiver, Basic Plus, and

Core Waivers' 'Prevocational Services' averaged 10 months of prevocational services per participant per year while New York NYS OPWDD Comprehensive Renewal Waiver's 'Prevocational Services' provided an average of 11 months of prevocational services per participant per year.

For unit/block rate prevocational services the average participant was projected to receive 304 units/blocks of prevocational services per year, ranging from an average of 172 units/blocks per participant per year (Virginia Individual and Family Developmental Disabilities Support (IFDDS) Waiver's 'Career Preparation Services') to 420 units/blocks per participant per year (Texas Community Living Assistance and Support Services (CLASS) waiver's 'Prevocational Services').

Discussion

This study examined prevocational services provided to people with IDD using FY 2014 Medicaid HCBS 1915(c) waiver data. By design prevocational services are to prepare individuals with IDD for competitive integrated employment, or jobs in the community at or above minimum wage. This analysis revealed that prevocational services also included services that included functional skill development for activities of daily living, personal care support, and social opportunities with peers. This indicates that prevocational services are used by HCBS providers in a plethora of ways, which do not always highlight a clear pathway between services and employment outcomes. The broad range of prevocational services, as well as the significant variably in these services, highlights a lack of consistency and outcomes regardless of the setting the prevocational services were provided in. Without a clear pathway to competitive integrated employment, the very notion of prevocational services does not necessarily fit well within

shifting policy paradigms that prioritize inclusion, competitive wages, and funding for integrated employment (Butterworth et al., 2015a).

Literature supports the use of evidenced based employment practices such as supported employment, customized employment, and Individual Placement and Support (IPS) as approaches that facilitate the employment of individuals with IDD in the community (Bond, Drake, & Becker, 2012; Nazarov et al., 2012; Wehman et al., 2014; Wehman, Revell, & Kregal, 1998). The "place than train" approach of these methods conflicts with the prevocational model of "train then place." Supported employment first introduced in the 1980's emphasized the importance of supports such as job coaching, job development, job carving, customized supports, natural supports, or group employment (Rausch & Hughes, 1989). The model was further outlined to include (1) development of a job seeker profiles; (2) job development; (3) job site training; and (4) long-term supports (Wehman et al., 2012). The IPS model emphasizes: rapid job search, integrated with treatment, attention to job seeker preferences, competitive employment, zero exclusion, time limited support, systematic job development, and benefits counseling (Bond, Drake, & Becker, 2012). Upon comparison with supported and or customized employment and IPS, it is difficult to draw parallels in how supports such as social skills training, personal care support, or non-job-specific skill development provided in prevocational services inform meet the employment bench marks (wages, hours worked, integrated settings).

The fact that in FY 2014 Medicaid HCBS 1915(c) waivers for people with IDD projected $747.69 million of funding for prevocational services reveals a disconnect between policy priorities of employment, and funding. Policy states the support of services and supports in the most integrated settings, yet heavily funds services that do not necessarily lead to or support competitive integrated employment. Employment First positions taken by federal agencies

including, CMS, state that that competitive integrated employment is the priority, over segregated, institutional, or preparatory services. Prevocational services aim to prepare people with IDD for integrated employment by providing them with training on generalized skills such as problem solving, task completion, and activities of daily living, but there is little evidence indicating that this occurs. While $747.69 million of projected funding for prevocational services may appear a significant amount, for comparison HCBS waivers for people with IDD projected $5.62 billion for day habilitation services in FY 2014 (Friedman, 2016a). Despite significant investments in both day habilitation and prevocational services the integrated employment rate for individuals with IDD has decreased in the last twenty years (Butterworth et al., 2015a; Nord et al., 2013; Novak, 2015).

In terms of total projected spending, per capita an average of $4.86 was projected for prevocational services in FY 2014, compared with an average of $3.73 for supported employment services (Friedman & Rizzolo, 2017). HCBS waivers for people with IDD projected more spending per participant on average for prevocational services than supported employment services ($9,963 versus $6,693) in FY 2014 (Friedman & Rizzolo, 2017). For hourly rate services, the average waiver participant was also projected to receive more prevocational services per year than supported employment services (567 hours versus 292 hours) (Friedman & Rizzolo, 2017). Future research should explore if this is due to the expectation that supported employment supports reduce over time, or if this highlights the policy practice disconnect; policies support competitive integrated employment, but services provided and reimbursed support institutional or less effective strategies in an attempt to place more individuals with IDD in a job.

The fact that prevocational services can be used as a potential stand in for segregated and stagnated services that do not lead to a job cannot be lost. This is particularly concerning as very few waivers in our study described set time limits on prevocational services; moreover, those that did, simply mentioned there should be a set time but did not include a definitive deadline. Although this analysis cannot capture the nuances of prevocational services, the average length service, or employment outcome after service, the lack of clarity and standardization leaves this type of service open to segregation, the payment of unfair wages, or inappropriate placement not based on an individual's needs or preferences. The very existence of prevocational services may fuel the system's lowered expectations of workforce participation of individuals with IDD (ACICIEID, 2016). This study also found that 14% of the hourly rate prevocational services (n = 6) averaged below the federal minimum wage ($7.25). However, in terms of service provided, HCBS providers can be reimbursed at higher rates for supported employment services over prevocational services. The average hourly rate for prevocational services was $19.16 while the average hourly rate for supported employment services was $29.00 an hour (Friedman & Rizzolo, 2017). If employment is to become a reality for more individuals with IDD, clear timelines, outcomes, and standards for prevocational services should be prioritized.

Literature also reveals the significant variability between states when it comes to the provision of HCBS services to individuals with IDD (Butterworth et al., 2015a; Friedman, in press; Rizzolo et al., 2013). Our findings revealed wide variability across prevocational services in terms of reimbursement rates, projected spending per participant, service provisions per participant per year, and total projected spending. For example, total projected spending by service ranged from $8,757 to $211.60 million. Reimbursement rates for prevocational services also differed significantly; hourly rates ranged from an average of $2.97 to $62.44 an hour.

Similarly, while the average participant in one of Nebraska's waivers was projected to receive 26 hours of prevocational services a year, the average participant in one of Georgia's waivers was projected to receive 1,152 hours per participant per year. Although this variance may appear striking it is common among HCBS waiver services for people with IDD. Examination of other HCBS waiver services for people with IDD (e.g., day habilitation, mental/behavioral health, supported employment, transportation, etc. (Friedman, 2016a; Friedman, Lulinski, & Rizzolo, 2015; Friedman & Rizzolo, 2016, 2017)) has resulted in similar findings. Some of these large differences were related to the characteristics of the waivers or services themselves; for example, Pennsylvania Consolidated Waiver's 'Prevocational Services 4' average projected spending per participant of $54,352 was much higher than any other service, partially attributed to the fact that it was provided at a staff-to-individual ratio of 2:1 and it only served two participants. Another example is Nebraska HCBS Waiver for Children with Developmental Disabilities and Their Families' 'Vocational Planning Habilitation Service' which provided little annual service provision participant (26 hours annually per participant); this waiver is particularly for people from birth to 20 so it is likely only transition aged people would be utilizing this service. Moreover, the entire waiver only serves 475 people compared to the states' two other adult waivers which serve more than twelve times that number. While a number of the outliers found in this study reflect states' ability to customize HCBS waivers, which also provides them with large flexibility in terms of how they provide services, it also results in little standardization across states and services, which may be particularly problematic given CMS does not require states to detail their decision-making processes in depth (Friedman, in press). This variance highlights the importance of comparisons across HCBS waivers to map the large variation across state waiver programs.

Our study also explored the impact of Employment First initiatives on states' HCBS waiver allocation of prevocational services. In doing so, we found no significant differences in terms of states' Employment First initiatives, and their total projected number of participants, or total projected spending. However, there were significant relationships when total spending was controlled by state population, that is spending per capita was used, and with average spending per participant, average hourly rates, and annual hourly service provision per participant. Findings revealed states with no initiatives had higher spending per capita, and higher hourly rates. However, findings across the levels of initiatives (i.e., activity but no policy; directive; legislation) followed a less discernable pattern. Directives had a higher average spending per participant, and annual hourly service provision per participant than activities. Yet, there were few significant differences across the other initiative types.

Since policy states LTSS should be provided in the most integrated settings, and the aim of Employment First is to prioritize integrated employment above all else (Nord & Hoff, 2014), one would expect states with Employment First initiatives to have lower utilization of prevocational services than states with no initiatives. Yet, when coupled our findings suggest a mixed impact of state Employment First initiatives, at least in terms of HCBS waiver provision. Future research should explore if the direct impact of Employment First initiatives on policy and practice, including the prioritization of supported employment over prevocational and day habilitation services for people with IDD.

Limitations

When interpreting our findings one limitation should be noted, Medicaid HCBS waivers are based on state projections made to the federal government rather than utilization data. However, HCBS waiver data are a reasonably accurate proxy of waiver services because they are

based on previous years' actual waiver utilization (Rizzolo et al., 2013). Furthermore, Rizzolo et al. (2013) found waiver projections

> congruent with spending patterns identified by researchers at Mathematica (Irvin, 2011, September) who used 2008 Medicaid Statistical Information Systems (MSIS) claims data from 44 states and Washington, DC, to determine trends in waiver expenditures across the states. (pp. 19-20)

In addition, this analysis was a review of administrative data that cannot provide individual or provider level details about the nuances of this service. However, this analysis does provide rationale for encouraging thoughtful review how of prevocational services fit, in light of policy changes that discourage segregation, sub-minimum wages, and institutional settings. Moreover, we consider these limitations as an invitation for future study. Future research should compare waiver data on prevocational services to actual utilization data; it should also examine the mechanisms states implement in order to maintain prevocational services, such as how waiver prevocational services uphold sub-minimum wage.

Conclusion

The Medicaid waiver program is the largest funder of day and employment services for individuals with IDD. The menu of these services includes prevocational services, which are by definition intended to prepare individuals with competitive integrated employment. This study reveals that while millions of dollars are spent on prevocational services annually, there is incredible variability in how, where, and what is provided and reimbursed under this service. As such, the findings highlight the practical challenges to implementing the vision of regulations and promising practices, such as the HCBS waiver or Employment First initiatives. Of critical importance, the continued used of prevocational services by CMS despite the discrepancy

between “training” individuals to work in the prevocational model, versus rapid engagement approaches that prioritize “placing” and individual in competitive integrated employment.

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Table 1

Prevocational services for people with IDD in FY 2014

State	Waivers Providing These Services	Projected Spending (Millions)	Spending Per Capita	Rank
Alabama	2	$0.65	$0.13	23
California	1	$47.23	$1.22	20
Colorado	2	$11.33	$2.12	14
Connecticut	1	$7.35	$2.04	15
Delaware	1	$15.42	$16.47	1
Georgia	2	$14.2	$1.41	17
Hawaii	1	$0.2	$0.14	22
Indiana	2	$20.68	$3.13	12
Iowa	1	$31.59	$10.16	5
Louisiana	2	$11.06	$2.38	13
Michigan	1	$14.73	$1.49	16
Minnesota	1	$0.69	$0.13	24
Mississippi	1	$13.25	$4.43	10
Nebraska	3	$29.45	$15.64	2
Nevada	1	$3.87	$1.36	18
New York	2	$211.78	$10.72	4
Ohio	3	$69.06	$5.95	9
Oklahoma	3	$12.72	$3.28	11
Pennsylvania	3	$100.94	$7.89	8
South Carolina	2	$42.55	$8.81	7
South Dakota	1	$7.94	$9.30	6
Texas	1	$1.03	$0.04	25
Virginia	3	$11.32	$1.36	19
Washington	3	$4.37	$0.62	21
Wisconsin	1	$64.28	$11.16	3

Note. Population data gathered from U.S. Census Bureau (2015). Rank is spending per capita from highest to lowest

Figure 1. Process for identification of included HCBS 1915(c) IDD prevocational services.

Figure 2. Hourly rates for prevocational services.

Figure 3. Average prevocational services per year per participant (hourly rate services).

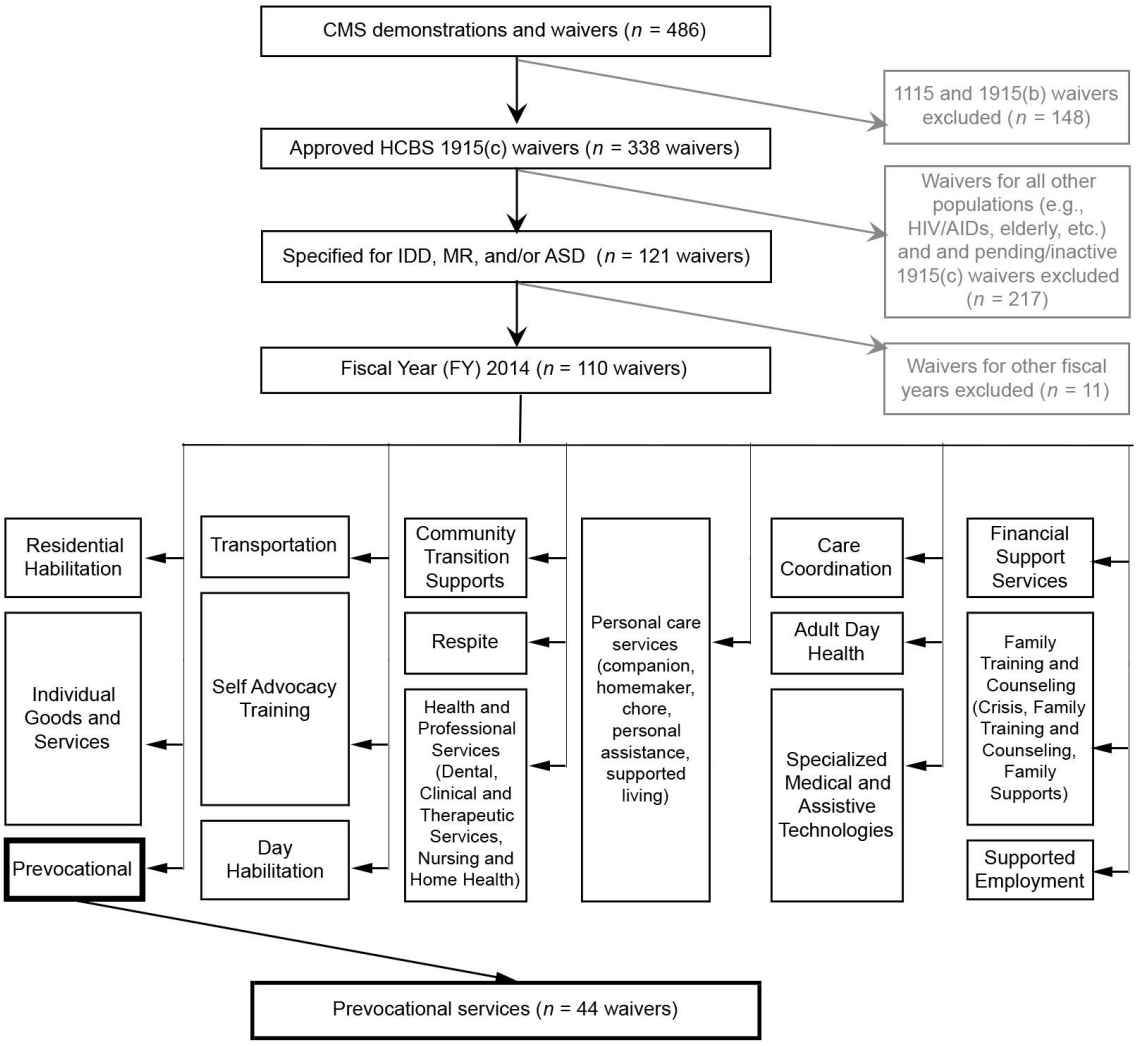


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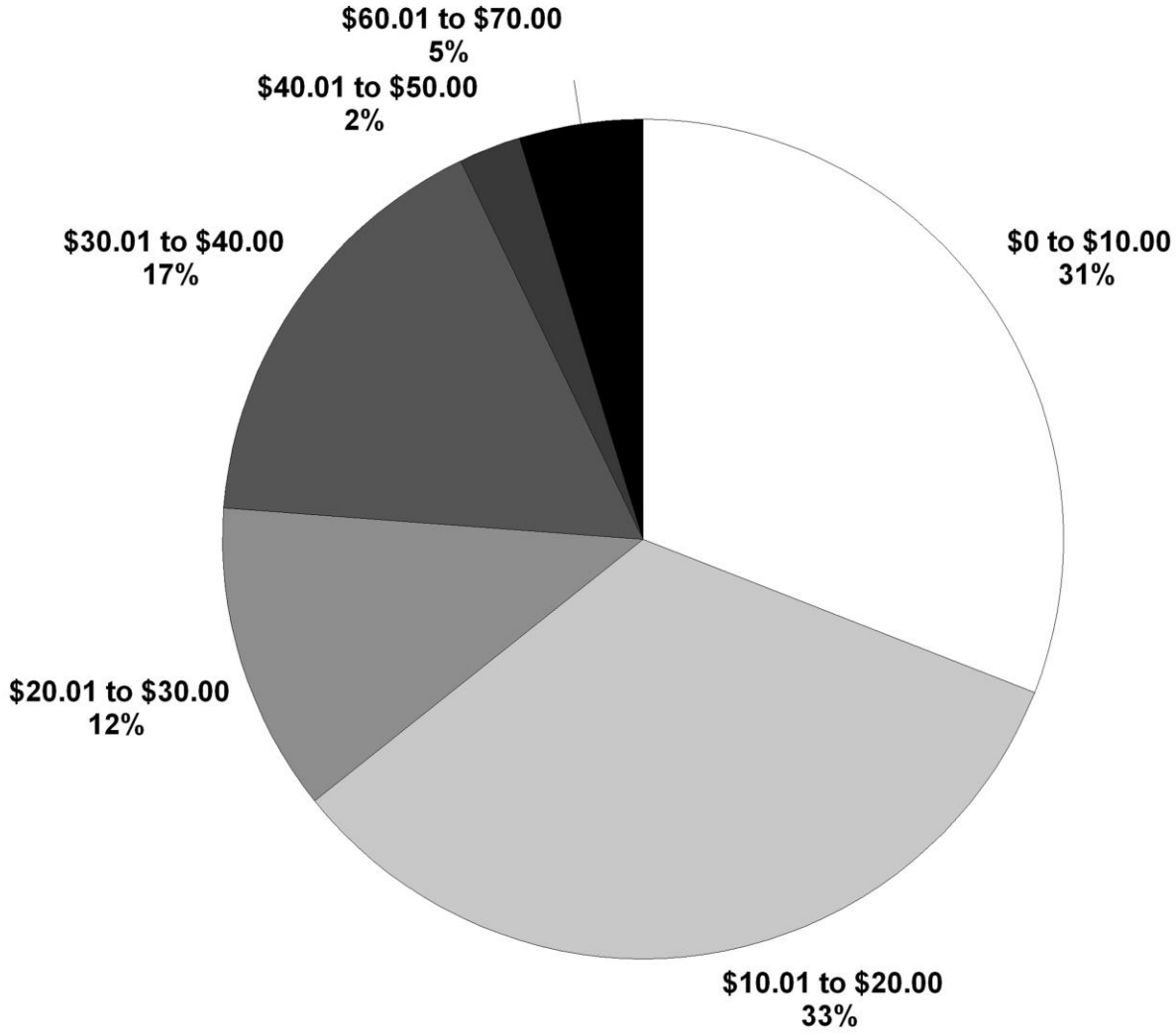


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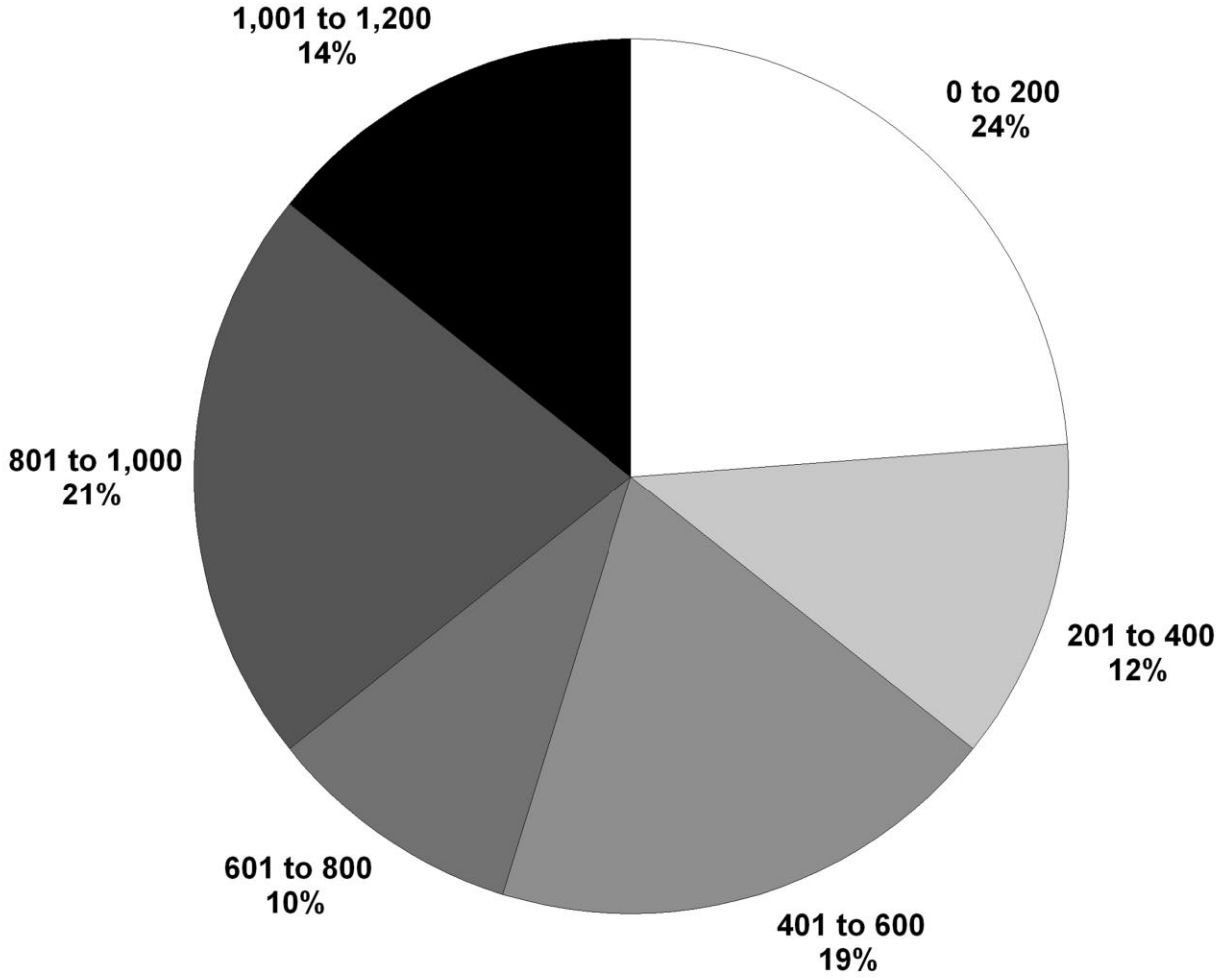


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