



Photo credit: CasarsaGuru, 2017.

Researching Provider Solutions for People with Intellectual and Developmental Disabilities

Results of an Environmental Scan for the Florida Developmental Disabilities Council, Inc.

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David R. Mann and Lauren Nath

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Researching Provider Solutions

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I. Introduction

The intellectual and developmental disabilities (IDD) community has been adversely affected by the widespread shortage of direct care service providers. People with IDD often require direct care services to perform activities of daily living or instrumental activities of daily living. These activities may include assistance with preparing meals, taking medications, or managing finances. The inability to access direct care supports can compromise the health and well-being of people with IDD. In addition to family members and friends, people with IDD rely on paid direct care workers (DCWs) to provide services. In recent years, demand for direct care services throughout the United States has exceeded the amount of people in the DCW labor force ([Harootunian et al. 2023](#); [Kinder 2023](#); [O'Malley Watts et al. 2022](#); [Shockman 2022](#); [Wenner 2023](#)). This DCW shortage has created hardships for people with IDD and their families as they struggle to find assistance to meet basic care needs.

In its [Five-Year State Plan \(2022–2026\)](#), the Florida Developmental Disabilities Council, Inc. (FDDC) set a priority to help people with IDD and their families obtain direct care support. The FDDC focuses their efforts on three groups who obtain their own direct care support:

- Consumer-Directed Care Plus beneficiaries
- People on a Medicaid Home- and Community-Based Services waiver waitlist
- Individuals unknown to the Agency for Persons with Disabilities (APD)

iBudget Florida and Consumer-Directed Care Plus are the main waiver programs that pay for home- and community-based services for Floridians with IDD. APD administers both waiver programs. iBudget beneficiaries do not find their own direct care support, whereas Consumer-Directed Care Plus beneficiaries do. People not in a waiver program—those on the iBudget waitlist or unknown to APD—must find and typically pay for their own direct care support.

FDDC contracted with Mathematica in 2023 to conduct the Researching Provider Solutions project. The project will identify ideas and strategies that could help Floridians with IDD and their families recruit and retain paid direct care support. Mathematica will use multiple workstreams to generate information and identify possible policy solutions for the three groups identified by FDDC. The workstreams include: an environmental scan of the peer-reviewed literature and relevant websites; focus groups and a survey to gather data directly from people with IDD and their families; and a workgroup of people with IDD, their families, and other experts that advises all project activities. Mathematica will publish a final report in late 2023 that will describe key findings and include recommendations for a path forward to improve the recruitment and retention of DCWs.

The environmental scan sought to address a single research question: What strategies and ideas described in the peer-reviewed literature and available on relevant websites may help people with IDD and their families recruit and retain DCWs? We found robust literature with several relevant ideas and strategies, and we also identified unaddressed topics that could benefit from consideration in the literature.

This report describes the environmental scan and its findings. Chapter II explains the process for conducting the environmental scan. Chapter III presents the search results and literature themes. The discussion in Chapter IV considers the implications of the results of the environmental scan for policy and practice and highlights gaps in the literature that, if filled, could benefit people in the IDD community. The appendices describe the search terms and provide references for the search results.

II. Methods

We searched electronic databases for peer-reviewed journal articles and relevant websites for web-based documents. The environmental scan used a prespecified, multistep process to develop search terms, discover relevant articles, and identify strategies that address the research question. Chapter III describes findings from the environmental scan, including search results and themes.

In the first step of the environmental scan, we developed search criteria and search terms in collaboration with FDDC. We confined the environmental scan to articles written in English and published from January 1, 2013, onward that discuss direct care topics for people with disabilities within the United States. We expanded the search criteria beyond people with IDD to all people with disabilities because some publications—either journal articles or webpages—containing information relevant to the research question may focus on people with other types of disabilities. Search term groupings included service systems, provider type, and innovations (Appendix A). The service system grouping contained disability- and waiver-related terms. Provider-type terms contained words meant to discover articles that discuss DCWs and barriers to recruitment and retention. Finally, the innovation terms described potential strategies to increase DCW recruitment and retention. The electronic database and website searches used the same search terms.

After establishing search terms, we developed the search strategy. In collaboration with a library information services specialist at Mathematica, we selected 16 electronic databases for the journal article search (Exhibit 2.1). These electronic databases catalog journals whose contents may contain information relevant to the research question. In collaboration with FDDC, we also identified 43 websites to review relevant gray literature for the environmental scan (Exhibit 2.1). The websites represent government agencies and organizations that focus on issues related to direct care services. The information services specialist developed search term strings and executed each search. Before conducting the main searches, the specialist conducted some pilot searches to refine the search term strings. We used Google to search the websites for relevant webpages. Appendix A contains a complete description of the search terms and search strings.

We reviewed the search results to determine which products were relevant to the environmental scan. Initially, we reviewed the abstract of journal articles and the full text of webpages. After reviewing each abstract, we sorted each journal article into one of three categories:

- *Include* in the environmental scan because it met the inclusion criteria and seemed relevant to the research question
- *Flag as potentially relevant* because it met the inclusion criteria, did not seem to address the research question, but could contain helpful information
- *Exclude* from the environmental scan because it did not meet the inclusion criteria or seem relevant to the research question

We reviewed the full text of all journal articles in the *include* category. For the website search, the research analyst did not flag webpages as potentially relevant—they placed them in either the *include* category or *exclude* category after determining whether they addressed the research question.

In the final step, we learned from the literature, identifying themes and describing their implications for policy and practice. Each relevant journal article and webpage was thoroughly reviewed, and relevant information was placed into an abstraction spreadsheet. After completing the spreadsheet, we analyzed content to identify themes about how to recruit and retain DCWs. Applying our experience and policy

expertise, we then described how the themes from the literature could affect policy for people with IDD, their families, and policymakers.

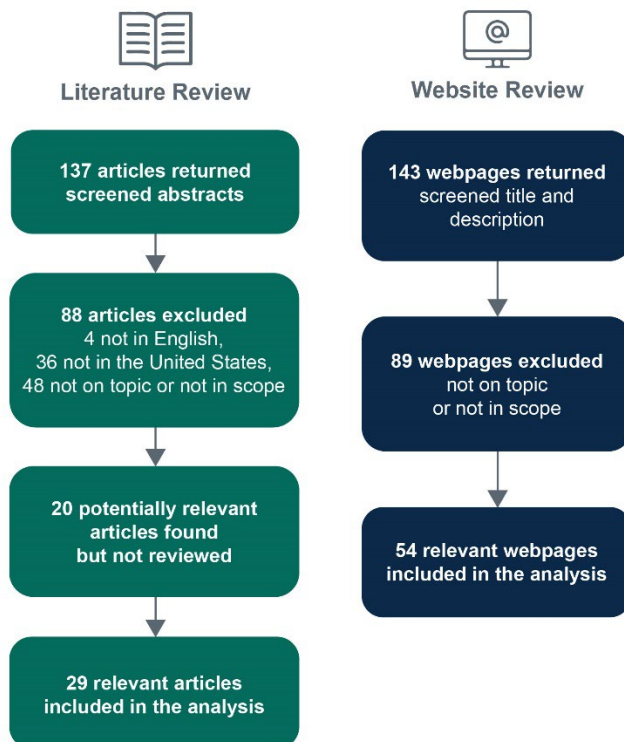
III. Findings

Our environmental scan found several journal articles and web-based documents with ideas or findings relevant to recruiting and retaining direct care support for people with disabilities. This chapter summarizes the publications we reviewed and what they said about recruiting and retaining DCWs. The various authors used a variety of terms to describe DCWs, such as direct care professionals or home care aides. We consistently use DCW to describe people providing paid direct care support unless referring to a specific job that has responsibilities in addition to providing direct care services.

A. Search results

Our search identified more than 275 publications to screen and 75 publications with content relevant to our research question. The electronic databases search returned 137 potentially relevant peer-reviewed journal articles (Exhibit III.1). The research analyst sorted 88 articles into the *exclude* group, 20 articles into the *potentially relevant* group, and 29 into the *include* group. The next section describes the contents of the 29 relevant articles. Appendix B contains references for 20 articles we flagged as potentially relevant to the research question but did not review. Turning to the website search, we screened 143 webpages and determined that 54 contained information relevant to the research question (Exhibit III.1). Appendix C contains references for all relevant articles and webpages.

Exhibit III.1. Search results



B. Themes

The environmental scan identified several strategies for attracting and retaining direct care support for people with disabilities. The strategies can be grouped into three broad themes: improving compensation, increasing workforce capacity supports, and promoting occupational reform. For each theme, we describe in the text all journal articles and some web-based documents mentioning that theme. The exhibits in this section fully describe which publications include certain themes. When describing publications, we do not assess or rate the methods used to collect data, perform analyses, or develop findings and recommendations.

1. Improving compensation

The recruitment and retention strategies most frequently mentioned in the literature focused on ways to improve compensation for DCWs. Our review found 12 journal articles and 37 web-based documents that mentioned compensation-related strategies (Exhibit III.2). The articles typically described studies that interviewed DCWs and others who provide direct care support (such as certified nursing assistants [CNAs]) about their experiences. The website publications were broader, including workgroup reports, issue briefs from state agencies, program descriptions, and press releases. The compensation strategies fell under three subcategories: higher wages, recruitment and retention bonuses, and providing other benefits.

The evidence suggests that better compensation could promote recruitment and retention.

[Bogenschutz et al. \(2014\)](#) reviewed the compensation of DCWs and DCW supervisors using data from a telephone survey of former Washington State home care workers and found that few of them received fringe benefits. Average hourly wage rates (in nominal dollars) were \$11.25 for DCWs and \$15.45 for DCW supervisors. [Banijamali et al. \(2014\)](#) interviewed 403 former DCWs in Washington State and found that poor compensation was a key reason DCWs with better prospects left the profession. When asked to choose from a list of options to recruit more DCWs, 51 percent of respondents indicated the most effective way would be to increase wages. Similarly, [Butler et al. \(2014\)](#) followed 261 DCWs and learned that DCWs who stayed in the profession were less concerned about receiving higher compensation than those who left the field to pursue other employment opportunities. Analyses of DCW retention by [Pettingell et al. \(2022\)](#) and [Houseworth et al. \(2020\)](#) using data from the National Core Indicators Staff Stability Survey discovered that higher turnover rates were correlated with lower wages. Evidence from the National Core Indicators Staff Stability Survey about the relationship between DCW retention and other benefits was mixed, with just one of the two studies finding a positive correlation between additional benefits and greater retention. Several articles exploring the job satisfaction of DCWs found a correlation between low compensation and low job satisfaction and retention ([Butler & Rowan 2013](#); [Covington-Ward 2017](#); [Dill et al. 2013](#)) An article in the *Georgetown Journal on Poverty Law and Policy* ([Scales 2020a](#)) discussing the implications of the Olmstead decision on the DCW labor force noted that increasing compensation for DCWs will help achieve integration for people with disabilities by improving the availability of direct care services.

Federal and state governments and organizations have produced several products and initiatives related to DCW compensation. For example, the U.S. Department of Labor convened an expert panel to discuss how to strengthen the DCW labor force ([Simmons 2022](#)). The panel's conversation focused on raising standards for pay and benefits for DCWs. In a report about the rural DCW labor force, the Centers for Medicare & Medicaid Services (CMS) states that providing paid compensation to family members who provide direct care services would expand the pool of DCWs ([Medicaid n.d.-a](#)). An issue brief from the Medicaid and Children's Health Insurance Program (CHIP) Payment and Access Commission

(MACPAC) describes strategies state Medicaid agencies can use, such as wage pass through laws, to increase DCW compensation ([MACPAC 2022](#)).

Several state publications describe recommendations, legislation, or programs connected to DCW compensation. Delaware, Michigan, North Dakota, Ohio, South Carolina, and the District of Columbia have programs or legislation to create programs that provide a retention bonus to DCWs. Texas and Wisconsin include compensation-related items among their suggestions for strengthening the DCW labor force. Turning to organizations, PHI National has several publications discussing how to strengthen the DCW labor force. Most of these publications mention increasing compensation as a way to help achieve that goal. Because states typically have multiple programs that provide funding for direct care services, organizations focused on state programs and healthcare such as the National Governors Association, National Academy for State Health Policy, and National Conference of State Legislatures have publications highlighting the role of compensation in recruiting and retaining DCWs. For instance, the National Governors Association ([Block et al. 2022](#); [Winters et al. 2021](#)) describes various state approaches to increase wages and benefits for DCWs, such as wage rate increases or value-based payments. The Center for Health Care Strategies ([Crumley & Roman 2022](#); [Roman & Crumley 2021](#); [Roman & Graham 2022](#); [Ward et al. 2021](#)) has publications describing what some states have done to increase compensation and enact other programs that promote DCW retention, such as increasing compensation or implementing training opportunities.

Some articles reached different conclusions about the relationship between compensation and retention for DCWs. [Brady \(2016\)](#) examined job satisfaction among CNAs and found that factors other than compensation, such as professional growth and having a voice, were important to retention. [Stone et al. \(2017\)](#) used data from the 2007 National Home and Hospice Care Survey/National Home Health Aide Survey and discovered no correlation between wage rates and the intent to leave direct care work. However, study authors also found that DCWs with health insurance benefits were less likely to want to leave their job.

Exhibit III.2. Journal articles and web-based documents discussing compensation for DCWs

Title	Reference	Sub-theme(s)
Journal articles		
Characteristics of Home Care Workers Who Leave Their Jobs: A Cross-Sectional Study of Job Satisfaction and Turnover in Washington State	Banijamali, S., D. Jacoby, and A. Hagopian. "Characteristics of Home Care Workers Who Leave Their Jobs: A Cross-Sectional Study of Job Satisfaction and Turnover in Washington State." <i>Home Health Care Services Quarterly</i> , vol. 33, no. 3, 2014, pp. 137-158. https://doi.org/10.1080/01621424.2014.929068	Wages
Direct Support Workforce Supporting Individuals With IDD: Current Wages, Benefits, and Stability	Bogenschutz, M. D., A. Hewitt, D. Nord, and R. Hepperlen. "Direct Support Workforce Supporting Individuals With IDD: Current Wages, Benefits, and Stability." <i>Intellectual and Developmental Disabilities</i> , vol. 52, no. 5, 2014, pp. 317-329. https://doi.org/10.1352/1934-9556-52.5.317 .	Wages
An Exploration of Nursing Assistants' Perceptions About Job Satisfaction	Brady, D. M. "An Exploration of Nursing Assistants' Perceptions About Job Satisfaction." <i>Critical Care Nursing Quarterly</i> , vol. 39, no. 4, 2016, pp. 371-386. https://doi.org/10.1097/CNQ.0000000000000131 .	Benefits; Wages
Supporting Home Care Aides: What Employers Can Do to Assist Their Workers	Butler, S. S., and N. Rowan. "Supporting Home Care Aides: What Employers Can Do to Assist Their Workers." <i>Home Healthcare Nurse</i> , vol. 31, no. 10, 2013, pp. 546-552. https://doi.org/10.1097/01.Nhh.0000436224.22906.86	Wages
Determinants of Longer Job Tenure Among Home Care Aides: What Makes Some Stay on the Job While Others Leave?	Butler, S. S., M. Brennan-Ing, S. Wardamasky, and A. Ashley. "Determinants of Longer Job Tenure Among Home Care Aides: What Makes Some Stay on the Job While Others Leave?" <i>Journal of Applied Gerontology</i> , vol. 33, no. 2, 2014, pp. 164-188. https://doi.org/10.1177/0733464813495958	Wages
African Immigrants in Low-Wage Direct Health Care: Motivations, Job Satisfaction, and Occupational Mobility	Covington-Ward, Y. "African Immigrants in Low-Wage Direct Health Care: Motivations, Job Satisfaction, and Occupational Mobility." <i>Journal of Immigrant and Minority Health</i> , vol. 19, no. 3, 2017, pp. 709-715. https://doi.org/10.1007/s10903-016-0400-8 .	Wages
Contingency, Employment Intentions, and Retention of Vulnerable Low-Wage Workers: An Examination of Nursing Assistants in Nursing Homes	Dill, J. S., J. C. Morgan, and V. W. Marshall. "Contingency, Employment Intentions, and Retention of Vulnerable Low-Wage Workers: An Examination of Nursing Assistants in Nursing Homes." <i>The Gerontologist</i> , vol. 53, no. 2, 2013, pp. 222-234. https://doi.org/10.1093/geront/gns085 .	Benefits; Wages
Conclusion to the Special Issue: Understanding the Direct Support Workforce in the United States	Hewitt, A. S., and C. B. Laws. "Conclusion to the Special Issue: Understanding the Direct Support Workforce in the United States." <i>Intellectual & Developmental Disabilities</i> , vol. 58, no. 3, 2020, pp. 251-252. https://doi.org/10.1352/1934-9556-58.3.251 .	Wages

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Title	Reference	Sub-theme(s)
Predictors of Annual and Early Separations Among Direct Support Professionals: National Core Indicators Staff Stability Survey	Houseworth, J., S. L. Pettingell, J. E. D. Kramme, R. Tichá, and A. S. Hewitt. "Predictors of Annual and Early Separations Among Direct Support Professionals: National Core Indicators Staff Stability Survey." <i>Intellectual & Developmental Disabilities</i> , vol. 58, no. 3, 2020, pp. 192-207. https://doi.org/10.1352/1934-9556-58.3.192 .	Benefits; Wages
NO ONE TO CARE: Long-Term Care Providers Scramble to Hire and Retain Personal Care Aides	Meyer, H. "NO ONE TO CARE: Long-Term Care Providers Scramble to Hire and Retain Personal Care Aides." <i>Modern Healthcare</i> , vol. 50, no. 4, 2020, pp. 22-22. https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=her&AN=141479121&site=ehost-live&scope=site&authtype=sso&custid=s3377972 .	Benefits; Wages
Incentives, Wages, and Retention Among Direct Support Professionals: National Core Indicators Staff Stability Survey	Pettingell, S. L., J. Houseworth, R. Tichá, J. E. D. Kramme, A. S. Hewitt. "Incentives, Wages, and Retention Among Direct Support Professionals: National Core Indicators Staff Stability Survey." <i>Intellectual & Developmental Disabilities</i> , vol. 60, no. 2, 2022, pp. 113-127. https://doi.org/10.1352/1934-9556-60.2.113 .	Wages
Predictors of Intent to Leave the Job Among Home Health Workers: Analysis of the National Home Health Aide Survey	Stone, R., J. Wilhelm, C. E. Bishop, N. S. Bryant, L. Hermer, and M. R. Squillace. "Predictors of Intent to Leave the Job Among Home Health Workers: Analysis of the National Home Health Aide Survey." <i>The Gerontologist</i> , vol. 57, no. 5, 2017, pp. 890-899. https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=psyh&AN=2017-49486-015&site=ehost-live&scope=site&authtype=sso&custid=s3377972 .	Benefits; Wages
Web-based documents		
Michigan's Long-Term Care Workforce: Needs, Strengths, and Challenges	Ani, T., S. Slocum, S. Campbell, and K. Scales, K. "Michigan's Long-Term Care Workforce: Needs, Strengths, and Challenges." PHI, June 6, 20202. https://www.phinational.org/resource/michigans-long-term-care-workforce-needs-strengths-and-challenges/ .	Benefits
Addressing Wages of The Direct Care Workforce Through Medicaid Policies	Block, L., H. Maxey, C. Medlock, K. Johnson, and B. Nielson. "Addressing Wages of the Direct Care Workforce Through Medicaid Policies. National Governors Association." November 2022. https://www.nga.org/wp-content/uploads/2022/11/DirectCareWorkforcePaper_Nov2022.pdf .	Wages
Shoring Up the Long-Term Care Workforce	Bradford, K. "Shoring Up the Long-Term Care Workforce." National Conference of State Legislatures, July 29, 2019. https://www.ncsl.org/health/shoring-up-the-long-term-care-workforce .	Wages
Caring for the Future: The Power and Potential of America's Direct Care Workforce	Campbell, S., A. Del Rio Drake, R. Espinoza, and K. Scales. "Caring for the Future: The Power and Potential of America's Direct Care Workforce." PHI, January 12, 2021. https://www.phinational.org/caringforthefuture/ .	Wages
Four Ways to Strengthen the Direct Care Workforce	Crumley, D., and C. Roman. "Four Ways to Strengthen the Direct Care Workforce." Center for Health Care Strategies, January 26, 2022. https://www.chcs.org/four-ways-to-strengthen-the-direct-care-workforce/ .	Wages

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Title	Reference	Sub-theme(s)
Providers Have New Options to Recruit Qualified Employees to Provide Direct Supports	Davis, J. "Providers Have New Options to Recruit Qualified Employees to Provide Direct Supports." Ohio Department of Developmental Disabilities, September 23, 2021. https://dodd.ohio.gov/communication/news/providers+have+new+options+to+recruit+qualified+employees+to+provide+direct+supports .	Wages
DHSS Announces Direct Support Professional Recruitment and Retention Bonuses	Delaware Department of Health and Social Services' Division of Medicaid and Medical Assistance. "DHSS Announces Direct Support Professional Recruitment and Retention Bonuses." October 12, 2021. https://news.delaware.gov/2021/10/12/dhss-announces-direct-support-professional-recruitment-and-retention-bonuses/ .	Wages
We Cannot Wait to Strengthen Michigan's Direct Care Workforce	Dieppa, E. "We Cannot Wait to Strengthen Michigan's Direct Care Workforce." PHI, July 26, 2021. https://www.phinational.org/we-cannot-wait-to-strengthen-michigans-direct-care-workforce/ .	Wages
The Direct Care Workforce: Year in Review	Espinoza, R. "The Direct Care Workforce: Year in Review." PHI, 2018. https://www.phinational.org/wp-content/uploads/2018/12/Direct-Care-Workforce-Year-in-Review-2018-PHI.pdf .	Wages
Would You Stay? Rethinking Direct Care Job Quality	Espinoza, R. "Would You Stay? Rethinking Direct Care Job Quality." PHI, 2020. https://www.phinational.org/wp-content/uploads/2020/10/Would-You-Stay-2020-PHI.pdf .	Benefits; Wages
Supporting Direct Care Workers: Recruitment and Retention Strategies	Garcia, B. "Supporting Direct Care Workers: Recruitment and Retention Strategies." National Conference of State Legislatures (NCSL), April 1, 2022. https://www.ncsl.org/health/supporting-direct-care-workers-recruitment-and-retention-strategies .	Benefits; Wages
Texas Direct Service Workforce Initiative Stakeholder Recommendations to Improve Recruitment, Retention, and the Perceived Status of Paraprofessional Direct Service Workers in Texas	Luke, E. L. "Texas Direct Service Workforce Initiative Stakeholder Recommendations to Improve Recruitment, Retention, and the Perceived Status of Paraprofessional Direct Service Workers in Texas." Texas Health and Human Services Commission, June 2008. http://mykapp.org/wp-content/uploads/2016/10/Texas-stakeholder-report-on-DSP-workforce.pdf .	Benefits; Wages
Direct Service Workforce Learning Collaborative	Medicaid. "Direct Service Workforce Learning Collaborative: Summary Report." n.d.-a https://www.medicaid.gov/media/file/hcbs-learning-collaborative-summary.pdf .	Wages
State Efforts to Address Medicaid Home- and Community-Based Services Workforce Shortages	Medicaid and CHIP Payment and Access Commission (MACPAC). "State Efforts to Address Medicaid Home- and Community-Based Services Workforce Shortages." March 2022. https://www.macpac.gov/wp-content/uploads/2022/03/MACPAC-brief-on-HCBS-workforce.pdf .	Wages
RAISE Act State Policy Roadmap for Family Caregivers: The Direct Care Workforce	National Academy for State Health Policy (NASHP). "RAISE Act State Policy Roadmap for Family Caregivers: The Direct Care Workforce." March 8, 2022. https://eadn-wc03-8290287.nxedqe.io/wp-content/uploads/2022/12/NASHP_Report_3bV2-1.pdf .	Wages

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Title	Reference	Sub-theme(s)
ARPA-Funded Agency Direct Caregiver Workforce Recruitment and Retention	North Dakota Department of Health and Human Services. "ARPA-Funded Agency Direct Caregiver Workforce Recruitment and Retention." December 31, 2022. https://www.hhs.nd.gov/arpa-funded-agency-direct-caregiver-workforce-recruitment-and-retention .	Wages
DSP Retention Payments	Ohio Department of Developmental Disabilities. "DSP Retention Payments." n.d. https://dodd.ohio.gov/providers/RetentionPayment .	Wages
Recruiting and Retaining a Diverse Direct Care Workforce: Key Considerations for Long-Term Services and Supports Providers	PHI. "Recruiting and Retaining a Diverse Direct Care Workforce: Key Considerations for Long-Term Services and Supports Providers." January 1, 2019. https://www.phinational.org/resource/recruiting-and-retaining-a-diverse-direct-care-workforce/ .	Wages
Federal Policy Priorities for the Direct Care Workforce	PHI. "Federal Policy Priorities for the Direct Care Workforce." 2021b, July 14, 2021b. https://www.phinational.org/resource/federal-policy-priorities-for-the-direct-care-workforce/ .	Wages
What Direct Care Workers Like Most and Least about Their Jobs	PHI. "What Direct Care Workers Like Most and Least about Their Jobs." November 16, 2022. https://www.phinational.org/what-direct-care-workers-like-most-and-least-about-their-jobs/ .	Benefits
Finding and Keeping Direct Care Staff	PHI. "Finding and Keeping Direct Care Staff." 2023b. https://www.phinational.org/wp-content/uploads/2017/07/FindKeepBook.pdf . PHI. "State Index Tool the Direct Care Workforce State Index." January 10, 2023b. https://www.phinational.org/state-index-tool/ .	Benefits
Wisconsin Caregivers in Crisis: Investing in our Future: Governor's Task Force on Caregiving Report	Pugh, L., and T. Costello. "Wisconsin Caregivers in Crisis: Investing in our Future: Governor's Task Force on Caregiving Report." Wisconsin Department of Health Services, September 2020. https://www.dhs.wisconsin.gov/qtfc/qtfc-report.pdf .	Wages
Five Opportunities to Invest in New Jersey's Direct Care Workers	Robins, A. "Five Opportunities to Invest in New Jersey's Direct Care Workers." PHI, November 1, 2022. https://www.phinational.org/five-opportunities-to-invest-in-new-jerseys-direct-care-workers/ .	Wages
Supporting Direct Care Workers through Training and Stipends: Insights for California Stakeholders	Roman, C., and C. Graham. "Supporting Direct Care Workers through Training and Stipends: Insights for California Stakeholders." Center for Health Care Strategies, April 2022. https://www.chcs.org/media/Supporting-Direct-Care-Workers-through-Training-and-Stipends-Insights-for-California.pdf .	Wages
Forging a Path Forward to Strengthen Michigan's Direct Care Workforce	Roman, C., and D. Crumley. "Forging a Path Forward to Strengthen Michigan's Direct Care Workforce." Center for Health Care Strategies, December 2021. https://www.chcs.org/media/Forging-a-Path-Forward-to-Strengthen-Michigans-Direct-Care-Workforce.pdf .	Wages

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Title	Reference	Sub-theme(s)
Direct Care Workforce Policy and Action Guide	Roman, C., C. Luz, C. Graham, N. Joseph, and K. McEvoy. "Direct Care Workforce Policy and Action Guide." Milbank Memorial Fund, 2022. https://www.milbank.org/wp-content/uploads/2022/05/DirectCareWorker_Toolkit_final.pdf .	Wages
Older Workers and the Direct Care Workforce	Scales, K. "Older Workers and the Direct Care Workforce." PHI, April 9, 2018c. https://www.phinational.org/resource/older-workers-direct-care-workforce/ .	Benefits
Meeting the Integration Mandate: The Implications of Olmstead for the Home Care Workforce	Scales, K. "Meeting the Integration Mandate: The Implications of Olmstead for the Home Care Workforce." Georgetown Journal on Poverty Law and Policy, 2020a. https://www.law.georgetown.edu/poverty-journal/wp-content/uploads/sites/25/2020/06/05-Scales.pdf .	Wages
Now is the Time to Lift Up North Carolina's Direct Care Workers	Scales, K. "Now is the Time to Lift Up North Carolina's Direct Care Workers." PHI, July 6, 2021. https://www.phinational.org/now-is-the-time-to-lift-up-north-carolinas-direct-care-workers/ .	Wages
Building the Direct Care Workforce Movement: The Essential Jobs, Essential Care Multi-State Initiative	Scales, K. "Building the Direct Care Workforce Movement: The Essential Jobs, Essential Care Multi-State Initiative." PHI, March 8, 2022a. https://www.phinational.org/resource/building-the-direct-care-workforce-movement-the-essential-jobs-essential-care-multi-state-initiative/ .	Wages
State Policy Strategies for Strengthening the Direct Care Workforce	Scales, K. "State Policy Strategies for Strengthening the Direct Care Workforce." PHI, April 11, 2022b. https://www.phinational.org/resource/state-policy-strategies-for-strengthening-the-direct-care-workforce/ .	Wages
Adding Value Through Direct Care Work	Simmons, A. "Adding Value Through Direct Care Work." DOL Blog, April 5, 2022. https://blog.dol.gov/2022/04/05/adding-value-through-direct-care-work .	Benefits; Wages
Funding for One-time Direct Care Retention Payments	South Carolina Department of Health and Human Services. "Funding for One-time Direct Care Retention Payments." November 2, 2022. https://www.scdhhs.gov/communications/funding-one-time-direct-care-retention-payments .	Wages
Feeling Valued Because They Are Valued: A Vision for Professionalizing the Caregiving Workforce in the Field of Long-Term Services and Supports	Stone, R. I., and N. Bryant. "Feeling Valued Because They Are Valued: A Vision for Professionalizing the Caregiving Workforce in the Field of Long-Term Services and Supports." LeadingAge, July 2021. https://www.ltsscenter.org/wp-content/uploads/2021/07/Workforce-Vision-Paper_FINAL.pdf .	Wages
MDHHS Announces \$3.9 Million for Retention Payments for Direct Care Workers with Home and Community-Based Services	Sutfin, L. "MDHHS Announces \$3.9 Million for Retention Payments for Direct Care Workers with Home and Community-Based Services." Michigan Department of Health and Human Service, October 19, 2020. https://www.michigan.gov/coronavirus/news/2020/10/19/mdhhs-announces-3-9-million-for-retention-payments-for-direct-care-workers-with-home-and-community-	Wages

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Title	Reference	Sub-theme(s)
Strengthening the Direct Care Workforce: Scan of State Strategies	Ward, H., M. Ralls, C. Roman, and D. Crumley. "Strengthening the Direct Care Workforce: Scan of State Strategies." Center for Health Care Strategies, December 2021. https://www.chcs.org/media/Strengthening-the-Direct-Care-Workforce-Scan-of-State-Strategies.pdf .	Wages
State Strategies for Sector Growth and Retention of The Direct Care Health Workforce	Winters, A., L. Block, H. Maxey, C. Medlock, K. Ruane, and S. Hockenberry. "State Strategies for Sector Growth and Retention for the Direct Care Health Workforce." National Governors Association, September 2021. https://www.nga.org/wp-content/uploads/2021/10/NGA_SectorGrowth-DirectCare_report.pdf .	Wages

2. Strengthening workforce capacity

The environmental scan found several publications suggesting that improving DCW workforce capacity may strengthen recruitment and retention outcomes. We identified 19 journal articles and 37 web-based documents discussing workforce capacity for DCWs (Exhibit III.3). Similar to other professions, DCWs may benefit from supports that strengthen skill sets and prevent burnout. Examples of these supports include training, connections with fellow DCWs and other emotional support, programs to avoid overwork, and job registries.

Training may improve DCW retention by strengthening skills, preventing injuries, and increasing job satisfaction. Findings from [Luz and Hanson \(2015a\)](#) suggest that comprehensive training programs can improve DCW job knowledge, skills, status, and satisfaction. Other training programs had similar positive outcomes ([Butler & Rowan 2013](#); [Dreher et al. 2019](#); [Lopez et al. 2014](#); [Sterling et al. 2020](#)). [Lee & Jang \(2016\)](#), [Stone et al. \(2017\)](#), and [Stone & Bryant \(2019\)](#) suggest that additional training could help prevent workplace injuries, which are highly correlated with low retention. [Meyer \(2020\)](#) described the promise of coaching programs for the DCW labor force that address personal and professional conduct, communication skills, financial literacy, conflict and stress management, and other issues like transportation and childcare. Before the program, the 12-month DCW turnover rate was greater than 30 percent. After the program started, the turnover rate fell to 7 percent. [Brady \(2016\)](#) found that a lack of training and limited supervisor interest helped explain why CNAs decided to leave the profession.

Not all training programs increased DCW retention, however. [Meyer et al. \(2014\)](#) examined CNA retention outcomes in rural areas one year after training and found no relationship between training and retention. A report by [Rollison et al. \(2022\)](#) found that Transformational Healthcare Readiness through Innovative Vocational Education (THRIVE)—a 12-month program meant to reduce turnover for new DCWs—was not effective.

Some states have developed DCW training programs and standards to increase DCW skills. New York started using Workforce Investment Organizations to implement training and skill-building programs for DCWs. [Russell et al. \(2022\)](#) explored stakeholder perspectives toward these organizations. The stakeholders liked that the Workforce Investment Organization offered flexibility in training design, equipped a larger number of DCWs with new skills, laid a foundation for career advancements, and supported organizational collaborations. Washington State requires 75 hours of entry-level training, a Department of Health administered Home Care Aide credentialing exam, and 12 hours of annual continuing education. [Raynor \(2014\)](#) suggests the Washington training requirements could serve as the foundation for a national training standard. Similarly, [Luz & Hansen \(2015b\)](#) note that a 77-hour training program from Michigan's Personal and Home Care Aide State Training demonstration project improved DCW quality, but many candidates had socio-economic challenges that made it difficult to complete the intensive training program.

Emotional support and better connections with supervisors may also increase DCW retention by improving job satisfaction. According to [Gleason & Miller \(2021\)](#), providing emotional and instrumental supports to DCWs increased the frequency and quality of their interactions with other staff and likely improved their job satisfaction. [Butler & Rowan \(2013\)](#) also found DCWs may benefit from emotional supports, such as support groups and forums to discuss ethical dilemmas. [Kim et al. \(2014\)](#) shared that decentralized decision making and less formalization combined with training and communication can improve DCW satisfaction and reduce intent to leave. [Gray & Muramatsu \(2013\)](#) found that survey respondents who reported higher levels of work overload and poor relationships with

supervisors were more likely to want to leave their job. Supervisor trainings may help address these issues.

Web-based documents also describe the promise of using workforce capacity supports to improve DCW satisfaction and job retention. Many publications describe multiple strategies for strengthening the DCW labor force. Several of the publications mentioned above that discuss compensation strategies also consider training and other workforce capacity supports. However, some web-based resources focus on DCW workforce capacity supports exclusively. For example, Medicaid has a free interactive training series designed to assist people who wish to self-direct their direct care services ([Medicaid n.d.-b](#)). When recruiting young workers to become DCWs, PHI National recommends providing workforce capacity supports that address the needs of younger workers, like financial literacy ([Scales 2018a](#)). PHI National also described the WisCaregiver Careers program, which includes training, recruitment and retention bonuses, and other workforce capacity supports ([PHI 2023a](#)).

At least one document discussed creating job registries to increase DCW recruitment and retention. Although this strategy is not targeted at supporting DCWs directly, it has the potential to improve understanding of DCW job opportunities. The previously mentioned WisCaregiver Careers program will create a job registry to connect DCWs to local job opportunities ([PHI 2023a](#)).

Exhibit III.3. Journal articles and web-based documents discussing workforce capacity supports for DCWs

Title	Reference	Sub-theme(s)
Journal articles		
An Exploration of Nursing Assistants' Perceptions About Job Satisfaction	Brady, D. M. "An Exploration of Nursing Assistants' Perceptions About Job Satisfaction." <i>Critical Care Nursing Quarterly</i> , vol. 39, no. 4, 2016, pp. 371-386. https://doi.org/10.1097/CNQ.000000000000131 .	Employment support; Training
Supporting Home Care Aides: what Employers Can Do to Assist Their Workers	Butler, S. S., and N. Rowan. "Supporting Home Care Aides: What Employers Can Do to Assist Their Workers." <i>Home Healthcare Nurse</i> , vol. 31, no. 10, 2013, pp. 546-552. https://doi.org/10.1097/01.Nhh.0000436224.22906.86	Employment support; Training
Improving Retention Among Certified Nursing Assistants Through Compassion Fatigue Awareness and Self-Care Skills Education	Dreher, M. M., R. G. Hughes, P. A. Handley, and A. S. Tavakoli. "Improving Retention Among Certified Nursing Assistants Through Compassion Fatigue Awareness and Self-Care Skills Education." <i>Journal of Holistic Nursing</i> , vol. 37, no. 3, 2019, pp. 296-308. https://doi.org/10.1177/0898010119834180 .	Employment support
Maximizing Home Health Aide Retention: The Impact of Control and Support on the Job	Gleason, H. P., and E. A. Miller. "Maximizing Home Health Aide Retention: The Impact of Control and Support on the Job." <i>The Gerontologist</i> , vol. 61, no. 4, 2021, pp. 517-529. https://doi.org/10.1093/geront/gnab003 .	Employment support; Training
When the Job Has Lost Its Appeal: Intentions to Quit Among Direct Care Workers	Gray, J. A., and N. Muramatsu. "When the Job Has Lost Its Appeal: Intentions to Quit Among Direct Care Workers." <i>Journal of Intellectual and Developmental Disability</i> , vol. 38, no. 2, 2013, pp. 124-133. https://doi.org/10.3109/13668250.2012.760728 .	Employment support; Workload
Predictors of Annual and Early Separations Among Direct Support Professionals: National Core Indicators Staff Stability Survey	Houseworth, J., S. L. Pettingell, J. E. D. Kramme, R. Tichá, and A. S. Hewitt. "Predictors of Annual and Early Separations Among Direct Support Professionals: National Core Indicators Staff Stability Survey." <i>Intellectual & Developmental Disabilities</i> , vol. 58, no. 3, 2020, pp. 192-207. https://doi.org/10.1352/1934-9556-58.3.192 .	Employment support
Determinants of Job Satisfaction and Turnover Intent in Home Health Workers: The Role of Job Demands and Resources	Jang, Y., A. A. Lee, M. Zadrozny, S.-H. Bae, M. T. Kim, and N. C. Marti. "Determinants of Job Satisfaction and Turnover Intent in Home Health Workers: The Role of Job Demands and Resources." <i>Journal of Applied Gerontology</i> , vol. 36, no. 1, 2017, pp. 56-70. https://doi.org/10.1177/0733464815586059 .	Training
The Joint Relationship Between Organizational Design Factors and HR Practice Factors on Direct Care Workers' Job Satisfaction and Turnover Intent	Kim, J., N. Wehbi, J. L. Dellifraigne, and D. Brannon. "The Joint Relationship Between Organizational Design Factors and HR Practice Factors on Direct Care Workers' Job Satisfaction and Turnover Intent." <i>Health Care Manage Rev</i> , vol. 39, no. 2, 2014, pp. 174-184. https://doi.org/10.1097/HMR.0b013e31828c8b8f .	Employment support; Training

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Title	Reference	Sub-theme(s)
What Makes Home Health Workers Think About Leaving Their Job? The Role of Physical Injury and Organizational Support	Lee, A. A., and Y. Jang. "What Makes Home Health Workers Think About Leaving Their Job? The Role of Physical Injury and Organizational Support." <i>Home Health Care Services Quarterly</i> , vol. 35, no. 1, 2016, pp. 1-10. https://doi.org/10.1080/01621424.2016.1145165 .	Employment support; Training
Direct Care Worker's Perceptions of Job Satisfaction Following Implementation of Work-Based Learning	Lopez, C., D. L. White, and P. C. Carder. "Direct Care Worker's Perceptions of Job Satisfaction Following Implementation of Work-Based Learning." <i>Journal of Applied Gerontology</i> , vol. 33, no. 1, 2014, pp. 97-120. https://doi.org/10.1177/0733464812463982 .	Training
Filling the Care Gap: Personal Home Care Worker Training Improves Job Skills, Status, and Satisfaction	Luz, C., and K. Hanson. "Filling the Care Gap: Personal Home Care Worker Training Improves Job Skills, Status, and Satisfaction." <i>Home Health Care Management & Practice</i> , vol. 27, no. 4, 2015a, 230-237. https://doi.org/10.1177/1084822315584316 .	Training
Training the Personal and Home Care Aide Workforce: Challenges and Solutions	Luz, C., and K. Hanson. "Training the Personal and Home Care Aide Workforce: Challenges and Solutions." <i>Home Health Care Management & Practice</i> , vol. 27, no. 3, 2015b, pp. 150-153. https://doi.org/10.1177/1084822314566301 .	Training
The First Year: Employment Patterns and Job Perceptions of Nursing Assistants in a Rural Setting	Meyer, D., H. Raffle, and L. J. Ware. "The First Year: Employment Patterns and Job Perceptions of Nursing Assistants in a Rural Setting." <i>Journal of Nursing Management</i> , vol. 22, no. 6, 2014, pp. 769-778. https://doi.org/10.1111/j.1365-2834.2012.01441.x .	Training
NO ONE TO CARE: Long-Term Care Providers Scramble to Hire and Retain Personal Care Aides	Meyer, H. "NO ONE TO CARE: Long-Term Care Providers Scramble to Hire and Retain Personal Care Aides." <i>Modern Healthcare</i> , vol. 50, no. 4, 2020, pp. 22-22. https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=her&AN=141479121&site=ehost-live&scope=site&authType=sso&custid=s3377972 .	Training
Innovations in Training and Promoting the Direct Care Workforce	Raynor, C. "Innovations in Training and Promoting the Direct Care Workforce." <i>Public Policy & Aging Report</i> , vol. 24, no. 2, 2014, pp. 70-72. https://doi.org/10.1093/ppar/pru005 .	Training
Formative Evaluation of a Workforce Investment Organization to Provide Scaled Training for Home Health Aides Serving Managed Long-Term Care Plan Clients in New York State	Russell, D., M.-C. Fong, O. Gao, D. Lowenstein, M. Haas, F. Wiggins, C. Brickner, and E. Franzos. "Formative Evaluation of a Workforce Investment Organization to Provide Scaled Training for Home Health Aides Serving Managed Long-Term Care Plan Clients in New York State." <i>Journal of Applied Gerontology</i> , vol. 41, no. 7, 2022, pp. 1710-1721. https://doi.org/10.1177/07334648221084182 .	Training
Heart Failure Training and Job Satisfaction: A Survey of Home Care Workers Caring for Adults with Heart Failure in New York City	Sterling, M. R., J. Cho, J. B. Ringel, and A. C. Avgar. "Heart Failure Training and Job Satisfaction: A Survey of Home Care Workers Caring for Adults with Heart Failure in New York City." <i>Ethnicity & Disease</i> , vol. 30, no. 4, 2020, pp. 575-582. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7518527/ .	Training

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Title	Reference	Sub-theme(s)
The Future of the Home Care Workforce: Training and Supporting Aides as Members of Home-Based Care Teams	Stone, R. I., N. S. Bryant. "The Future of the Home Care Workforce: Training and Supporting Aides as Members of Home-Based Care Teams." <i>Journal of the American Geriatrics Society</i> , vol. 67, 2019, pp. S444-S448. https://doi.org/10.1111/jgs.15846 .	Employment support; Training
Predictors of Intent to Leave the Job Among Home Health Workers: Analysis of the National Home Health Aide Survey	Stone, R., J. Wilhelm, C. E. Bishop, N. S. Bryant, L. Hermer, and M. R. Squillace. "Predictors of Intent to Leave the Job Among Home Health Workers: Analysis of the National Home Health Aide Survey." <i>The Gerontologist</i> , vol. 57, no. 5, 2017, pp. 890-899. https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=psyh&AN=2017-49486-015&site=ehost-live&scope=site&authtype=sso&custid=s3377972 .	Training
Web-based documents		
Michigan's Long-Term Care Workforce: Needs, Strengths, and Challenges	Ani, T., S. Slocum, S. Campbell, and K. Scales, K. "Michigan's Long-Term Care Workforce: Needs, Strengths, and Challenges." PHI, June 6, 20202. https://www.phinational.org/resource/michigans-long-term-care-workforce-needs-strengths-and-challenges/ .	Employment support; Training
Supporting A Trained Direct Care Workforce in Facility Settings During and After the Covid-19 Pandemic	Block, L., H. Maxey, C. Medlock, and K. Ruane. "Supporting a Trained Direct Care Workforce in Facility Settings During and After the COVID-19 Pandemic." National Governors Association, February 2021. https://www.nga.org/wp-content/uploads/2021/02/Supporting_a_Trained_Direct_Care_Workforce.pdf .	Job registries
Shoring Up the Long-Term Care Workforce	Bradford, K. "Shoring Up the Long-Term Care Workforce." National Conference of State Legislatures, July 29, 2019. https://www.ncsl.org/health/shoring-up-the-long-term-care-workforce .	Training
Commission to Study Long-term Care Workforce Issues	Broome, A., and L. Caswell. "Commission to Study Long-term Care Workforce Issues." State of Maine, January 2020. https://www.legislature.maine.gov/doc/3852 .	Employment support; Training
Caring for the Future: The Power and Potential of America's Direct Care Workforce	Campbell, S., A. Del Rio Drake, R. Espinoza, and K. Scales. "Caring for the Future: The Power and Potential of America's Direct Care Workforce." PHI, January 12, 2021. https://www.phinational.org/caringforthefuture/ .	Training
Recruitment, Assessment, and Retention in the Direct Care Workforce for Individuals with Criminal Records: A Comprehensive Model Approach	Denver, M. "Recruitment, Assessment, and Retention in the Direct Care Workforce for Individuals with Criminal Records: A Comprehensive Model Approach." National Institute of Justice, September 2021. https://nij.ojp.gov/topics/articles/recruitment-assessment-and-retention-direct-care-workforce-individuals-criminal .	Employment support; Training
We Cannot Wait to Strengthen Michigan's Direct Care Workforce	Dieppa, E. "We Cannot Wait to Strengthen Michigan's Direct Care Workforce." PHI, July 26, 2021. https://www.phinational.org/we-cannot-wait-to-strengthen-michigans-direct-care-workforce/ .	Training

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Title	Reference	Sub-theme(s)
The Direct Care Workforce: Year in Review	Espinoza, R. (2018). The Direct Care Workforce: Year in Review. PHI. https://www.phinational.org/wp-content/uploads/2018/12/Direct-Care-Workforce-Year-in-Review-2018-PHI.pdf	Job registries; Training
Would You Stay? Rethinking Direct Care Job Quality	Espinoza, R. (2020). Would You Stay? Rethinking Direct Care Job Quality. PHI. https://www.phinational.org/wp-content/uploads/2020/10/Would-You-Stay-2020-PHI.pdf	Employment support; Training
Federal Policy Priorities for the Direct Care Workforce	Federal Policy Priorities for the Direct Care Workforce. PHI. (2021, July 14). https://www.phinational.org/resource/federal-policy-priorities-for-the-direct-care-workforce/	Training
Finding and Keeping Direct Care Staff	Finding and Keeping Direct Care Staff. PHI. (2003). https://www.phinational.org/wp-content/uploads/2017/07/FindKeepBook.pdf	Employment support; Training
Supporting Direct Care Workers: Recruitment and Retention Strategies	Garcia, B. (2022, April 1). Supporting Direct Care Workers: Recruitment and Retention Strategies. National Conference of State Legislatures (NCSL). https://www.ncsl.org/health/supporting-direct-care-workers-recruitment-and-retention-strategies	Job registries; Training
Hiring and Managing Direct Care Workers	Hiring and Managing Direct Care Workers. The Arc. (2021, January). https://cws.thearc.org/wp-content/uploads/sites/15/2021/01/HiringManagingGuide_01052021-1.pdf	Employment support
CareAcademy Launches CAREer Path Initiative to Provides College Credit to Direct Care Workers	Home Care Association of America. "CareAcademy Launches CAREer Path Initiative to Provides College Credit to Direct Care Workers." April 28, 2021a. https://www.hcaoa.org/newsletters/careacademy-launchescareer-path-initiative-to-provides-college-credit-to-direct-care-workers .	Training
Placing a Higher Value on Direct Care Workers	Hostetter, M., and S. Klein. "Placing a Higher Value on Direct Care Workers." The Commonwealth Fund, July 1, 2021. https://www.commonwealthfund.org/publications/2021/jul/placing-higher-value-direct-care-workers?utm_source=alert&utm_medium=email&utm_campaign=Improving+Health+Care+Quality .	Training
Texas Direct Service Workforce Initiative Stakeholder Recommendations to Improve Recruitment, Retention, and the Perceived Status of Paraprofessional Direct Service Workers in Texas	Luke, E. L. "Texas Direct Service Workforce Initiative Stakeholder Recommendations to Improve Recruitment, Retention, and the Perceived Status of Paraprofessional Direct Service Workers in Texas." Texas Health and Human Services Commission, June 2008. http://mykapp.org/wp-content/uploads/2016/10/Texas-stakeholder-report-on-DSP-workforce.pdf .	Job registries; Training
Direct Service Workforce Learning Collaborative	Medicaid. "Direct Service Workforce Learning Collaborative: Summary Report." n.d.-a https://www.medicaid.gov/media/file/hcbs-learning-collaborative-summary.pdf .	Training

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Title	Reference	Sub-theme(s)
Direct Care Workforce	Medicaid. "Direct Care Workforce." n.d.-b. https://www.medicaid.gov/medicaid/long-term-services-supports/workforce-initiative/index.html	Training
State Efforts to Address Medicaid Home- and Community-Based Services Workforce Shortages	Medicaid and CHIP Payment and Access Commission (MACPAC). "State Efforts to Address Medicaid Home- and Community-Based Services Workforce Shortages." March 2022. https://www.macpac.gov/wp-content/uploads/2022/03/MACPAC-brief-on-HCBS-workforce.pdf .	Employment support; Training
RAISE Act State Policy Roadmap for Family Caregivers: The Direct Care Workforce	National Academy for State Health Policy (NASHP). "RAISE Act State Policy Roadmap for Family Caregivers: The Direct Care Workforce." March 8, 2022. https://eadn-wc03-8290287.nxedge.io/wp-content/uploads/2022/12/NASHP_Report_3bV2-1.pdf .	Employment support; Job registries
Recruiting and Retaining a Diverse Direct Care Workforce: Key Considerations for Long-Term Services and Supports Providers	PHI. "Recruiting and Retaining a Diverse Direct Care Workforce: Key Considerations for Long-Term Services and Supports Providers." January 1, 2019. https://www.phinational.org/resource/recruiting-and-retaining-a-diverse-direct-care-workforce/ .	Training
An Arizona Direct Care Worker Survey Is Driving Innovation	PHI. "An Arizona Direct Care Worker Survey Is Driving Innovation." August 11, 2021a. https://www.phinational.org/an-arizona-direct-care-worker-survey-is-driving-innovation/ .	Employment support; Training
What Direct Care Workers Like Most and Least about Their Jobs	PHI. "What Direct Care Workers Like Most and Least about Their Jobs." November 16, 2022. https://www.phinational.org/what-direct-care-workers-like-most-and-least-about-their-jobs/ .	Employment support
Will Wisconsin's Direct Care Program Change the Field?	PHI. "Will Wisconsin's Direct Care Program Change the Field?" February 27, 2023a. https://www.phinational.org/news/will-wisconsins-direct-care-program-change-the-field/ .	Job registries; Training
Supporting Direct Care Workers through Training and Stipends: Insights for California Stakeholders	Roman, C., and C. Graham. "Supporting Direct Care Workers through Training and Stipends: Insights for California Stakeholders." Center for Health Care Strategies, April 2022. https://www.chcs.org/media/Supporting-Direct-Care-Workers-through-Training-and-Stipends-Insights-for-California.pdf .	Training
Forging a Path Forward to Strengthen Michigan's Direct Care Workforce	Roman, C., and D. Crumley. "Forging a Path Forward to Strengthen Michigan's Direct Care Workforce." Center for Health Care Strategies, December 2021. https://www.chcs.org/media/Forging-a-Path-Forward-to-Strengthen-Michigans-Direct-Care-Workforce.pdf .	Training
Younger Workers and the Direct Care Workforce	Scales, K. "Younger Workers and the Direct Care Workforce." PHI, 2018a. https://www.phinational.org/wp-content/uploads/2018/03/Younger-Workers-PHI-2018.pdf .	Training

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Title	Reference	Sub-theme(s)
Men and the Direct Care Workforce	Scales, K. "Men and the Direct Care Workforce." PHI, 2018b. https://www.phinational.org/wp-content/uploads/2018/04/Male-Workers-PHI-2018.pdf .	Employment support
Older Workers and the Direct Care Workforce	Scales, K. "Older Workers and the Direct Care Workforce." PHI, April 9, 2018c. https://www.phinational.org/resource/older-workers-direct-care-workforce/ .	Training
Meeting the Integration Mandate: The Implications of Olmstead for the Home Care Workforce	Scales, K. "Meeting the Integration Mandate: The Implications of Olmstead for the Home Care Workforce." Georgetown Journal on Poverty Law and Policy, 2020a. https://www.law.georgetown.edu/poverty-journal/wp-content/uploads/sites/25/2020/06/05-Scales.pdf .	Training
Growing a Strong Direct Care Workforce: A Recruitment and Retention Guide for Employers	Scales, K. "Growing a Strong Direct Care Workforce: A Recruitment and Retention Guide for Employers." PHI, April 20, 2020b. https://www.phinational.org/resource/growing-strong-direct-care-workforce-recruitment-retention-guide-employers/ .	Employment support; Training
Building the Direct Care Workforce Movement: The Essential Jobs, Essential Care Multi-State Initiative	Scales, K. "Building the Direct Care Workforce Movement: The Essential Jobs, Essential Care Multi-State Initiative." PHI, March 8, 2022a. https://www.phinational.org/resource/building-the-direct-care-workforce-movement-the-essential-jobs-essential-care-multi-state-initiative/ .	Training
State Policy Strategies for Strengthening the Direct Care Workforce	Scales, K. "State Policy Strategies for Strengthening the Direct Care Workforce." PHI, April 11, 2022b. https://www.phinational.org/resource/state-policy-strategies-for-strengthening-the-direct-care-workforce/ .	Training
Adding Value Through Direct Care Work	Simmons, A. "Adding Value Through Direct Care Work." DOL Blog, April 5, 2022. https://blog.dol.gov/2022/04/05/adding-value-through-direct-care-work .	Training
Strengthening the Entry-Level Health Care Workforce: Finding a Path	U.S. Department of Health & Human Services (HHS) Office of the Assistant Secretary for Planning and Evaluation (ASPE). "Strengthening the Entry-Level Health Care Workforce: Finding a Path." December 2020. https://aspe.hhs.gov/sites/default/files/migrated_legacy_files/200076/strengthening-the-EHCW-Report.pdf	Training
Strengthening the Direct Care Workforce: Scan of State Strategies	Ward, H., M. Ralls, C. Roman, and D. Crumley. "Strengthening the Direct Care Workforce: Scan of State Strategies." Center for Health Care Strategies, December 2021. https://www.chcs.org/media/Strengthening-the-Direct-Care-Workforce-Scan-of-State-Strategies.pdf .	Training
State Strategies for Sector Growth and Retention of the Direct Care Health Workforce	Winters, A., L. Block, H. Maxey, C. Medlock, K. Ruane, and S. Hockenberry. "State Strategies for Sector Growth and Retention for the Direct Care Health Workforce." National Governors Association, September 2021. https://www.nga.org/wp-content/uploads/2021/10/NGA_SectorGrowth-DirectCare_report.pdf .	Job registries; Training

3. Promoting occupational reform

Broad occupational reforms for DCWs could improve recruitment and retention by expanding opportunity and increasing job satisfaction. Occupational reforms discussed for DCWs include professionalization and credentialing, promoting upward occupational mobility, improving public perception, and developing strong recruitment pipelines. The literature covering occupational reforms is smaller than those on compensation and other training supports—5 journal articles and 33 web-based documents—but highlights several strategies that could improve DCW recruitment and retention (Exhibit III.4).

Peer-reviewed articles describe several promising occupational reforms. Using a nationally representative sample, [Kim \(2020\)](#) explored correlations between occupational credentials and job qualities, finding that occupational credentials have the potential to improve labor market outcomes for DCWs. [White et al. \(2020\)](#) found that CNAs requested more opportunities for professional growth and career progression and the study authors believed such opportunities may increase job satisfaction. Similarly, [Brady \(2016\)](#) learned from a small sample of CNAs that they viewed the clinical ladder option as a way to advance their careers, increase their compensation, and gain new skills. In the [Covington-Ward \(2017\)](#) study, African immigrants entering the DCW labor force believed direct care work was a pathway to better-paid and higher prestige health professions. Similarly, after following and interviewing 261 DCWs, [Butler et al. \(2014\)](#) suggest framing direct care work to DCW candidates as a stepping-stone to other healthcare positions.

Web-based documents describe several strategies for professionalization, credentialing, and improving recruiting pipelines. For example, the LeadingAge LTSS Center at the University of Massachusetts Boston proposed six strategies for professionalizing the DCW labor force ([Stone & Bryant 2021](#)). Some states worked to promote pipelines to DCWs, with Ohio creating a public service announcement and Maine releasing a report describing strategies to increase the DCW pipeline ([National Association of State Directors of Developmental Disabilities Services 2022](#); [Broome & Caswell 2020](#)). In addition, the Office of the Assistant Secretary for Planning and Evaluation (ASPE) released a report about improving pathways to entry-level direct care work ([U.S. Department of Health and Human Services 2020](#)). PHI National has several documents that discuss occupational reforms. A few web-based documents explored the potential of DCW recruitment pipelines for certain subpopulations, such as people with criminal records ([Denver 2021](#)). Efforts to professionalize and improve public perception of direct care work could also increase interest in the field ([Roman et al. 2022](#)).

Exhibit III.4. Journal articles and web-based documents discussing occupational reform for DCWs

Title	Reference	Sub-theme(s)
Journal articles		
An Exploration of Nursing Assistants' Perceptions About Job Satisfaction	Brady, D. M. "An Exploration of Nursing Assistants' Perceptions About Job Satisfaction." <i>Critical Care Nursing Quarterly</i> , vol. 39, no. 4, 2016, pp. 371-386. https://doi.org/10.1097/CNQ.000000000000131 .	Occupational mobility
Determinants of Longer Job Tenure Among Home Care Aides: What Makes Some Stay on the Job While Others Leave?	Butler, S. S., M. Brennan-Ing, S. Wardamasky, and A. Ashley. "Determinants of Longer Job Tenure Among Home Care Aides: What Makes Some Stay on the Job While Others Leave?" <i>Journal of Applied Gerontology</i> , vol. 33, no. 2, 2014, pp. 164-188. https://doi.org/10.1177/0733464813495958	Alternate recruitment pipelines
African Immigrants in Low-Wage Direct Health Care: Motivations, Job Satisfaction, and Occupational Mobility	Covington-Ward, Y. "African Immigrants in Low-Wage Direct Health Care: Motivations, Job Satisfaction, and Occupational Mobility." <i>Journal of Immigrant and Minority Health</i> , vol. 19, no. 3, 2017, pp. 709-715. https://doi.org/10.1007/s10903-016-0400-8 .	Occupational mobility
Occupational Credentials and Job Qualities of Direct Care Workers: Implications for Labor Shortages	Kim, J. "Occupational Credentials and Job Qualities of Direct Care Workers: Implications for Labor Shortages." <i>Journal of Labor Research</i> , vol. 41, no. 4, 2020, pp. 403-420. https://doi.org/10.1007/s12122-020-09312-5 .	Credentialing and professionalization
Certified Nursing Assistants: Perceptions of Employment in Long-Term Care	White, R., M. E. Main, and C. Abell. "Certified Nursing Assistants: Perceptions of Employment in LTC." <i>The Director: Official Journal of the National Association of Directors of Nursing Administration in Long Term Care</i> , vol. 28, no.1 2020, pp. 20–23. https://nadonathedirector.scholasticahq.com/article/12790-cna-s-perceptions-of-employment-in-ltc .	Occupational mobility
Web-based documents		
Michigan's Long-Term Care Workforce: Needs, Strengths, and Challenges	Ani, T., S. Slocum, S. Campbell, and K. Scales, K. "Michigan's Long-Term Care Workforce: Needs, Strengths, and Challenges." PHI, June 6, 2020. https://www.phinational.org/resource/michigans-long-term-care-workforce-needs-strengths-and-challenges/ .	Data collection and monitoring
Supporting A Trained Direct Care Workforce in Facility Settings During and After the Covid-19 Pandemic	Block, L., H. Maxey, C. Medlock, and K. Ruane. "Supporting a Trained Direct Care Workforce in Facility Settings During and After the COVID-19 Pandemic." National Governors Association, February 2021. https://www.nga.org/wp-content/uploads/2021/02/Supporting_a_Trained_Direct_Care_Workforce.pdf .	Credentialing and professionalization; Occupational mobility
Maine Commission to Study Long-term Care Workforce Issues	Broome, A., and L. Caswell. "Commission to Study Long-term Care Workforce Issues." State of Maine, January 2020. https://www.legislature.maine.gov/doc/3852 .	Alternate recruitment pipelines; Public perception

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Title	Reference	Sub-theme(s)
Caring for the Future: The Power and Potential of America's Direct Care Workforce	Campbell, S., A. Del Rio Drake, R. Espinoza, and K. Scales. "Caring for the Future: The Power and Potential of America's Direct Care Workforce." PHI, January 12, 2021. https://www.phinational.org/caringforthefuture/ .	Data collection and monitoring; Public perception; Public policy
Four Ways to Strengthen the Direct Care Workforce	Crumley, D., and C. Roman. "Four Ways to Strengthen the Direct Care Workforce." Center for Health Care Strategies, January 26, 2022. https://www.chcs.org/four-ways-to-strengthen-the-direct-care-workforce/ .	Public perception
Recruitment, Assessment, and Retention in the Direct Care Workforce for Individuals with Criminal Records: A Comprehensive Model Approach	Denver, M. "Recruitment, Assessment, and Retention in the Direct Care Workforce for Individuals with Criminal Records: A Comprehensive Model Approach." National Institute of Justice, September 2021. https://nij.ojp.gov/topics/articles/recruitment-assessment-and-retention-direct-care-workforce-individuals-criminal .	Alternate recruitment pipelines; Occupational mobility
Would You Stay? Rethinking Direct Care Job Quality	Espinoza, R. "Would You Stay? Rethinking Direct Care Job Quality." PHI, 2020. https://www.phinational.org/wp-content/uploads/2020/10/Would-You-Stay-2020-PHI.pdf .	Occupational mobility; Public perception
Supporting Direct Care Workers: Recruitment and Retention Strategies	Garcia, B. "Supporting Direct Care Workers: Recruitment and Retention Strategies." National Conference of State Legislatures (NCSL), April 1, 2022. https://www.ncsl.org/health/supporting-direct-care-workers-recruitment-and-retention-strategies .	Credentialing and professionalization; Occupational mobility
Texas Direct Service Workforce Initiative Stakeholder Recommendations to Improve Recruitment, Retention, and the Perceived Status of Paraprofessional Direct Service Workers in Texas	Luke, E. L. "Texas Direct Service Workforce Initiative Stakeholder Recommendations to Improve Recruitment, Retention, and the Perceived Status of Paraprofessional Direct Service Workers in Texas." Texas Health and Human Services Commission, June 2008. http://mykapp.org/wp-content/uploads/2016/10/Texas-stakeholder-report-on-DSP-workforce.pdf .	Occupational mobility; Public perception
State Efforts to Address Medicaid Home- and Community-Based Services Workforce Shortages	Medicaid and CHIP Payment and Access Commission (MACPAC). "State Efforts to Address Medicaid Home- and Community-Based Services Workforce Shortages." March 2022. https://www.macpac.gov/wp-content/uploads/2022/03/MACPAC-brief-on-HCBS-workforce.pdf .	Public perception
RAISE Act State Policy Roadmap for Family Caregivers: The Direct Care Workforce	National Academy for State Health Policy (NASHP). "RAISE Act State Policy Roadmap for Family Caregivers: The Direct Care Workforce." March 8, 2022. https://eadn-wc03-8290287.nxedge.io/wp-content/uploads/2022/12/NASHP_Report_3bV2-1.pdf .	Credentialing and professionalization; Data collection and monitoring
Recruiting and Retaining a Diverse Direct Care Workforce: Key Considerations for Long-Term Services and Supports Providers	PHI. "Recruiting and Retaining a Diverse Direct Care Workforce: Key Considerations for Long-Term Services and Supports Providers." January 1, 2019. https://www.phinational.org/resource/recruiting-and-retaining-a-diverse-direct-care-workforce/ .	Alternate recruitment pipelines

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Title	Reference	Sub-theme(s)
An Arizona Direct Care Worker Survey Is Driving Innovation	PHI. "An Arizona Direct Care Worker Survey Is Driving Innovation." August 11, 2021a. https://www.phinational.org/an-arizona-direct-care-worker-survey-is-driving-innovation/ .	Occupational mobility
Federal Policy Priorities for the Direct Care Workforce	PHI. "Federal Policy Priorities for the Direct Care Workforce." 2021b, July 14, 2021b. https://www.phinational.org/resource/federal-policy-priorities-for-the-direct-care-workforce/ .	Data collection and monitoring; Public perception; Public policy
Will Wisconsin's Direct Care Program Change the Field?	PHI. "Will Wisconsin's Direct Care Program Change the Field?" February 27, 2023a. https://www.phinational.org/news/will-wisconsins-direct-care-program-change-the-field/ .	Credentialing and professionalization; Occupational mobility
Finding and Keeping Direct Care Staff	PHI. "Finding and Keeping Direct Care Staff." 2023b. https://www.phinational.org/wp-content/uploads/2017/07/FindKeepBook.pdf . PHI. "State Index Tool the Direct Care Workforce State Index." January 10, 2023b. https://www.phinational.org/state-index-tool/ .	Public perception
Center Direct Care Workers in Leadership Roles and Public Policy	PHI. "Center Direct Care Workers in Leadership Roles and Public Policy." n.d. https://www.phinational.org/issue/direct-care-workers/ .	Public perception; Public policy
Five Opportunities to Invest in New Jersey's Direct Care Workers	Robins, A. "Five Opportunities to Invest in New Jersey's Direct Care Workers." PHI, November 1, 2022. https://www.phinational.org/five-opportunities-to-invest-in-new-jerseys-direct-care-workers/ .	Occupational mobility
Helping Caregivers Thrive? An Evaluation of a Direct Care Worker Retention Program	Rollison, J., J. Bandini, K. Feistel, A. D. Gittens, M. Key, B. González, W. Kong, T. Ruder, and J. M. Etchegaray. "Helping Caregivers Thrive? An Evaluation of a Direct Care Worker Retention Program." RAND Corporation, September 6, 2022. https://www.rand.org/pubs/research_briefs/RBA1966-1.html .	Alternate recruitment pipelines
Supporting Direct Care Workers through Training and Stipends: Insights for California Stakeholders	Roman, C., and C. Graham. "Supporting Direct Care Workers through Training and Stipends: Insights for California Stakeholders." Center for Health Care Strategies, April 2022. https://www.chcs.org/media/Supporting-Direct-Care-Workers-through-Training-and-Stipends-Insights-for-California.pdf .	Occupational mobility
Forging a Path Forward to Strengthen Michigan's Direct Care Workforce	Roman, C., and D. Crumley. "Forging a Path Forward to Strengthen Michigan's Direct Care Workforce." Center for Health Care Strategies, December 2021. https://www.chcs.org/media/Forging-a-Path-Forward-to-Strengthen-Michigans-Direct-Care-Workforce.pdf .	Public perception
Direct Care Workforce Policy and Action Guide	Roman, C., C. Luz, C. Graham, N. Joseph, and K. McEvoy. "Direct Care Workforce Policy and Action Guide." Milbank Memorial Fund, 2022. https://www.milbank.org/wp-content/uploads/2022/05/DirectCareWorker_Toolkit_final.pdf .	Credentialing and professionalization; Data collection and monitoring; Public perception

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Title	Reference	Sub-theme(s)
Younger Workers and the Direct Care Workforce	Scales, K. "Younger Workers and the Direct Care Workforce." PHI, 2018a. https://www.phinational.org/wp-content/uploads/2018/03/Younger-Workers-PHI-2018.pdf .	Alternate recruitment pipelines
Men and the Direct Care Workforce	Scales, K. "Men and the Direct Care Workforce." PHI, 2018b. https://www.phinational.org/wp-content/uploads/2018/04/Male-Workers-PHI-2018.pdf .	Alternate recruitment pipelines
Older Workers and the Direct Care Workforce	Scales, K. "Older Workers and the Direct Care Workforce." PHI, April 9, 2018c. https://www.phinational.org/resource/older-workers-direct-care-workforce/ .	Alternate recruitment pipelines
Growing a Strong Direct Care Workforce: A Recruitment and Retention Guide for Employers	Scales, K. "Growing a Strong Direct Care Workforce: A Recruitment and Retention Guide for Employers." PHI, April 20, 2020b. https://www.phinational.org/resource/growing-strong-direct-care-workforce-recruitment-retention-guide-employers/ .	Occupational mobility
Now is the Time to Lift Up North Carolina's Direct Care Workers	Scales, K. "Now is the Time to Lift Up North Carolina's Direct Care Workers." PHI, July 6, 2021. https://www.phinational.org/now-is-the-time-to-lift-up-north-carolinas-direct-care-workers/ .	Data collection and monitoring
Building the Direct Care Workforce Movement: The Essential Jobs, Essential Care Multi-State Initiative	Scales, K. "Building the Direct Care Workforce Movement: The Essential Jobs, Essential Care Multi-State Initiative." PHI, March 8, 2022a. https://www.phinational.org/resource/building-the-direct-care-workforce-movement-the-essential-jobs-essential-care-multi-state-initiative/ .	Data collection and monitoring; Occupational mobility
State Policy Strategies for Strengthening the Direct Care Workforce	Scales, K. "State Policy Strategies for Strengthening the Direct Care Workforce." PHI, April 11, 2022b. https://www.phinational.org/resource/state-policy-strategies-for-strengthening-the-direct-care-workforce/ .	Alternate recruitment pipelines; Data collection and monitoring; Public perception
Feeling Valued Because They Are Valued: A Vision for Professionalizing the Caregiving Workforce in the Field of Long-Term Services and Supports	Stone, R. I., and N. Bryant. "Feeling Valued Because They Are Valued: A Vision for Professionalizing the Caregiving Workforce in the Field of Long-Term Services and Supports." LeadingAge, July 2021. https://www.ltsscenter.org/wp-content/uploads/2021/07/Workforce-Vision-Paper_FINAL.pdf .	Alternate recruitment pipelines; Credentialing and professionalization; Occupational mobility
Ohio Develops PSA To Recruit Direct Care Workers	The National Association of State Directors of Developmental Disabilities Services (NASDDDS). Ohio Develops PSA To Recruit Direct Care Workers. August 25, 2022.	Alternate recruitment pipelines
Strengthening the Entry-Level Health Care Workforce: Finding a Path	U.S. Department of Health & Human Services (HHS) Office of the Assistant Secretary for Planning and Evaluation (ASPE). "Strengthening the Entry-Level Health Care Workforce: Finding a Path." December 2020. https://aspe.hhs.gov/sites/default/files/migrated_legacy_files/200076/strengthening-the-EHCW-Report.pdf	Alternate recruitment pipelines; Occupational mobility

IV. Discussion

Findings from the environmental scan have strong implications for policy, practice, and future research priorities. Because the implications of our findings vary across key groups, we discuss implications separately for people with IDD and their families and policymakers. We conclude by highlighting opportunities to advance the peer-reviewed literature to expand strategies for recruiting and retaining DCWs.

A. Implications for people with IDD and their families

The focus of the Research Provider Solutions project is identifying or generating evidence and ideas that may help people with IDD and their families recruit and retain paid direct care support. Although the results of the environmental scan focused mostly on DCWs and employers rather than people with disabilities and their families, the journal articles and web-based documents contain important findings that people with IDD and their families can use to facilitate better direct support outcomes for the IDD community.

People with IDD and their families should consider supporting legislation and initiatives that improve compensation for DCWs. Most people with IDD and their families do not have the resources to pay DCWs directly. Instead, they typically rely on government programs to compensate DCWs. The government determines DCW compensation levels in these programs ([Centers for Medicare and Medicaid Services 2023](#)). If DCW compensation is not competitive with other jobs that require similar skills, then some people will exit or not enter the DCW labor force and pursue other opportunities. By increasing hourly wage rates provided by programs, governments would help people with IDD and their families attract and retain DCWs. Some current government initiatives focus on this topic. For example, the [Proposed Access Rule](#) would help address the direct care labor force crisis by requiring that at least 80 percent of all Medicaid payments for specific Home- and Community-Based Services (HCBS) must be spent on DCW compensation as opposed to administrative or overhead costs ([Centers for Medicare and Medicaid Services 2023](#)). People with IDD and their families should also consider encouraging strategies already implemented in some states to improve DCW compensation in other ways, such as by offering retention bonuses or other benefits like paid time off.

Supporting workforce capacity may help people with IDD and their families retain DCWs. Relative to government funded organizations and private employers, people with IDD and their families have limited resources to provide workforce capacity supports. However, people with IDD and their families can adapt workforce capacity supports provided by large organizations to small, home contexts. For example, people with IDD and their families can talk with their DCWs to identify overwork and avoid burnout. Although it may be difficult to find substitute direct care services, working with a DCW to build a balanced work schedule could increase their job satisfaction and may improve the likelihood of retention. People with IDD and their families cannot provide group training or credentialing opportunities, but they can understand what local opportunities are available and share them with their DCWs. Better training and credentialing could improve the occupational mobility of DCWs, which may lead to turnover. However, not connecting DCWs to opportunities that could increase their occupational mobility may decrease job satisfaction in the short run, hastening DCW turnover. The literature consistently mentioned that DCWs and CNAs who had positive relationships with their supervisors were more likely to remain at their current job. Similarly, people with IDD and their families who have strong working relationships with their DCWs built on trust, mutual respect, and cultural awareness are probably more likely to retain their direct care support.

By working together as a community, people with IDD and their families can help build pipelines to recruit DCWs by creating local networks and pooling resources to recruit in settings with large candidate pools, such as college campuses or health care facilities. The IDD community could also consider exploring the potential of online job registries that connect DCW candidates to those looking for direct care support. Some states, including Wisconsin through its WisCaregiver Careers program, have already developed similar job registries. FDDC may consider piloting the development and use of a local job registry before investing resources in the development of a statewide job registry.

B. Implications for policymakers

The literature found during the environmental scan contains several policy and program ideas that would require governmental support to develop and implement. Policymakers should consider exploring these policy and program suggestions to support people with IDD and their families and improve conditions for DCWs. In addition, people with IDD and their families should consider sharing these policy and program ideas with their representatives as potential policy solutions to the DCW labor force shortage.

Although it would increase program costs, improving the compensation of DCWs would likely strengthen the DCW labor force. The peer-reviewed literature consistently mentioned that low hourly wage rates—the mean DCW hourly wage in May 2022 was \$14.87—discourage people from remaining in the DCW labor force ([U.S. Bureau of Labor Statistics 2023](#)). If policymakers increase hourly wages, more people would probably become or remain DCWs. The argument is similar for increasing other benefits, such as health insurance for DCWs—higher compensation would likely motivate more people to provide direct care services. To lower the cost of providing health insurance benefits, policymakers in Medicaid expansion states could leverage the health insurance exchanges created by the Affordable Care Act to help DCWs obtain health insurance coverage. If increasing hourly wages for all DCWs is cost prohibitive, policymakers could consider developing programs that provide retention bonuses to DCWs. The literature revealed that such programs already exist in multiple states. By providing a one-time payment to DCWs who work for a certain period of time, policymakers could increase compensation for DCWs in a way that motivates the desired outcome without increasing wages for all DCWs. The long-term effects of such bonus programs on retention are unknown, but they provide DCWs with an additional financial incentive to continue working until the bonus is paid.

Policymakers may also consider providing other workforce capacity supports to improve DCW recruitment and retention. The literature suggests that DCWs typically want and benefit from formal training. States could mandate or make optional training available to DCWs. Alongside training opportunities, policymakers could encourage credentialing and other opportunities that would better professionalize the DCW labor force. However, the evidence suggests that policymakers should be careful about mandating intensive training programs because such programs could discourage entry into the DCW labor force. Some ideas for mitigating this risk include paying DCWs to attend trainings and paying a higher hourly wage or bonus to those who satisfactorily complete trainings or obtain credentials. Programs may also consider trainings for DCW supervisors to strengthen management relationships, cap the number of hours a DCW can work each week, and facilitate support groups and other opportunities for DCWs to obtain emotional and other supports.

The environmental scan identified some opportunities requiring policymaker support that could increase DCW recruitment and retention. Most notably, more states should consider developing online job registries that connect DCWs to people seeking direct care services. Job registries have strong potential to expand the reach of people with IDD and their families as they search for direct care assistance. After paying initial development costs, states could rely on these job registries for years to help facilitate DCW

recruitment. The primary challenge with developing a job registry is how to create one that is effective for the IDD community. Private companies have already developed job registries for direct care and other healthcare services. However, these platforms could be more effective at helping people with disabilities find direct care support at wage rates consistent with those paid by waiver and other programs. To explore the potential of a job registry for the IDD community, we suggest piloting a small job registry in a local area. Such an effort could be funded by nonprofit and other organizations connected with the IDD community. If the pilot is successful, these organizations could then seek policymaker support for a statewide job registry. Finally, policymakers could make press releases and fund campaigns to improve public perception of DCWs. Such efforts could encourage more people to investigate joining the DCW labor force. However, efforts to increase DCW compensation or workforce capacity supports may be more effective at improving public perception of DCWs by addressing the core concerns that underlie those negative perceptions.

C. Opportunities for additional research

Although they contain helpful information, the peer-reviewed literature on recruiting and retaining DCWs has substantive gaps. Perhaps most critically, there is limited information about the experiences of people with IDD and their families as they seek to recruit and retain DCWs. The literature focuses primarily on the perspectives of DCWs and employers in long-term care or other clinical settings. Although information generated from DCWs and employers can be helpful to people with IDD and their families, certain considerations cannot be addressed by studying other contexts. For example, whereas employers in clinical settings typically have substantive resources to recruit DCWs, people with IDD and their families have limited time and resources for recruitment and often confine their searches to existing networks. Future research on obtaining and retaining direct care services should better document the experiences of people with IDD and their families. With that information, researchers could work with the IDD community to develop strategies and interventions that may help people with IDD and their families find and keep the direct care services they need.

The peer-reviewed literature on DCWs would also improve if it included more rigorous tests of promising interventions for recruiting and retaining DCWs. The literature contains several ideas for improving work conditions for DCWs. Similarly, web-based reports by various organizations and government agencies describe reforms that may better attract people into the DCW labor force. However, except for a few journal articles investigating the impacts of specific training programs, the publications we found provided little evidence about the efficacy of the interventions they propose. This gap in the literature is noteworthy because, however promising an intervention may seem, we cannot fully appreciate its effects without testing it. For example, an evaluation of a DCW training program revealed to [Luz and Hansen \(2015b\)](#) that long mandatory training programs may discourage people from entering the DCW labor force. Not all proposed interventions require rigorous testing and there may be other policy objectives associated with certain proposals. For instance, increasing compensation for DCWs would likely increase the pool of potential DCWs and support policy efforts to provide more unskilled workers with better compensation. But the effects of other strategies, such as training programs, obtaining credentials, and job registries, are hard to understand without rigorous testing. Researchers and policymakers would be well advised to evaluate seemingly promising ideas before those ideas become policy.

Researchers focused on direct care support for people with disabilities should explore how paying family members for providing direct care services could improve outcomes for the disability community. Programs and states have different rules about which family members can be paid for providing direct care services. Some states and programs allow all working age family members to be paid as DCWs, whereas others will not pay spouses or parents for providing direct care services. If a family cannot find

external direct care support and key family members cannot be paid for providing direct care services, then the family will need to provide unpaid direct care support and also find different, paid work to support the household. The situation can be difficult, especially for households with few working age adults. If programs and states removed restrictions on which family members can be paid for providing direct care services, more family members could provide such services and at the same time generate income for the household. Paying family members for providing direct care services is not a substitute for helping people with IDD and their families recruit and retain DCWs. People with IDD and their family members should be able to obtain paid direct care support from outside the household so that family members can pursue other opportunities. However, paying family members for providing direct care services could be helpful to some.

Temporary program rule changes during the COVID-19 pandemic may provide an opportunity to study the effects of relaxed restrictions on paying family members for providing direct care support. Because of health and safety concerns during the pandemic, several programs temporarily waived rules and allowed all family members to be paid for providing direct care services. Analyzing program expenditures and program participant experiences during this period could help policymakers and the IDD community understand the potential effects of similar rule changes.

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Appendix A

Electronic Databases of Published Literature, Websites with Gray Literature, Search Terms, and Search Strings

Exhibit A.1. Resources searched for the environmental scan

Search terms		
Terms related to service systems	Terms related to provider type	Terms related to innovation
<ul style="list-style-type: none"> • Direct care • Consumer directed services • Consumer navigated services • HCBS waiver • Home and Community Based Services waiver • HCBS • Home and Community Based Services • Self-directed services • Client directed • Client navigated • Waiver waitlist • Client navigation • Long term services and supports • LTSS • Developmental disability • Aging • Migration • Intellectual disability 	<ul style="list-style-type: none"> • Direct services professionals • Informal support • Caregiver • Family • Parent • Guardian • Direct support professional • Direct support care professional • Direct services professional • Healthcare provider retention • Direct care staff • Direct care worker • Direct support specialist • Personal care assistant • Personal care worker • Personal care staff • Direct service • Direct service professional • Direct service professional staff • Retention • Recruitment • Attraction • Turnover • Hiring • Attrition • Paraprofessional • Registered behavior technician • Paraeducator • Behavior interventionist • Classroom specialist • Childcare assistant • Classroom aide • Classroom assistant • Education assistant • Education technician • Instructional aide • Learning program assistant • Occupational information specialist • Speech/language assistant • Special education assistant • Teaching assistant • Teaching aide 	<ul style="list-style-type: none"> • Assistive technology • Bonus payments • Financial incentives • Indirect benefits (e.g., health insurance) • Benefits • Training • Online training • Internet-based training • Web-based training • Interactive training • Training program • Flexible training • Education • Flexible hours • Wage strategy • Rate increase • Raise minimum wage • Increase minimum wage • Wage increases • Wage incentives • Supplement to rate • Living wage • Livable wage • Enhance wages • Incentives • Holiday pay • Medicaid wage pass-through • Professional progression • Career advancement • Workforce development • Apprenticeship • Work-based learning • Earn and learn • Workforce development • Career pathway • Career path • Credentialing • Accreditation • Professionalizing • Distinct occupation • Workplace support • Professional development • Professional growth

Electronic databases

- Academic Search Premier
- Agency for Healthcare Research and Quality
- APA PsycInfo
- Business Source Corporate Plus
- CINAHL
- Cochrane Database of Systematic Reviews
- Education Research Complete
- ERIC
- MEDLINE
- Policy Commons
- ProQuest Dissertations
- PubMed
- SAGE
- Scopus
- SocINDEX
- Wiley

Electronic database search strings

((Recruit*[ti] OR hire[ti] OR hiring[ti] OR employ*[ti] OR retention[ti] OR retain[ti] OR apprentic*[ti] OR intern*[ti] OR train[ti] OR training[ti] OR equip*[ti] OR wages[ti] OR benefit*[ti] OR bonus*[ti] OR agencies[ti] OR vacanc*[ti] OR labor*[ti] OR leave[ti] OR stay[ti] OR quit[ti] OR satisf*[ti] OR burnout[ti] OR support*[ti] OR experienc*[ti] OR program*[ti] OR initiativ*[ti] OR incentive*[ti]) AND (hiring[ti] OR hire[ti] OR staff[ti] OR retention[ti] OR retain[ti] OR employ*[ti] OR recruit*[ti] OR job[ti] OR jobs[ti] OR wage*[ti] OR earn[ti] OR workforce[ti]))

("Consumer Directed"[ti::~2] OR "direct care"[ti::~2] OR "direct support"[ti::~2] OR "direct service"[ti::~2] OR (direct[ti] AND (care[ti] OR service[ti] OR support[ti] OR work*[ti] OR professional*[ti])) OR home care[ti] OR home health[ti] OR personal care[ti] OR nursing assistants[ti]) AND (staff[ti] OR work*[ti] OR employ*[ti])) AND ((advocat*[tiab] OR worker*[tiab] OR specialist*[tiab] OR assistan*[tiab] OR counsel*[tiab] OR habilitation[tiab] OR staff[tiab] OR professional*[tiab] OR caregiv*[tiab] OR aid[tiab] OR aide[tiab] OR aides[tiab] OR companion*[tiab] OR "personal assistant"[tiab::~2] OR nursing assistant*[tiab] OR workforce[tiab]) AND ("residential counselor"[tiab::~2] OR residential[tiab] OR transport*[tiab] OR medication*[tiab] OR mobility[tiab] OR Food[tiab] OR wound[tiab] OR emotional[tiab] OR (activities[tiab] AND daily living[tiab]) OR "relief staff"[tiab::~2] OR apartment OR "job coach"[tiab::~2] OR employ*[tiab] OR community[tiab] OR bridge-builder[tiab] OR "paid friend"[tiab::~2] OR neighbor*[tiab] OR family support[tiab] OR service*[tiab] OR personal care[tiab] OR "home health"[tiab] OR "long-term"[tiab]))

TI ((Recruit* OR hire OR hiring OR employ* OR retention OR retain OR apprentic* OR intern* OR train OR training OR equip* OR wages OR benefit* OR bonus* OR agencies OR vacanc* OR labor* OR leave OR stay OR quit OR satisf* OR burnout OR support* OR experienc* OR program* OR initiativ* OR incentive*) AND (hiring OR hire OR staff OR retention OR retain OR employ* OR recruit* OR job OR jobs OR wage* OR earn OR workforce))

TI (((advocat* OR worker* OR specialist* OR assistan* OR counsel* OR habilitation OR staff OR professional* OR caregiv* OR aid OR aide OR aides OR companion* OR (personal N2 assistan*) OR (nursing N2 assistant*) OR workforce) AND (residential N2 counselor) OR residential OR transport* OR medication* OR mobility OR Food OR wound OR emotional OR (activities AND daily living) OR "relief staff" OR apartment OR "job coach" OR employ* OR community OR "bridge-builder" OR (paid N2 friend) OR neighbor* OR (family N2 support) OR service* OR "personal care" OR "home health" OR "long-term")) OR AB (((advocat* OR worker* OR specialist* OR assistan* OR counsel* OR habilitation OR staff OR professional* OR caregiv* OR aid OR aide OR aides OR companion* OR (personal N2 assistan*) OR (nursing N2 assistant*) OR workforce) AND (residential N2 counselor) OR residential OR transport* OR medication* OR mobility OR Food OR wound OR emotional OR (activities AND daily living) OR "relief staff" OR apartment OR "job coach" OR employ* OR community OR "bridge-builder" OR (paid N2 friend) OR neighbor* OR (family N2 support) OR service* OR "personal care" OR "home health" OR "long-term")))

TI ((Consumer N2 Directed) OR (direct N2 care) OR (direct N2 support) OR (direct N2 Service) OR (direct N3 (care OR service OR support OR work* OR professional*)) OR "home care" OR "home health" OR "personal care" OR "nursing assistants") AND (staff OR work* OR employ*))

Websites

- Centers for Medicare and Medicaid Services ([cms.gov](https://www.cms.gov); [medicaid.gov](https://www.medicaid.gov))
- U.S. Department of Labor ([dol.gov](https://www.dol.gov))
- U.S. Department of Labor Office of Disability Employment Policy ([dol.gov/agencies/odep](https://www.dol.gov/agencies/odep))
- U.S. Department of Labor Employment and Training Administration ([doleta.gov](https://www.doleta.gov))
- U.S. Department of Health and Human Services Administration for Community Living ([acl.gov](https://www.acl.gov))
- Centers for Disease Control and Prevention National Center on Birth Defects and Developmental Disabilities ([cdc.gov/ncbddd](https://www.cdc.gov/ncbddd))
- Rehabilitation Services Administration ([rsa.ed.gov](https://www.rsa.ed.gov))
- Home Care Association of America ([hcaoa.org](https://www.hcaoa.org))
- Florida Agency for Persons with Disabilities ([apd.myflorida.com](https://www.apd.myflorida.com))
- Florida Developmental Disabilities Council ([fddc.org](https://www.fddc.org))
- Florida Agency for Health Care Administration ([ahca.myflorida.com](https://www.ahca.myflorida.com))
- Florida Medicaid Managed Care ([flmedicaidmanagedcare.com](https://www.flmedicaidmanagedcare.com))
- Florida Department of Children and Families ([myflfamilies.com](https://www.myflfamilies.com))
- Florida Inclusion Network ([floridainclusionnetwork.com](https://www.floridainclusionnetwork.com))
- Florida Center for Inclusive Communities ([flfcic.cbcs.usf.edu](https://www.flfcic.cbcs.usf.edu))
- Centers for Autism and Related Disabilities ([florida-card.org](https://www.florida-card.org))
- Centers for Independent Living ([floridasilc.org/centers-for-independent-living](https://www.floridasilc.org/centers-for-independent-living))
- Florida Association of Centers for Independent Living ([floridacils.org](https://www.floridacils.org))
- Florida Independent Living Council ([floridasilc.org](https://www.floridasilc.org))
- The National Alliance for Direct Support Professionals ([nadsp.org](https://www.nadsp.org))
- National Disability Institute ([nationaldisabilityinstitute.org](https://www.nationaldisabilityinstitute.org))
- The National Association of Councils on Developmental Disabilities ([nacdd.org](https://www.nacdd.org))
- American Association on Intellectual and Developmental Disabilities ([aidd.org](https://www.aidd.org))
- Association of Professional Developmental Disabilities Administrators ([apdda.org](https://www.apdda.org))
- National Association of State Directors of Developmental Disabilities Services ([nasdds.org](https://www.nasdds.org))
- Association of University Centers on Disabilities ([aucd.org](https://www.aucd.org))
- American Association of People with Disabilities ([aapd.com](https://www.aapd.com))
- LEAD Center ([leadcenter.org](https://www.leadcenter.org))
- PHI ([phinational.org](https://www.phinational.org))
- Social Policy Research Associates ([spra.com](https://www.spra.com))
- The Arc ([thearc.org](https://www.thearc.org))
- National Organization on Disability ([nod.org](https://www.nod.org))
- National Disability Rights Network ([ndrn.org](https://www.ndrn.org))
- Center for Healthcare Strategies ([chcs.org](https://www.chcs.org))
- National Academy for State Health Policy ([nashp.org](https://www.nashp.org))
- National Governors Association ([nga.org](https://www.nga.org))
- Center on Disability and Development ([cdd.tamu.edu](https://www.cdd.tamu.edu))
- Disability Scoop ([disabilityscoop.com](https://www.disabilityscoop.com))
- ANCOR ([ancor.org](https://www.ancor.org))
- Florida Association of Rehabilitation Facilities ([floridaarf.org](https://www.floridaarf.org))
- National Association of Rehabilitation Providers and Agencies ([naranet.org](https://www.naranet.org))
- American Medical Rehabilitation Providers Association ([amrpa.org](https://www.amrpa.org))
- National Rehabilitation Association ([nationalrehab.org](https://www.nationalrehab.org))

Website search strings

[site:cms.gov](#) OR [site:medicaid.gov](#) OR [site:dol.gov](#) OR [site:dol.gov/agencies/odep](#) OR [site:doleta.gov](#) OR [site:acl.gov](#) OR [site:cdc.gov/ncbddd](#) OR [site:rsa.ed.gov](#) OR [site:hcaoa.org](#) OR [site:apd.myflorida.com](#) OR [site:fddc.org](#) OR

Environmental Scan Report: Researching Provider Solutions

site:ahca.myflorida.com OR site:flmedicaidmanagedcare.com intitle:("direct care" workforce) AND
intext:(hiring|employment|recruitment)

site:.myflfamilies.com OR site:.floridainclusionnetwork.com OR site:.flfcic.cbcs.usf.edu OR site:.florida-card.org OR
site:.floridasilc.org/centers-for-independent-living OR site:.floridacils.org OR site:.floridasilc.org OR site:.nadsp.org
intitle:("direct care" workforce) AND intext:(hiring|employment|recruitment)

site:.nationaldisabilityinstitute.org OR site:.nacdd.org OR site:.aaid.org OR site:.apdda.org OR site:.nasdds.org OR
site:.aucd.org OR site:.aapd.com OR site:.leadcenter.org OR site:.phinational.org intitle:("direct care" workforce)
AND intext:(hiring|employment|recruitment)

site:.spra.com OR site:.thearc.org OR site:.nod.org OR site:.ndrn.org OR site:.chcs.org OR site:.nashp.org OR
site:.nga.org OR site:.cdd.tamu.edu OR site:.disabilitycoop.com OR site:.ancor.org OR site:.floridaarf.org OR
site:.naranet.org OR site:.amrpa.org OR site:.nationalrehab.org intitle:("direct care" workforce) AND
intext:(hiring|employment|recruitment)

LEAD Center = National Center on Leadership for the Employment and Economic Advancement of People with
Disabilities; PHI = Paraprofessional Healthcare Institute; ANCOR = American Network of Community Options and
Resources

Appendix B

References for Potentially Relevant Journal Articles That Were Not Fully Reviewed

Potentially relevant journal articles

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Florida Developmental Disabilities Council, Inc.
124 Marriott Drive, Suite 203, Tallahassee, Florida 32301-2981
Phone (850) 488-4180/(800) 580-7801
Fax (850) 922-6702 • TDD (850) 488-0956/(888) 488-8633
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