

# Economic Impact of Direct Service Provider Wages on the State of Rhode Island

November 2020

Springline Research Group

## About the Community Provider Network of Rhode Island

The Community Provider Network of Rhode Island (CPNRI) is a non-profit trade association of private providers of services and supports to people with intellectual and developmental disabilities across Rhode Island. CPNRI's mission is:

- *To support members in providing the highest quality service.*
- *To offer education for staff development and leadership training.*
- *To influence policy and transformation of services through information sharing from members with state and federal agencies.*
- *To organize advocacy and grassroots action of community members in support of our members' policy priorities.*
- *To strengthen communication among members and speak with a collective voice on issues of common interest.*
- *To acquire cost effective benefits and services for all our members.*
- *To share information, resources, and knowledge.*

## About Springline Research Group

Springline Research Group is a multidisciplinary applied research firm that utilizes the tools of the social scientist and the policy analyst to answer strategic questions that support evidence-based decision making. Collectively, our Team has over 30 years of experience assisting public, private, and nonprofit organizations to build capacity, improve performance, and leverage funding.

We specialize in projects that contribute to economic development, workforce development, community-building, and public health. Our company's foundation is built on our experience conducting research in an academic setting, thus rigorous and replicable methods, transparency, objectivity, and the presentation of clear and actionable results are the ethos of our company. Ultimately, we are focused on providing clients the information and tools they need to make decisions, set goals, monitor progress, and solve problems.

# Contents

- Executive Summary ..... i
- 1. Project Overview ..... 1
  - The Intellectual and Developmental Disabilities Workforce Crisis..... 1
  - CPNRI Recommendation..... 1
  - Estimating the Wage Impact on the Rhode Island Economy ..... 1
  - Analytical Approach ..... 2
- 2. Overview of Direct Service Provider Wages..... 3
- 3. Proposed Wage Increase..... 4
- 4. Impact Analysis ..... 6
  - Employment Impacts on Other Industry Sectors..... 7
  - Additional Tax Revenues Generated ..... 8
- 5. Appendix A: Methodology ..... 9

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### Executive Summary

The Community Provider Network of Rhode Island (CPNRI) is a non-profit trade association of private providers of services and supports to people with intellectual and developmental disabilities (I/DD). CPNRI's mission is to ensure that private Developmental Disability Organizations (DDO) are providing high quality services to the individuals they support and to advance disability policies that promote the independence and inclusion of persons with I/DD.

Direct Service Providers (DSP) are the foundation of the I/DD service delivery support system, yet DSPs employed by Rhode Island's private DDOs on average earn \$13.18 per hour, which is only \$1.68 above the state's minimum wage of \$11.50 per hour. The low average wage creates challenges for providers to recruit, train, and retain DSPs, particularly in the current COVID-19 pandemic environment. To address workforce retention and vacancy issues, CPNRI is recommending raising wages for DSPs who work for its member organizations to \$17.50 per hour in 2021, which is "consistent with the public Medicaid delivery system compensation for direct care workers who are offered approximately \$18.00 per hour as a starting wage as well as a robust benefit package, for the same work."<sup>1</sup> CPNRI is also recommending a second wage increase to \$20.00 per hour in 2022.

### Wage Impact on the Rhode Island Economy

CPNRI's proposed DSP wage increase will support additional jobs and economic activity in Rhode Island as workers spend a portion of the additional wages on various goods and services. To measure these effects, Springline Research Group conducted an impact analysis that estimates the additional jobs and economic activity that will be generated in Rhode Island if CPNRI's proposed wage increase scenarios are enacted. Table 1 displays the impacts that would result from the proposed wage scenarios.<sup>2</sup>

#### Scenario 1 Impact

Increasing the average DSP hourly wage from \$13.18 per hour to \$17.50 per hour will support an additional 182 jobs in the Rhode Island economy.<sup>3</sup> The wage increase will also support an additional \$9.1 million in labor income, \$16.8 million in value added, and \$28.0 million in output annually.

#### Scenario 2 Impact

A second increase in the DSP hourly wage from \$17.50 per hour to \$20.00 per hour will support an additional 104 jobs in the Rhode Island economy. The wage increase will also support an additional \$5.2 million in labor income, \$9.6 million in value added, and \$16.0 million in output annually.

#### Annual Impact

In total, increasing the average DSP hourly wage from \$13.18 per hour to \$20.00 per hour will support 285 jobs in the Rhode Island economy. The wage increase will also support an additional \$14.2 million in labor income, \$26.2 million in value added, and \$43.7 million in output annually.<sup>4</sup>

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<sup>1</sup> *A System in Crisis*. Community Provider Network of Rhode Island. Cranston, RI.

<sup>2</sup> More on the methodology can be found in Section 4 and Appendix A. Note that the results represent impacts from employees of CPNRI's members and do not include DSPs employed by Rhode Island Community Living and Supports (RICLAS).

<sup>3</sup> The impacts are assumed to be over a year timeline.

<sup>4</sup> The annual impact for Labor Income, Value Added, and Output does not equal the sum of Scenario 1 & Scenario 2 due to inflation. Also, jobs are not summative.

Table 1  
Economic Impact by Scenario

Scenario	Time Period	Employment	Labor Income	Value Added	Output
Scenario 1: \$13.18 to \$17.50	2021	182	\$9,135,980	\$16,808,807	\$28,022,941
Scenario 2: \$17.50 to \$20.00	2022	104	\$5,220,755	\$9,605,391	\$16,013,707
Annual Impact @ \$20.00	2022+	285	\$14,242,219	\$26,203,506	\$43,685,391

Source: Implan; Author's calculations.  
All values are in 2020 dollars.

## Additional Tax Revenues Generated

The impact model estimates the amount paid in state and local taxes as a result of additional wages received by DSPs as well as the taxes generated through the economic activities supported in other areas of the economy.

### Annual Tax Contributions at \$17.50 Per Hour

The model estimates that an increase in the hourly wage for DSPs from \$13.18 to \$17.50 will generate an additional \$1.9 million in state and local taxes. This includes an estimated \$168,505 increase in personal income tax payments, \$595,021 in sales taxes, and \$907,996 in property taxes (see Table 2).

### Annual Tax Contributions at \$20.00 Per Hour

The model estimates that an increase in the hourly wage for DSPs from \$13.18 to \$20.00 will generate an additional \$2.9 million in state and local taxes. This includes an estimated \$262,685 increase in personal income tax payments, \$927,588 million in sales taxes, and \$1.4 million in property taxes (see Table 2).

Table 2  
Additional Estimated Tax Contributions to  
State of Rhode Island and Local Communities

Type of Tax	Annual Tax Contributions at \$17.50 Wage	Annual Tax Contributions at \$20.00 Wage
Personal income taxes	\$168,505	\$262,685
Other Personal Taxes	\$41,816	\$65,187
Payroll taxes	\$52,867	\$82,415
Sales taxes	\$595,021	\$927,588
Property taxes	\$907,996	\$1,415,489
Corporate taxes	\$50,790	\$79,177
Fees, fines, & other taxes	\$49,541	\$77,230
Total	\$1,866,536	\$2,909,771

Source: Implan. All values are in 2020 dollars.

### 1. Project Overview

The Community Provider Network of Rhode Island (CPNRI) is a non-profit trade association of private providers of services and supports to people with intellectual and developmental disabilities (I/DD) across Rhode Island. CPNRI's mission is to ensure members are providing high quality services for the individuals they support and to advance disability policies that promote the independence and inclusion of persons with I/DD within the state's communities. CPNRI currently has 22 member organizations located throughout the state.

#### The Intellectual and Developmental Disabilities Workforce Crisis

*A System in Crisis*, a recent Issue Brief authored by CPNRI, highlights the current workforce crisis in the state's I/DD delivery system resulting from the COVID-19 pandemic and long-term compression of Medicaid rates. The Issue Brief notes that "Direct Service Providers (DSPs) are the foundation of the service delivery support system, yet on average DSPs make \$13.00 per hour," which creates challenges for providers to recruit, train, and retain DSPs. This issue is now amplified in at least two respects. First, the current shift in I/DD services from provider-based services to self-directed personalized services requires greater staff and funding levels, particularly with respect to Medicaid services and Medicaid reimbursements. The Issue Brief notes that consumers currently receive "pre-determined" units of services and corresponding funding allocations from Medicaid. However, "personalized services would require more units of service and flexibility in how the services are delivered." Consequently, "CPNRI believes there will be serious and potentially disastrous impacts to the service delivery system supporting individuals with intellectual and developmental disabilities if actions to directly stabilize this workforce are not taken."<sup>5</sup>

Second, the I/DD system has not returned to pre COVID-19 levels due to safety concerns, new protocols, and a shortfall in qualified workers who can provide an individualized approach to services. Consequently, many consumers who live at home with their family members, independently, or within a Shared Living Arrangement have not been able to access day services. As the Issue Brief notes, "Medicaid services, particularly home and community-based habilitative long-term services, are entirely reliant on staffing to deliver support. In the absence of staff, services cannot be provided. Unfortunately, at a time when more staff are needed to support individuals, we are experiencing higher turnover rates and vacancies, leaving many individuals and families without services." While this crisis is largely the result of the COVID-19 pandemic and the shift to more personalized services, it is compounded by workforce retention and vacancy issues fueled by low wages paid to DSPs for work that can be challenging even in the best of times.

#### Recommendation

To address workforce retention and vacancy issues, CPNRI is recommending raising wages for DSPs who work for its member organizations to \$17.50 per hour in 2021, which is "consistent with the public Medicaid delivery system compensation for direct care workers who are offered approximately \$18.00 per hour as a starting wage as well as a robust benefit package, for the same work." CPNRI is also recommending a second wage increase to \$20.00 per hour in 2022.

#### Estimating the Wage Impact on the Rhode Island Economy

Apart from the vital services that DSPs provide to people in need, DSPs support business activity throughout the state when they spend their earnings on various goods and services and when they pay state and local taxes. CPNRI's proposed DSP wage increase will support additional jobs and economic activity in Rhode Island as workers spend a portion of their additional wages throughout the state. To measure these effects, Springline Research Group

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<sup>5</sup> *A System in Crisis*. Community Provider Network of Rhode Island. Cranston, RI.

conducted an impact analysis that estimates the additional jobs and economic activity that will be generated in Rhode Island if CPNRI's proposed wage increase scenarios are enacted.<sup>6</sup>

### Analytical Approach

The impact analysis is quantified using Implan, an input-output model that traces how an industry's purchases of goods, services, and labor flows through an economy and supports additional spending and job creation, that is, how the original expenditures and job creation are multiplied. Measuring these ripple effects on the economy provides a more complete picture of how additional DSP labor income will affect other areas of Rhode Island's economy. The analysis builds on a previous economic contribution analysis conducted by the Consultant, which found that CPNRI's member organizations contributed 4,583 jobs, \$137.2 million in labor income, \$174.0 million in value added, and \$256.5 million in output to the Rhode Island economy in calendar year 2019.<sup>7</sup> Other data sources include CPNRI and the rate and simulation model conducted by Burns and Associates (B&A) included in the New England States Consortium Systems Organization (NESCSO) report submitted to the Rhode Island Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals (BHDDH).

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<sup>6</sup> Importantly, this study is not a cost/benefit analysis and does not consider the negative impacts the state or private sector businesses could incur due to the wage increase.

<sup>7</sup> Borges, David. 2020. *The Economic Contribution of the Community Provider Network of Rhode Island*. Public Policy Center, UMass Dartmouth.

## 2. Overview of Direct Service Provider Wages

DSPs employed by Rhode Island’s private service providers on average earn \$13.18 per hour.<sup>8</sup> This wage is only \$1.68 above the state’s minimum wage of \$11.50 per hour, which places DSPs among many of the lower skill occupations in the state and is less than half the statewide average of \$26.62 per hour (see Table 3).<sup>9</sup>

Table 3  
Rhode Island Industry Sectors with  
Hourly Wages Between \$13.00 and \$14.00

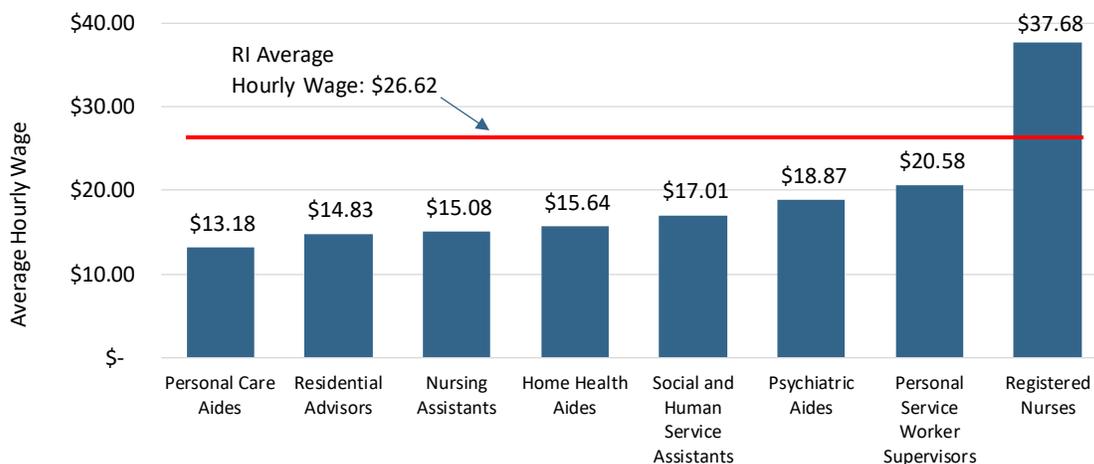
Occupation	Hourly Wage	Occupation	Hourly Wage
Bartenders	\$13.04	Manicurists and Pedicurists	\$13.42
Farmworkers and Laborers	\$13.06	Short Order Cooks	\$13.44
Food Prep & Servers	\$13.09	Maids and Housekeeping Cleaners	\$13.46
Tailors, Dressmakers, and Custom Sewers	\$13.15	Packers and Packagers	\$13.49
Veterinary Assistants	\$13.16	Food Processing Workers	\$13.49
Locker Room, Dressing Room Attendants	\$13.17	Childcare Workers	\$13.52
Waiters and Waitresses	\$13.18	Laundry and Dry-Cleaning Workers	\$13.58
*Personal Care Aides (DSPs)	\$13.18	Hairstylists, and Cosmetologists	\$13.70

\*DSPs are categorized under the “Personal Care Aides” occupational category.

Source: Emsi, 2019.

Figure 1 presents the median hourly wage for the occupations with the highest number of workers within the Residential Intellectual/Developmental Disability industry. Hourly wage levels for DSPs (i.e., Personal Care Aides) are the lowest among the major occupations in the I/DD industry.<sup>10</sup>

Figure 1  
Median Hourly Earnings in Occupations with the Highest Number of Workers,  
Residential Intellectual/Developmental Disability Industry, 2019



Source: Emsi; B&A Analysis. Author’s calculations.

<sup>8</sup> Source: Burns & Associates Rate and Simulation model included in the NESCSO report submitted to BHDDH.

<sup>9</sup> Some of these occupations earn gratuities, thus the actual hourly wage is higher when tip income is included.

<sup>10</sup> Data for the industry is based on industry definitions classified by the federal government’s NAICS codes, specifically code 623210, “Residential Intellectual or Developmental Disability Facilities.”

### 3. Proposed Wage Increase

CPNRI proposes two wage scenarios for DSPs employed by its member organizations:

1. Scenario 1: An hourly wage increase from the current average of \$13.18 per hour to \$17.50 per hour in 2021.
2. Scenario 2: An hourly wage increase from \$17.50 per hour in 2021 to \$20.00 per hour in 2022.

Table 4 highlights the total additional annual wages and average wage per employee that will result from each scenario if adopted.<sup>11</sup> The calculations are based on a total of 3,824 employees,<sup>12</sup> with an estimated 67 percent of employees full-time and 33 percent part-time.<sup>13</sup>

- Scenario 1 results in an additional \$28.7 million in annual wages for DSPs, or \$8,986 per FT employee and \$4,493 per PT employee.
- Scenario 2 results in an additional \$16.6 million in annual wages for DSPs, or \$5,200 per FT employee and \$2,600 per PT employee.
- Cumulatively, these two proposed wage increases would result in an additional \$45.3 million in annual wages paid to DSPs, or \$14,186 per FT employee and \$7,093 per PT employee.

Table 4  
Wage Scenario Summary  
Total and Average Annual Additional Wages

	<b>Total Additional Annual Wages Paid to DSPs</b>	<b>Avg. Annual Increase Per Full-Time DSP</b>	<b>Avg. Annual Increase Per Part-Time DSP</b>
Scenario 1: \$13.18 to \$17.50	\$28,691,380	\$8,906	\$4,493
Scenario 2: \$17.50 to \$20.00	\$16,603,808	\$5,200	\$2,600
Cumulative: (\$13.18 to \$20.00)	\$45,295,188	\$14,186	\$7,093

Source: B&A Rate and Simulation analysis; NESCO survey; Author's calculations.

<sup>11</sup> These figures represent impacts from employees of CPNRI's members and do not include DSPs employed by other organizations such as Rhode Island Community Living and Supports (RICLAS).

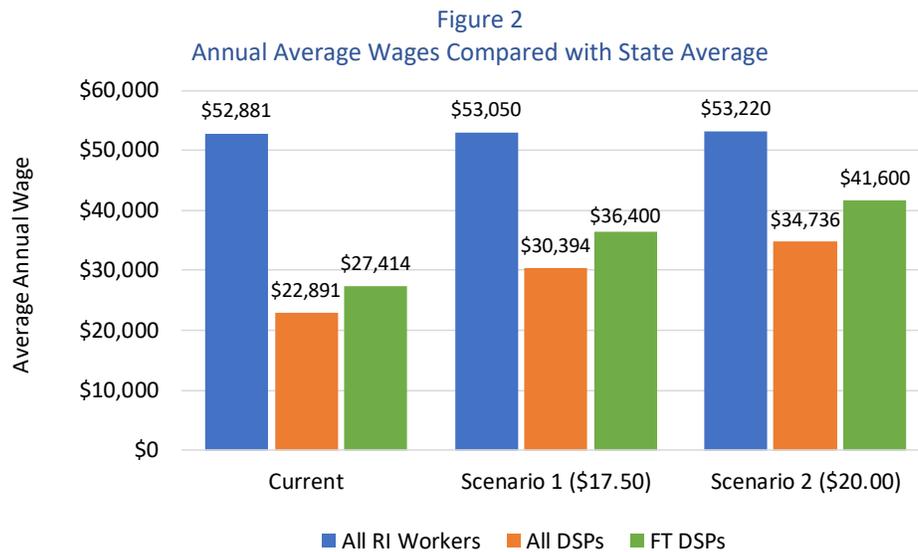
<sup>12</sup> Source: B&A Rate and Simulation analysis.

<sup>13</sup> Source: NESCO survey. Full-time wages based on 2,080 hours annually; part-time ages based on 1,040 hours annually. Wages do not include fringe.

## Economic Impact of Direct Service Provider Wages on the Rhode Island Economy

DSPs currently on average earn 43.3 percent of the statewide annual average wage of \$52,881. Notably, the proposed Scenario 1 and Scenario 2 increases would still position the average annual wage of DSPs below the statewide average, even for full-time employees (see Figure 2).

- Raising the DSP hourly wage to \$17.50 would increase the annual salary for DSPs to \$30,394, or 57.3 percent of the statewide average.
- An increase to \$20.00 per hour would raise the annual average wage of DSPs to \$34,736, or 65.3 percent of the statewide average.
- The average annual wage for full-time DSPs at \$20.00 per hour would still be well below the statewide average (\$53,220 versus \$41,600).



Source: Emsi; B&A Analysis; Author's calculations.

State annual average wage for Scenario 1 and Scenario 2 assumes 3.2 percent growth from baseline.

RI average annual wages include full-time and part-time workers.

### 4. Impact Analysis

A wage increase will result in additional spending by DSPs on basic needs and non-essentials such as groceries, fuel, clothing, utilities, rent, healthcare, movie tickets, and takeout. These household expenditures will “induce” new economic activity as businesses subsequently increase their payroll expenditures to meet demand by hiring more employees and/or increasing hours and raising salaries. These households, in turn, will increase their spending at the state’s businesses. As successive rounds of spending occur, additional income continues to be induced in the statewide economy until it dissipates through “leakage” to economies outside the state.

These economic flows are quantified using Implan, an input-output model that measures how the additional wages and subsequent spending of those wages flows through the state’s economy and induces additional spending and job creation. The impacts are reported in terms of the employment, labor income, value added, and output generated by expenditures:

- **Employment** refers to the number of jobs created by a business’ activity, including wage and salary employees and self-employed persons.<sup>14</sup>
- **Labor Income** includes all forms of labor income, including employee compensation (wages and benefits) and proprietor income.
- **Value added** is equivalent to the industry’s contribution to GDP. It equals gross output (sales or receipts and other operating income, plus inventory change) minus intermediate inputs (consumption of goods and services purchased from other industries or imported).
- **Output** represents the total estimated value of goods and services, or sales, produced by a business establishment.

Table 5 displays the induced impacts that would result from the proposed wage scenarios. Again, these figures represent impacts from employees of CPNRI’s members and do not include DSPs employed by Rhode Island Community Living and Supports (RICLAS).

#### Scenario 1 Impact

Increasing the average DSP hourly wage from \$13.18 per hour to \$17.50 per hour will support an additional 182 jobs in the Rhode Island economy.<sup>15</sup> The wage increase will also support an additional \$9.1 million in labor income, \$16.8 million in value added, and \$28.0 million in output annually.

#### Scenario 2 Impact

A second increase in the DSP hourly wage from \$17.50 per hour to \$20.00 per hour will support an additional 104 jobs in the Rhode Island economy. The wage increase will also support an additional \$5.2 million in labor income, \$9.6 million in value added, and \$16.0 million in output annually.

#### Annual Impact

In total, increasing the average DSP hourly wage from \$13.18 per hour to \$20.00 per hour will support 285 jobs in the Rhode Island economy. The wage increase will also support an additional \$14.2 million in labor income, \$26.2 million in value added, and \$43.7 million in output annually.<sup>16</sup>

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<sup>14</sup> IMPLAN jobs include all full-time, part time, and temporary positions. Note that a person can hold more than one job, so the job count is not necessarily the same as the count of employed persons.

<sup>15</sup> The impacts are assumed to be over a year timeline.

<sup>16</sup> The annual impact for Labor Income, Value Added, and Output does not equal the sum of Scenario 1 & Scenario 2 due to inflation. Also, jobs are not summative.

Table 5  
Induced Impacts by Scenario<sup>17</sup>

Scenario	Time Period	Employment	Labor Income	Value Added	Output
Scenario 1: \$13.18 to \$17.50	2021	182	\$9,135,980	\$16,808,807	\$28,022,941
Scenario 2: \$17.50 to \$20.00	2022	104	\$5,220,755	\$9,605,391	\$16,013,707
Annual Impact @ \$20.00	2022+	285	\$14,242,219	\$26,203,506	\$43,685,391

Source: Implan; Author's calculations.  
All values are in 2020 dollars.

### Employment Impacts on Other Industry Sectors

Table 6 presents the industry sectors in Rhode Island that would be most impacted by the proposed wage increases in terms of the number of new jobs supported.<sup>18</sup> Most of these sectors are fairly usual for this type of analysis, particularly when one considers the types of products and services on which employees spend their incomes.

Table 6  
Employment Impacts in Other Industries

Industry	# Jobs at \$17.50/Hour	# Jobs at \$20.00/Hour
Hospitals	11	17
Full-service restaurants	11	17
Limited-service restaurants	7	11
Real estate	6	10
All other food and drinking places	5	9
Offices of physicians	5	8
Food and beverage stores	5	8
Individual and family services	5	7
College & universities	4	6
Personal care services	4	6
General merchandise stores	4	6
Nursing and community care facilities	4	6
Home health care services	3	5
Other financial investment activities	3	5
Other personal services	3	5

Source: Implan.

<sup>17</sup> The IMPLAN model accounts for commuting patterns; thus, induced impacts only reflect the spending of wages from Rhode Island residents.

<sup>18</sup> IMPLAN jobs include all full-time, part time, and temporary positions. Note that a person can hold more than one job, so the job count is not necessarily the same as the count of employed persons.

### Additional Tax Revenues Generated

The Implan model estimates the amount paid in state and local taxes as a result of additional wages received by DSPs as well as the taxes generated through the economic activities supported in other areas of the economy. Specifically, the estimated tax payments in this analysis include:

- Employee personal income taxes: State and local income taxes and social security taxes.
- Social insurance taxes: Both the employee and employer paid portions of Social Security taxes.
- Indirect business taxes: Property taxes, Sales taxes, Fees/fines & other taxes (motor vehicle license fees, other taxes, fees/fines, licenses, and permits).
- Corporate taxes: Corporate profits and dividends.

#### Annual Tax Contributions at \$17.50 Per Hour

The model estimates that an increase in the hourly wage for DSPs from \$13.18 to \$17.50 will generate an additional \$1.9 million in state and local taxes. This includes an estimated \$168,505 increase in personal income tax payments, \$595,021 in sales taxes, and \$907,996 in property taxes (see Table 7).

#### Annual Tax Contributions at \$20.00 Per Hour

The model estimates that an increase in the hourly wage for DSPs from \$13.18 to \$20.00 will generate an additional \$2.9 million in state and local taxes. This includes an estimated \$262,685 increase in personal income tax payments, \$927,588 million in sales taxes, and \$1.4 million in property taxes (see Table 7).

Table 7  
Additional Estimated Tax Contributions to  
State of Rhode Island and Local Communities

Type of Tax	Annual Tax Contributions at \$17.50 Wage	Annual Tax Contributions at \$20.00 Wage
Personal Income taxes	\$168,505	\$262,685
Other Personal Taxes	\$41,816	\$65,187
Payroll taxes	\$52,867	\$82,415
Sales taxes	\$595,021	\$927,588
Property taxes	\$907,996	\$1,415,489
Corporate taxes	\$50,790	\$79,177
Fees, fines, & other taxes	\$49,541	\$77,230
<b>Total</b>	<b>\$1,866,536</b>	<b>\$2,909,771</b>

Source: Implan. All values are in 2020 dollars.

### 5. Appendix A: Methodology

The labor income impact is quantified using Implan, an input-output model that traces the organization's purchases of goods, services, and labor through that model. Input-output analysis measures how direct spending associated with an industry flows through an economy. For example, purchases made by DSPs circulate through the economy and support additional spending and job creation, that is, the original DSP expenditures are multiplied. These multipliers measure the number of times a dollar is re-spent in the economy of a geographical area, or in terms of employment, measures the degree to which a job supports related jobs in other industries. The analysis measures the induced effects that occur as a result of successive rounds of household spending by DSPs and employees of other industry sectors from the increase in spending. Measuring these ripple effects on the economy provides a more complete picture of the economic impact that results from a wage increase.

The data inputs for the impact model are derived from the rate and simulation model conducted by Burns and Associates (B&A) that was included in the NESCSO report submitted to the Rhode Island Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals (BHDDH). The analysis also builds on a previous economic contribution analysis conducted by the Consultant on behalf of CPNRI. Input-output models were constructed in IMPLAN for the state of Rhode Island.

The latest available Implan dataset is for 2018 and model outputs are reported in 2020 dollars. The regional model was run as a Multi-Regional (MRIO) analysis using Massachusetts as a link to the model to account for spillover effects. MRIO offers the advantage of providing a more robust and accurate picture of a local economy because most economies are not isolated to a single region, although in this case the MRIO methodology did not differ significantly in comparison to the single-geography (Rhode Island) model.

The total proposed wage increases were input into Implan as Labor Income events. The Implan model accounts for commuting patterns; thus, induced impacts only reflect the spending of wages from Rhode Island residents. Implan also automatically deducts payroll tax, personal tax, and savings from Labor Income Events. Implan also treats household spending of income on imported goods and services as leakage. Importantly, Labor Income represents all forms of employment income, including wages, salaries, benefits, payroll taxes, and unemployment insurance. Thus, wages were inflated to loaded wages before they were input into the model. Note that the industry in which employees are earning new income (i.e., the Intellectual and Developmental Disabilities industry) is irrelevant because there is no change in production, just an increase in earnings by existing employees.