

## a. Project Narrative

### Greater Boston Regional Workforce Training: Health Care, Clean Energy, and Child Care

**Section 1: Project Description and Overview/Section 1a. Executive summary:** The Economic Development and Industrial Corporation of Boston (EDIC) through its Office of Workforce Development (OWD), requests EDA Good Job Challenge funds to build a Greater Boston Region (GBR) Regional Workforce Training System (RWTS) comprising three in-demand workforce Sectoral Partnerships (SPs): Health Care, Clean Energy, and Child Care. OWD will carry out all programmatic grant functions; the System Lead Entity (SLE) therefore is referred to here as EDIC/OWD. The RWTS already has **2,539 committed full-time quality jobs** that are ready for implementation and, by the end of the Project Design (PD) period, expects another 2,219 committed jobs, for a total of 4,758 jobs. Jobs will have pathways that lead to family-sustaining wages, employer-sponsored benefits, and educational attainment. With continual program evaluation and client tracking, the RWTS will meet the needs of employers and job seekers alike. The need for this RWTS is great: thousands of health care workers have left the field, and hospitals, nursing homes, and other health care facilities have not been able to fill vacancies; clean energy companies are expanding and need to work with training providers to communicate skill needs for this expanding sector; child care providers are understaffed to the point of impeding the economic recovery for the region as a whole. The proposed RWTS programs will meet the existing and emerging needs of employers, and will help participants obtain quality jobs with upward mobility. Participants will include incumbent/underemployed workers, underemployed associate degree holders, and/or unemployed individuals. Each SP will engage in, to various degrees, System Development (SD), PD, and Program Implementation (PI).

**Section 1a.** EDIC/OWD is the SLE. The OWD connects low-income (as defined by HUD AMI metrics), predominantly Black, Indigenous, and People of Color (BIPOC) residents with job training, education, and employment. It is a convening power in the region and has the support of the mayor of Boston and relevant cabinets (Economic Development, Environment, Energy, and Open Space), employer CEOs, college presidents, heads of labor unions, MassHire Workforce Boards, partners, and Community-Based Organizations (CBOs). OWD Track Record of Success: OWD provides education, employment, and financial opportunities for underserved Bostonians. Since 2012, OWD has distributed over \$70M to competitively procured CBOs and community colleges (CCs) to fund skills training, apprenticeships, and transitional jobs for at-risk youths and adults (95% of whom are BIPOC). Select accomplishments include: Skilled Careers in Life Sciences: This \$5M direct grant from US Department of Labor (USDOL) served individuals seeking STEM careers, creating a pipeline of prepared workers in life sciences and health care industries. A total of 523 participants received training, paid internships, and career placement services, 95% of whom were BIPOC. Notably, 225 area employers hired SCILS participants for internships and full-time jobs. Greater Boston American Apprenticeship Initiative: \$3M direct grant from USDOL to expand apprenticeship pathways that have been traditionally White to include diverse participants. Two new registered apprenticeships were created and over 800 people enrolled in existing registered pre-apprenticeships or apprenticeship programs. Enrollees were 36% women (compared to 2% nationally) and 64% BIPOC. Transitional Jobs: OWD/EDIC (as the fiscal agent) and the Boston Workforce Board together manage two of the largest One-Stop Career Centers in MA, serving over 15,000 residents and 750 employers annually (pre-COVID-19). The Boston Local Development Corporation (BLDC) has distributed \$20 million in small business EDA loans and has successfully leveraged over \$95

million in other funds. In 2021, EDA awarded BLDC \$693,000 in CARES Act Recovery Assistance to administer a Revolving Loan Fund for pandemic-impacted small businesses.

**Section 1b. Backbone Organizations (BBOs):** The Boston Healthcare Careers Consortium (HCC), which is housed in the Boston Workforce Board, will be the BBO for the Health Care SP. The Boston Workforce Board creates and sustains powerful connections between businesses and job seekers through a statewide network of employment professionals. USDOL’s Employment and Training Administration grants fund many of Boston Workforce Board’s programs and services. It charters the local One Stops and convenes the HCC, which brings together employers and training providers. Benjamin Franklin Institute of Technology (BFIT) will be the BBO for the Clean Energy SP. BFIT is a private Boston-based college focused on engineering, industrial technologies, and the trades that offers associate and bachelor’s degrees, is an Asian American and Native American Pacific Islander-Serving (AANAPISI) institution, and offers an affordable education. At 55%, BFIT’s graduation rate is twice the national CC average.<sup>1</sup> BFIT is in the process of building a new campus in Nubian Square of Roxbury, a Boston neighborhood with 50.3% Black/African American and 30.7% Hispanic/Latino residents.<sup>2</sup> With its new campus in the heart of Roxbury, BFIT expects to attract greater numbers of BIPOC students seeking well-paying career pathways. The Community Advocates for Young Learners (CAYL) Institute will be the BBO for the Child Care SP. Founded in 2003, CAYL has built significant convening power and has influenced structural and systems change to support the MA child care workforce system. CAYL maintains a close working relationship with the Massachusetts Department of Early Education and Care (EEC). Diversity, equity, and inclusion (DEI) is one of CAYL’s guiding principles. See Attachment B (Letters of Support) for letters from BBOs.

**Section 2a. Employer leadership in the Health Care SP** resides with the HCC; partners have obtained 2,850 job commitments for both PD and PI, from 45 employers/consortia. Employer leadership in the Clean Energy SP resides with the Northeast Clean Energy Council (NECEC) and BFIT, which have secured 1,058 job commitments for both PD and PI, from 22 employers. Employer Leadership for the Child Care SP resides with CAYL, which has secured 618 job commitments from 35 employers and aims to secure 850 by the end of PD. Employers in all three sectors were involved in creating training curriculums and all were surveyed regarding workers and skills needed, current training programs, recruitment, and equity protocols. Additionally, BBOs reached out to their partners to determine job market needs. The SLE will create and disseminate quarterly feedback surveys to employers, trainers, and participants; an experienced Program Manager representing each SP will refine them to address the unique characteristics of each SP. Survey responses will be used to gather information on the creation, refinement, and improvement of training programs. Outcomes from the surveys that are deemed best practices will be distributed to the entire group/team. See Attachment B for letters from leadership and stakeholders’ support and the Staffing Plan for biographies of leadership. See 2b, below, for all stakeholders.

*Recruitment:* During PD, employers, together with unions and employer consortia, will

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<sup>1</sup> For national averages, see National Center for Education Statistics, “Undergraduate Retention and Graduation Rates,” accessed December 21, 2021, <https://nces.ed.gov/programs/coe/indicator/ctr>. For BFIT’s averages, see CC Review, “CC Completion Rates in Massachusetts,” accessed December 21, 2021, <https://www.communitycollegereview.com/completion-rates-stats/massachusetts>

<sup>2</sup> Boston Planning and Development Agency, “Boston in Context: Neighborhoods” (Boston: Boston Planning & Development Agency Research Division, 2021), 10, <https://www.bostonplans.org/getattachment/e2eb8432-ac72-4a7e-8909-57aafdfbecd9>

establish recruitment requirements that consider worker perspectives as explained by labor unions. Each BBO will establish a mechanism to include participant voices in the development of training in the PD phase. Recruitment for the entire RWTS will occur via outreach, dissemination via OWD, One Stop Career Centers, employers, CBOs, and colleges. The One Stop Career Centers are all based in areas with high BIPOC populations: Boston, Metro North, and Greater Brockton predominately serve both LatinX and Black communities; Southshore serves Black and Asian populations; and Brockton serves a predominantly Black population. The LOSs detail each partner's approach to recruitment. Based on OWD's extensive history of training and workforce development, it projects that 70% of participants will complete the Health Care and Clean Energy training programs. Of those who complete the programs, OWD expects 70% to be placed into a relevant job. In the Child Care SP, and based on the pilot program described in Section 4, OWD expects 95% will complete the program and 95% will be placed in appropriate jobs. OWD has a total of 2,539 committed jobs for which the RWTS will train as of the date of application and a projected total goal of 4,758 jobs as of the end of PD. See Attachment B (Letters of Support) for letters from leadership.

**Section 2b.** RWTS meetings will take place quarterly and all BBOs/SP meetings will be monthly to discuss benchmarks and progress. The SLE will meet monthly and as needed. The following five MassHire Workforce Boards, chosen for their existing outreach system to BIPOC communities, will be involved in the entire RWTS: 1) Boston, 2) Metro North, 3) Metro South/West, 4) South Shore, and 5) Greater Brockton. Each Workforce Board provides funding to the ten One Stop Career Centers that will engage in constructive outreach and recruitment of job seekers, intake and assessment of job seekers, career coaching, interfacing with employers, and job placement. Metropolitan Area Planning Council (MAPC) is the regional planning agency and EDA's designated economic development district, serving the people who live and work in the 101 cities and towns of Metropolitan Boston. It will help the SLE and BBOs coordinate, convene, and facilitate the RWTS; provide strategic and technical analysis and content development support for all phases of the project; assess project activities; and provide connections to municipalities, sister regional planning agencies, CBOs and employers. The SLE chose employers with strong BIPOC populations and commitment to workers' upward mobility. See Attachment A (Employer Letters of Commitment). Listed below are each SP and their respective stakeholders. BBOs will bring in new stakeholders during the project period; when new employers move to the region, they will work with OWD for workforce development. OWD will then alert the BBOs to new employers. In support of the SPs described below, see Attachment A (Employer Letters of Commitment); Attachment B (Letters of Support: Backbone Organizations and Key Sectoral Partners); Attachment C (Existing Training Curricula); Attachment D (Projected Jobs and Wages for Project Design), and the Staffing Plan.

**Health Care SP:** HCC will be the BBO of the Health Care SP and will convene partners on a quarterly basis and ensure that employers connect with job seekers in the assessment/career coaching phase. This innovative approach helps ensure good matches. **Trainers:** The institutions of higher education (IHEs) will provide career coaching, career assessment, curriculum development in their respective training areas, interfacing with employers, and assistance in job applications. Bunker Hill Community College (BHCC) is a public multicampus CC serving the GBR and is AANAPISI. It provides higher education and job training services at two campuses and three satellite locations. BHCC will explore skills training during the phase. Roxbury Community College (RCC) and MassBay Community College (MassBay) will explore how to provide training during the PD phase. UMassOnline is an online trainer associated with the

University of Massachusetts; it will provide health care training mainly for the Mass General Brigham (MGB) partners hospital system. **Employers:** Boston Childrens’ Hospital, and MGB (a network that includes Brigham Women’s Hospital and Massachusetts General Hospital).

**Employers with In-House Training:** Beth Israel Lahey Health, Boston Emergency Medical Services.

**Clean Energy SP:** As the BBOs of the Clean Energy SP, BFIT will provide training in clean energy. NECEC Institute (the NECEC Council’s sister organization, a 501(c)(3)) leads regional programs to develop the region’s cleantech cluster, focusing its efforts on innovation and entrepreneurship, industry research and development, and workforce development. The Council and Institute will convene partner organizations and ensure that job commitments are in place, engage in outreach and recruitment, and ensure that employer partners are committed to DEI. Building Pathways Inc. (BPI), a nonprofit that trains people for building union trades, provides a gateway for low-income, underserved residents to access family-sustaining careers in the construction industry through its state-approved apprenticeship preparedness training, outreach to young adults, and advocacy. For this project, BPI will provide training through its Building Pathways Building Trades training program to prepare 45 participants annually to enter into a Building Trades Registered Apprenticeship Program or other industry-related employment, among other services. Boston Building Trades is an umbrella organization that serves 13 unions. Emerald Cities is a national nonprofit with 50 employer partners in the Boston area. **Trainers:** BFIT and BHCC (see descriptions, above) will provide training in clean energy. Asian American Civic Association (AACA) is a CBO that provides skills training and services for low-income immigrants. AACA provides a range of services, including English classes, case management, job training, college preparation, and a postgraduate retention program. RCC and MassBay will explore how to provide training during the PD phase. **Employers:** 15 Woodbriar, Alternative Weatherization, Andersen—Renewal by Andersen, Boston BoatWorks, CMJ Management, Cummings Properties, Eversource, Green Affordable Energy, Maloney Properties, Peabody Properties, Rise Engineering, The Schochet Companies, Stamatos Family Partnership, and WinnCompanies. **Wrap-around Support:** Community Resources for Justice (services for individuals in reentry).

**Child Care SP:** CAYL Institute (See Section 1b). Third Sector Capital Partners (Third Sector), a nonprofit organization with expertise in transforming public systems, will provide technical assistance and project management to the Child Care SP. **Employers:** Thirty-eight unique child care centers, including the YMCA and affiliates of the Massachusetts Association of Early Education & Care, 150 new and existing self-employed Family Child Care Providers (FCCs), and the SEIU 509 Labor Union. **Trainers:** *Professional skills trainers* provide classroom pedagogy and business training demanded by employers: ABCD Workforce Development/MetroNorth MassHire Center, Community Day Care, Greater Lowell Workforce Board, Jewish Vocational Services (JVS), SEIU 509 Labor Union Education and Support Fund, and United Way. *Education trainers* provide credentialing and licensing as required by the child care industry. They include: BHCC, Middlesex CC (which is AANAPISI), North Shore CC, and Urban College. **Strategic Advisors:** The following advisors will convene a child care workforce table to solidify structural improvements in the child care workforce development system based on the lessons and insights from the GJC project. Initial members include MA EEC, Massachusetts Business Coalition for Early Education, Massachusetts Funder Collaborative, and Strategies for Children.

**Section 3. Project and Location:** The RWTS will serve the industries of health care, clean

energy, and child care in the GBR, comprising the workforce board regions of Boston, Greater Brockton (Abington, Avon, Bridgewater, Brockton, East Bridgewater, Easton, Hanson, Stoughton, West Bridgewater, and Whitman), MetroNorth (Arlington, Belmont, Burlington, Cambridge, Chelsea, Everett, Malden, Medford, Melrose, N. Reading, Reading, Revere, Somerville, Stoneham, Wakefield, Watertown, Wilmington, Winthrop, and Woburn), and MetroSouth/West (Ashland, Framingham, Holliston, Hopkinton, Natick, Sherborn, Southborough, Sudbury, Wayland, and Westborough). The Child Care SP will operate in the GBR and also in the towns of Lawrence, Lowell, Lynn, and Salem. Skills Needs: To analyze skills needs, the BBOs surveyed their employers. *Health care*: Skills needs that are not being met include the following: job applicants are missing certifications, degrees, state exams, computer literacy, and/or soft skills. Medical assistants need stronger skills in specimen collection, swabbing, and procedures as well as vaccine administration and documentation. *Clean Energy*: Many jobs related to construction, the automotive industry, marine technology, and energy generation and delivery require at least minimal clean-energy expertise; however, there is a shortage of trained workers (see “challenges,” below). In addition, workers are missing certifications, the ability to learn technology in the maintenance, carpentry, and electrical fields; missing HVAC knowledge; and few people have multiple skills. Three employers noted a lack of electrical expertise; another noted a lack of knowledge regarding boat maintenance. *Child care*: In the GBR, approximately 1,500 early childhood educator jobs were lost between 2019 and 2020, most of which have not been restored.<sup>3</sup> Employers report that their credentialed staff need additional professional development skills in communication, interpersonal relationship management, conflict resolution, and efficient administration. Administrators and directors need skills in cultural competency to effectively manage and mentor new, culturally diverse staff to be placed by the GJC. FCC operators need to develop business management skills. (See LOSs from MAPC and Northern Middlesex Council of Governments (EDA Designated Economic Development Entity in the GBR) for CEDS Alignment). Target Population: The RWTS seeks to reach underserved GBR BIPOC populations, the unemployed, underemployed, incumbent workers, and/or CC students. Approximately **33%** of MA’s population (2.3 million) live in the GBR, with **18%** of people identifying as Hispanic and **44%** belonging to a race other than White.<sup>4</sup> The Child Care SP will also encompass Lawrence, Lowell, Lynn, and Salem, which have a proportionally higher number of unemployed and underemployed BIPOC women.

**Section 4a.** The project will engage in the following: SD to establish a new RWTS; PD to strengthen the *existing* health care, clean energy, and child care partnerships; and PI to implement all partnerships. **SD**: During this phase, the RWTS will continue to develop employer-driven training programs, which will involve each SP BBOs, the MassHire Workforce Boards, employers, employer consortiums, trainers, and/or labor unions. The region faces multiple structural challenges. Demand for labor in health care, clean energy, and child care has been outstripping the supply of qualified workers. Between November 2019 and November 2021, seasonally adjusted labor force participation fell nationally by 2.5% for White workers, 2.4% for Black workers, and 2.5% for Hispanic workers.<sup>5</sup> Shared challenges in the GBR include the following: 1) workers are retiring in all three industries—but there are not enough new

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<sup>3</sup> US Bureau of Labor Statistic, Childcare Jobs Analysis, <https://csce.berkeley.edu/child-care-sector-jobs-bls-analysis/>

<sup>4</sup> American Community Survey (ACS) 5-year estimates for 2015–2019.

<sup>5</sup> U.S. Bureau of Labor Statistics, Current Population Survey, data series LNS11300003, LNS11300006, and LNS11300009 <https://data.bls.gov/PDQWeb/ln>.

workers to fill those job vacancies;<sup>6</sup> 2) employers are seeking to advance DEI but failing to reach BIPOC populations; 3) employers are offering low-wage, entry-level jobs but lack a career pathway strategy; 4) workers are participating in unpaid training, making it difficult for them to meet basic living expenses; and 5) due to COVID-19, workers are feeling overwhelmed; COVID-19 has disproportionately impacted lower-wage earners and BIPOC communities.

**Existing RWTS:** To address employers' workforce needs, OWD seeks to engage in *PD* to strengthen the existing SPs in the RWTS. The HCC is already in place for the Health Care SP and convenes over 50 trainers and employers. NECEC is an existing association of clean energy companies on whose success this project builds. The Clean Energy SP therefore leverages a state-level partnership *and* a two-year college. The Child Care SP will leverage the well-established, state-sponsored infrastructure of standards, training, and certifications for new incoming teachers and FCC educators. RWTS SPs will be engaged in the PD and/or PI phases and will address local employers' workforce needs via employer surveys and convening sessions with employers to ascertain current and emerging needs in skills training. As more employer needs become apparent, the RWTS will work with trainers to address those needs.

**Strengths and Challenges:** The three industries associated with the SPs are cornerstones of the current economy and form an integral part of the region's future economy. These growth sectors are the underpinnings of the region's diversified economy; they are supported by well-designed public and private investments. Health care is the largest and one of the fastest growing sectors in the regional economy. Clean Energy impacts many industries (construction, transportation, energy, and wastewater). Child care is a foundational industry that influences the growth and success of other industries—and the workers in those industries. Challenges that affect all three SPs include (the RWTS is designed to address all challenges): 1) Employers do not make career pathways transparent, which contributes to skills gaps.<sup>7</sup> Upward mobility and career progression are therefore elusive for many incumbent workers. 2) Shifting demographics inevitably will increase the demand for labor from immigrant communities, which, in turn, will necessitate significant investments in the workforce system to ensure that this workforce is prepared to enter job training programs.<sup>8</sup> 3) The pandemic has only worsened already severe labor shortages.<sup>9</sup> 4) The lack of available and affordable child care is pushing many workers, predominantly women and people of color, out of the labor market entirely.<sup>10</sup> 5) The direct (e.g., tuition and equipment) and indirect costs (e.g., child care and transportation) associated with training programs create barriers for economically disadvantaged individuals.<sup>11</sup> An analysis of each SP's strengths and weaknesses is as follows:

**Health Care SP Strengths:** 1) The Boston area boasts one of the strongest health care sectors in the country. The industry employed 336,000 people in 2020, representing

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<sup>6</sup> Private Industry Council of Boston, "MassHire Boston Workforce Four-Year Plan (July 1, 2021–June 30, 2025)" (Boston: PIC, 2020), 18.

<sup>7</sup> Massachusetts Board of Education, "Allied Health-Direct Care Workforce Plan: A Foundation for Our Future" (MA, 2014).

<sup>8</sup> Massachusetts Board of Education, 2014.

<sup>9</sup> Pryanka Dayal McCluskey, "Mass. hospitals prepare to fire hundreds of employees who refuse COVID vaccine," *Boston Globe*, October 6, 2021, <https://www.bostonglobe.com/2021/10/06/metro/mass-hospitals-prepare-fire-hundreds-employees-who-refuse-covid-vaccine/>.

<sup>10</sup> Stephanie Taub, *COVID-19 and the Changing Massachusetts Healthcare Workforce*, The Project on Workforce (Cambridge: Harvard University, 2021).

<sup>11</sup> Massachusetts Board of Education, 2014.

approximately 21% of the region’s total workforce.<sup>12</sup> The region has a strong location quotient<sup>13</sup> for health care support (1.03)<sup>14</sup> and health care practitioner and technician occupations (1.08).<sup>15</sup> Overall, the region’s health care sector is expected to grow by 4.9% over the next 10 years.<sup>16</sup> 2) Workforce intermediaries such as the Boston Workforce Board play a critical role in facilitating alignment between the workforce system and the region’s high road health care employers through the HCC. 3) A significant focus of the City’s spatial development and infrastructure planning has been on building transportation connections and affordable housing in areas with high concentrations of quality health care jobs.<sup>17</sup> 4) MA has a robust health care educational sector. There are over 60 certificate and associate degree programs in health care offered through local colleges, and an additional 61 run by CBOs and for-profit trainers.<sup>18</sup> Many of these programs are involved in collaborative arrangements with local government, development bodies, employer-based workforce intermediaries, and unions to better align public workforce development investments and carry out regional workforce initiatives.<sup>19</sup> **Health Care SP Challenges:** 1) Low wages and limited benefits; wages of many direct care workers fall below the state’s median hourly wage for all occupations.<sup>20</sup> 2) Difficult working conditions, including inflexible schedules, nonstandard work hours, high physical workloads, and exposure to occupational and safety hazards are endemic features of entry-level health care occupations.<sup>21</sup> 3) Entry-level health care occupations lack clearly defined career lattices and stackable training opportunities, which impacts retention.<sup>22</sup> 4) The pandemic has compounded preexisting labor shortages, especially for frontline health care workers.<sup>23</sup> 5) A slowing of overall labor force growth due to an aging labor force will reduce the labor pool and increase labor costs.<sup>24</sup>

**Clean Energy SP Strengths:** 1) Many companies are flourishing in clean energy

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<sup>12</sup> Massachusetts Executive Office of Labor and Workforce Development (EOLWD), ES-202, Office of Workforce Development database.

<sup>13</sup> A Location Quotient greater than 1 indicates an occupation with a greater share of local area employment than is the case nationwide.

<sup>14</sup> US Bureau of Labor Statistics, accessed January 5, 2022, <https://www.bls.gov/oes/current/oes310000.htm>.

<sup>15</sup> US Bureau of Labor Statistics, accessed January 5, 2022, [https://www.bls.gov/oes/current/oes\\_71650.htm#29-0000](https://www.bls.gov/oes/current/oes_71650.htm#29-0000).

<sup>16</sup> Employment in health care and social assistance in the GBR was projected to grow 4.9% between 2018 and 2028, according to projections from the Massachusetts Executive Office of Labor and Workforce Development, <https://lmi.dua.eol.mass.gov/lmi/LongTermIndustryProjections>.

<sup>17</sup> Office of the Mayor of Boston, “Imagine Boston 2030: A Plan for the Future” (2018).

<sup>18</sup> Boston Healthcare Careers Consortium, “Profile of the Current Educational & Training Opportunities for Boston’s Healthcare Workforce” (Boston: PIC, 2011), 20.

<sup>19</sup> Office of the Governor, “Workforce Innovation and Opportunity Act (WIOA) Massachusetts Combined State Plan for FY 2017–FY2020,” accessed February 2, 2022, <https://www.mass.gov/service-details/wioa-combined-state-plan-for-fy2017-fy2020>.

<sup>20</sup> Center for Labor Markets and Policy, “Gray Warnings: Challenges in the Direct Care Workforce” (Philadelphia: Drexel University, 2018).

<sup>21</sup> The Office of the Assistant Secretary for Planning and Evaluation at the U.S. Department of Health & Human Services, “Strengthening the Entry-Level Health Care Workforce,” December 10, 2020, <https://aspe.hhs.gov/reports/strengthening-entry-level-health-care-work-force-finding-path>.

<sup>22</sup> Massachusetts Board of Education, “Allied Health-Direct Care Workforce Plan,” (2014).

<sup>23</sup> David Levine, “U.S. Faces Crisis of Burned Out Health Care Workers,” *U.S. News and World Report*, 2021 <https://www.usnews.com/news/health-news/articles/2021-11-15/us-faces-crisis-of-burned-out-health-care-workers>

<sup>24</sup> Taub, *COVID-19 and the Changing Massachusetts Healthcare Workforce*.

industries. CCs are creating more programs to meet the clean energy needs of companies.<sup>25</sup> Boston recently took significant steps to decarbonize the economy through the passage of the Building Energy Reporting and Disclosure Ordinance 2.0, which mandates all buildings larger than 20,000 square feet meet increasing carbon reduction limits.<sup>26</sup> The state has a 50% economy-wide GHG reduction target and is calling for electrification of 1 million existing residential buildings and 350 million square feet of existing commercial buildings by 2030.<sup>27</sup> The anticipated labor demand for retrofit work related to Boston's largest 3,500 buildings would require 1,194 and 2,123 FTE workers per year for 30 years.<sup>28</sup> Overall, MA saw an 89% increase in job growth in the clean energy industry, or nearly 54,000 jobs, since 2010.<sup>29</sup> In Boston alone, the construction industry is expected to grow 16.5% over the next 10 years.<sup>30</sup> The industry offers decent wages and good benefits for skilled workers. In 2018, the industry's average weekly wage was \$2,208, or approximately \$41 per hour.<sup>31</sup> 2) Training: A recent survey of current workers in building operator occupations reported that internships and apprenticeship programs improved their ability to land a job in the building operator trades. Sixty-six percent of current workers highlighted on-the-job training as the most important element in successful career navigation.<sup>32</sup> **Clean Energy SP Challenges:** 1) Current recruitment practices rely heavily on word-of-mouth and online advertising, both of which are insufficient to attract workers. There is no "one-stop shop" for employers to post job openings.<sup>33</sup> 2) The majority of employers indicated that they require at least one year of experience in a comparable position for each occupation.<sup>34</sup> 3) The construction industry has an aging workforce and struggles to recruit a younger workforce.<sup>35</sup> The average age in the construction industry (42.7) and the skilled trades (48) is higher than the national average for 40 years for all occupations.<sup>36</sup> 4) Women and BIPOC are grossly underrepresented in the industry as a whole. Most workers are White men who speak English as their primary language. A survey of building operators found that 87% of individuals employed in nine building operator occupations are male and 79% are White.<sup>37</sup> In comparison, the overall

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<sup>25</sup> BW Research Partnership, *Massachusetts Energy Efficiency Workforce Development Needs Assessment* (Boston: Mass Save, 2009), <https://ma-eaac.org/wp-content/uploads/Massachusetts-Energy-Efficiency-Workforce-Development-FINAL-REPORT-CAREER-PROFILES.pdf>.

<sup>26</sup> David Abel, "Boston City Council Approves Major Emission Cuts," *Boston Globe*, September 22, 2021, <https://www.bostonglobe.com/2021/09/22/metro/city-council-approves-major-emissions-cuts-large-buildings/>.

<sup>27</sup> See <https://www.mass.gov/info-details/massachusetts-clean-energy-and-climate-plan-for-2025-and-2030>. Accessed January 25, 2022.

<sup>28</sup> Boston Regional Workforce Strategic Plan for Building Decarbonization (internal document; Draft 12.14.20).

<sup>29</sup> MCEC, *Massachusetts Clean Energy Industry Report* (Boston: Massachusetts Clean Energy Center, 2020).

<sup>30</sup> Mass Hire South Shore, "Construction on the South Shore," (2020) <https://www.masshiresouthshorecc.com/wp-content/uploads/Construction-Report.pdf>

<sup>31</sup> Boston Planning and Development Agency Research Division, *Boston's Economy Pre-Pandemic Baseline* (Boston: City of Boston, 2020).

<sup>32</sup> BW Research Partnership, *MassCEC Building Operators Workforce Development Report* (Boston: Massachusetts Clean Energy Center, 2020).

<sup>33</sup> BW Research Partnership, *MassCEC Building Operators Workforce Development Report*, 11.

<sup>34</sup> BW Research Partnership, *MassCEC Building Operators Workforce Development Report*.

<sup>35</sup> Urban Institute, *Skilling Up: The Scope of Modern Apprenticeship* (Washington, DC: Kentucky Education and Workforce Development Cabinet and the Urban Institute, 2019).

<sup>36</sup> National Occupational Research Agenda Construction Sector Council, *National Occupational Research Agenda for Construction* (Atlanta: CDC, 2018).

<sup>37</sup> BW Research Partnership, *MassCEC Building Operators Workforce Development Report*.

population in MA is 67.6% non-Hispanic White.<sup>38</sup>

**Child Care SP Strengths:** 1) The proposed CAYL Coordinator led a small, successful Child Care Workforce Pipeline Pilot in 2020. It was a coordinated multi-stakeholder approach to recruitment (JVS), training (BHCC and JVS), and placing and supporting (JVS), where twenty job seekers obtained credentials, coaching, and other support to access high-quality jobs with four child care centers. It involved workforce development/soft skills training and support; coaching during training and up to 6 months following hire; a “Child Growth and Development” course; a trial work period with a specific employer; guaranteed hire by a specific employer upon completion of the program; and a \$1,000 stipend. The project resulted in 17 hires in full-time teacher positions at prevailing wage levels with benefits. The pilot addressed many of the challenges listed below. The Child Care SP is based on the pilot’s success. 2) The child care industry is both a critical employer and a critical service provider for BIPOC, immigrants, and women in GBR and MA. Forty-one percent of FCC Licensees are people of color, and 46% report their ethnicity as LatinX/Hispanic. A strong child care industry makes it possible for BIPOC in other industries to work and advance along their careers. 3) There is a robust training infrastructure for credentialing and continuing education. Early childhood professional certification is required for anyone wanting to work in a licensed group early learning program. Applicants may earn certifications as they progress along their professional pathway. The EEC offers free or low-cost education to anyone looking to obtain Professional Childcare Certifications. In addition, United Way of Mass Bay and Neighborhood Villages have a well-developed business training for FCC owners targeted at improving operational stability, increasing compensation, and allowing for investments in quality improvement. 4) There is a growing sense of need for public investment in the child care industry designed to address historic wage stagnation. Since July 2021, EEC, with technical assistance from Third Sector, has distributed over \$170M to child care providers in MA originating from the federal COVID-19 relief bills. The MA governor and legislature are currently considering how to permanently extend C3 using state funding—an approach that can likely serve as a national model to other states. **Child Care SP Challenges:** 1) Nineteen percent of child care centers report that they are unable to serve their full licensed capacity due to staffing constraints, which, in turn, prevents parents from returning to the workforce.<sup>39</sup> Women feel the lack of child care most acutely. According to EEC, of all MA families with children ages 0–5, 93% of fathers work whereas only 66% of mothers work. 2) Despite opportunities for free education and professional certification, training centers struggle to fill their classes. This is because recruitment and training strategies have not been made culturally, operationally and linguistically accessible to the people most likely to benefit from them: minimum-wage earners broadly and BIPOC and immigrant women in particular. 3) Many BIPOC and immigrant women currently working in childcare do so without the credentials that would accord them a higher wage. 3) Employers. 4) The process for obtaining an FCC license is complex and scary to many BIPOC and immigrant workers who may otherwise be interested in opening an FCC.<sup>40</sup>

**Section 4b. Recovery and Resilience:** This project will help the GBR to anticipate, withstand, and bounce back from COVID-19 disruptions to its economic base. The negative

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<sup>38</sup> U.S. Census Bureau, 2020 Census.

<sup>39</sup> Commonwealth of Massachusetts Department of Early Education and Care, “Meeting of the Board” (December 2021), <https://www.mass.gov/doc/december-14-2021-eec-board-meeting-materials/download>.

<sup>40</sup> At an information session held by United Way on the FCC licensing process in South Boston, 80 people attended. To our knowledge, not a single one moved forward with the process.

effects of the pandemic collide with the changing climate; therefore, the Clean Energy SP, in particular, addresses this dual challenge. In addition, the pandemic disproportionately impacts BIPOC communities; all partnerships will actively recruit BIPOC job seekers and will take actions to ensure that DEI practices are followed in all participating partner organizations. The project will enhance business retention and expansion programs to strengthen existing high-growth sectors and industries; the RWTS will work with the SPs to create a collective vision for economic recovery; and all trainers will highlight problem-solving skills that will enable nimble operation in both crisis and noncrisis times. This project also aligns with EDA's other priorities: **Equity:** OWD has been committed for decades to serving underserved people and communities and funds many programs dedicated to BIPOC and women (see Section 1). This project will advance equity across the region through investments that directly benefit one or more traditionally underserved populations, including but not limited to women, Black, LatinXo, and Indigenous and Native American persons, Asian Americans, and Pacific Islanders. OWD chose One Stop Career Centers in areas with high BIPOC populations so as to better serve those populations. Project employers will set internal goals and will be accountable to achieve them, in areas such as hiring, promoting, and supporting BIPOC employees, thereby supporting the Commonwealth's Equity Agenda. The Clean Energy SP and the Child Care SP are intentionally focusing on reaching and serving BIPOC students; all IHE partners have offices of diversity, equity, and inclusion and regularly offer DEI training to their staff. OWD will provide an overall vision for equity, focusing on intentionally advancing policies and practices that prioritize underserved populations and focus on voices of the underserved; considering implications of decisions; and using an antiracist engagement approach. All BBOs will reach out to veterans' organizations and will keep track of those participants with disabilities, disconnected youth, individuals in recovery, individuals with past criminal records (including justice-impacted and reentry participants), trainees participating in the SNAP, TANF, and WIC, and veterans and military spouses. **Workforce Development:** This project supports workforce education and skills-training activities connected to the hiring and skills needs of the business community and that result in well-paying, quality jobs. **Environmentally-Sustainable Development:** This project will help address the climate crisis via the Clean Energy SP, including the development and implementation of green products and processes (including climate smart infrastructure), clean energy systems, and energy efficient buildings.

**Section 4c.** Employers have committed to a total of 2,539 jobs for which the RWTS will provide training. (See Attachment D [Projected Jobs and Wages] for projected jobs which will be further developed during the PD phase.) Below, each table states the *committed* jobs for which the RWTS will train. All of these jobs are reflected in the employer LOCs (Attachment A). *Projected* jobs, to be explored during PD, are clearly labeled in Attachment D and in LOSs (Attachment B).

Health Care SP employers have committed 1,453 quality jobs to date (Table 1) for which the Health Care partners will train; OWD projects 2,850 jobs by the end of PD (see Attachment D).

**Table 1. Health Care SP Jobs, Wages, Growth for Implementation**

Type of Job	SOC Occupational Classification	SOC Code	# of Jobs	Projected Wage*	Wage Growth **	Benefits/ Union
Patient Care Tech/Assist.	N/A	29-2099	420	\$38,480–\$39,500	\$40,800	Yes/No
Certified Clinical Medical Assistant (CCMA)	N/A	31-9092	330	\$36,400–\$38,300	\$48,390	Yes/No
Practice/Administrative Assistant	First-Line Supervisors of Office & Admin. Support Workers	43-1011	200	\$41,600	\$83,020	Yes/No
EMT/Paramedic	Emergency Medical Technicians & Paramedics	29-2041	145	\$34,200–\$62,672/\$82,472	\$52,130	Yes/No
Phlebotomist/Certified Phlebotomy Tech	N/A	31-9097	120	\$35,220	\$45,540	Yes/No
Certified Pharmacy Tech	N/A	29-2052	88	\$38,230–\$45,800	N/A	Yes/No
Central Sterile Processing Tech	Medical Equipment Preparers	31-9093	40	\$32,100–\$47,840	\$60,250	Yes/No
Perioperative LPN/LPN	N/A	29-2061	45	\$58,200	N/A	Yes/No
Patient Registration Specialist	Medical Secretaries & Admin. Assist.	43-6013	35	\$38,500	\$50,850	Yes/No
EEG Tech	N/A	29-2099.01	13	\$63,400	\$57,960	Yes/No
Certified EKG Tech (CET)	Cardiovascular Technologists & Techs	29-2031	10	\$37,000	\$95,310	Yes/No
Computed Tomography Tech	Radiologic Technologists	29-2034	7	\$82,800	\$109,471	Yes/No

\*as committed by employers; \*\*OEWS 2020 Wage Estimates

Clean Energy employers have committed to 468 jobs for which the RWTS will train (Table 2); OWD projects 1,058 jobs by the end of PD (see Attachment D).

**Table 2. Clean Energy SP Committed Jobs, Wages, Growth for Implementation**

CE SP						
Type of Job	SOC Occupational Classification	SOC Code	# of Jobs	Projected Wage	Wage Growth	Benefits/ Union
Maintenance Tech/ Building Operator, Plumber, Carpenter, Electrician, HVAC and/or Roofer***	N/A	49-9071, 47-2111, 49-9021, 47-2031, 47-2152, 47-2181	303	\$36,780–\$49,050**	\$61,510–\$101,720**	Yes/Yes
Marine Tech	Repair & maintenance of engines, technical equipment	49-3000	120	\$37,440–\$72,800*	\$79,509	Yes/No
Weatherization	Insulation Workers, floor, ceiling, & wall	47-2131	45	\$35,360–\$68,640*	N/A	Yes/Yes

\*as committed by employers; \*\*OEWS 2020 Wage Estimates; \*\*\*SOC codes are combined per employer request

The Child Care SP employers have committed 618 jobs and project 850 jobs at the end of PD.

**Table 3. Child Care SP Committed Jobs, Wages, Growth for Implementation**

CC SP						
Type of Job	SOC Occupational Classification	SOC Code	# of Jobs	Projected Wage	Wage Growth	Benefits /Union
Certified Teacher & Lead Teacher (Infant/Toddler, Headstart or Preschool)	Preschool Teacher & Teaching Assistant	25-2011, 25-9042	468	\$32,219–\$40,435*	\$58,230***	Yes/No
Licensed Family Child Care Provider	N/A	N/A	150	\$35,000**	\$57,500**	No/Yes

\*as committed by employers

\*\*as calculated using FCC self-reported data to EEC

\*\*\*OEWS 2020 Wage Estimates

**Available Resources:** The project will leverage partner resources such as recruitment and outreach, existing training curricula, career assessment, career coaching, mentoring, academic tutoring, and food pantries. The MassHire Workforce Boards will leverage their

training provider networks, existing benchmarking plans and blueprint prints, workforce data analysis, funding disbursement plans, and policies and procedures that are complementary to state and federal policy. OWD will convene and facilitate input from the IHEs, CBOs, other trainers, and employers. It will leverage available funding to supplement grant funding and its extensive network of employers and stakeholders. Employers will leverage current training programs, career development, and mentoring. Similarly, MAPC will provide CEDS support and buy-in from workforce and economic development partners who have supported the creation of the CEDS document. The Child Care SP will leverage the EEC-funder credentialing programs (at no cost to participants). OWD will leverage Neighborhood Jobs Trust linkage funds (collected from developers of large commercial/institutional projects) and funds from the City of Boston general operating budget.

**Section 4d.** This project is based on other models that have proven success either in the GBR and elsewhere. ***Health Care SP Models:*** Atrium Health’s “Rise to Success” Program enables high school graduates to earn an associate degree in a health care discipline from a local CC and obtain an entry-level, part-time position at Atrium Health, an integrated, nonprofit health system based in Charlotte, NC, that serves patients in 40 hospitals and over 1,400 health care locations.<sup>41</sup> Tuition, books and related fees, and a career coach are included. Baltimore Alliance for Careers in Healthcare (BACH) is a long-standing program designed to address unemployment, underemployment, and health care workforce shortages in the Baltimore region by identifying health care career pathways and connecting residents to skilled jobs, leading to economic independence. Founded in 2005, BACH has served over 1,600 individuals through training, coaching, and apprenticeship programs.<sup>42</sup> ***Clean Energy SP Models:*** In Potterville, MI, the Power for America Training Trust Fund and the Utility Workers Union of America (UWUA, AFL-CIO) created a new Renewable Specialist Apprenticeship Program to provide advanced training in the renewable energy sector, including training in wind and solar energy, and battery storage. Students earn salary and benefits in the program and once the 30-month long program is completed, graduates are guaranteed a job with one of MI’s largest utility companies.<sup>43</sup> The Opportunity Build Program in Oakland, CA, is an industry-certified construction training program that provides a pathway to a union apprenticeship for low-income adults, focusing on training for women and returning citizens. During the 12-month program, participants receive in-depth training in the Multi-Craft Core Curriculum, green building techniques, hands-on construction training, case management, job placement assistance, and an alumni network. Employment opportunities include becoming a weatherization specialist, HVAC technician, solar installer, and electrician.<sup>44</sup> ***Child Care SP Models:*** See Section 4, “Child Care SP Strengths” for details about the successful Child Care Workforce Development pilot, on which the Child Care SP is modeled.

**Section 4e.** OWD expects the target demographics for the Health Care and Clean Energy SPs to be primarily from the partner trainers. The combined fall 2020 student enrollment at

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<sup>41</sup> Atrium Health “Rise to Success,” accessed January 20, 2022, <https://teammates.atriumhealth.org/careers/career-development-center/rise-to-success> and <https://atriumhealth.org/about-us>.

<sup>42</sup> Baltimore Alliance for Careers in Healthcare, “About Us” and “Our History,” accessed January 23, 2022, <https://www.baltimorealliance.org/about-us/> and <https://www.baltimorealliance.org/our-history/>.

<sup>43</sup> Steve Hanley, “Power For America & Utility Workers Union Launch Renewable Energy Apprentice Program,” *CleanTechnica* (August 19, 2019), accessed January 6, 2021, <https://cleantechnica.com/2019/08/19/power-for-america-utility-workers-union-launch-renewable-energy-apprentice-program/>.

<sup>44</sup> “Opportunity Build,” Rising Sun Center for Opportunity, accessed January 26, 2022, <https://risingsunopp.org/programs/opportunity-build/>.

BHCC, BFIT, and MassBay was 30.3% White, 29.6% Black/African American, 29.4% Hispanic, 10.4% Asian/Pacific Islander, and 0.3% American Indian or Alaska Native.<sup>45</sup> Approximately 38% of students were aged 18 to 21 and 34% were aged 22 to 29. Approximately 58% of the students were female. Health Care SP: OWD has a goal of directly impacting 1,070 people and 9 employers. These 1,070 jobs in health care will create an additional 629 indirect and induced jobs (in this paragraph, “indirect and induced” means jobs generated through job growth in local intermediate input suppliers, as well as impact of consumption demand from added workers).<sup>46</sup> Clean Energy SP: OWD’s goal is that 300 people and 10 employers will be impacted directly and an additional 83 indirect and induced jobs will be created.<sup>47</sup> Child Care SP: The target audience for the Child Care SP is underserved BIPOC workers, especially women (89% of child care workers in Boston are women and 64% are BIPOC women; they are also the demographic most likely to be underemployed in this sector).<sup>48</sup> OWD projects that 850 workers and 50 employers will be directly impacted by the project’s training activities and an additional 96 indirect and induced jobs will be created.<sup>49</sup> OWD further estimates that 3,580 children will access new quality early education opportunities and that an additional 3,580 parents/caregivers will lean in to the workforce as a result of having child care.

**5. Funding Request and Program Design and Implementation. Section 5a:** OWD has identified a group of employers in the GBR across three industries—health care, clean energy, and child care—that will focus on *hiring* and supporting underserved and minority workers, increase training, and improve recruitment. The new RWTS, designed in preparation for this application, has many of the resources of a successful RWTS, but those resources need to be linked and coordinated to help the workers, employers, and others in the region continue to identify and/or develop skills that employers need. OWD, NECEC, and MAPC reached out to employers to identify their needs and their trainers. Based on the coverage of the GBR RWTS, number of employers, and number of direct and indirect people and organizations served, OWD therefore requests an award in the amount of \$25 million, with \$8,074 spent on each job seeker during PI (outreach, recruitment, assessment, supplies, job placement, training, wrap-around services, and tuition). (See “5b” for the project phases). For PI, OWD has 1) identified BBOs; 2) demonstrated a relationship with employers as evidenced by LOCs; and 3) created robust plans for SD, training models, leveraging other funds, outreach and recruitment, and wraparound services (books, supplies, IT equipment, career coaching, and child care and transportation vouchers). OWD has met award-specified benchmarks related to PD in all three SPs. Namely, it has: 1) signed LOCs with employer commitments to hiring, 2) a documented process for translating skill needs into training models; 3) past experience; and 4) training curricula that demonstrate an ability to implement. OWD is applying for the PD phase *to strengthen* the Health Care, Clean Energy, and Child Care SPs.

OWD is ready for PI funds for SPs with signed LOCs. BBOs will receive subawards to support training that leads to jobs and funding for wraparound services, such as child care and

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<sup>45</sup> The BDA Research Division obtained this information from the National Center for Education Statistics, “Integrated Postsecondary Education System” (IPEDS), accessed January 5, 2022, <https://nces.ed.gov/ipeds/datacenter/institutionprofile.aspx?unitId=164988&goToReportId=6>

<sup>46</sup> Regional Economic Models, Inc (REMI), BPDA Research Division Analysis; 1.588 job multiplier.

<sup>47</sup> Regional Economic Models, Inc (REMI), BPDA Research Division Analysis; 1.275 job multiplier.

<sup>48</sup> U.S. Census Bureau, 2015-2019 American Community Survey, PUMS, BPDA Research Division Analysis.

<sup>49</sup> Regional Economic Models, Inc (REMI), BPDA Research Division Analysis; 1.113 job multiplier.

transportation vouchers. The budget reflects expenses for the respective SPs and staff to monitor and measure key metrics of their program (see Staffing Plan). They will employ Specific, Measurable, Achievable, Relevant, and Time-Bound (SMART) metrics by tracking the following by key disaggregated demographics (by age, race, household income, geography, disability, veteran status, etc.), as well as number of participants who begin training, complete training, are placed into jobs; job wages; wage growth; retention of workers placed; funds spent on wraparound services; and total average cost spent per worker.

**Section 5b.** The scope of work is detailed in this section. **System Development:** The BBOs, with support from strategic partners, will devise a benchmarking system in which they will systematize the validation and evaluation of selected metrics, such as number of employers reached, types of skills training needed, and number of jobs projected. Health Care SD will need 6 months for CCs to develop certifications for new programs. Clean Energy SD will require 4 months to develop a new wastewater curriculum and diesel and electrical vehicle automobile curricula and to align them with the municipal and state public sector jobs. Child Care SD will need 2 months to finalize outstanding employer commitments, clarify training needs with employers, negotiate contracts with recruitment and training partners and solidify roles of MassHire Workforce Boards, One Stop Career Centers, and community action agencies as participant referral partners.

**Program Design: 4 months.** Sectoral partners will develop operational plans and partnership agreements for PI and have a clear understanding of their roles and responsibilities in the workforce development process. All SPs will agree upon benchmarks and plans for data collection, sharing, and use for continual improvement. The BBOs will confirm and sign contracts with training partners (OWD secured projected job numbers via employer surveys and interviews (see Attachment D). Recruiting partners will confirm recruitment strategies to engage target populations. Training partners will match curriculum to employer demand and prepare appropriate training and resources, including wraparound and accessibility support (i.e., transportation, virtual learning, and language offerings). Health Care: Trainers will be ready to train and employers will be ready to offer jobs once training is complete. Clean Energy: The IHEs will develop their electric vehicle and autonomous automotive training, wastewater treatment, and work with new employers (such as Eversource) to obtain job commitments. They will conduct training and assessment needs for marine technology and hybrid engines for boats. Child Care: CAYL will work with employers, recruitment, and training partners to produce operations plans to scale training models. SEIU will refine the FCC training models.

**Program Implementation: 30 months.** SP BBOs will convene meetings to monitor progress. The innovation of this project is that during the career coaching stage, job seekers will be introduced to employers who have committed jobs. Recruiting partners will partner with MassHire centers, Workforce Boards, and other partners to recruit candidates, provide coaching and case management, and match participants with an employer. Training partners will provide skills training for credentialing and licensing. Employers will hire graduates as per commitments.

**Section 5c. Potential Barriers and Mitigation Strategies.** 1) Lack of child care. BBOs will provide child care vouchers; participants will choose their child care providers. 2) Lack of transportation. BBOs will provide transportation vouchers. 3) COVID-19: Students are ready to plan but they and their family members are getting sick. Provide students with digital training, when available. 4) Nontraditional students may need extra support. Provide free tuition and wraparound support. 5) Food insecurity. CCs will fund their food pantries. 6) High cost of living. Maximize support of publicly funded social programs.