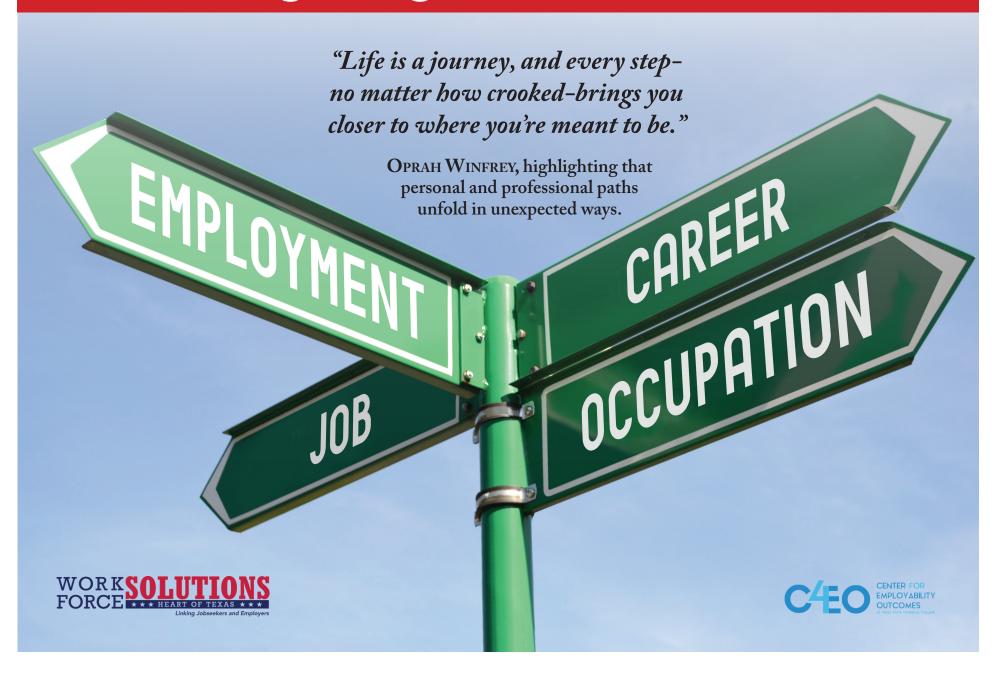
# **Navigating Career Lattices**



# What They Mean for the Heart of Texas

Career development is rarely a straight path. More often than not it is a winding road, and each turn reveals a lesson you may not have seen coming and wisdom that you might not yet know the value of. The essence of the Heart of Texas career progression lattices project is to communicate the dynamics of career mobility, identify occupational training targets, and illustrate how individuals can leverage their skills over time to generate upward wage mobility.

"Career progress isn't linear. There are side steps, failures, and pivots which often lead to the biggest wins."

RYAN YOCKEY, 12 Brutal Career Truths

The project is designed to provide better labor market and career information to guide education and career decisions of students and job seekers alike. The approach is based on the fact that traditional career ladders have given way to career lattices. A career lattice represents an uneven and unpredictable journey that can be punctuated by many sources of skill acquisition, lateral movements into related occupations, and even stop outs. Career ladders seem like a promising idea until one realizes that life is seldom linear or consistently upward. A lattice depicts the possibility for upward wage mobility and personal growth. It also shows unrealized career opportunity for those that are unable or unwilling to learn new skills.

Each lattice begins with an anchor occupation that represents an occupational starting place. The anchor job meets people where they are, i.e., at the beginning of a career journey. The direction and altitude of that progression will be determined by personal initiative and grit. But the lattice provides a road map that shows where opportunity exists to leverage one's existing skills that can serve as a foundation from which to move forward.

The lattices visually display potential earnings growth trajectories for workers starting in entry level jobs. They also clearly illustrate the high correlation between enhanced earnings, skill mastery, and continued

formal education, especially showing the potential return on investment for recognized postsecondary credentials.

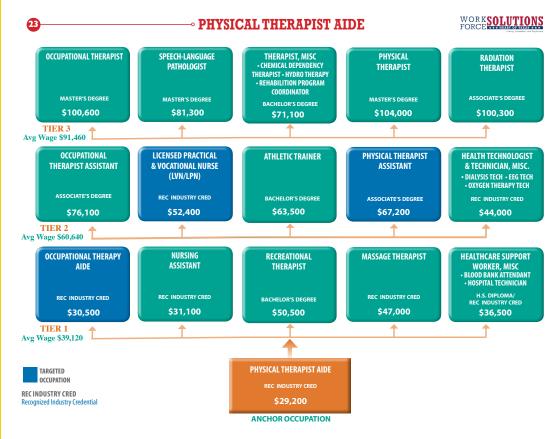
Most workforce customers are looking for a better future for themselves and their families. Students are forming plans for post-secondary education or pursuit of alternative career options. A career progression lattice lets them see where they are now, what opportunities lay before them, and what it takes to get there. The lattice can help a student and their guidance counselor, or a job seeker and their case manager, highlight education and skill gaps. It provides a concrete vision around which to discuss how to shape a personalized action plan and what it takes to achieve their career ambitions.

Finally, a career progression lattice, sometimes referred to as a career map, is a part of a longer-term educational strategy. In their paper Setting Goals: Who, Why, How? researchers at Harvard University point to the huge value of educational goal setting. Individuals who set goals, including education and career objectives tend to have:

- *increased motivation* and self-regulation by taking ownership of learning goals
  - *increased persistence*, creativity and risk-taking in achieving goals
  - reduced undermining effects of anxiety, frustration, and disappointment
  - *enhanced joy, pride, and confidence* as a result of higher levels of engagement

The lattice or career map can be used to lay out a career goal, identify action steps, measure progress, and keep someone heading in a positive direction. Career mapping, like life itself, can be very unpredictable. There are no guarantees that one might not get lost along the way, become satisfied at any given career level, or completely change gears and jump to an entirely different lattice. That's not a problem. As many career experts remind us, personal growth is about progress, not perfection.

# **Navigating a Skill-based Career Progression Lattice**



Building a career involves more than just the ability to execute the technical responsibilities of the job. Getting a job, and being promoted to a better job, is influenced by other factors such as work experience, workplace essential or employability skills, and digital information processing skills. Many employers view the general demeanor and attitude of the applicant as being just as critical as technical skills. That said, most of the best paying jobs require technical expertise expressed as 'skills.'

The process of navigating your way to career success has to start somewhere. Everyone has a starting place on their own personal career lattice, which is one reason gaining entry level employment or workbased learning experience is one of the best first steps to long-term career development. To illustrate the value of a career progression lattice let's walk through a lattice diagram with a hypothetical job seeker. We'll name her Linda.

The initial assumption is that Linda is working as a Physical Therapist Aide (or similar job title). Since she is already in this entry level job, Linda's options are simple; to stay in that job or to make changes in her workforce status. She could always stay in the same occupation and hope for regular pay increases or perhaps find another job with a company that pays more. This move is not represented on the lattice diagram. Another option not shown on a lattice is an internal promotion from novice Physical Therapy Aide (Level 1) to experienced Physical Therapy Aide (Level 2), likely with greater responsibility and higher pay especially if she earns a relevant certification.

But to move upward requires that she make an important decision; whether or not to acquire additional skills that allow her to compete for jobs in higher-paying occupations. Since Linda is already out of school, her goal is to forge a better standard of living, e.g., earn higher wages without sacrificing too much time away from work and family to acquire additional skills. The skill-based lattice shows Linda

several careers that require similar types of knowledge and skills.

If Linda chooses to leverage her skills as a Physical Therapist Aide and move upward on a lattice into another occupation, her decision becomes determining the extent to which her same skill set can be applied in another occupation. There are three basic questions she needs to ask herself; 1) how does she determine what those other, higher paying occupations are, 2) to what extent can she rely on her existing skills or what additional skills or training must she acquire to be competitive for jobs (her personal 'skills gap'), and 3) the rate of pay or growth in job opportunities in other occupations that are sufficiently attractive to

warrant the additional investment in her skill profile? The example of a Physical Therapy Aide career progression lattice begins to answer these questions.

According to data from Chmura Economics, the 2023 mean annual wage for a Physical Therapy Aide in the Heart of Texas is \$29,200. The top five best transferable options based on common knowledge and skills are; 1) Occupational Therapy Aide, 2) Nursing Assistant, 3) Recreational Therapist, 4) Massage Therapist, and 5) Miscellaneous Healthcare Support Workers (which includes jobs such as Hospital Technician and Blood Bank Attendant). All five pay more than her current occupation. The Recreational Therapist is the highest paying of the five options but also has the highest education requirement with a Bachelor's degree. Nursing Assistant has a very high skill match, indicating that moving to this occupation will likely require fewer additional skills to become qualified for available job openings. But it is also among the lowest paying options. All five 'Tier I' occupations pay above the wage of her current occupation so none of them is a bad option.

The easiest step for her (high skill match, less education required) would be to go for a job as a Nursing Assistant. Jobs in this occupation pay almost \$2,000 a year more than she's earning now and typically require no more than a few college courses and a Certified Nursing Assistant (CNA) certificate. The highest paying option, Recreational Therapist, would require a Bachelor's degree.

For the purpose of moving forward, Linda looks not just at the wages but also the job duties and other aspects of each occupation. Linda might also want to look at occupations that are much higher on the lattice e.g., Occupational Therapist, or those options that are local Target Occupations and make her choice with those career goals in mind. And onward goes the career progression process.

Let's say, for example, Linda chooses to pursue Massage Therapy. She might look at the specific work activities and sub-knowledge profile required for that job and determine if she has the ability and interest to perform those activities now or to pursue some additional skill-based training to complete her resume. This assessment is her self-evaluation 'skill gap analysis.' During this process she must consider which work

activities she will be asked to perform in the new job that she is not currently, nor has she previously, performed. Given her past experience as a Physical Therapy Aide, massage therapy sounds like an interesting move, so she signs up for the Massage Therapy/Therapeutic Massage program (CIP 51.3501) at McLennan Community College. After successfully completing that program, she pursues and gets a job as a Massage Therapist.

While preparing to be a Massage Therapist Linda might continue working as a Physical Therapy Aide, or take a lower paying, part-time job while she finishes her training. The concept of a career lattice conveys the possibility that a person may not have a straight upward career path, and indeed may hit dead ends, make lateral moves, find comfortable stopping places, or leave the labor market altogether for spells of unemployment.

After some time as a Massage Therapist, picking up valuable work experience and new skills, Linda starts thinking about her next step. She references the career lattice diagram and studies her possible moves up the lattice. Based on the same work activities, skill, and knowledge profiling, the lattice shows that her Tier 2 options are; 1) Occupational Therapy Assistant, 2) Licensed Vocational Nurse, 3) Athletic Trainer, 4) Physical Therapist Assistant, and 5) Miscellaneous Health Technologists (jobs that could include Dialysis Technician or Oxygen Therapy Assistant).

The highest skill match among Tier II occupations would be Physical Therapist Assistant, and jobs in this occupation typically require only an Associate's degree. Linda has always been interested in sports and now that her daughter is playing high school basketball the prospects of being an Athletic Trainer are intriguing. Of course that would require a Bachelor's degree and 1,800 hours of clinical experience, but the pay is excellent. Another option, Licensed Vocational Nurse, pays more and has been identified as a Target Occupation in the Heart of Texas region which signifies high demand and above average job growth prospects. (note: Heart of Texas Target Occupations are highlighted in blue on a lattice).

Interestingly, at this juncture in the career progression the need for additional education and training starts to become evident, even if the credential is just a recognized industry certification. The reality of more education and training leading to better job opportunities, as depicted on the lattice, represents a real-life skill gap between those that never leave secondary labor market jobs and moving up the lattice beyond self-sufficiency earnings.

As new levels are reached on the lattice through career change, each new occupation opens another unique set of opportunities which is not directly reflected in the lattice. In the Physical Therapy Aide career lattice, for example, the focus is on the healthcare sector and most of the options are in direct patient care and interpersonal interaction. There are however options that are more technical in nature, where mastery of healthcare technology is equally important. What is not reflected in the lattice are occupations that are in supervisory or teaching roles, although these options exist for almost every occupation shown on a lattice. A supervisory role may also appear as part of an internal career progression with her current employer.

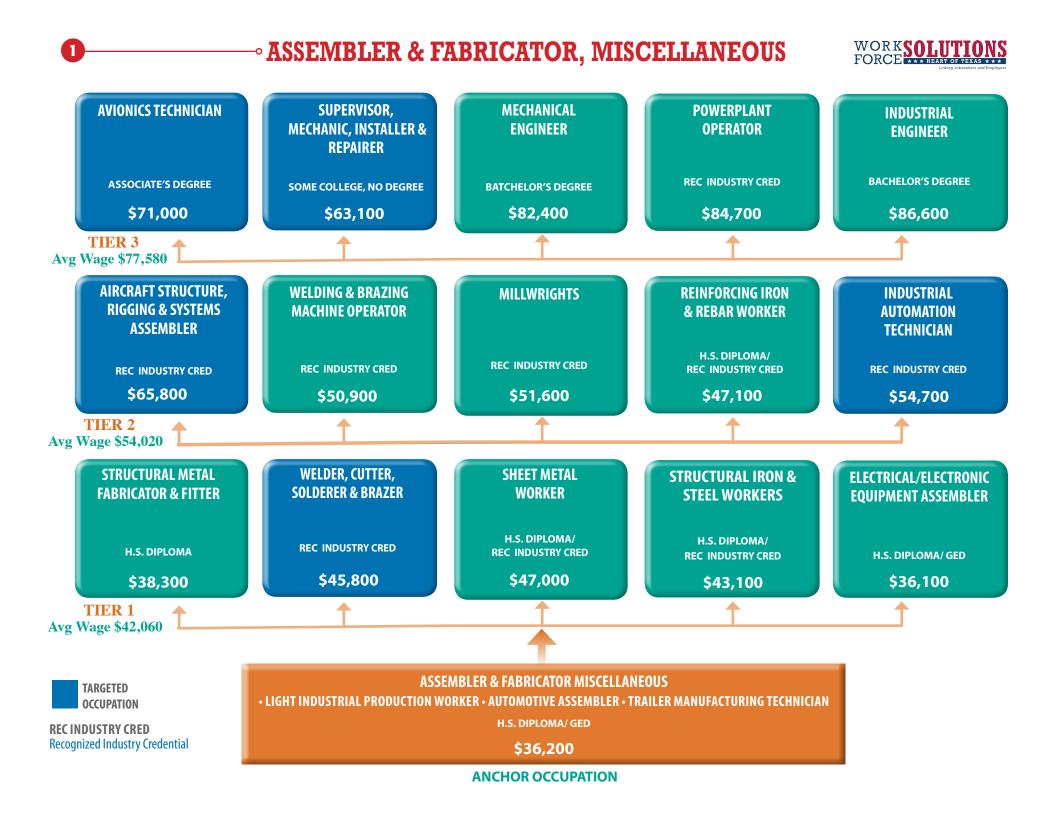
One of the goals of the career progression lattice is to help make career decisions 'informed choices' and thereby reduce the random and uncertain walk often associated with career development. Although job demand is already considered in constructing each career lattice, creating a path through the lattice based on the highest levels of job demand is a very viable strategy. In the career lattices for this project, projected annual average job openings were an important consideration but not the primary driver for occupational selection. However, occupations identified as Target Occupations are automatically interpreted to be in high demand. Choosing these options on a lattice gives added confidence that job openings will be available once a worker has acquired the requisite skills.

Returning to Linda and the Physical Therapist Aide career lattice, let's assume that Linda decided her ultimate professional goal is to be a Physical Therapist. Note that Physical Therapist is on the lattice, but it is a Tier 3 option. There is nothing wrong with this choice, but there is a significant formal education gap between massage therapy and physical therapy. Thus, even though Linda's ultimate goal is to become a Physical Therapist, she will start her journey by pursuing work as a Physical Therapy Assistant, which is on Tier 2 of the lattice and requires

an Associate's degree. This decision might represent personal values unrelated to the career progression lattice or job demand, such as the ability to be a role model or mentor, desirable work environment and working conditions, or other job characteristics. It is impossible to factor in every aspect of a career choice into a static career progression lattice. But job characteristics should not be ignored. There are many useful tools to help a job seeker better understand job characteristics such as the Occupational Outlook Handbook (https://www.bls.gov/ooh/) and the ONET Code Connector at O\*NET Code Connector (onetcodeconnector.org).

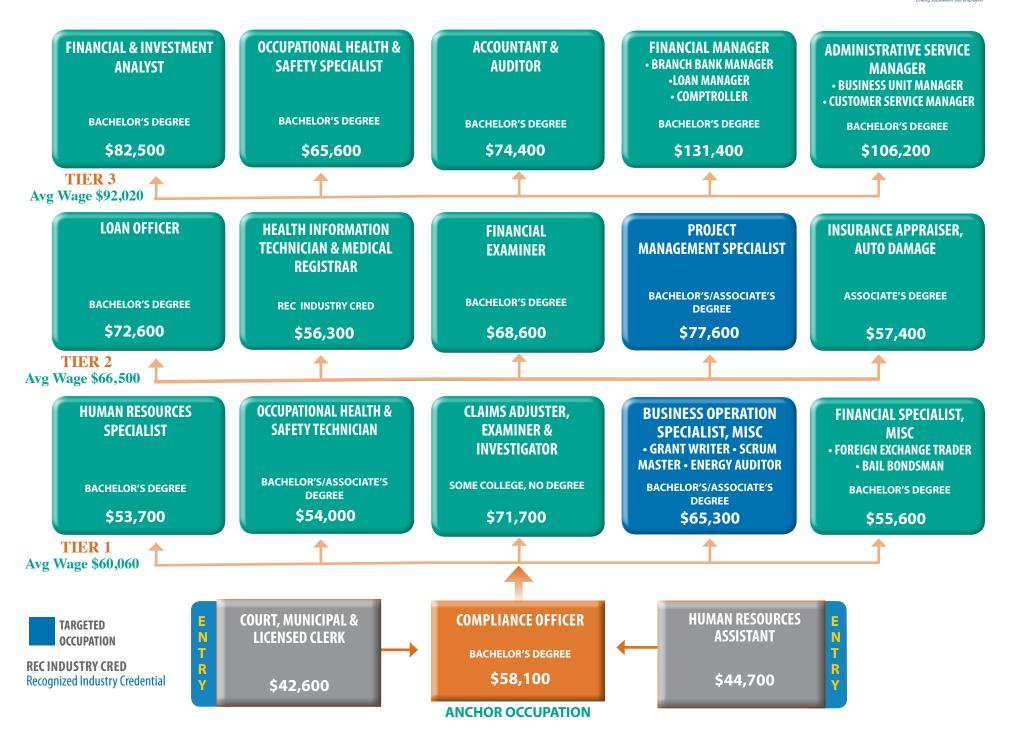
As the career progression process continues to unfold, the career lattice diagram for Physical Therapy Aide provides five Tier III options; 1) Physical Therapist, 2) Occupational Therapist, 3) Radiation Therapist, 4) Speech-Language Pathologist, and 5) Miscellaneous Therapists (which can include Chemical Dependency Therapist, Hydro Therapy, and Rehabilitation Program Coordinator). The miscellaneous category is intentionally broad to include a variety of more niche job specialties. On the positive side, it opens the door to exploring a wide variety of unique jobs. On the negative side, it's likely that there will be far fewer job opportunities in these occupations and labor market information may be hard to find. Also note that as Linda progresses up the career lattice she faces the reality that many career movements require formal higher education investments. There may be a movement toward more skill-based hiring but the route to many of the highest paying occupations still runs through formal higher education.

Ultimately, Linda's career journey may not end as a Physical Therapist. She might go on to a teaching position or move into a supervisory or administrative role at a later stage of her career. While the lattice lays out occupational options, the career progression process only closes when an individual has decided that they are no longer interested in wage growth, willing to engage in additional formal academic training, or accept new skill-based learning challenges. As famous author Ayn Rand once said, "The question isn't who is going to let me; it's who is going to stop me." In the world of career progressions, you are never too old, never too burdened to set another goal and dream a new dream.



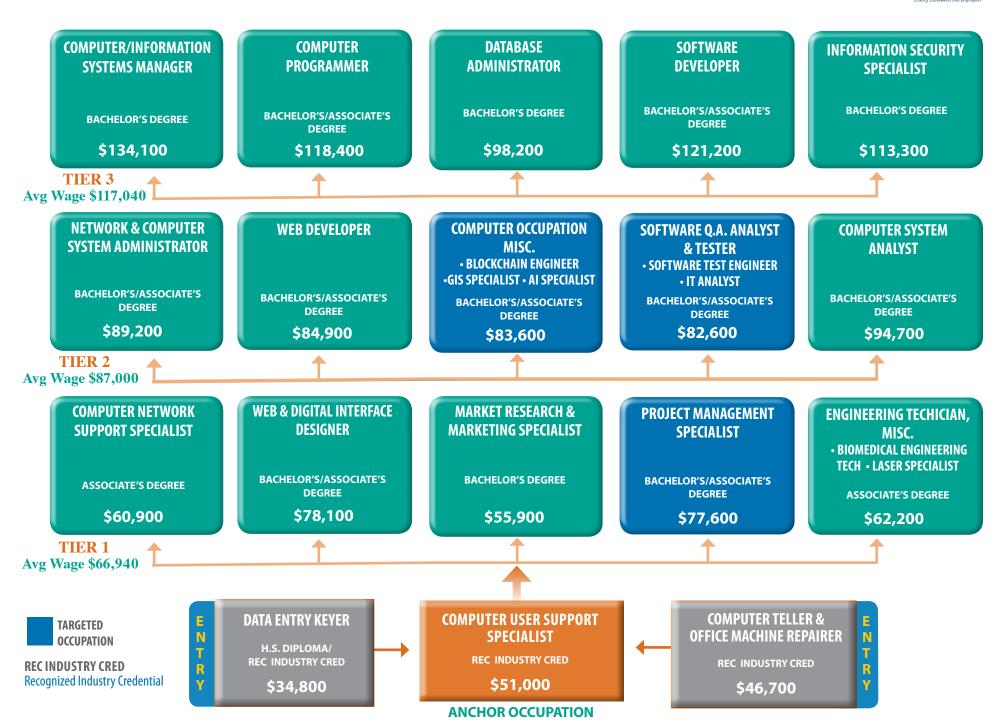
### **COMPLIANCE OFFICER**





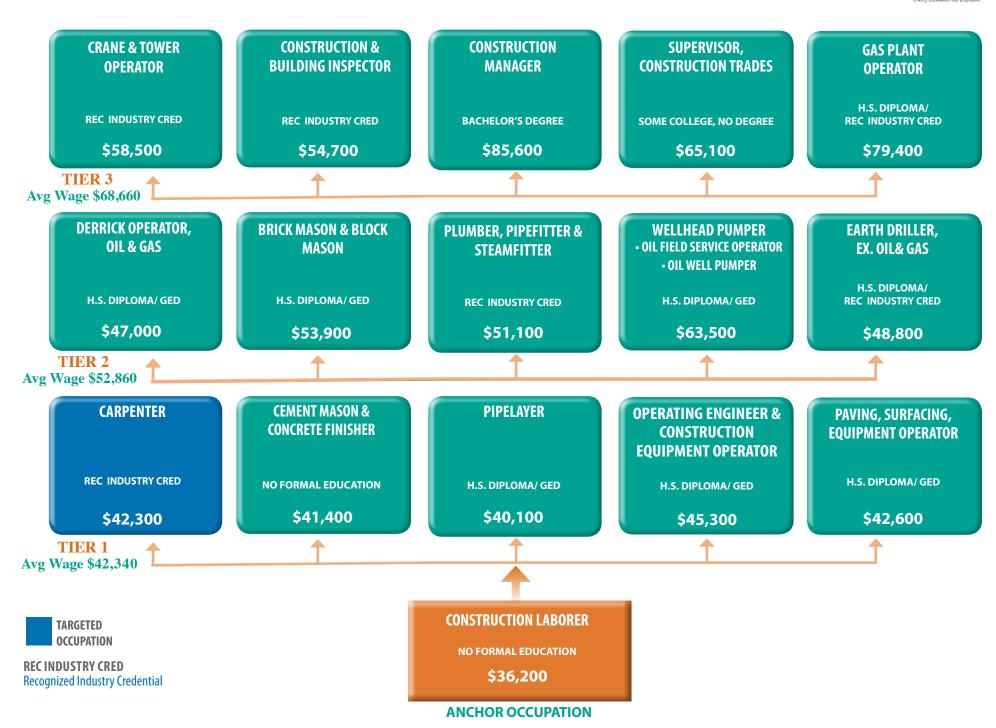
### COMPUTER USER SUPPORT SPECIALIST





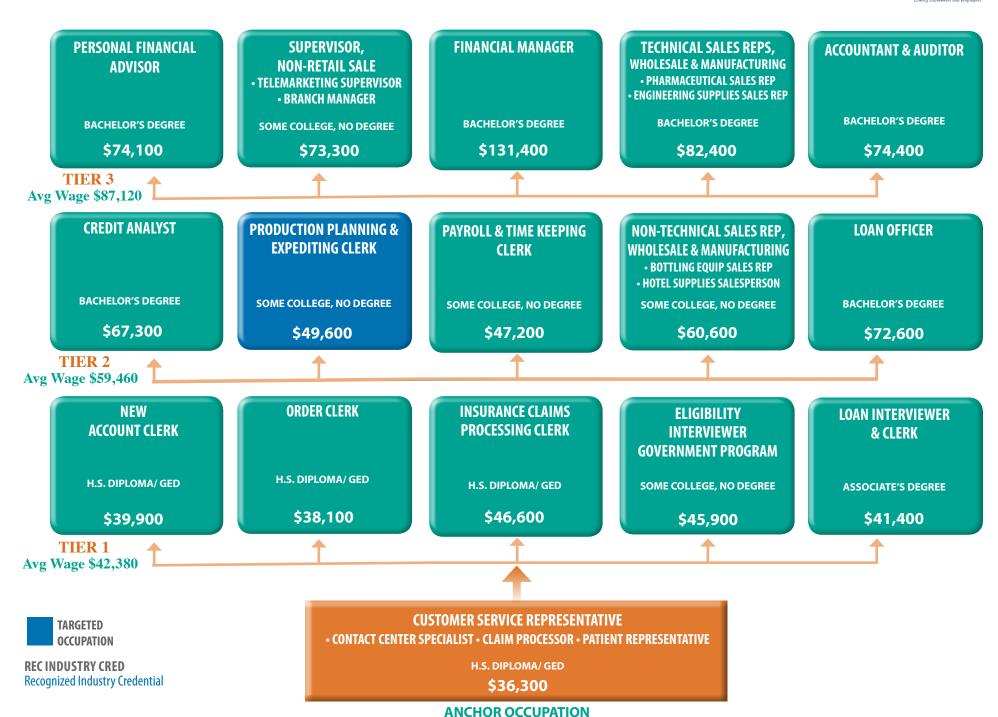
## **CONSTRUCTION LABORER**





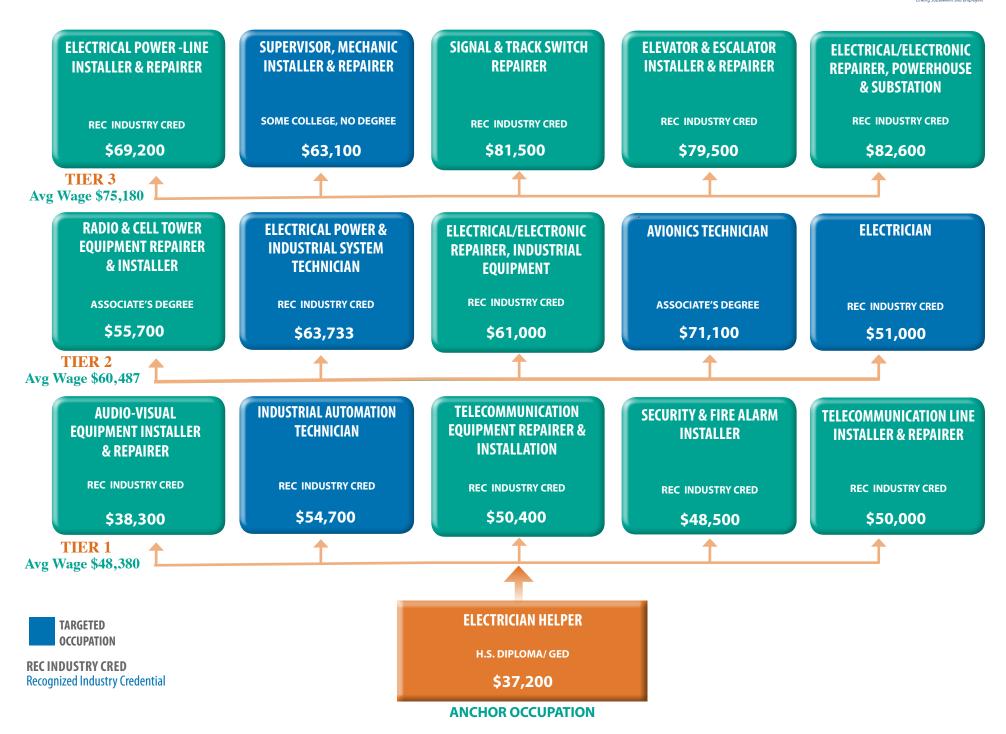
### **CUSTOMER SERVICE REPRESENTATIVE**





### **⊸ ELECTRICIAN HELPER**





**BACHELOR'S DEGREE** 

\$104,600

TIER 3 **Avg Wage \$83,867**  SALVAGE ENGINEER

**BACHELOR'S DEGREE** 

\$124,000

**SOME COLLEGE, NO DEGREE** 

\$63,100

**AIRCRAFT MECHANIC & SERVICE TECHNICIAN** 

**ASSOCIATE'S DEGREE** 

\$63,900

**ELECTRICAL POWER & INDUSTRIAL SYSTEM TECHNICIAN** 

**REC INDUSTRY CRED** 

\$63,733

**CONTROL & VALVE INSTALLER** 

**REC INDUSTRY CRED** 

\$50,800

**INDUSTRIAL AUTOMATION TECHNICIAN** 

**REC INDUSTRY CRED** 

\$54,700

**MOBILE HEAVY EQUIPMENT MECHANIC** 

**REC INDUSTRY CRED** 

\$52,200

**ELECTRO-MECHANICAL & MECHATRONIC TECHNICIAN** 

**ASSOCIATE'S DEGREE** 

\$47,400

**WIND TURBINE SERVICE TECHNICIAN** 

**ASSOCIATE'S DEGREE** 

\$54,200

TIER 2 **Avg Wage \$51,860** 

> **INSTALLATION, REPAIR & MAINTENANCE WORKER, MISC** • GUNSMITH FIRE EXTINGUISHER INSTALLER

> > H.S. DIPLOMA/ **REC INDUSTRY CRED**

\$39,200

**INDUSTRIAL MACHINERY** MECHANIC

**REC INDUSTRY CRED** 

\$52,400

**MILLWRIGHTS** 

**REC INDUSTRY CRED** 

\$51,600

**HEATING A.C. &** REFRIGERATION **TECHNICIAN** 

**REC INDUSTRY CRED** 

\$49,700

MAINTENANCE WORKER, **MACHINERY** 

> H.S. DIPLOMA/ **REC INDUSTRY CRED**

> > \$52,600

TIER 1 Avg Wage \$49,100

**TARGETED** OCCUPATION

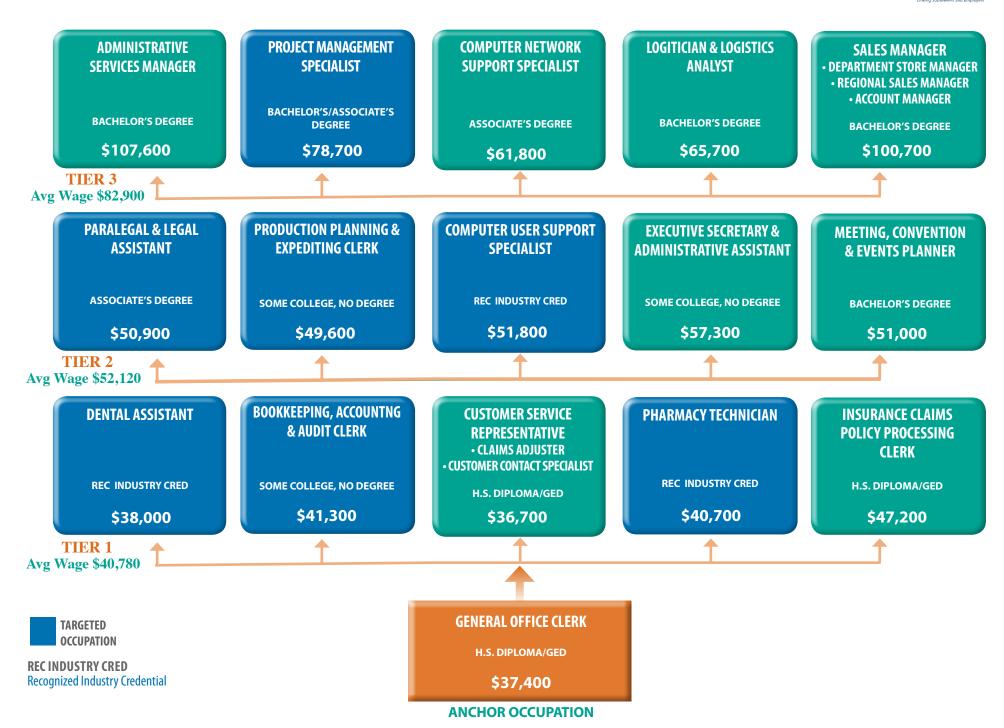
**REC INDUSTRY CRED Recognized Industry Credential**  **GENERAL MAINTENANCE & REPAIR** WORKER

H.S. DIPLOMA/REC INDUSTRY CRED.

\$38,900

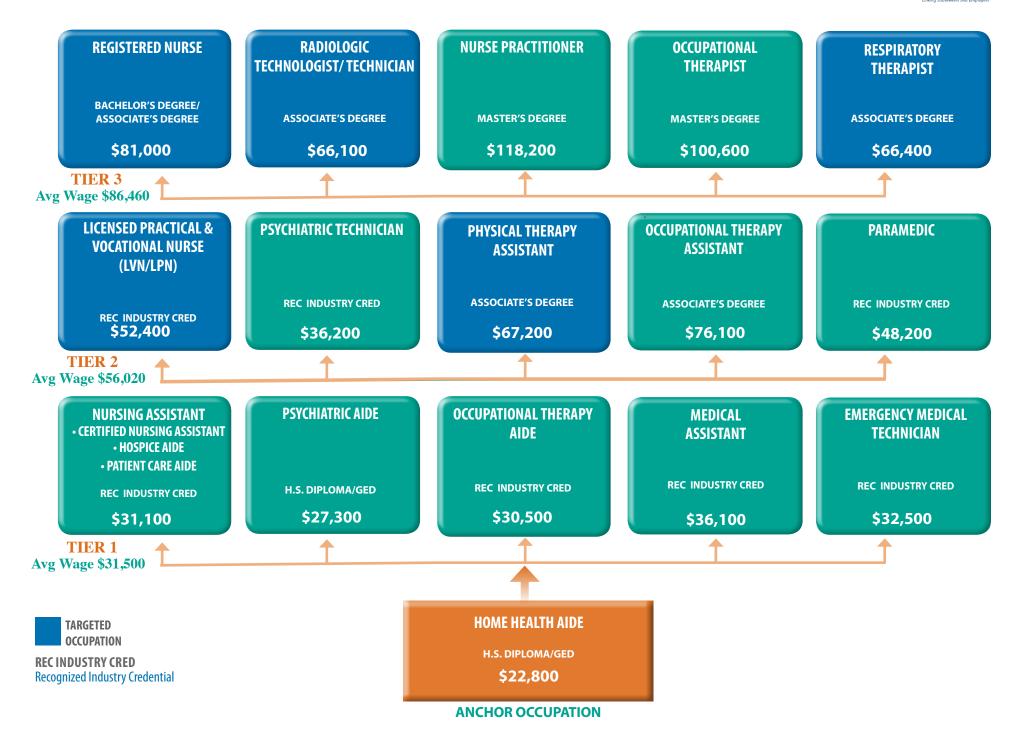
### **GENERAL OFFICE CLERK**





### → HOME HEALTH AIDE





\$24,700

**ANCHOR OCCUPATION** 

**Recognized Industry Credential** 

**ANCHOR OCCUPATION** 

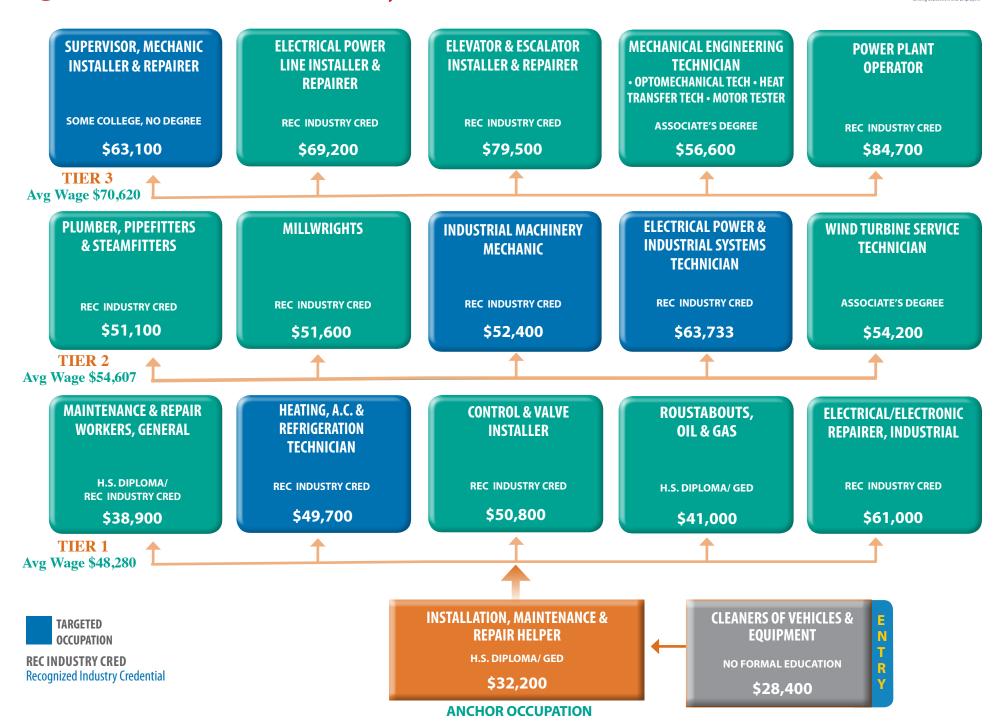
\$38,900

Credential

\$37,200

# INSTALLATION, MAINTENANCE & REPAIR HELPER

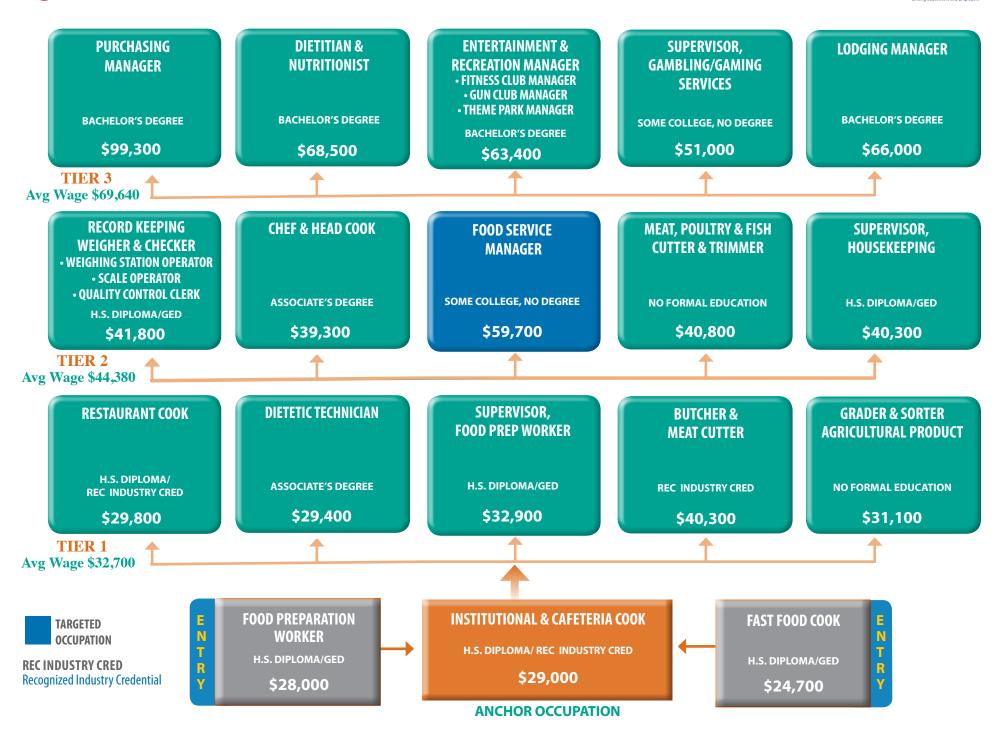




#### → INSTALLATION, MAINTENANCE & REPAIR WORKER, MISC. **AVIONICS TECHNICIAN MEDICAL EQUIPMENT ELECTRICAL POWERLINE BOILERMAKER** SUPERVISOR, MECHANIC, **INSTALLER & REPAIRER REPAIRER** REPAIRER, INSTALLER H.S. DIPLOMA/ **SOME COLLEGE, NO DEGREE ASSOCIATE'S DEGREE ASSOCIATE'S DEGREE REC INDUSTRY CRED** SOME COLLEGE, NO DEGREE \$69,200 \$71,100 \$60,100 \$65,000 \$63,100 TIER 3 **Avg Wage \$65,700 INDUSTRIAL AIRCRAFT MECHANIC & ELECTRICAL/ELECTRONIC PROGRAMMER LOGIC ELECTRICAL POWER & MACHINERY MECHANIC SERVICE TECHNICIAN** REPAIRER, INDUSTRIAL **CONTROLLER (PLC) TECH INDUSTRIAL SYSTEM EQUIPMENT TECHNICIAN REC INDUSTRY CRED REC INDUSTRY CRED ASSOCIATE'S DEGREE REC INDUSTRY CRED REC INDUSTRY CRED** \$52,400 \$61,000 \$63,900 \$60,324 \$63,733 TIER 2 Avg Wage \$60,271 MAINTENANCE WORKER, **MOBILE HEAVY CONTROL & VALVE HEATING A.C. & MILLWRIGHT EQUIPMENT MECHANIC INSTALLER/REPAIRER MACHINERY** REFRIGERATION LOCOMOTIVE OILER **TECHNICIAN** INDUSTRY KNIFE SETTER H.S. DIPLOMA/ **REC INDUSTRY CRED REC INDUSTRY CRED REC INDUSTRY CRED REC INDUSTRY CRED REC INDUSTRY CRED** \$52,600 \$52,200 \$50,800 \$51,600 \$49,700 TIER 1 **Avg Wage \$51,380**

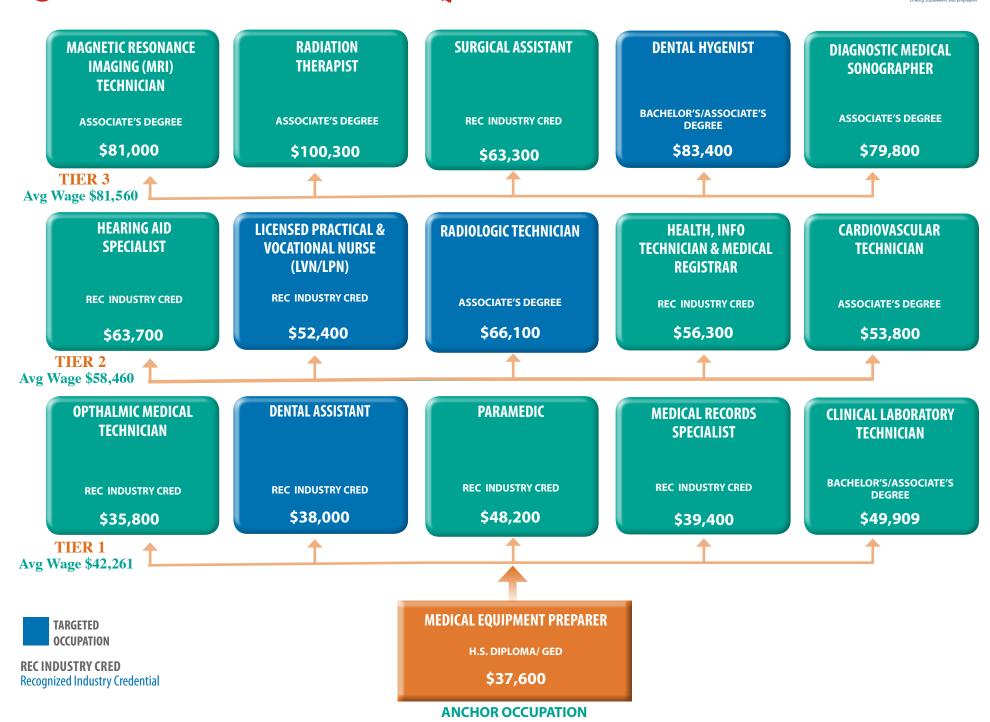
### 





# **→ MEDICAL EQUIPMENT PREPARER**





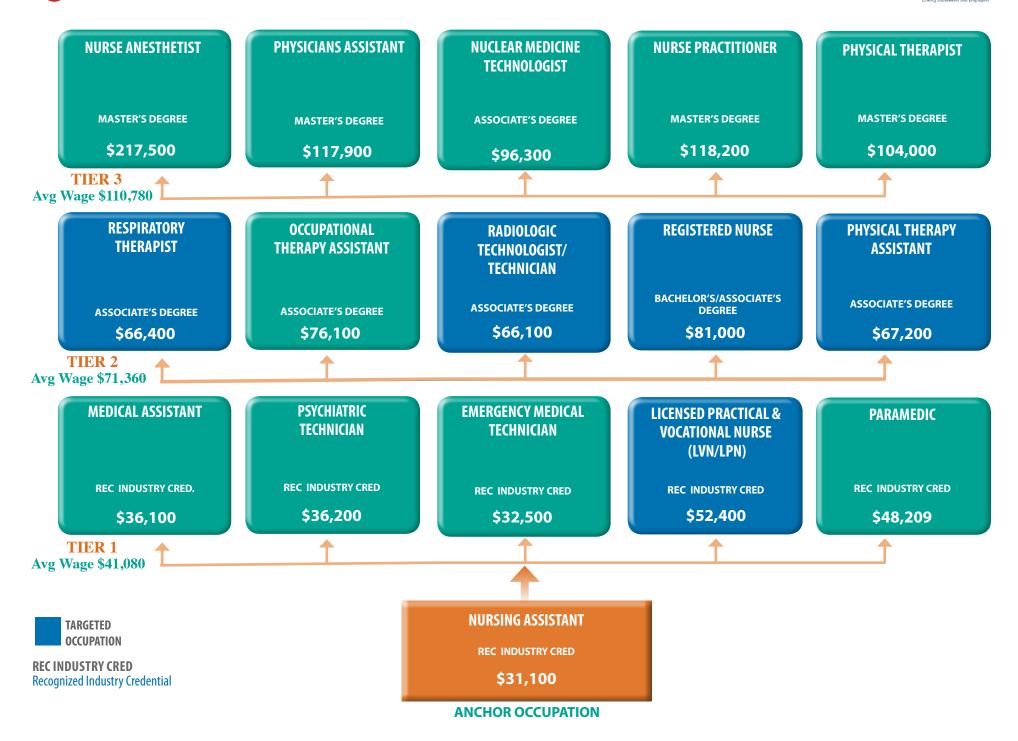
#### WORK SOLLIT **→ MOTOR VEHICLE OPERATOR, MISCELLANEOUS AIRFIELD OPERATIONS** LOCOMOTIVE **HEAVY TRUCK DRIVER, RAILROAD CONDUCTOR** TRANSPORTATION, (OWNER OPERATOR), **SPECIALIST** & YARDMASTER **ENGINEER STORAGE & DISTRIBUTION MUST OWN TRUCK, MANAGER INDEPENDENTLY OPERATED REC INDUSTRY CRED** H.S. DIPLOMA/ **REC INDUSTRY CRED BACHELOR'S DEGREE SOME COLLEGE, NO DEGREE REC INDUSTRY CRED** \$82,700 \$67,600 \$86,700 \$261,328\* \$65,700 TIER 3 **Avg Wage \$75,675 REFUSE & RECYCLABLE CRANE & TOWER** SUPERVISOR, AIRCRAFT SUPERVISOR, TRANSPORT SUPERVISOR, TRANSPORT **MATERIALS COLLECTOR OPERATOR CARGO HANDLING** & MATERIAL MOVING & MATERIAL MOVING WORKER **REC INDUSTRY CRED SOME COLLEGE, NO DEGREE** SOME COLLEGE, NO DEGREE H.S. DIPLOMA/GED **SOME COLLEGE, NO DEGREE** \$58,500 \$54,900 \$52,800 \$54,900 \$41,800 TIER 2 **Avg Wage \$52,580 HEAVY TRUCK SELF-EMPLOYED SCHOOL BUS SHUTTLE DRIVER & LIGHT TRUCK DELIVERY RIDE SHARE DRIVER DRIVER DRIVER CHAUFFEUR DRIVER** (UBER/LYFT) H.S. DIPLOMA/ **REC INDUSTRY CRED** H.S. DIPLOMA/GED H.S. DIPLOMA/GED H.S. DIPLOMA/GED H.S. DIPLOMA/GED \$46,700 \$41,900 \$37,980 \$43,200 \$30,600 TIER 1 **Avg Wage 40,070 MOTOR VEHICLE OPERATOR, MISCELLANEOUS TARGETED** • STREET SWEEPER OPERATOR • LAWN EQUIPMENT OPERATOR • COURTESY SHUTTLE DRIVER OCCUPATION H.S. DIPLOMA/GED **REC INDUSTRY CRED** \$25,600 Recognized Industry Credential

#### WORK SOLLIT → MULTIPLE MACHINE TOOL OPERATOR 18 SUPERVISOR, MECHANIC, **CHEMICAL PLANT &** C.N.C. TOOL **BOILERMAKER AIRCRAFT MECHANIC & SYSTEM OPERATOR REPAIRER & INSTALLER PROGRAMMER SERVICE TECHNICIAN** H.S. DIPLOMA/ **REC INDUSTRY CRED ASSOCIATE'S DEGREE ASSOCIATE'S DEGREE SOME COLLEGE, NO DEGREE REC INDUSTRY CRED** \$94,700 \$65,000 \$63,900 \$63,100 \$60,300 TIER 3 **Avg Wage \$69,700 CHEMICAL EQUIPMENT WELDING & BRAZING TOOL & DIE MAKER AIRCRAFT STRUCTURE** C.N.C. TOOL **OPERATOR MACHINE OPERATOR RIGGING & SYSTEM OPERATOR ASSEMBLER** H.S. DIPLOMA/ **REC INDUSTRY CRED REC INDUSTRY CRED REC INDUSTRY CRED REC INDUSTRY CRED REC INDUSTRY CRED** \$56,400 \$50,900 \$51,300 \$57,500 \$65,800 TIER 2 **Avg Wage \$56,380** WELDER, CUTTER, **PAPER GOODS CUTTING, PUNCHING & MACHINIST LATHE & TURNING SOLDERER & BRAZER MACHINE OPERATOR** PRESS MACHINE OPERATOR **MACHINE TOOL OPERATOR REC INDUSTRY CRED** H.S. DIPLOMA/GED H.S. DIPLOMA/GED H.S. DIPLOMA/GED **REC INDUSTRY CRED** \$45,800 \$47,900 \$41,900 \$38,100 \$38,400 TIER 1 Avg Wage \$42,420

TARGETED OCCUPATION OC

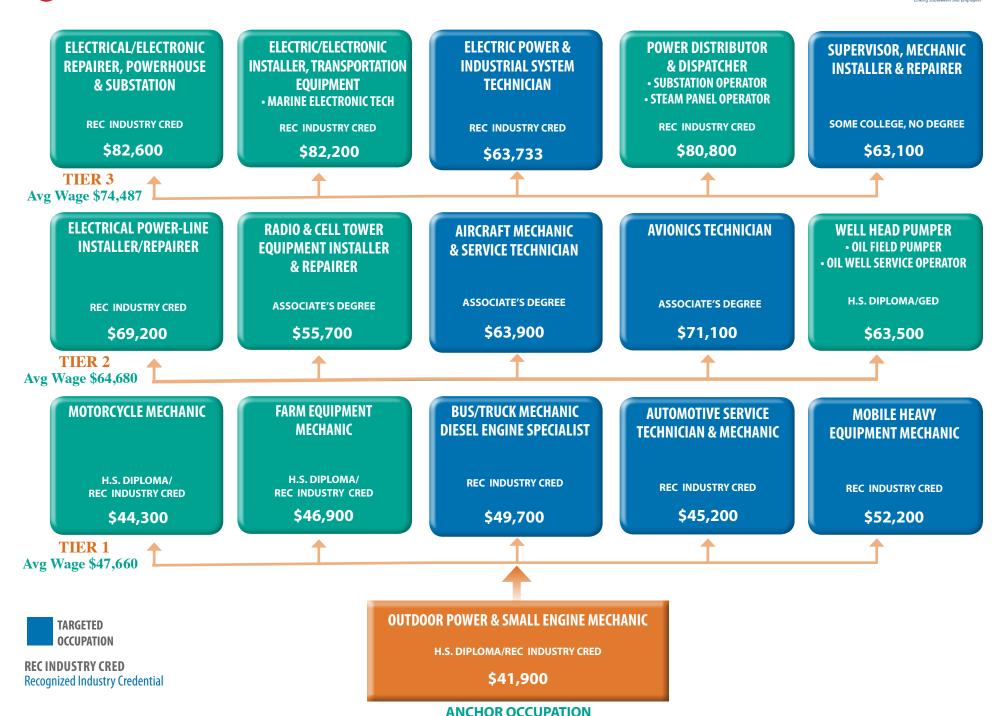
### **¬ NURSING ASSISTANT**





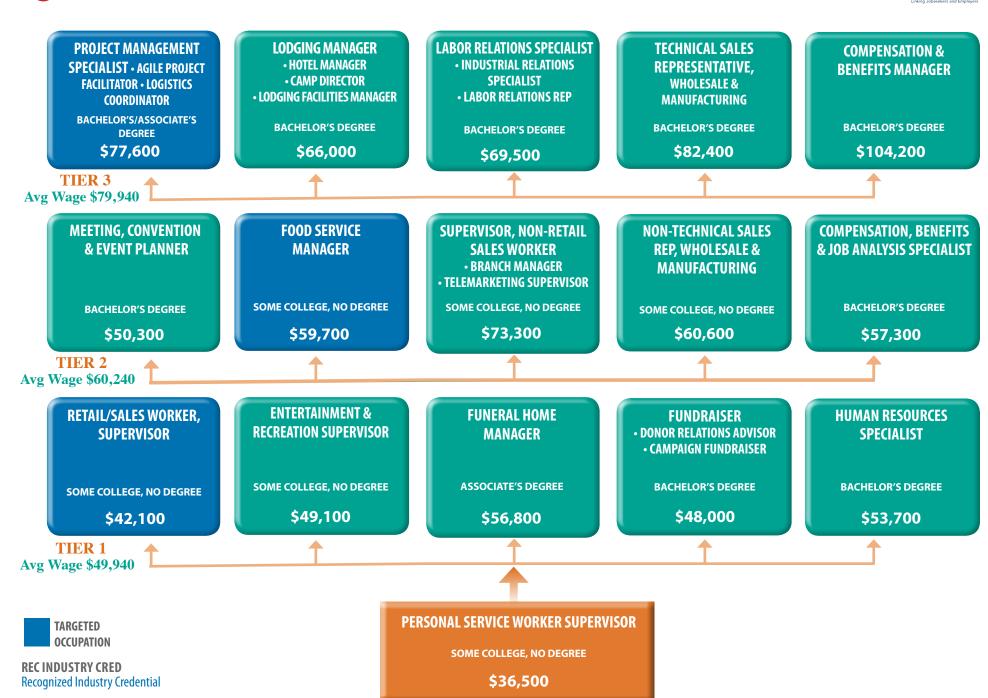
### OUTDOOR POWER & SMALL ENGINE MECHANIC





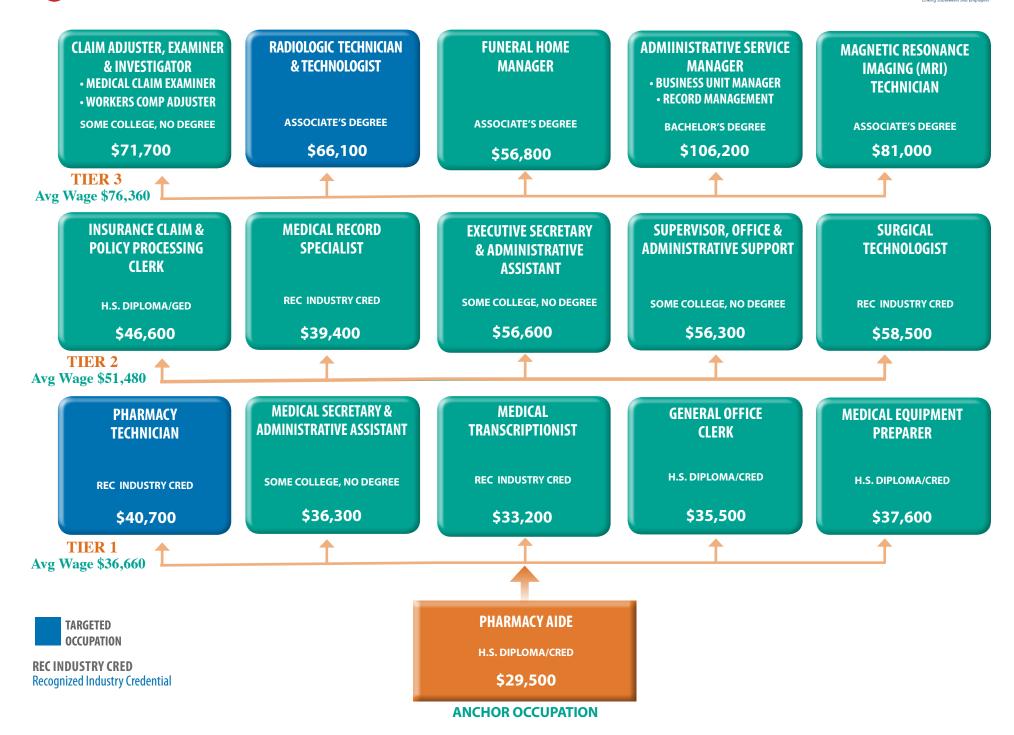
### **→ PERSONAL SERVICE WORKER SUPERVISOR**





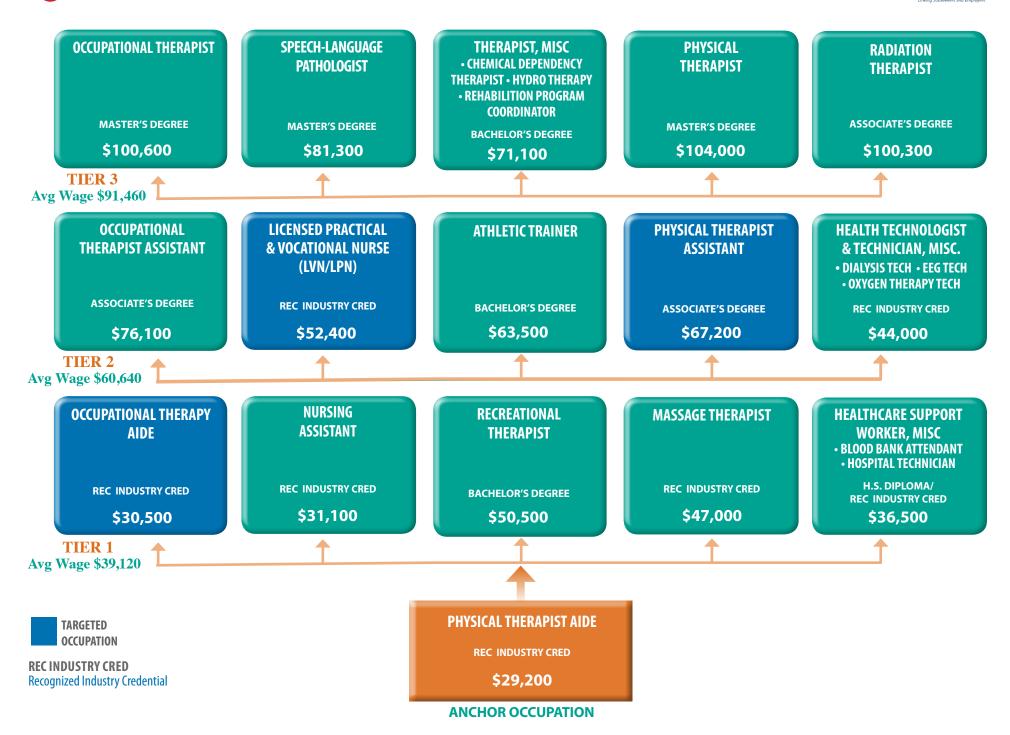
### **→ PHARMACY AIDE**





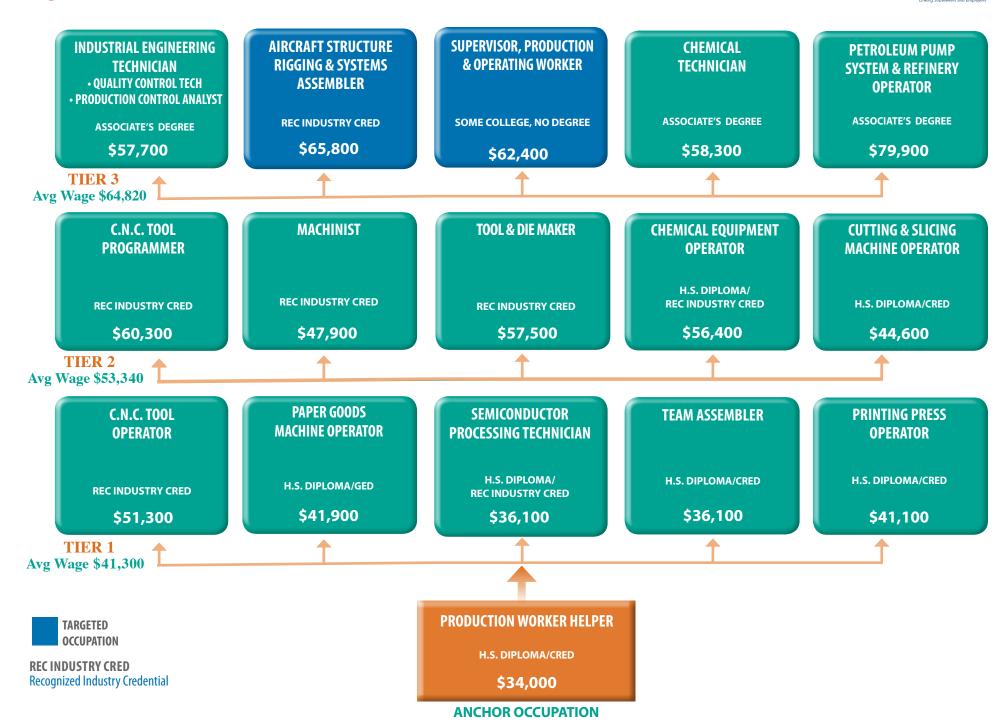
### → PHYSICAL THERAPIST AIDE





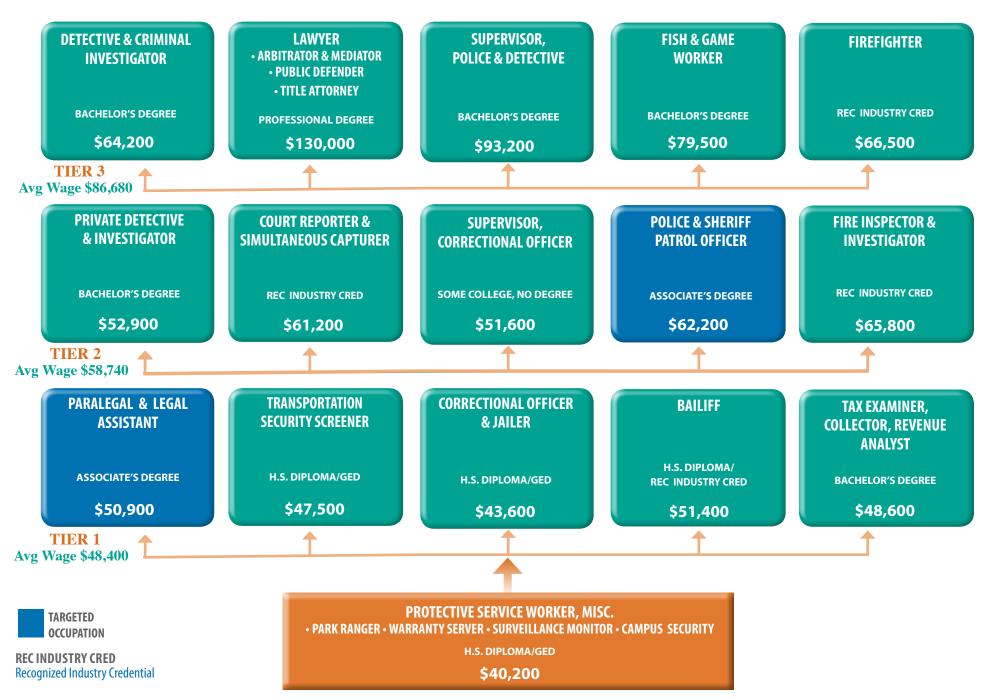
### PRODUCTION WORKER HELPER





# PROTECTIVE SERVICE WORKER, MISCELLANEOUS





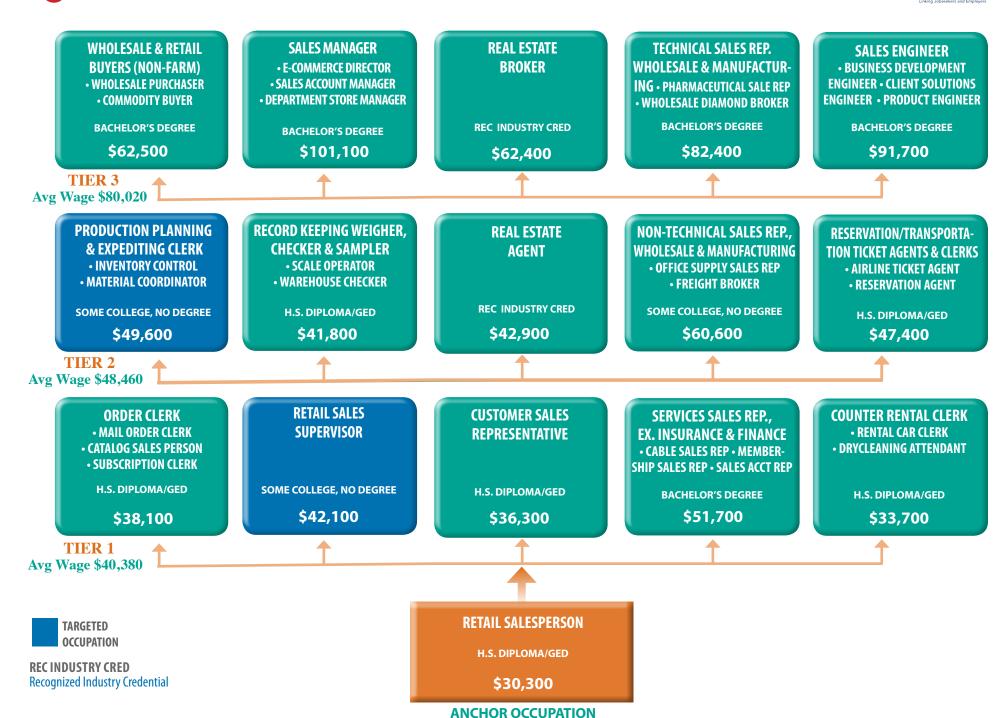
### ¬ RECREATIONAL VEHICLE SERVICE TECHNICIAN



**AIRCRAFT STRUCTURE AIRCRAFT MECHANIC ELECTRICAL/ELECTRONIC AVIONICS** SUPERVISOR, MECHANIC, **REPAIRER, TRANSPORTA-TECHNICIAN** & SERVICE TECHNICIAN **RIGGING & SYSTEMS INSTALLER & REPAIRER ASSEMBLER TION EQUIPMENT** ASSOCIATE'S DEGREE **REC INDUSTRY CRED REC INDUSTRY CRED ASSOCIATE'S DEGREE** SOME COLLEGE, NO DEGREE \$71,000 \$63,900 \$61,000 \$63,100 \$65,800 TIER 3 **Avg Wage \$64,960 BUS/TRUCK MECHANIC & CONTROL & VALVE MOBILE HEAVY MEDICAL EQUIPMENT MAINTENANCE WORKER DIESEL ENGINE INSTALLER & REPAIRER EQUIPMENT MECHANIC REPAIRER MACHINERY SPECIALIST**  BULLDOZER MECHANIC FORKLIFT MECHANIC H.S. DIPLOMA/ **REC INDUSTRY CRED REC INDUSTRY CRED REC INDUSTRY CRED ASSOCIATE'S DEGREE REC INDUSTRY CRED** \$49,700 \$50,800 \$52,600 \$52,200 \$60,100 TIER 2 **Avg Wage \$53,080 OUTDOOR POWER & AUTOMOTIVE SERVICE HEATING, A.C. AUTO GLASS REPAIRER FARM EQUIPMENT SMALL ENGINE MECHANIC TECHNICIAN & MECHANIC** & REFRIGERATION **MECHANIC/SERVICE** & INSTALLER **MECHANIC TECHNICIAN** H.S. DIPLOMA/ H.S. DIPLOMA/ H.S. DIPLOMA/ H.S. DIPLOMA/ **REC INDUSTRY CRED REC INDUSTRY CRED REC INDUSTRY CRED REC INDUSTRY CRED REC INDUSTRY CRED** \$41,900 \$46,900 \$49,700 \$37,600 \$45,200 TIER 1 **Avg Wage \$44,260 RECREATIONAL VEHICLE SERVICE TARGETED** TECHNICIAN OCCUPATION H.S. DIPLOMA/REC INDUSTRY CRED **REC INDUSTRY CRED** \$37,700 Recognized Industry Credential

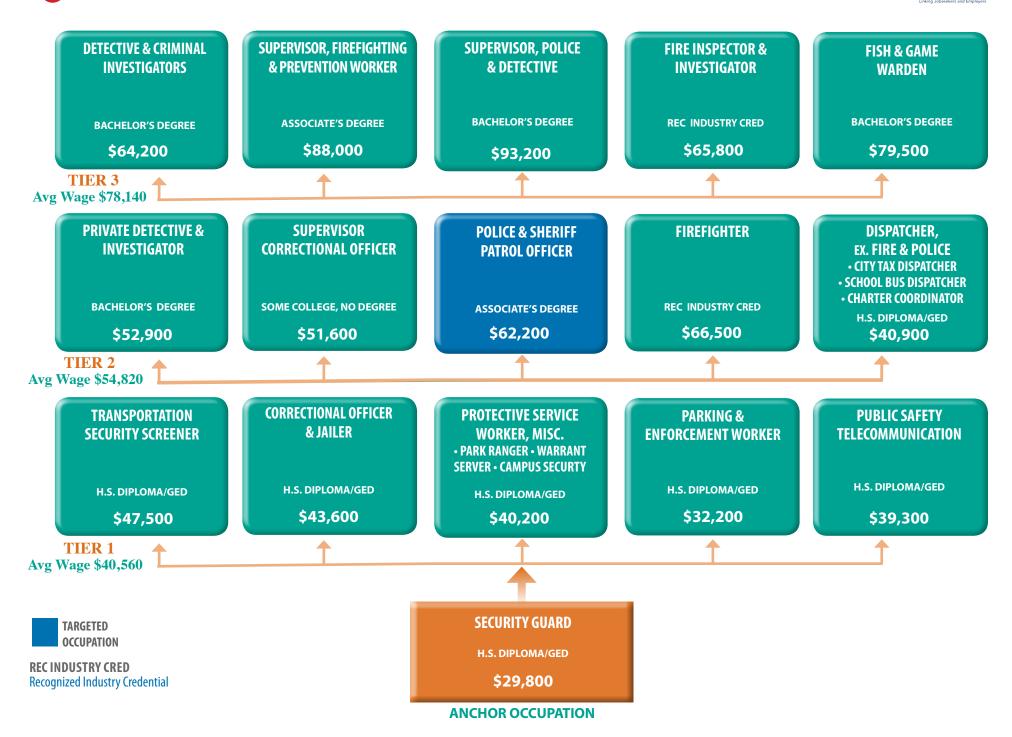
### ¬ RETAIL SALESPERSON





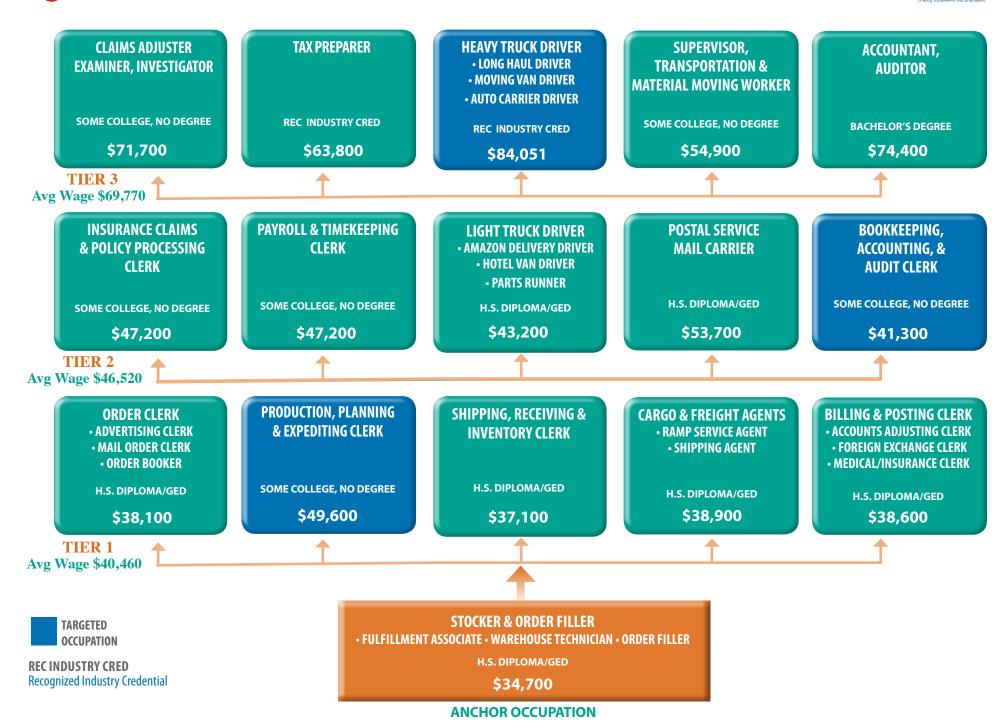
### SECURITY GUARD





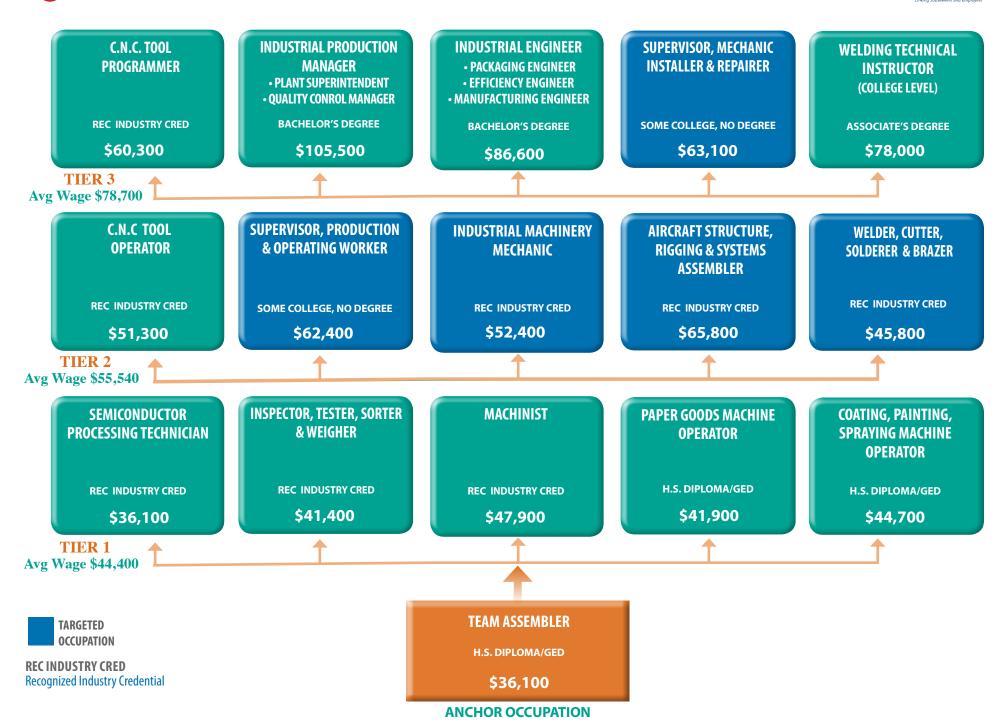
### STOCKER & ORDER FILLERS





### → TEAM ASSEMBLER





### → TIRE REPAIRER & CHANGER



