WORKFORCE DEVELOPMENT IN YUBA CITY: BUILDING AND SUSTAINING STRONG CAREER PATHWAYS

NATIONAL RESOURCE NETWORK
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EXECUTIVE SUMMARY

The National Resource Network (NRN) workforce development assessment team from Jobs for the Future (JFF) was tasked with analyzing the workforce development landscape in Yuba City to provide recommendations on strengthening systems. The team conducted background research, asset mapping interviews with key stakeholders, and a labor market information to develop a for the City stakeholders. These products are: an asset mapping assessment of the Yuba City workforce and education systems, a labor market analysis and set of strategic recommendations for development of career pathways and finally, a set of sustainability considerations for the recommendations that the City chooses to implement. These three products are combined into a single report here to inform the stakeholders’ ongoing efforts to build opportunity for residents and a talent pipeline for employers in the region.

The report is broken into three main parts based on the products described above: Part I provides the findings from the asset mapping process and a regional labor market overview with particular attention to the chosen sectors of health care and agribusiness. Part II presents an analysis of labor market opportunities and key strategic recommendations for strengthening Yuba City’s workforce development efforts. These recommendations are offered primarily through the lens of developing strong grade 9-14 career pathways for youth and technical career pathways for adults. Part III provides guidance for sustainability planning such as strong governance, securing reliable funding sources, and important regional connections to leverage.

Yuba City has a number of key assets that can be drawn upon to strengthen its workforce development efforts to make high-wage and high-growth jobs more accessible to its residents. This report will provide the guidance to accelerate these ongoing efforts.

PART I: ASSET MAPPING AND LABOR MARKET ANALYSIS

HIGHLIGHTS FROM INITIAL NRN ASSESSMENT (2014)

In November 2014, the city manager of Yuba City, California, submitted a request for assistance (RFA) to the National Resource Network, seeking help in determining and initiating the next steps toward the City’s economic recovery. The City’s RFA materials outlined its ongoing efforts to close its structural operating budget deficits, which are rooted in the stagnant economy and rising pension, health care, and workers’ compensation costs.
Upon conducting interviews with the city’s key stakeholders in late 2014, an assessment team from NRN submitted a report in early 2015 that recommended technical assistance in workforce development. They found sustained high unemployment relative to the rest of the region as well as a mismatch between the labor market demand and training programs for the city’s residents.

While there was broad recognition among business and community leaders that an existing labor market supply and demand mismatch represented a serious and costly problem, the NRN Assessment team determined that Yuba City was well-positioned to implement innovative workforce development strategies that will improve the overall efficacy of the local job pipeline and realign training efforts around labor market demand.

**ASSET MAPPING**

In July 2015, The NRN workforce development assessment team conducted two days of baseline asset mapping interviews with 20 workforce development and education stakeholders. The purpose of conducting the asset mapping interviews was to identify strengths in the city’s workforce development pipeline and opportunities for greater strategic workforce alignment based on the city’s demographics and stakeholder partnerships. This section highlights themes from the visit and follow-up interviews and research, including observations important to consider in the City’s strategic planning efforts. Each set of observations begins with a brief description of the institution or system, including identification of strengths and assets, followed by its challenges.

**Education and Training**

Yuba City’s principal education and training organizations include:

- The Yuba City Unified School District, which provides K-12 education to over 60% of all students enrolled in public schools in Sutter County. According to California Department of Education data, YCUSD consistently achieves higher academic performance scores and lower high school drop-out rates than the statewide average.

- The Yuba Community College District, which includes Yuba College and Woodland Community College, provides general postsecondary education and several career and technical education programs.

- Cambridge Junior College, a private college that offers training programs for medical assistants and medical receptionists, as well as an associate’s degree in business administration.
There are opportunities for these three organizations to strengthen career pathways for local residents by partnering with local employers for placement and training programs; reassessing existing curricula in light of employer needs and feedback; and improving integration with local, state, and federal workforce training resources.

**Yuba City Unified School District**

From 2005-13, YCUSD students consistently achieved higher scores on California’s Academic Performance Index than the state average. From a workforce development perspective, YCUSD is exemplary in its commitment to providing students opportunities to learn trades and real-world skills. In terms of the focus industries, the school district is offering a “Health Careers” pathway including courses such as medical biology and medical support services in the 2016-17 school year. For agribusiness, the school district offers general courses in agriculture such as Agriculture Science 1/2, which includes an overview of agricultural business enterprise. While currently not specific to agribusiness, there are other courses possibly relevant to the industry, such as welding.

From interviews, it was noted that YCUSD is currently working to transition its agriculture career pathway program into an agribusiness program through the Round 1 California Career Pathways Trust Capital Region Academies for the Next Economy (CRANE) grant (see Part II). In addition, the school district received a federal Investing in Innovation grant, which funded training of teachers to implement Project Lead the Way to incorporate engineering coursework using curriculum from the project in its high schools. This implementation is currently in its second year. YCUSD’s partnership with the Round 2 CCPT grant—the Northern California STREAM Pathways Consortium (NCSPC) (see below and Part II)—is allowing YCUSD to further develop its health careers pathway. YCUSD also participates in a faculty exchange with Yuba College in its English and mathematics programs, and is looking to expand the faculty exchange to additional departments.

School district staff relayed that barriers to student success included low parent education levels, consistent with educational attainment data for the region, and a higher enrollment rate of its students into English as a Second Language classes than state averages. Some career pathways models such as Early College and Linked Learning, described in Part II, have shown promise in helping students succeed in high school. In general, there seemed to be a desire for better coordination and communication between ROP, YCUSD, and the city in particular. The same desire for better coordination was shared among most partners interviewed. Finally, finding sustainable funding sources for developing the career and technical education programs was raised as a challenge.
Yuba College

The city’s primary public postsecondary institution is Yuba College, part of the Yuba Community College District, which has several valuable career and technical education programs relevant to the health care and agribusiness sectors. Following a recent change in leadership, Yuba College is actively soliciting feedback in an environmental scan of community needs and labor market opportunities to compare to program offerings as part of its strategic plan development process. It also plays a critical leadership role in both the CRANE and STREAM (science, technology, technical reading, engineering, arts, and math) CCPT grants and, as mentioned earlier, has faculty-to-faculty coordination with YCUSD in English and mathematics as well as between academic counselors.

While its sister institution, Woodland Community College of the Yuba Community College District, is seen as the main hub for agriculture courses, the Sutter County Campus of Yuba College is developing coursework in the business and technology of agriculture field, which falls under agribusiness as described below under Key Job Sectors. It appears that these agribusiness programs will likely be built upon the existing business, manufacturing technology, and welding technology programs. The college recently hired engineering and manufacturing faculty and continues to include an industry-recognized certification test as part of its well-established welding program.

For health care, Yuba College offers an associate’s degree in radiologic technology and is working to broaden offerings under other digital modalities such as mammography. The college also offers programs that lead to qualifications for both registered nurses and licensed vocational nurses—both of which receive pay above the local living wage—in line with regional workforce needs as described below under Labor Market Analysis.

Yuba College staff relayed that one of the main barriers to student success is the number of students who do not complete developmental education coursework required for career and technical education programs. It was also reported that roughly 60% of the students are currently preparing for transfer as opposed to attending CTE programs. The college would like to increase the number of students in the CTE programs. Finally, while many students in the CTE programs access work-based learning opportunities to develop hard skills, they also would like to increase the number of students participating in these experiences as well.

Cambridge Junior College

Cambridge Junior College, a private postsecondary institution, also plays an important partnership role with other education providers, the City, and the local employer community. For instance, Cambridge Junior College leaders are actively engaged with Yuba City staff and business leaders to develop the BizWorks business accelerator program. College curriculum was developed in conjunction with employer feedback and
the college president reported that medical and business program graduates enjoy high employment rates upon completing training. It was noted by other postsecondary partners that the college plays an important and complementary role to public college in developing the local workforce, particularly in the health care arena where it offers medical assisting, emergency medical technician (EMT) training and nurse assistant training programs. The team’s labor market analysis below points to a need for nursing assistants in the area, which the college’s offerings here complement. During interviews it was reported that courses in agribusiness were offered in the past but cancelled due to low student interest.

While Cambridge Junior College reported above average placement rates for its graduates, small class sizes, along with tuition and fees, pose a barrier for it to serve a large portion of the region’s population, particularly those from underserved communities. Also, the labor market analysis provided below points to a possible oversaturation of medical assistants in Yuba City and thus a possible misalignment between this program at the college and demand from the health care industry.

**Employer and Industry Engagement Partners**

Yuba City’s broadest employer connections to the city’s workforce development efforts are taking place primarily through the Chamber of Commerce, the Yuba-Sutter Economic Development Corporation and the Tri-County Regional Occupational Program at the Sutter County Superintendent of Schools Office. Tri-County ROP staff are leading the planning and implementation of a California Career Pathways Trust initiative called the Northern California STREAM Pathways Consortium.

**Tri-County ROP (Sutter County Superintendent of Schools) and the Northern California STREAM Pathways Consortium**

The Sutter County Superintendent of Schools’ Tri-County Regional Occupational Program is responsible for supporting career and technical education programs at Yuba City Unified School District and also oversees the Northern California STREAM Pathways Consortium. The Tri-County ROP supports Colusa, Sutter, and Yuba counties, and the NCSPC also includes these counties along with Yolo as well. ROP has offered career and technical education courses in the county since 1970 in a range of industries, from agriculture to early childhood education, with limited offerings in health care and manufacturing (primarily welding courses) for high school students. More broadly, the Sutter County Office of Education also manages the county’s one-stop centers, including the Sutter County One-Stop in Yuba City, and the ROP offers health care industry training for adults there.

A $7.7 million grant was awarded to the Sutter County Superintendent of Schools for implementation of the Northern California STREAM (Science, Technology, Research,
Technology, Technical Reading, Engineering, Arts and Math) Pathways Consortium. Partners include the Yolo County Office of Education, all school districts in the counties listed above, the Yuba Community College District, 65 business partners, and 50 other sponsoring agencies. Pathways include agricultural mechanics, animal science, ornamental horticulture, plant and soil science, patient care, food services and hospitality, software and systems development, machining and forming technologies, welding and materials joining, legal practices, public safety, system diagnostics and service, structural repair and refinishing, and advanced transportation operations.

As part of the grant structure, the NCSPC assembled a board to make recommendations to staff administering the grant and evaluate progress on the grant’s scope of work. The board includes employer representation from each of the grant’s targeted career pathway groups, as well as education system leadership. Grant administration staff have made a series of visits to major employers in the consortium in an effort to document the dynamic professional and technical skills required of their employees, as well as identify upcoming talent shortages. The goal of these visits is to inform the overall design of regional training program offerings and ensure that curricula are aligned with labor market demand.

Given the large region covered by the NCSPC, it can be a challenge to touch ground equally in all of the partnering communities and to disseminate knowledge and lessons learned to all stakeholders. However, there was concern expressed by several stakeholders that the planning of NCSPC was not aligned with the broader workforce development needs of Yuba City. It will be important for the success of NCSPC to develop a clear strategy, vetted with Yuba City stakeholders to disseminate the knowledge gained through their employer engagement efforts to Yuba City to the extent possible. A cross-system planning effort would entail capturing the occupations and skills in demand gathered from labor marker data and employer interviews, then determining the types of programs and skills to offer through the workforce system training programs, high schools, colleges, and business associations based on their respective organizational capacity.

**Chamber of Commerce and the Yuba-Sutter Economic Development Corporation**

Concurrent to the NCSPC employer engagement efforts, the Yuba City Chamber of Commerce has been conducting a series of surveys of manufacturing employers in the region to determine critical skills and occupations in demand in an effort to address talent supply shortages. This is being led by the Chamber’s Education Committee. At the writing of this report, the initial survey has been completed and the Chamber plans to continue engaging manufacturing employees to better understand skills and competencies by specific job category. Survey results will be published and disseminated to regional stakeholders. Chamber staff identified manufacturing as a critical focus of its engagement efforts due to employers’ significant difficulty in recruiting
qualified workers; one employer reported flying in workers at the cost of $6,000 per day due to difficulty identifying talent in the local workforce. Working in conjunction with Cambridge Junior College and business leaders, the Chamber has also created an entrepreneurship program open to community applicants.

The Yuba-Sutter Economic Development Corporation provides services to local businesses throughout both counties, including business expansion and retention. YSEDC’s primary point of engagement in workforce development for Yuba City is through its Business Consortium. While the Business Consortium’s primary goal is to provide support services to businesses, interviews revealed that job creation is one of its top priorities and also closely aligns with workforce development goals of the city. The YSEDC and Business Consortium connections to regional businesses are tremendous assets for Yuba City workforce and education partners to be leveraged in developing career pathways. The YSEDC is also tied into regional efforts such as SlingShot, described in more detail in Part III.

Data from labor market resources can help identify skills and competencies in demand and structure training programs, but hearing from employers can have a much stronger impact on shaping effective training programs and establishing healthy talent supply pipelines. During our visit, we observed that the Chamber, YSEDC, and NCSPC staff were making efforts to engage area businesses for similar purposes, but it was not apparent that their efforts were coordinated. As these entities continue to solicit employer feedback across Yuba City’s key industries, it is important to combine their findings and ensure that they’re maximizing their exposure to employers. From an employer perspective, the assessment team heard concerns about the ability of their input to be effectively absorbed and integrated into regional training programs in a timely fashion. Beyond finding high-skilled workers, employers identified difficulty finding low-skilled workers who were good fits within their respective organizational cultures as well.

**North Central Counties Consortium Workforce Development Board and Sutter County One-Stop**

The Sutter County One-Stop is the primary training and support provider for Yuba City youth and adults seeking to join the local labor market. The One-Stop offers adult education programs for individuals seeking to earn their GED or learn English as a second language and provides career and technical education classes for nine health care occupations and two professional and technical services skill groups. Their Job Central program offers job search training, computer and Internet access, labor market information and workshop and tutorial series for residents. They also house the One-Stop Business Center, which is a joint venture of private enterprise, public entities and nonprofit agencies in the Yuba-Sutter area designed to help businesses meet their workforce needs. Services include employment recruiting, rapid response, conference and interview facilities, customized training, and job-placement assessments. In
conjunction with YCUSD, the One-Stop serves as a provider of vocational training and services for disabled middle and high school students recommended by school staff.

The One-Stop is clearly the most robust resource for unemployed individuals who are not enrolled in training programs at local high schools and colleges. Given their prominence within the community, it is critical for employers to see the Business Center as a valuable source of potential workers and for job seekers to receive training aligned with labor market demand. During interviews with the assessment team, there was some concern across city stakeholders that some employers had not had positive experiences with hiring from the One-Stop and preferred other sources of workers. While the One-Stop is not likely to be able to meet the needs of every employer, it appeared that there was a challenge with the image of the One-Stop that may need to be addressed with local businesses.

WORKFORCE DEVELOPMENT ASSESSMENT (2015)

Drawing on the asset mapping, the JFF team conducted an extensive workforce development assessment. This targeted assessment included interviews which focused on workforce programs, funding, stakeholders, and an extensive labor market information analysis identifying important trends in labor market supply and demand. After the original asset-mapping interviews, the workforce development assessment team continued to research opportunities and conduct follow-up interviews with business, workforce, and education institutions. The extensive interviews and research identified specific training needs, career advancement prospects, roles for partner entities, opportunities to leverage new funding opportunities as well as to deploy existing workforce funding more efficiently and considerations for sustainability planning.

LABOR MARKET ANALYSIS

Background

As of December 2015, Yuba City’s average annual unemployment rate was 11.33%. While this is still the highest unemployment rate of all cities in the Sacramento region (the broader Sacramento-Roseville-Arden-Arcade metropolitan statistical area currently has a 5.5% unemployment rate\(^3\)), Yuba City unemployment has been steadily declining since the height of the Great Recession and is now only 1.28% above its pre-recession low of 10.05% in 2006 (see Figure 1). Despite the city’s reduction in unemployment, poverty rates continue to climb. An estimated 18.0% of Yuba City residents lived below the poverty level in 2014, an increase from 17.5% in 2013 and 17.1% in 2012\(^4\) (see Figure 2).
Figure 1: Average Annual Unemployment, 2005-2015

Source: Bureau of Labor Statistics (BLS) Local Area Unemployment Statistics

Figure 2: Poverty Rate of Yuba City

Source: American Community Survey, 2014 1-Year Estimate
Demographically, Yuba City’s three largest ethnic groups comprise 93% of its 64,084 residents; 46.3% are white, 27.9% are Hispanic, and 18.5% are Asian (including Sikh). Significant educational gaps exist across the three groups. As shown in Figure 3, in 2014, 47.4% of Yuba City’s Hispanic population above the age of 25 did not have a high school diploma and only 12.5% earned a college degree. Meanwhile, 29.1% of Yuba City’s Asian population did not have a high school diploma, which is also significantly higher than the white population. Hispanics and Asians make up the vast majority of those with a high school diploma or less.

**Figure 3: Educational Attainment by Race/Ethnicity**

![Educational Attainment by Race/Ethnicity](image)

*Source: American Community Survey, 2014 1-Year Estimate*

Given the racial and ethnic disparities, it is critical for the city’s workforce development stakeholders to consider that career pathways developed for workers may need additional supports, such as English as a Second Language courses, to help participants succeed in building their skills. While it is beyond the scope of this report to address the education shortfalls of the Yuba City community in depth, some of the career pathway models presented in Part II, such as Linked Learning and Early College Designs, have shown potential to improve overall educational outcomes of high school students. See recommendations in Part II for further detail.
KEY JOB SECTORS

In this section, several industry sectors will be examined in turn: retail, agriculture, agribusiness, and health care, with the latter two chosen for closer analysis. Table 1 shows the rapid increase in health care and social assistance jobs, as well as the steady increase in the number of jobs in crop and animal production. A high volume of retail jobs also continue to pervade the Yuba City metro area with small but steady growth expected to continue.

Table 1: Industry Growth in Yuba City Metropolitan Statistical Area\(^1\), Ordered by Number of Establishments\(^2\)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Care and Social Assistance</td>
<td>6,547</td>
<td>7,237</td>
<td>690</td>
<td>11%</td>
<td>1.10</td>
<td>1,544</td>
</tr>
<tr>
<td>Crop and Animal Production</td>
<td>4,702</td>
<td>4,988</td>
<td>286</td>
<td>6%</td>
<td>9.30</td>
<td>587</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>5,455</td>
<td>5,544</td>
<td>89</td>
<td>2%</td>
<td>1.00</td>
<td>368</td>
</tr>
</tbody>
</table>

Retail

Because Yuba City is the largest city within a 40-mile driving radius, it serves as a consumer retail and services hub for surrounding rural communities. In 2011, the retail industry was the city’s largest non-public sector with 3,260 jobs. The city’s economy is notably more dependent on its retail employers than is typical in the broader Yuba City

\(^1\) The Yuba City Metropolitan Statistical Area, as defined by the U.S. Census Bureau, consists of Yuba and Sutter Counties.

\(^2\) The 2014 Number of Establishments, according to Equifax Business Data, reflects the number of business establishments employing workers in these industries. While the retail industry employs more workers than the crop and animal production industry, the greater number of crop and animal production establishments shows how highly concentrated the industry is in the region, and how essential crop and animal production remains to the regional economy.
Metropolitan Statistical Area, where 13% of all workers are employed in retail on average, and the Sacramento region, where only 10% of all workers are employed in retail on average. As such, the local retail industry’s 8% job contraction between 2006 and 2011 had a notable negative effect on the Yuba City economy although it appears to be gradually expanding again now.

At present, major employers include Walmart (500 employees), Sam’s Club (250 employees), Target (200 employees), and Bel Air/Raley’s (175 employees). Although retail jobs tend to rely more on part-time workers and pay less than the living wage on average ($10.97/hour), the retail industry’s prominent role in the regional economy and its minimal educational requirements to entry (91.3% of retail occupations require less than a high school diploma) make it an easily accessible entry point into the labor market for individuals in need of work.

Retail was not selected as an industry for career pathway analysis because of the low wages typically paid and limited upward mobility for low-wage workers in this industry. As a note here, the California state minimum wage has increased from $9.00/hour to $10.00/hour, effective January 1, 2016 and this increase may lead to a slightly higher average wage in retail in the coming years. However, retail workers often have barriers to upskilling, such as unreliable schedules and lack of health coverage, that may need to be addressed in order to help them access career pathways that pay better wages. Such a large share of Yuba City’s workers are in the retail sector that this should be considered as a factor when developing career pathways.

**Health Care**

The second largest sector is health care and social assistance. Following nationwide trends, this industry expanded during the recent recession, adding almost 400 new jobs in Yuba City alone between 2006 and 2011 for a growth rate of 15%. Major employers include Rideout Health’s Fremont Medical Center, the largest employer in Sutter County with 1,784 employees; Sutter North Medical Group (450 employees); and several smaller-scale clinics and medical practices located near downtown Yuba City. As with the retail sector, this industry serves the needs of residents throughout Sutter and Yuba counties. Unlike the retail sector, jobs created by the health care industry generally require higher levels of education but offer higher wages. As noted in Table 2, registered nurses and other support occupations such as medical assistants are projected to continue to experience growth while paying more than the region’s living wage. Because health care is a growing industry in the region with the potential for high-wage jobs, it was selected for career pathway analysis.

The data also shows a large amount of growth for home health aides and nursing assistants in health and social assistance. For similar reasons as noted above for retail
workers, these jobs often come with barriers to upskilling that may need to be addressed in order to help more workers advance to living-wage jobs.

Table 2: Top Health care Occupations, Yuba City MSA

<table>
<thead>
<tr>
<th>Description</th>
<th>2014 Jobs</th>
<th>2014 - 2020 % Change</th>
<th>Openings</th>
<th>Median Hourly Earnings</th>
<th>Regional Completions (2012)</th>
<th>Typical Entry Level Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered Nurses</td>
<td>785</td>
<td>25%</td>
<td>305</td>
<td>$37.69</td>
<td>40</td>
<td>Associate's degree</td>
</tr>
<tr>
<td>Nursing Assistants</td>
<td>558</td>
<td>23%</td>
<td>205</td>
<td>$11.38</td>
<td>0</td>
<td>Postsecondary non-degree award</td>
</tr>
<tr>
<td>Medical Assistants</td>
<td>350</td>
<td>14%</td>
<td>95</td>
<td>$16.39</td>
<td>114</td>
<td>Postsecondary non-degree award</td>
</tr>
<tr>
<td>Licensed Practical and Licensed Vocational Nurses</td>
<td>223</td>
<td>25%</td>
<td>94</td>
<td>$22.38</td>
<td>1</td>
<td>Postsecondary non-degree award</td>
</tr>
<tr>
<td>Home Health Aides</td>
<td>217</td>
<td>53%</td>
<td>151</td>
<td>$11.07</td>
<td>0</td>
<td>Less than high school</td>
</tr>
<tr>
<td>Medical Records and Health Information Technicians</td>
<td>170</td>
<td>13%</td>
<td>52</td>
<td>$14.24</td>
<td>0</td>
<td>Postsecondary non-degree award</td>
</tr>
</tbody>
</table>
Agriculture

As noted in the NRN’s initial assessment report, local employment figures belie the importance of the agriculture sector to the city’s economic base. Though only 4.4% of all local jobs are directly connected to agricultural employers, the agriculture sector supports a variety of supplier businesses and is a key source of income for Sutter and Yuba County residents who shop within and access health care services in Yuba City. According to the most recent Sutter County crop report, the sector grossed almost $600 million in 2013, which generated countywide economic returns of $2.44 billion. Projections released by the California Employment Development Department indicate that over 1,000 new Farmworker jobs are likely to be created in Yuba and Sutter counties between 2010 and 2020—more job openings than in any other occupation—as well as approximately 450 new agricultural manager jobs.

Agribusiness

For the purposes of this report, “agribusiness” refers to a subset of advanced manufacturing and production jobs related to the broader agriculture sector. As part of the agribusiness sector, Sutter County has specialized in fruit, nut, and rice production for many years. Within Yuba City, the largest agricultural employer is Sunsweet (727 employees), which specializes in dried fruit and juice products and is affiliated with over half of the prune growers in California. Other notable agribusinesses include farm machine sales and repair companies, such as Orchard Machinery Company, and microproduction nurseries that create hybrid rootstocks in a laboratory setting, such as Sierra Gold Nurseries. Within manufacturing, agricultural equipment operators, supervisors, and miscellaneous agricultural workers are projected to have over 600 job openings annually each year (see Table 3).

Additionally, the crop and animal production subsector of manufacturing is nine times more concentrated in the Yuba City MSA than the national average, underscoring both the importance of crop production to the region’s economy and the unique job responsibilities asked of its workers (see Table 1). As a result, it is critical to solicit employer feedback to understand the nature of local agribusiness jobs as regional stakeholders work to develop new training programs.
Table 3: Top Agribusiness Occupations, Yuba City MSA

<table>
<thead>
<tr>
<th>SOC</th>
<th>Description</th>
<th>2014 Jobs</th>
<th>Median Hourly Earnings</th>
<th>2014 Location Quotient</th>
<th>Openings</th>
<th>Typical Entry Level Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>45-2090</td>
<td>Miscellaneous Agricultural Workers</td>
<td>3,112</td>
<td>$12.13</td>
<td>8.41</td>
<td>461</td>
<td>N/A</td>
</tr>
<tr>
<td>45-2091</td>
<td>Agricultural Equipment Operators</td>
<td>950</td>
<td>$12.74</td>
<td>7.36</td>
<td>105</td>
<td>Postsecondary non-degree award</td>
</tr>
<tr>
<td>49-9041</td>
<td>Industrial Machinery Mechanics</td>
<td>414</td>
<td>$24.14</td>
<td>6.57</td>
<td>90</td>
<td>Postsecondary non-degree award</td>
</tr>
<tr>
<td>45-1010</td>
<td>First-Line Supervisors of Farming, Fishing, and Forestry Workers</td>
<td>178</td>
<td>$19.65</td>
<td>7.21</td>
<td>28</td>
<td>Postsecondary non-degree award</td>
</tr>
<tr>
<td>45-2040</td>
<td>Graders and Sorters, Agricultural Products</td>
<td>138</td>
<td>$10.01</td>
<td>6.01</td>
<td>12</td>
<td>High School Diploma</td>
</tr>
</tbody>
</table>

In the last two years, the health care and the agribusiness sectors added nearly 1,000 new jobs, in addition to opportunities created by retirements and annual job

3 The high location quotient of agricultural occupations explains why many agricultural jobs fall into the "Miscellaneous Agricultural Worker" category according to the Bureau of Labor Statistics Standard Occupational Classification system; Yuba City agricultural workers have a more dynamic and complex set of job responsibilities than their counterparts in areas less dependent on agriculture.
replacements. Within health care, five of the seven largest occupations required education beyond a high school diploma and pay above the region’s living wage for a family consisting of two working adults with one child both working at least 40 hours/week and both earning $12.02/hour.  

One way to plan for students matriculating into high-growth industries directly out of high school and to help unemployed or underemployed adults take advantage of growing opportunities in the region is to develop career pathway maps containing multiple entry and exit points. Career pathways represent a progression of occupations, wages, skills, and competencies within a particular industry, and sample pathways for health care and agribusiness appear in Appendices C and D, as well as structural recommendations for developing them in Part II below.

PART II: STRATEGIC RECOMMENDATIONS FOR BUILDING CAREER PATHWAYS IN YUBA CITY

OVERVIEW

As noted in Part I, Yuba City has many available assets from which to strengthen career pathways. YCUSD has career pathway programs in both health care and agriculture, with a future possibility of further development of agribusiness courses. Yuba College has career-specific training programs in health care, manufacturing and agriculture. Across NCSPC, the Chamber, and YSEDC, there is a significant amount of industry engagement being done, although not always coordinated across these entities. Finally, the North Central Counties Consortium (NCCC) workforce development board and Sutter County One-Stop offer training programs and employment services to adults.

These numerous assets of Yuba City can be better leveraged by: 1) developing cross-organizational leadership for career pathways; 2) designing 9-14 career pathways that lead to industry-recognized credentials; 3) strengthening alignment of adult career pathways and building capacity for middle-skill career training; 4) identifying a work-based learning intermediary to serve Yuba City; and 5) leveraging local and state policy opportunities. As a note, when “workforce and education partners of Yuba City” is referenced in the recommendations, it includes but is not limited to organizations interviewed and researched for this report described in Part I.
RECOMMENDATION 1: DEVELOP CROSS-ORGANIZATIONAL LEADERSHIP FOR CAREER PATHWAYS

Without formal leadership for career pathway work across institutions, the pathways to careers for youth and adults can be disjointed and difficult to navigate. A strong cross-organizational leadership body could align the institutions that are key to developing career pathways in Yuba City. While it was apparent that the business community has been willing to participate in discussions with workforce development and education stakeholders, Yuba City would benefit from the business community as a whole becoming more invested in building and stabilizing career pathways and thus its own talent pipelines. In general, there still seems to be opportunity for businesses to assume greater leadership roles in the development and support of career pathways with the education and workforce partners in Yuba City.

In addition to the business community, this body would be most effective by also including representation from the local workforce development system, secondary and postsecondary education partners, Yuba City, Sutter County, the WBL intermediary (if one is selected—see Recommendation #5 below) and other relevant service providers.

Leadership Body Functions

This leadership body would have a broad scope. There would be several key functions:

- Setting agenda for career pathway development
- Providing general oversight of career pathway development, coordination, funding, etc.
- Developing policy, procedures and working groups to meet stated goals and objectives
- Evaluating overall career pathway development progress and outcomes for students
- Holding partner organizations accountable for their role in successful career pathways
- Ensuring career pathways stay relevant to industry needs using labor market information and industry partner input; maintain educational rigor; and respond to student/trainee needs, community needs, etc.
- Overseeing coordination across institutions as well as local and regional efforts in education, workforce and economic development
Qualities that are key to the success of a career pathways governing body and the person(s) who lead the body are:

- **Systems Knowledge:** Effecting system change and alignment requires a significant level of understanding of the systems in order to effectively assess risks and barriers, understand limitations and timelines, and identify key players and potential champions.

- **Neutrality:** The governing body must hold a larger vision of shared purpose across the organizations to facilitate authentic, unbiased discussions.

- **Growth-Minded and Strengths-Based:** The ability to assess one’s leadership gaps and display awareness of potential growth areas is a tenet of effective leaders.

- **Authority and Credibility:** Organizations that possess deep history and experience in the identified field, and the relationships and authority to have an impact, are most effective.

- **Adaptive Leadership Skills:** The ability to bring dissimilar groups together and support consensus while being responsive and inclusive.

- **Knowledge of Data:** The data process requires a team that represents the skills needed to collect, analyze, present, interpret and act on data.

- **Entrepreneurial Awareness:** An effective governing body should be able to map and articulate strategic direction, identify new markets and opportunities, and mobilize funding and connections to the community.

- **Trust:** In order to foster trust, a governing body and its individual leaders must be transparent and have the ability to facilitate honest discussions, as well as the patience to accept incremental progress from partners with less capacity.

It may be helpful to inventory existing local and regional workforce, business and education oversight bodies for their role(s), membership, current priorities, and capacity for serving career pathway development in Yuba City. Using the description of the functions and qualities of a leadership body described above, career pathway partners in Yuba City can determine if one of these bodies meets its needs, or how the appropriate body can be formed and connect with them.
RECOMMENDATION 2: DESIGN 9-14 CAREER PATHWAYS THAT LEAD TO INDUSTRY-RECOGNIZED CREDENTIALS

As noted in Part I, the two sectors chosen for analysis were health care and agribusiness. Research demonstrates that career pathways leading to at least an associate’s degree set up students for success in both school and work—earning more credits, being more likely to graduate high school, and more likely to earn more than their peers not in career pathway programs. As such, it is recommended that career pathways that link secondary and postsecondary institutions be developed in close partnership with industry partners in both sectors. The greater the flexibility offered in the development of these pathways, the better the chances for students to complete them successfully. See Figure 4 for essential features of career pathways including well-connected and transparent services, multiple entry points, and multiple exit points.

A sample design for career pathways specific to health care and agribusiness for Yuba City is provided in Appendices C and D. In addition, there are particular career pathway and educational models that may be worth considering to implement these pathways. Below are some descriptions of these models and references for more information are included in Appendix B.
Linked Learning

Linked Learning is an integrated approach to education that incorporates rigorous academics with career-based learning and real-world workplace experiences (work-based learning) to ignite students' passions and set them on a path to college completion and workforce readiness. It has four core components: 1) rigorous academics, 2) technical training embedded into coursework, 3) work-based learning sequences for students and 4) comprehensive student supports.

The Linked Learning model was developed as an educational reform initiative aimed at preparing students for both college and career, as opposed to the traditional college or career educational models. The idea is that a student graduating from a Linked Learning pathway in high school could make the choice to continue on at a four-year university or pursue an industry-recognized credential to begin a family-sustaining career. Developed in large part by the James Irvine Foundation in partnership with the Linked Learning Alliance, the model was originally designed primarily for high schools but has more recently been expanded to include postsecondary institutions.
A new effort is underway to apply the Linked Learning model in a regional setting, led by the Irvine Foundation in partnership with Jobs for the Future. Four regional consortia across the state were selected to be the “Linked Learning Hubs of Excellence” and links to more detail on this initiative are available in Appendix B.

**Early College**

Early college high schools replace remediation with acceleration, engaging instruction, and individualized supports to prepare all students—particularly those traditionally underserved—for college and careers. Early College Designs are based on the bold idea that academic rigor, combined with the opportunity to save time and money toward a postsecondary credential, are powerful motivators for students to work hard and meet intellectual challenges.\(^\text{12}\) They incorporate key features that promote success for all students and have proven particularly effective for students who have struggled academically.

The technical and professional skills charts provided in Appendix E for agricultural mechanics (manufacturing) is based on the recent analysis Jobs for the Future conducted for the Wonderful College Prep Academy in Delano, CA (Central Valley Region). This project merges Early College Design work with a career pathway in the agriculture industry and could prove an especially relevant model for Yuba City given the similarities in a thriving local agricultural industry. See Appendix B for additional information on the Academy and the Early College Design.

An Early College Design coupled with a career pathway has many of the same traits as the Linked Learning model, namely a key result: students graduating from high school are prepared for either continuing on to finish a four-year degree or pursuing a career. On the other hand, a Linked Learning pathway does not necessarily include students earning college credit (although many do)—earning significant college credit is central to the Early College Design.

**RECOMMENDATION 3: STRENGTHEN ALIGNMENT OF ADULT CAREER PATHWAYS AND BUILD CAPACITY FOR MIDDLE-SKILL CAREER TRAINING**

In addition to career pathways that begin in high school (or earlier), improvements to career pathways for adults in Yuba City should be considered. Similar to the K-12 career pathways discussed above, the programs offered for adults in postsecondary institutions and the Sutter County One-Stop should lead to industry-recognized credentials in growing middle-skill careers. Middle-skill careers are ones that require some postsecondary education or training but less than a bachelor’s degree. Many of these programs exist within individual institutions but are not always aligned with one another.
For instance, an adult enrolled in one of Yuba College’s Career and Technical Education programs could benefit from services of the Sutter County One-Stop but may not be aware of the services there (or vice versa) although there are One-Stop staff stationed at the college. Closer coordination could lead to better educational outcomes for some adult students and better workforce outcomes of One-Stop clients as well.

For the Sutter County One-Stop, it is important for leadership to ensure that its array of training programs incorporate the in-demand job competencies voiced by employers. Since students are often required to pay for their own training at One-Stop centers, staff may consider conducting an examination of opportunities for students to be able to receive Pell funding for classes taught through the education system if they are not eligible for financial assistance through One-Stop funding sources.

Yuba College’s capacity for both manufacturing technology and nursing appears to be far exceeded by the regional demand in these sectors. Mr. Flores, president of Cambridge Junior College, reported that his college will be adding a nursing program but that this does not address the manufacturing training shortage. Capacity to serve more students could be built at Yuba College for these pathways by leveraging the relationship with NCCC, which manages federal and state funding for workforce programming, as well as through other funding sources such as those discussed in Part III below.

Cambridge Junior College also offers a number of career and technical education programs, including ones in health care such as medical assisting, EMT training, and nurse assistant training. These programs can help support on-ramps to health care careers but, in the current situation, only Yuba College offers programs that lead to the highest-demand middle-skill careers in health care such as radiation technologist or registered nurse.

**Contextualized and Accelerated Developmental (Remedial) Education**

Developmental or remedial education can often be a barrier for adult learners interested in completing CTE programs in a community college. Many CTE programs, including those in health care and advanced manufacturing, require students to test at particular levels for entry into CTE programs. Students who do not test at the appropriate levels are placed into developmental courses. As of the 2013-14 academic year, Yuba College had a 26.2% success rate for remedial mathematics courses and a 39.8% success rate for remedial English courses.13

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4 According to data provided by the college for the 2014-15 school year, 35 students successfully completed the manufacturing technology program (no data on degrees) versus 235 openings projected in the region; 50 students received their associate’s degree in nursing, compared to 305 openings for registered nurse in the region.
Research on contextualized and accelerated developmental education models has revealed higher pass rates in developmental coursework and subsequent college coursework, as well as higher rates of persistence. Acceleration models include compressed, “fast-track” models lasting for shorter periods of time than a full semester, as well as modularized, self-paced developmental sources, which divide coursework into small, competency-based units. Contextualized instruction models allow students to progress through developmental coursework while engaging in their vocational or academic area of interest, and can also allow students to earn college credit in their preferred area of study while simultaneously completing their remedial requirements.

Yuba College offers some versions of contextualized developmental education coursework, including “Real Life Math” and “Workforce Reading and Writing.” As part of Yuba College’s continuing efforts to build out its health care and agribusiness coursework, the JFF workforce development team would encourage expanding its contextualized developmental education course offerings to incorporate common industry terminology, competencies, and examples for students pursuing education in both fields. Nationwide, several accelerated and contextualized developmental models have increased student success rates, and within the state of California, the California Acceleration Project provides a wealth of resources and implementation lessons for schools seeking to revise remedial course offerings.

Incumbent Worker Training

Often, workers who are already employed in a particular industry are not able to advance due to a lack of opportunity to improve their skills. Incumbent worker training strategies focus on building the skills of frontline workers in order to help them advance in the industry. Jobs for the Future’s Jobs to Careers initiative developed partnerships in health care across 17 sites nationally with the goal of advancing low-skilled and low-wage workers already in the industry. Work-based learning, described below in Recommendation #5, was a critical part of the programming, in addition to four key elements:

- **Embedding curricula in the work process**: Projects extracted learning objectives from the work processes of frontline jobs and defined competencies for those jobs.

- **Embedding learning in the work process**: Projects provided learning opportunities at the work site, used work situations as teachable moments and fit learning opportunities into workers’ schedules.

- **Embedding assessment in the work process**: Projects aligned work-related competencies with academic learning objectives and assessed those competencies on the job during the work process.
• **Involving coworkers as instructors:** Projects engaged supervisors and experienced frontline workers to help develop learning objectives and deliver learning content.\(^{18}\)

As noted in Part I, the data shows that there will be a continued increase in low-wage, low-skill jobs in health care such as Home Health Aides and Nursing Assistants. Without intentional strategies to address career ladders for these workers, many of them can end up stuck earning below a living wage. Incumbent worker strategies such as the one demonstrated by the Jobs2Careers initiative that target these workers can help more workers improve their skills and advance to a living wage job. See Appendix B for more resources related to this approach.

**RECOMMENDATION 4: IDENTIFY A WORK-BASED LEARNING INTERMEDIARY TO SERVE YUBA CITY**

As part of the research and during our interviews, it became apparent that Yuba City may need to identify a work-based learning (WBL) intermediary to connect businesses with work-based learning opportunities with the education system, specifically for Yuba City. Work-based learning is the practice of having students (youth or adults) learn through real-world experiences in the workplace that contextualize and supplement classroom learning. For examples of work-based learning opportunities organized by level of engagement, see Figure 5. Several organizations are currently filling this role, at least in part, but having a single organization designated as the intermediary for Yuba City may benefit the city. An outline of the typical roles of a work-based learning intermediary is provided in Table 4.
Figure 5: Work-Based Learning Continuum

**Career Awareness**

Learning ABOUT work.
Build awareness of the variety of careers available and the role of postsecondary education; broaden student options.

Sample Student Learning Outcome
Student can articulate the type of postsecondary education and training required in the career field and its importance to success in that field.

Experience Defined by:
- One-time interaction with partner(s), often for a group of students
- Designed primarily by adults to broaden student’s awareness of a wide variety of careers and occupations

Experiences might include:
- Workplace tour
- Guest speaker
- Career fair
- Visit parents at work

**Career Exploration**

Learning ABOUT work.
Explore career options and post-secondary for the purpose of motivating students and to inform their decision making in high school and postsecondary education.

Sample Student Learning Outcome
Student can give at least two examples of how the student’s individual skills and interests relate to the career field and/or occupations.

Experience Defined by:
- One-time interaction with partner(s) for a single student or small group
- Personalized to connect to emerging student interests.
- Student takes an active role in selecting and shaping the experience
- Depth in particular career fields
- Builds skills necessary for in-depth work-based learning

Experiences might include:
- Informational interview
- Job shadow
- Virtual exchange with a partner

**Career Preparation: Practicum and Internships**

Learning THROUGH work.
Apply learning through practical experience that develops knowledge and skills necessary for success in careers and postsecondary education.

Sample Student Learning Outcome
Student builds effective collaborative working relationships with colleagues and customers; is able to work with diverse teams, contributing appropriately to the team effort.

An Experience Differentiated by:
- Direct interaction with partners over time
- Application of skills transferable to a variety of careers
- Activities have consequences and value beyond success in the classroom.
- Learning for student and benefit to partner are equally valued

Experiences might include:
- Integrated project with multiple interactions with professionals
- Student-run enterprise with partner involvement
- Virtual enterprise or other extended online interactions with partners
- Projects with partners through industry student organizations
- Service learning and social enterprises with partners
- Compensated internship connected to curriculum

**Career Training**

Learning FOR work.
Train for employment and/or postsecondary education in a specific range of occupations.

Sample Student Learning Outcome
Student demonstrates knowledge and skills specific to employment in a range of occupations in a career field.

An Experience Differentiated by:
- Interaction with partners over extended period of time
- Benefit to the partner is primary and learning for student is secondary
- Develop mastery of occupation specific skills
- Complete certifications or other requirements of a specific range of occupations

Experiences might include:
- Internship required for credential or entry to occupation
- Apprenticeship
- Clinical experience
- On-the-job training
- Work experience

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### Table 4: Functions and Activities of a Work-Based Learning Intermediary

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<th>Function</th>
<th>Activities</th>
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| Stays up-to-date on the regional economy and labor market               | • Collects data on key high-demand and high-growth sectors  
• Identifies key employers and their potential to work with high school/community college students  
• Develops and supports regional industry advisory boards and links advisory boards to the regional WBL system                                                                                                                                 |
| Develops and integrates WBL sequences within educational systems        | • Aligns school-based preparation to workplace need  
• Ensures that educators understand purpose of WBL and identifies opportunities for teachers to gain industry knowledge and exposure  
• Identifies ways to support students to be work-ready and gain soft skills  
• Develops ways to track and evaluate students’ WBL experiences and outcomes                                                                                                                                 |
| Engages employers in key sectors to establish robust partnerships       | • Articulates a clear “value proposition” supported by evidence to encourage employer participation in the provision of work-based learning opportunities  
• Engages employers to build and manage relationships  
• Recruits high-level, visible business champions  
• Develops strategies to increase employer interest and involvement  
• Helps employers understand needs and contributions of young people  
• Creates and designs opportunities along the WBL continuum in partnership with employers and educational systems                                                                                                                                                                           |
| Creates and manages a system of WBL opportunities                       | • Establishes specific goals and objectives and defines responsibilities for organizations within the delivery system  
• Develops a strategic plan for the start-up, growth, and ongoing improvement of the delivery system. The plan includes a business plan for sustainable funding.                                                                                                                                 |
• Distributes and coordinates school site and worksite opportunities across education institutions
• Creates selection protocols, job descriptions, supervisor training, and other processes to support opportunities
• Problem-solves logistical challenges (e.g., transportation)
• Places students in job shadows, internships, and paid apprenticeships during school and out-of-school time
• Monitors supply and demand of opportunities and ways to improve the system
• Establishes/manages data systems to track WBL opportunities, document successes and challenges, etc.
• Develops common language, definitions, and metrics for the WBL system
• Carries out public events to champion participants

Fortunately, the region has organizations with the capacity to perform all or some of these functions. The regional leaders could decide to identify a single intermediary or a consortium to lead the work based on an inventory of potential candidates. It is recommended that a single organization lead the work or be identified as “first among equals” if there is a group of organizations in this role, to ensure that some or all of the functions listed above are being carried out. Whichever organization is selected for this role, open communication, transparency, and accountability are all important values for the organization to demonstrate in managing this important work.

RECOMMENDATION 5: LEVERAGE LOCAL AND STATE POLICY OPPORTUNITIES

Yuba City Economic Development Plan (2014)

Yuba City conducted a review and planning process in 2014 to develop a comprehensive economic development plan that includes stakeholder input, a stakeholder asset map, and three distinct goals—1) Grow Our Image, 2) Grow Our Businesses, and 3) Grow Our People. The career pathway development work aligns mostly with goals two and three.

Grow Our Businesses – One objective under this goal is to “create an Agri-Business strategy, building upon Yuba City’s community heritage and strongest industry sector.” Building a career pathway for agribusiness could be seen as part of the overall agribusiness strategy in terms of building a workforce for this sector that will attract and
retain more of these businesses. In addition, the development of stronger career pathways arguably also “increase(s) the education offerings,” another objective listed under this goal.

Grow Our People – This goal appears to be highly directed toward strengthening connections between workforce, education, and economic development. The development of career pathways helps achieve this, particularly when it includes elements that require close partnerships between institutions such as work-based learning, dual enrollment, apprenticeships and incumbent worker training.

Collaborating on the Local Workforce Innovation and Opportunity Act (WIOA) Plan to Align with the State Plan

At the writing of this report, the State of California’s WIOA Unified Strategic Workforce Development Plan is in draft form, soon to be adopted by the California Workforce Development Board (CWDB). The primary goal of the plan is to produce a million “middle-skill” industry-valued and recognized postsecondary credentials between 2017 and 2027. During this time the state also plans to double the number of people enrolled in apprenticeship programs.¹⁹

Once the state plan is approved by CWDB, the local workforce development boards across the state will be required to develop and submit a local workforce plan aligned with the state’s. This is an excellent opportunity for the workforce and education partners in Yuba City discussed in this report to collaborate on the development of the NCCC’s local WIOA plan. There are recommendations in this report that could be included in the WIOA plan, including:

• a focus on high-demand sector strategies targeting the region’s health care and agribusiness sectors, along with the career pathways to high-demand occupations identified in this report;

• aligning regional partnerships with statewide reforms such as the California Career Pathways Trust and SlingShot; and

• a focus on earn and learn and incumbent worker training to build out work-based learning for both youth and adults.

The state plan also calls for integrated service delivery and recommendations for these strategies are woven throughout this report.

Finally, the state plan has significant detail on the role of the One-Stop centers. It recommends the One- Stops be designed as central hubs for education and career development, tied to growing regional industry sectors. The Sutter County One-Stop located in Yuba City may be able to grow into operating as this type of central hub. For
instance, the state plan suggests the placement of One-Stop staff at community colleges in order to facilitate services to students in career and technical education programs—though the plan does not appear to require this at this point in its development. Likewise, it may be beneficial to have Yuba College staff hold office hours at the Sutter County One-Stop to strengthen connections for clients and students.

**AB 2148 (2014)**

California State Assembly Bill 2148 mandates the creation of an online dashboard tool by CWDB to centralize annual workforce metrics across programs funded by WIOA as well as career and technical education programs in the community college system. This system will be managed by the state’s Employment Development Department and it will include data on program completion, degree and certificate completion, demographic participation, and wage and labor market outcomes among other data. This allows for a previously unavailable broad overview of the success of career and technical education programs alongside One-Stop workforce services to inform policy and funding formulas.

It may behoove the workforce and education partners in Yuba City to track the development of this system and how they can both contribute to it as well as benefit from the insight it will hopefully provide.

**AB 288 (2015)**

California State Assembly Bill 288 authorizes California Community College districts to enter into formal partnership agreements with local school districts to expand access to concurrent (dual) enrollment opportunities for high school students. Prior to this bill, dual enrollment was more limited by state laws and required each student to be individually approved by the K-12 governing board, the school principal, and the student's parent(s).

During interviews, representatives from the education providers reported that dual enrollment agreements between Yuba College and school districts in the region were in process. These may be leveraged to build career pathways for students in health care and manufacturing similar to the ones described in Appendices C and D. As a step toward dual enrollment between YCUSD and Yuba College in career pathways, the coordination of teachers and counseling staff that is already in place for English and mathematics could be extended to CTE teachers in both institutions. For example, teachers in the health careers and developing agribusiness pathways at YCUSD could work on articulating curriculum with health occupations and manufacturing technology programs at Yuba College.
PART III: SUSTAINABILITY PLANNING

GOVERNING FOR SUSTAINABILITY

In addition to Recommendation #1 above regarding the functions and qualities of cross-organizational leadership, this section addresses how to ensure sustainability of a partnership. Sustainability in leadership is something that should be planned for from the beginning, not just after the initial few years of the partnership—particularly if the partnership is intended to be long-term.

The Commonwealth Corporation developed a partnership guide in 2013 that focuses on best practices in workforce development partnerships based on their work in the field, which built upon a guide originally developed by a Jobs For the Future-affiliated organization, the National Fund for Workforce Solutions. In the guide, all facets of a partnership are covered, including establishing, leading, convening partners, choosing processes to manage and sustaining.

According to the guide, key aspects of sustainability of a partnership include:

• **Continuing to demonstrate value to both internal and external stakeholders**, measuring this on a regular basis through focused discussions and surveys, and responding to feedback

• **Maintaining shared purpose, goals, and values** across the partner organizations—making sure to name what they are and revisit them at appropriate intervals

• **Leadership continuity**: leadership activities should be shared in the governance structure (such as chairing meetings or leading committees) instead of resting with only one or two individuals so knowledge spreads to multiple people and organizations on a regular basis to ensure continuity

• **Planning for sustainability**: unsurprisingly, it is also important for leadership to develop a sustainability plan including, but not limited to, what the partnership wants to accomplish, what needs to be sustained, required resources, strategies for obtaining resources, potential challenges/obstacles to meeting goals and strategies to overcome the challenges/obstacles

In terms of demonstrating value to internal and external partners, it is critical for leadership to be able to hold itself and partner organizations accountable. As with any leadership body serving the community, transparency is also part of ensuring the partnership is seen as viable both internally and externally. To ensure continuity, leaders may also want to have one or two other individuals from their organization aware of, and
up to speed on (or directly contributing to), partnership activities in order to transition to an active role, if necessary.

**Long-Term Funding Concepts**

An obvious need for sustaining work is finding reliable sources of funding both in the short term as well as the long term. The conventional financial strategy of diversification holds true for supporting career pathway partnerships as it does in saving for retirement. Sources commonly include local, state, and federal funding, as well as from philanthropy from both private and corporate foundations. Sometimes individual gifts from mailings or fundraisers are also part of the portfolio.

Here, several long-term funding concepts for Yuba City are described in turn. The feasibility of each for Yuba City will need to be decided upon by the local partners but this section is meant to offer ideas and possibilities to consider.

**Local Control Funding Formula (LCFF)**

Implemented in the 2013-14 state budget year, categorical funding for K-12 school districts across the state was replaced with local district decisions on how funding is spent. More details are available on the California Department of Education website. An analysis of YCUSD’s budget and funding priorities was not conducted for the purposes of this project, but how career and technical education are addressed in the local control accountability plan for YCUSD may play a role in the development of cross-organizational career pathways for Yuba City.

An example of how LCFF may be leveraged for broader career pathway development for youth is in the State of Washington. The Open Doors Youth Reengagement initiative adjusted state policy to allow the use of average daily attendance (ADA) funding for youth employment services with the goal of addressing dropout rates and increasing attendance in school. This has allowed school districts an option to fund work with workforce service providers with ADA money, which was not previously available. The theory is that funding career-oriented supports for youth and encouraging completion of education toward career goals will increase attendance, thus increasing the total amount of ADA funding drawn from the state.

Although this was a state-level policy, it is an example of creative partnerships that are mutually beneficial, both for funding programs and education as well as for students. LCFF in California most likely offers more flexibility overall than the funding streams in Washington and an opportunity to look for such innovative solutions. Finally, based on interview research conducted on this subject, the State of California may be considering legislation similar to the Open Door Youth Reengagement initiative in the near future.
Use of Property and Parcel Taxes

In both Oakland and San Francisco, a share of the local property tax was used to create a “Children and Youth Fund.” In San Francisco, it was recently reauthorized in 2014 to gradually increase to $0.04 of every $100 of assessed property value. Originally passed in 1991, the Department of Children, Youth & Their Families was established for managing the funding (in Oakland it is called the Oakland Fund for Children and Youth), which uses the funding for overall support of youth and family programming, including after-school programs, nutrition services, recreation, and youth workforce development. Note that for both the original legislation as well as subsequent authorizations, this funding stream was established as a “set-aside” and only guaranteed funding for the Children and Youth Fund from the property tax. It did not increase the overall property tax rate for property owners.

Oakland also recently passed Measure N in 2014, a new parcel tax that funds the development and enhancement of career pathway programs at Oakland Unified School District. OUSD uses the Linked Learning model described in Part II for its career pathway programming at the district and aspires to have every student in one of these pathways. This “wall-to-wall” pathway design using the Linked Learning model is meant to ensure graduating seniors are both prepared for college as well as exposed to work-based learning in a particular industry, as is core to the model.

While these examples are more focused on high school-aged youth and younger, it is feasible that such an approach could be used to fund career pathway programs and partnerships that benefit both youth and adults. Again, addressing the funding of career pathway work through property or parcel taxes may or may not be feasible in Yuba City, but while the cities in these examples accomplished this in part due to larger tax bases, they also have very complex political realities and many competing priorities across their constituents that may not be as pronounced in a smaller community.

Overall Leadership and Funding from the Business Community

A commonly untapped source of funding for career pathways also lies with the business community, which is one of the primary beneficiaries of a well-prepared and credentialed workforce. This observation is not in reference to charitable donations made by businesses, often via affiliated foundations or community engagement departments. Instead, a shared-cost model could be explored with local businesses. While charitable giving to both education systems and workforce organizations is essential, it often is not commensurate with the benefit that career pathway systems provide to the local economy and local businesses in developing a skilled workforce.

Examples from the field show that career pathways can help businesses to reduce turnover, reduce training time and cost, increase productivity, and improve retention rates. All of these career pathway outcomes help save businesses money, improve
efficiency, and may also increase profits as a result. It is common for businesses to have trouble finding the skilled workforce they need, and investing locally for this workforce is a smart business strategy. Instead of asking businesses for donations, career pathway partnerships should begin asking businesses for an investment or perhaps even a fee-for-service.

Conducting effective employer engagement in career pathway work is a robust and nuanced topic beyond the bounds of this report, but it should start small. Asking a business for a low-risk participation, such as hosting a job shadow for students or conducting informational interviews for adults, may be a good first step with a new business partner. Over time, as the relationship develops, deeper involvement and further investment can be developed—such as hosting a student intern or on-the-job training for an adult. Finally, once a partner business begins to understand the value of their participation, a request for financial investment may be in order. Businesses may be more willing to invest if they have a fuller understanding of the business value that career pathways offer.

**Leveraging Regional Connections**

There has been a concerted effort at both the federal and state levels to encourage regional planning in both workforce development as well as education, particularly for postsecondary in California. From WIOA at the federal level, to the related WIOA state plan (discussed in Part II) and other related state initiatives discussed below, taking a regional approach to both education and workforce services has been highlighted in part because of their relationship to supporting regional economies. Businesses, particularly medium- to large-size ones, analyze their workforce on a regional scale. Postsecondary education districts often attract students from a larger region and likewise prepare them for work across a region.

During interviews, it was expressed that the needs of Yuba City can often get lost in regional efforts. Despite this reality, it may be in the best interest of the city to continue to engage in these endeavors and advocate for local needs and resources. Below, a few regional efforts that either directly or indirectly involve Yuba City are addressed for consideration.

**California Career Pathways Trust**

Perhaps the largest single investment by the state into career pathways in recent history, the California Career Pathways Trust, released $500 million in grant funding over two years. CCPT funded regional consortia across the state to build career pathways across secondary and postsecondary education institutions, businesses, workforce partners, and other organizations. The state put very few parameters on this funding stream, largely allowing local consortia to define their region, choose their partners,
identify target industries, and decide on student outcomes that they sought to affect. As mentioned above, Yuba City is connected to two of these consortia—CRANE and NCSPC.

NCSPC has the most direct connection to Yuba City as it is managed by the Sutter County Office of Education and focused on Sutter, Yuba, Colusa, and Yolo counties. CRANE is managed by Valley Vision and focused on the Capitol Region. The board that is in development for NCSPC has representation from several Yuba City partners, including YCUSD, Yuba College, and NCCC, in addition to other regional partners and industry representation. As noted above in terms of the career pathway leadership potential as well as the WBL intermediary potential, Yuba City may want to leverage this existing partnership to enhance career pathway development.

Based on the research gathered for this report, it may benefit Yuba City to work with NCSPC on developing a committee or working group connected to the board that includes partners not currently serving on the board. This includes Yuba City staff, Yuba-Sutter Chamber of Commerce, the Yuba-Sutter Economic Development Corporation, Sutter County One-Stop, Cambridge Junior College, and key Yuba City business partners. As the goals and strategic plans of NCSPC are developed, this working group could help inform the regional strategy while ensuring Yuba City’s education and workforce needs are met.

**SlingShot**

A program of the California State Workforce Development Board, SlingShot funded regional collaboratives across the state, many of which were already convened around other regional initiatives such as CCPT. The CDWB challenged these collaboratives to work with partners from education, business, workforce, community development, labor, and economic development to take on at least one major issue facing regional collaboration, develop an action plan, and mobilize to improve services to the community.³⁰

The Capitol Region, including the NCCC as a partner, was awarded a $1 million SlingShot grant in early 2015 and, according to planning meeting notes from the state, the focus of this grant is supporting small business growth in several industries including advanced manufacturing and health care. A supporting goal is the “impact of academies, business accelerator programs, and incubators [on increasing the] success of small companies”.³¹ Although the $1 million grant is small for a region of this size, Yuba City may be able to leverage the support of this group in its career pathway development for advanced manufacturing and health care via NCCC.
**Beale Air Force Base**

As a key part of the regional economy, connections to the Beale Air Force Base are an important consideration for Yuba City. As one of the region’s largest employers, the base has both public job opportunities and a growing number of opportunities with private contractors working on the base. During interviews, a representative from the base mentioned the Airforce Community Partnerships group, which includes representatives from Yuba City. Bringing workforce development partnership proposals to the base via this group may bear fruit as it was clear that the base is interested in new ideas to strengthen ties to local communities such as Yuba City. One such opportunity is pursuing a grant from the Defense Industry Adjustment (DIA) program.

The DIA program focuses on developing adjustment and implementation strategies, providing grants to help communities and regions organize, plan, and carry out local economic adjustment programs. The program helps fund communities to analyze and then implement activities such as assistance for small- and medium-sized businesses, business financing programs, development and support of industry clusters, manufacturing extension partnerships, workforce assistance programs, and business incubators. It is not required that there be a pending base realignment or closure, nor a local layoff to pursue these opportunities. More information can be found in Appendix B.

**CONCLUSION**

Yuba City has a number of assets and resources for building career pathways across the workforce and education providers in the health care and agribusiness sectors. These assets—spanning education systems and workforce development providers—are well-positioned for coordinating workforce development. City leaders can build stronger workforce programs for the community with 9-14 career and technical education and stronger adult workforce systems. Developing a cross-organizational leadership structure, choosing a model for career pathway development, aligning and strengthening adult training programs, leveraging state and local policy opportunities, identifying a work-based learning intermediary, and planning for long-term sustainability are all key parts of the strategy needed to strengthen the Yuba City workforce.

Yuba City’s workforce and education organizations have the potential to overcome the challenges the city faces with strong coordination and alignment of the city’s partners, regional and state reform efforts, and a focused attention to partnership and resource development. Using the recommendations in this report, the stakeholders can develop an agenda for action that identifies priorities and a sequence for activities to promote progress while avoiding fatigue. While Yuba City has faced challenges rebuilding its economy, there are many committed stakeholders ready to create significant opportunities for the city’s residents.
APPENDIX A: LIST OF INTERVIEWEES

Yuba City:

- Steve Kroeger, City Manager
- Darin Gale, Economic Growth and Public Affairs
- Brad McIntire, Community Services Director

Other Interviewees:

- Nancy Aaberg, Superintendent of Yuba City Unified School District
- Dan Flores, President of Cambridge Junior College and County Supervisor elect.
- Karm Bains, Farmer and Planning Commissioner
- Harl Sanderson, Deputy Director for Installation Support, 9th Mission Support Group at Beale Air Force Base
- Dane Lance, CEO, Sunsweet Corporation
- Rikki Shaffer, Executive Director, Yuba-Sutter Chamber of Commerce
- Randy Page, Director, Tri-County Regional Occupation Program, Sutter County Superintendent of Education
- Nancy Crooks, Executive Director, NCCC Workforce Investment Board
- Rinky Basil, Director, Sutter County One-Stop Center
- Bill Cornelius, Sutter County Superintendent of Education
- Dr. G.H. Javaheripour, President, Yuba College
- Daren Otten, Dean of Applied Academics, Yuba College
- Dan Flores, President, Cambridge Junior College and Sutter County Supervisor
- Brynda Stranix, President, Yuba-Sutter Economic Development Corporation
- Sandee Drown, Business Developer, Express Temps
- Stella Promo, Executive Director, NextEd
- Karen Bowen, Assistant Superintendent, Student Support Services, Sutter County Superintendent of Schools
APPENDIX B: RESOURCES FOR ADDITIONAL INFORMATION

LINKED LEARNING

- Linked Learning Alliance: http://www.linkedlearning.org/
- ConnectEd: http://www.connectedcalifornia.org/linked_learning

Early College Design

- Overview: http://jff.org/initiatives/early-college-designs

Employer Engagement


Incumbent Worker Training

- Employment Development Department Employment Training Panel: https://www.etp.ca.gov/

Leadership and Partnership


Defense Industry Adjustment Programs

- Overview: http://www.oea.gov/programs/dia/start
### Appendix C: Agribusiness Career Pathway

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Median Hourly Wage (Yuba City MSA)</th>
<th>Education Level</th>
<th>Industry-Valued Certifications</th>
<th>Skills and Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Advanced Level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural Production Manager</td>
<td>$40.42</td>
<td>Bachelor's Degree</td>
<td>Occupational Safety and Health Administration Certification Capability Model Maturity Integration</td>
<td>• Logistics • SAP • Resource Planning • Purchasing and Procurement • Financial Analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(CMMI) certification</td>
<td>• Process Improvement • Product design and concept development • Advanced mathematics</td>
</tr>
<tr>
<td>Agricultural Mechanical Engineer</td>
<td>$44.35</td>
<td>Bachelor's Degree</td>
<td>ASME (American Society of Mechanical Engineers) certification</td>
<td>• Mechanical engineering and design • Agricultural machinery process knowledge • Product</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>design and concept development • Advanced mathematics</td>
</tr>
<tr>
<td><strong>Mid-Level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural Mechanic</td>
<td>$22.91</td>
<td>Associate's Degree Award, plus Moderate Work Experience</td>
<td>Forklift Certification</td>
<td>• Troubleshooting systems knowledge • Calibration and installation • Monitoring, inspection, and adjustment • Repair • Micrometer measuring • Basic mathematics</td>
</tr>
<tr>
<td>Field/Quality Assurance Technician</td>
<td>$27.03</td>
<td>Associate's Degree, plus Apprenticeship or Work Experience</td>
<td>American Society for Quality (ASQ) certification</td>
<td>• Labor/contractor management • Health and safety code knowledge • Record keeping • Investigation, inspection, and auditing • Report production • MS Word, Excel, PowerPoint, Outlook • Bilingual</td>
</tr>
<tr>
<td><strong>Entry-Level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural Equipment Operator</td>
<td>$12.74</td>
<td>High School Diploma, plus Moderate on-the-job Training</td>
<td>Commercial Driver's License (CDL)</td>
<td>• Basic equipment safety knowledge • Oxyacetylene apparatus familiarity • Safety color code knowledge • Equipment layout and operation • Advanced hand and power tool facility</td>
</tr>
<tr>
<td>Agricultural Product Grader and Sorter</td>
<td>$10.01</td>
<td>Less than High School, plus Moderate on-the-job Training</td>
<td></td>
<td>• GMP (Good Manufacturing Practices) knowledge • Understanding health and safety policy and procedure • Basic hand tool facility • Inspection • Comfort working in extreme climate</td>
</tr>
</tbody>
</table>
## APPENDIX D: HEALTH CARE CAREER PATHWAY

<table>
<thead>
<tr>
<th>Pathway Progression</th>
<th>Occupation</th>
<th>Median Hourly Wage (Yuba City MSA)</th>
<th>Education Level</th>
<th>Industry-Valued Certifications</th>
<th>Skills and Competencies</th>
</tr>
</thead>
</table>
| ADVANCED LEVEL      | Registered Nurse             | $37.69                            | Bachelor's Degree, Associate's Degree with 5+ Years of Experience | State Registered Nurse Certification | • Acute and Critical Patient Care  
• Treatment Planning  
• Patient Evaluation and Monitoring  
• Case Management and Care Plans |
|                     | Auditing and Compliance Specialist | $27.03                           | Bachelor's Degree | RHIA Certification, Certified HIPAA Administrator | • Advanced Clinical Billing  
• Accounting  
• Business Administration  
• Auditing  
• Mentoring  
• Problem solving |
| MID-LEVEL            | Health Information Manager   | $22.32                            | Associate's Degree or Postsecondary Certificate | RHIT Certification | • ICD-10  
• Electronic health records  
• Clinical procedure terminology  
• CPT  
• MS Excel  
• Organizational Skills  
• Research  
• Writing |
|                     | SurgicalTechnologist         | $25.85                            | Associate's Degree | Certified Surgical Technologist | • Surgical equipment and technology  
• Operating room experience  
• Patient preparation  
• Aseptic technique  
• Time management  
• Multitasking |
| ENTRY-LEVEL          | Medical Assistant            | $16.39                            | High School Diploma with Moderate on-the-job Training or Postsecondary Non-Degree Award | First Aid CPR AED Medical Assistant Certification | • Vital signs measurement  
• Patient preparation  
• Cleaning  
• Injections  
• Communication skills  
• Basic computer skills |
|                     | Medical Biller               | $12.02                            | High School Diploma with Moderate on-the-job Training |                                | • Scheduling and appointment setting  
• Basic medical terminology  
• Basic Billing Systems  
• Data entry and word processing  
• Customer service  
• Communication skills |
APPENDIX E: TOP TECHNICAL AND PROFESSIONAL SKILLS FOR AN AGRICULTURAL MECHANICS PATHWAY

TECHNICAL SKILLS

1. Possessing knowledge of safety issues and using safe practices in operating tools, equipment, and supplies to perform the job

ENSURING WORKER, MACHINE, AND/OR PRODUCT SAFETY

Examples of maintaining safe and healthful working conditions for oneself, others, the workplace, and the environment include:

• Understanding and following health and safety policies, procedures, regulations, and practices of the trade, including the use of equipment and handling of hazardous materials—and health and safety practices related to storing, cleaning, and maintaining tools, equipment, and supplies
• Understanding the safety color code
• Understanding and following the employer’s safety rules and procedures
• Dressing for safety
• Identifying potentially hazardous conditions in the work environment
• Demonstrating safety with electricity
• Demonstrating safety when using hand and power tools in fabrication/construction
• Demonstrating safe work practices when draining oil from ammonia systems and when dealing with the electrical troubleshooting of an ammonia system
• Demonstrating the ability to properly and safely use an oxyacetylene apparatus to cut, weld, and braze
• Demonstrating proper safety procedures related to tires
• Safely securing loads on a variety of vehicles
• Knowing how to prevent and respond to accidents or emergencies in the industry. This can include identifying classes of fires, knowing how to prevent fires, and how best to extinguish them if they occur.
• Following Occupational Safety and Health Administration (OSHA) regulations
• Observing all good manufacturing practices (GMPs) as specified by the company’s food safety policy
• Reporting problems—e.g., when a system does not meet safety or operational requirements
• Considering the environmental and social impacts of decisions (This bullet is taken from Career Ready Practices, cited on page one, and is one of two components of the Common Career Technical Core (CCTC)—a state-led initiative developing a set of CTE standards)

2. Troubleshooting equipment and/or systems (i.e., testing equipment to identify/diagnose the cause of the problem(s))

EXAMINING/LISTENING TO AND TESTING MALFUNCTIONING MACHINERY, ISOLATING FAULTY COMPONENTS, AND IDENTIFYING/DIAGNOSING THE CAUSE(S) OF THE PROBLEM(S); THIS TYPICALLY INVOLVES RECOGNIZING MALFUNCTIONS, CLASSIFYING THEM CORRECTLY AND REACTING PROPERLY, AND RECOGNIZING AND INTERPRETING MALFUNCTION WARNINGS AND ALARM SIGNALS.

Examples include:

• Troubleshooting—testing and diagnosing—electrical systems
• Troubleshooting—testing and diagnosing—cooling systems
• Diagnosing hydraulic/pneumatic systems’ issues and failures
• Troubleshooting—testing and diagnosing—pumping systems
• Troubleshooting a gasoline or diesel engine fuel system
• Using a variety of diagnostic testing and tuning equipment (e.g., meters, scopes, high-speed cameras, and computer monitoring equipment) to test the functionality of equipment and systems

3. Setting up equipment/materials and shutting down equipment

SETTING UP MACHINES TO ENSURE PROPER AND SAFE WORKING ORDER, WHICH COULD INCLUDE:

• Differentiating among and selecting the appropriate tools, equipment, and/or materials to do the job (e.g., soldering equipment and tools)
• Managing settings and regulating machines
• Performing testing procedures
• Setting speed, shapes, and sizes for production run
• Calibrating machines
• Laying out materials as needed to do the job (e.g., lumber)
• Properly shutting down equipment:
  o Shutting down oxy-acetylene welding equipment
  o Shutting down a boiler and placing it in cool-down mode (boiler and steam systems)
  o Shutting down ammonia compressors (ammonia systems and condensing units)

4. Operating tools/equipment and processes

• Operating farm machinery and vehicles (e.g., harvest equipment, material-handling equipment, and man-lift systems)
• Using measuring tools
• Using a variety of hand and power tools, jacks, hoists, jack stands, blocks
• Manipulating and finishing metal by using a variety of tools, machines, and techniques (e.g., lathe, mill, CNC plasma, shears, press break, grinders, and sanders)
• Applying tungsten inert gas, gas metal arc welding, shielded metal arc welding, or flux core arc welding processes to fusion-weld mild steel with appropriate welding electrodes and related equipment
• Flame-cutting metal with an oxy-fuel cutting torch
• Operating a loading dock
• Operating plumbing tools
• Performing simple machine operations including drilling, tapping, broaching sprockets, cutting shafts, grinding, and polishing
• Sharpening common hand tools such as chisels, punches, scribers, taps, and dies

5. Installing Equipment

• Installing electrical circuits, switching devices and appliances
• Installing ground-fault circuit interrupters
• Installing a low-voltage motor control system
• Installing sensing devices including thermostats; humidistat; photoelectric; magnetic relays; programmable controllers; proximity switches and sensors; ultrasonic; timers; and other time delay equipment and pressure, motion, limit, float and sail switches
• Installing power supply wiring and conduit for newly installed machines and equipment such as robots, conveyors, and programmable controllers
• Installing an irrigation system
• Installing (plumbing) piping for a variety of purposes (e.g., air, water, process liquids)

6. Monitoring, inspecting, adjusting, and maintaining equipment, materials, products, operations, and/or surroundings

MONITORING AND REVIEWING INFORMATION, MATERIALS, PRODUCTS, EVENTS, OR THE ENVIRONMENT TO DETECT OR ASSESS PROBLEMS.

Examples include:

• Monitoring the course of machine production
• Monitoring the quality, size, and grade of products
INSPECTING EQUIPMENT TO ENSURE IT IS IN GOOD WORKING CONDITION AND MEETS REQUIRED STANDARDS

Examples include:

- Pre- and post-trip inspections of heavy duty vehicles
- Performing Department of Transportation/Biennial Inspection of Terminals inspections
- Inspecting irrigation equipment
- Inspecting air-filter systems

ADJUSTING EQUIPMENT/MACHINES TO ENSURE THAT THEY WORK SMOOTHLY

Examples include:

- Adjusting a valve
- Adjusting hitches, drivelines, power take offs, three point hitches, drawbars (coupling devices, PTO’s, drivelines)

MAINTAINING MACHINERY, MECHANICAL EQUIPMENT (E.G., ENGINES, MOTORS, PNEUMATIC TOOLS, CONVEYOR SYSTEMS), AND PRODUCTION EQUIPMENT IN GOOD WORKING CONDITION; MAINTAINING A PRODUCTION AREA IN GOOD CONDITION.

Examples include:

- Performing preventative maintenance by testing, adjusting, cleaning, and replacing worn parts
- Demonstrating the ability to properly clean welds
- Performing routine maintenance checks and adjustments on such things as fluid levels, hoses, belts, brakes, tires; changing filters and oil; and lubricating vehicles
- Ensuring that a production area is kept clean, is safe and organized, and has the supplies it needs (e.g., conducting inventory of materials on the work floor and supplying workers with materials as needed and/or requested to assure production continuity). Understanding and implementing the 5S workplace organization methodology, which improves productivity by creating and maintaining a well-organized workplace (source of 5S diagram below: http://www.epa.gov/lean/environment/methods/fives.htm):
7. Repairing equipment/machines

REPAIRING MACHINES OR SYSTEMS USING THE APPROPRIATE INFORMATION AND TOOLS (E.G., REPAIRING METAL OBJECTS USING A VARIETY OF TECHNIQUES, SUCH AS BRAZING OR HARD SURFACING).

Examples for farming equipment include:

- Repairing or replacing hydraulic brake systems (e.g., shoes, pads, drums, hoses, calipers)
- Repairing or replacing cooling systems (e.g., hoses and thermostats, radiators and water pump, fan drives, oil coolers)
- Repairing or replacing heating and air conditioning systems (e.g., heater cores, condensers, compressors, hoses, and controls)
- Repairing or replacing steering, axles, and suspension systems (e.g., gear boxes, springs, tie rods, steering linkage, kingpins, power steering, hoses, pumps, axles, differentials, heavy duty suspensions, and air suspensions)

Examples for plant operations include:

- Replacing and repairing electrical systems: motors, pneumatic solenoids, photo eyes, motor drives, PLC systems, etc.
- Replacing and repairing mechanical systems: pumps, conveyor rollers, conveyor belting, etc.

8. Modifying and fabricating parts/equipment

MODIFYING AND FABRICATING EQUIPMENT WITH QUALITY AND USE OF SPECIALTY TOOLS.

Examples include:

- Fabricating and constructing metal assemblies and equipment from engineering drawings
- Performing welding skills, including: layout, cutting, shaping, forming, and welding structures together (welded metal fabrication)
- Fabricating metal parts, using drill presses, engine lathes, and other machine tools
- Making a sprinkler stand (plumbing)
- Constructing agricultural structures by using wood framing and steel framing systems (e.g., barns, shops, greenhouses, animal structures)
9. Using mathematical skills to complete job tasks

Examples include:

- Taking measurements—for example, using micrometer measurements to determine if parts of a small engine are within the specifications set by the manufacturer; reading a tape measure or calculating board feet in woodworking; measuring engines; measuring pipe
- Measuring for machine setup
- Using scale measurement and dimension to develop simple plans and sketches; given dimensions, creating drawings of isometric, oblique, and orthographic views of a simple object
- Estimating quantities of a material
- Figuring costs; estimating construction jobs
- Estimating the amount of concrete needed for a job
- Finishing a concrete slab to a proper size and slope

Our sample of job descriptions requires that applicants possess the following kinds of mathematical skills:

- Adding, subtracting, multiplying, and dividing in all units of measure; using whole numbers, common fractions, and decimals;
- Applying concepts such as fractions, percentages, ratios, proportions, and rate to practical situations; and
- Drawing and interpreting bar graphs.

10. Possessing computer and technology knowledge and skills to complete job tasks

USING TECHNOLOGY TO COMPLETE JOB TASKS AND ENHANCE PRODUCTIVITY (WORDING FOR THIS LIST IS ADAPTED FROM CRP.11, CAREER READY PRACTICES).

Examples include:

- Differentiating among, selecting, and applying appropriate technology to the job
- Using computer monitoring equipment to test the function of equipment and systems
- Using computers within the maintenance shop for email; ability to use Word and Excel files
- Using current technology to develop simple plans and sketches of a metal project (welding)
- Using digital inventory controls
- Using web-based and handheld maintenance management systems (e.g., a mechanic taking notes on an iPad of what he/she sees is needed)
- Entering work orders (e.g., ordering parts) on a phone
PROFESSIONAL SKILLS

1. Analytical and research skills

LOCATING AND ANALYZING INFORMATION TO ADDRESS WORK-RELATED ISSUES AND PROBLEMS.

Examples include:

- Understanding and interpreting drawings (e.g., a fabricator may have to do this with standard fabrication and assembly drawings rendered in ANSI format)
- Reading and interpreting blueprints
- Reading welding symbols and plans
- Finding and correctly interpreting a user manual
- Looking up parts for jobs assigned with tech manuals, vendor catalog, and the web (parts research)
- Understanding other departments/areas so as to minimize any negative external impact to them

2. Problem-solving/reasoning Skills

UTILIZING CRITICAL THINKING TO MAKE SENSE OF PROBLEMS AND PERSEVERE IN SOLVING THEM (WORDING FROM CRP.08, CAREER READY PRACTICES).

Examples include:

- Determining causes of operating errors (performing a root cause analysis) and deciding the best corrective action
- Solving practical problems effectively and efficiently, and dealing with a variety of concrete variables in situations where only limited standardization exists
- Creating alternative solutions by using critical- and creative-thinking skills
- Assisting in continuous improvement efforts

3. Communication/language skills

- Speaking, reading, and writing clearly in English; preference for bilingual (English/Spanish) speakers for some jobs
- Listening actively (to machines/equipment and/or people), understanding, and asking questions
- Reading and understanding written materials such as inspection reports and technical manuals
- Understanding, interpreting, and following instructions in oral, written, diagram, or schedule form; following directions
- Requesting and filling out work orders
• Communicating clearly, effectively, and respectfully with supervisors, peers, clients, customers, etc.; providing/presenting information by phone, email/written communication, or in person effectively—individually or in groups.

Examples include:

• Communicating effectively with coworkers (e.g., communicating with other mechanics about problems with machinery and any repair work needed, and assisting if necessary)
• Reporting malfunctions, needed repairs, or worn parts to the supervisor immediately
• Communicating with other departments/areas to understand their roles and needs
• Documenting/logging information such as observations and machine adjustments
• Recording details of repairs made and parts used; maintaining fabrication records

4. **Interpersonal and customer service skills**

• Being friendly and polite
• Consulting with customers to locate and diagnose malfunctions
• Responding to questions from (groups of) managers, clients, customers, and the general public
• Asking for feedback and taking constructive criticism well
• Discussing problems and resolving conflict appropriately and calmly with coworkers and others

5. **Teamwork/collaboration skills**

• Working well with others and promoting a teamwork environment
• Understanding other departments/areas to better understand how to collaborate with them
• Being comfortable working with people of diverse backgrounds
• Being sensitive to other people’s needs or concerns
• Contributing to team goals
• Asking for feedback and taking constructive criticism well
• Facilitating the training of others using coaching and leadership skills
• Helping to resolve disputes or disagreements in the workplace

6. **Safety, ethics, and legal responsibility skills**

• Possessing knowledge of safety issues and using safe practices
• Understanding professional, ethical, and legal behavior consistent with applicable laws, regulations, and organizational norms, including:
  • Knowing the major local, district, state, and federal regulatory agencies and entities that affect the industry and how they enforce laws and regulations; and
  • Understanding the role of personal integrity and ethical behavior in the workplace
• Understanding and following employer rules and procedures
• Adhering to quality standards
• Taking responsibility for own decisions and actions
• Understanding how to access, analyze, and implement quality assurance information
• Reporting problems (e.g., a system that does not meet safety or operational requirements)
• Considering the environmental and social impacts of decisions (Adapted from Career Ready Practices, this is one of two components of the CCTC—a state-led initiative developing a set of CTE standards)
• Following OSHA regulations
• Observing all good manufacturing practices as specified by the company’s food safety policy

7. **Craftsmanship and attention to detail**

- Conducting and completing projects with precision and a consistent standard of high quality
- Having attention to detail
- Taking pride in one’s work

8. **Leadership**

- Facilitating the training of others using coaching and leadership skills (e.g., facilitating training on equipment)
- Demonstrating efficiency
- Simplifying processes
- Motivating and directing people as they work
- Knowing multiple approaches to conflict resolution and their appropriateness for a variety of situations in the workplace

9. **Self-motivation and ability to work with minimal supervision**

- Completing assigned tasks with minimal supervision
- Understanding how to organize and structure work individually
- Having the drive to learn new skills
- Having the motivation to improve upon existing skills

10. **Foundational skills**

    THESE INCLUDE PERSONAL MANAGEMENT AND OTHER SKILLS:

    • Dependability/Reliability/Responsibility
    • Time management—arriving to work on time or early; planning, setting goals, prioritizing, and setting and meeting deadlines (completing tasks on time and accurately, even if unpleasant)
    • Positive attitude toward work
- Desire to learn
- Planning and prioritizing
- Organization
- Ability to multitask
- Stress tolerance (working well under pressure)
- Work ethic/high levels of effort and perseverance
- Representing the company through appropriate dress, behavior, and language
- Integrity, honesty, and trustworthiness
- Innovation and creativity
- Information gathering to problem solve and improve skills
- Awareness of one's own physical and mental wellness
- Flexibility and adaptability
APPENDIX F: LABOR MARKET DATA SOURCE CONSIDERATIONS

This report uses data from the Economic Modeling Specialists International Analyst platform. EMSI data is aggregated from over 90 federal, state, and private sources, including the Quarterly Census of Employment and Wages (QCEW) from the Bureau of Labor Statistics, local area personal income (LAPI) from the Bureau of Economic Analysis, county business patterns (CBP) from the Census Bureau, and establishments data from Infogroup. EMSI applies proprietary methods to remove suppressions and include data for proprietors to yield a comprehensive representation of the regional workforce. Unlike the Bureau of Labor Statistics data, EMSI’s trademarked methodology includes underreported self-employment, investment trusts and partnerships, certain farms, and tax-exempt nonprofit cooperatives. This report includes analytical information from Burning Glass Technologies, which provides real-time labor market demand information from online job postings. Real-time labor market information (RT LMI) is data gleaned from a large number of online job postings. Several private-sector entities have developed software that collects online job postings by “scraping” or “spidering” the listings from the Internet and organizing them into standardized data categories, especially the North American Industry Classification System (NAICS) and the Standard Occupational Classification (SOC) system. Burning Glass’ patented parsing and data extraction capabilities can extract, derive, and infer more than 70 data elements from any online job posting, providing in-depth insights into employers’ demand for skills and credentials.

RT LMI complements the traditional LMI with more recent information on employer skills, education, and credential demand. By scouring recent online postings, Burning Glass can offer insight into newly emerging skills in unique combinations. However, a common limitation of job postings data is that it can only access information that is indeed posted online. Jobs that go unposted (which may include a large share of the middle-skill occupations) remain invisible. Similarly, EMSI draws on a composite dataset that integrates over 90 federal and state labor market data sources. Some of these sources contain undisclosed or “suppressed” data points, created by the government organizations that publish the data products in order for them to comply with laws and regulations that are in place to help protect the privacy of the businesses that report to them. In some cases, EMSI utilizes proprietary algorithms to replace suppressions with mathematically educated estimates.

Some of the limitations from labor market data sources can be ameliorated through qualitative interviews with employers, educators, policymakers, and workforce intermediaries whose on-the-ground experience can fill in gaps about both future employer skill demand and participant supply. Overall, data can be a useful starting point, but the intricacies of talent shortages and job openings will need to continue to be verified locally.
1 See Appendix A for a full list of interviewees.

2 See http://www.sutteronestop.com/ for a full list of training program offerings.

3 Bureau of Labor Statistics, Local Area Unemployment Statistics

4 American Community Survey, Poverty Status in the Last 12 Months

5 American Community Survey, 2014 1-Year Estimate

6 California Department of Industrial Relations http://www.dir.ca.gov/dlse/faq_minimumwage.htm


8 http://livingwage.mit.edu/counties/06101


12 http://jff.org/initiatives/early-college-designs

13 http://scorecard.cccco.edu/reports/OneYear/291_OneYear.pdf


15 For a full literature review on accelerated and contextualized developmental education, see: http://www.jff.org/publications/literature-review-models-developmental-education-redesign

16 http://cap.3csn.org/


18 Ibid.

19 http://www.cwdb.ca.gov/WIOA_Unified_Strategic_Workforce_Development%20_Plan.htm

20 http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB2148

21 https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB288

Local Control Funding Formula Overview: [http://www.cde.ca.gov/fg/aa/lc/lcffoverview.asp](http://www.cde.ca.gov/fg/aa/lc/lcffoverview.asp)

[http://www.k12.wa.us/GATE/SupportingStudents/StudentRetrieval.aspx](http://www.k12.wa.us/GATE/SupportingStudents/StudentRetrieval.aspx)


[http://www.ousd.org/Page/12995](http://www.ousd.org/Page/12995)


[http://cwdb.ca.gov/res/docs/SlingShot/1SlingshotOverview415L.pdf](http://cwdb.ca.gov/res/docs/SlingShot/1SlingshotOverview415L.pdf)

[http://cwdb.ca.gov/res/docs/special_committees/Executive%20Committee/2015/June%201%20%202015/Item%204b%20SlingShot%20Update.pdf](http://cwdb.ca.gov/res/docs/special_committees/Executive%20Committee/2015/June%201%20%202015/Item%204b%20SlingShot%20Update.pdf)