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Region 10 LABOR MARKET INFORMATION AND PERSPECTIVE: Primary Sectors, Occupations…

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OVERVIEW:

For the past several years, Region 10 business, education and workforce leaders have focused on:

a. The regional economy as a whole and its various sectors and areas of growth,
b. Sector-related occupations, career paths and skill sets and its human capital aspects, dimensions and trending.

In this regard, these studies and various initiatives, whether through workforce investment systems, K-20 education and training, Chambers of Commerce and/or local government, to name a few, have regularly included a bi-state, border economy perspective, as the region shares a labor market with the Louisville, KY area and, depending on the particular economic model, points south and east of Louisville. The more comprehensive and rich data and research follow that bi-state economic model. Often, information prominent to Region 10 is similar to that of Louisville, though the quantities of businesses and workforce obviously vary and the proportions of occupations and workers vary; but a significant variance is the exception to the rule. The relevance of incorporating a bi-state approach is seen, for example, in terms of basic commuting patterns. Clark County's and Floyd County's patterns find that 32% and 38% of their resident labor forces work outside the county, principally in Louisville, KY.; and Clark and Floyd Counties reflect about 65% of the region's population. Thus, both Region 10-specific and bi-state information and trending are provided.

As such, the information being shared herein works to generally and accurately portray key labor market information, hopefully in a manner useful to the Region 10 Works Council and its Career/Technical Education focus.

Information sources include:

1. The WIRED65 Regional Competitiveness Strategy TIP Report (TIP stands for Talent, Innovation, and (Quality of) Place.
2. New bi-state area draft research
3. STATS Indiana and the Region 10 Labor Market Report and
4. Hoosiers by the Number; Region 10 TOP 50 jobs; and the Kentuckiana Occupational Outlook.

Some basics in reviewing the information:

1. WIRED65 was a $ 5 mil 3-year 26-County bi-state initiative covering several workforce regions: Region 10 in Indiana, as well as Jefferson County, IN (a Region 9 County); Kentuckiana Works, Lincoln Trail, and the northern portion of Lake Cumberland. The common ground: The strong correlation between these "Workforce Regions" and its businesses/jobs, and the spine of this cohesive economic corridor: I-65. WIRED65 focused on "regional talent development"; it had five key strategies. Since its conclusion in mid-2010, the four workforce regions' leadership has continued to study and work on "talent development" through one research or training project or another. Currently, the WIRED65 group has a National Fund for Workforce Solutions grant focusing on sector training; the focus is on Manufacturing Sector training and the NAM "stackable credentials" model.

2. The several economic/workforce regions have also co-invested in Bluegrass Economic Advancement Initiative" (BEAM) research, emphasizing advanced manufacturing as a newly surging prominent sector in the I-64 corridor from Region 10 to Lexington, KY, i.e. to build a world-class, advanced manufacturing super-region. Of import, the research looks at the manufacturing sector in the context of the overall area economy; thus, it studies other sectors also.

3. Region 10 and the bi-state area have a wide range of business/industry sectors evidencing current and future growth.

4. Sector growth projections can be seen as a) new growth, i.e. new jobs created reflective of various occupations, and b) replacement job openings growth; that is, new job increases may be modest, but the volume of job opportunities is ample based on factors like employee turnover and employee attrition; for example, the wave of boomer retirements in years to come, is notable. (It also references a "shrinking" (in volume) workforce.)

5. "Work" is in a state of revolution, particularly as relates to a) a base of knowledge and staying abreast of (fast-paced and exponential) advances in knowledge, b) technology…and more technology, c) job performance is about applying knowledge and technology productively and with quality, and d) work behaviors that emphasize, critical thinking, problem-solving, teamwork, quality, and self-direction, to name a few.

6. "Career paths" are not a new idea. Paths, so to speak, have been around for quite awhile…decades. Secondary education has referred to 16 "career clusters" in Indiana. Career "ladders" gained some prominence in the late 90s. Then came more sophisticated and accurate labor market approaches for career development and mobility in a field or across fields, such as "career lattices" and "career matrices". In any case, career paths are apt to be more robust, as they account for vertical-diagonal-horizontal options in building a career, and take into account aspects such as "related occupations" in the same field or another field, and/or "skills transferability". As educational capacity, process and quality are built regionally for career paths in K-12 and CTE, it is of value to provide quality guidance regarding the aspects of flex and nuance in career paths.

7. From a national perspective, citing the Georgetown University, Public Policy Institute, center on Education and the Workforce, and it 2013 Recovery 2020 study (http://cew.georgetown.edu/recovery2020/), by 2020, 65% of the jobs composing the national labor market will require attainment a High School diploma and some level of post-secondary training to a credential/certification, at a minimum. The range of post-secondary education/training relating to the labor market covers a range of short-term occupational training to a credential…through Associate Degrees, to BAs and up to advanced and doctorate degrees. Embedded in this major labor market shift are career paths/lattices and, therein, the value of and need for the path's mobility in fostering and offering career advancements.

   Recovery 2020 finds, nationwide, that:

- There will be 55 million job openings in the economy through 2020: 24 million openings from newly created jobs and 31 million openings due to baby boom retirements.
- By educational attainment: 35 percent of the job openings will require at least a bachelor's degree, 30 percent of the job openings will require some college or an associate's degree and 36 percent of the job openings will not require education beyond high school.
- STEM, Healthcare Professions, Healthcare Support, and Community Services will be the fastest growing occupations, but also will require high levels of post-secondary education.
- Most jobs will require some type of post-secondary education, and individuals that only possess a high school diploma will have fewer employment options.
- Employers will seek cognitive skills such as communication and analytics from job applicants rather than physical skills traditionally associated with manufacturing.

   The study, for Indiana, indicates a labor market need of 60% educational attainment in its workforce, as attainment is defined above.

LABOR MARKET INFORMATION:

A. From WIRED65 (http://www.wired65.com/) and its TIP Regional Competitiveness Strategy Report (290+ pages with numerous charts, figures, graphs, etc., published in 2009, and accessing longer-term Labor Market (LM) data (2008-2018):

Of several regional challenges, two are cited here:

- ***Employers will continue to face labor shortages.*** Central among the region's challenges is a shortage of workers, the result of national and international demographic trends, changing requirements of industry, and shifting global investment patterns. This situation is two-pronged: the region faces a shortage of workers generally (demographic trends will limit the number of workers available to replace aging baby boomers) and a shortage of workers with the specific skills and educational levels required by current and future employers….This declining pool of new workers reflects two simple facts: 1) the nation's largest generation of workers, those born between 1946 and 1964, have begun retiring, and 2) the generations in line to replace them – Generations X and Y – are significantly smaller. That means, for at least some period of time beginning in the not-too-distant future, labor markets will be tight.
- ***The skill sets of the region's workforce do not match with future jobs.*** According to the U.S. Bureau of Labor Statistics, two-thirds of the jobs created over the next decade will require some kind of post-secondary education or training. Gone are the days when a high school diploma easily translates to a good-paying job at the factory with excellent benefits and a secure pension. Today's 21st century jobs will require more formal training and education, as well as a variety of "soft skills," including critical thinking, basic math, and writing skills. Finding workers with these skills is a concern for both sides of the river. Skill sets are not just a concern of metropolitan areas.

  As rural areas become increasingly attractive to manufacturers, the question of skilled labor pools has become gained importance for rural communities. Home construction in suburban and exurban areas increases demand for skilled trades – electricians, plumbers, heating and air-conditioning technicians. Agricultural jobs are also moving up the skills ladder as technology becomes a more integral aspect of agricultural-related work. Whether through the use of computer applications to increase operational efficiencies or the use of global positioning system and geographic information systems in precision agriculture, today's agricultural workers are much more likely to require technology skills than in the past. The relationship between agriculture and renewable energy technologies will likely create additional demands for skilled workers in this sector.

Of several Priority Recommendations, three are cited here, and align to the purpose of the Works Councils:

- **Fix the Education Pipeline**: Focus on *smoothing transition points within the P-20 education system*. Make *learning relevant to growth industries* and make the connection between education, income, and prospects for the future.
- **Prepare for 21st Century Jobs**: *Provide cutting-edge vocational training in high school* and better align postsecondary programs with the needs of local business.
- **Create a Talent Magnet**: Promote the region as a world-class destination for 21st century talent by highlighting the region's educational and research assets.
- **Invest in Priority Sectors**: Invest in economic and workforce development projects that strengthen the region's priority sectors through targeted workforce training and recruitment. The region's priority sectors are:

  Existing Industries:

  1. **Healthcare and Life Sciences**
  2. **Transportation, Distribution and Logistics**
  3. **(Advanced) Manufacturing**
  4. **Agriculture**

Emerging Industries:

5. **Energy Technologies…the Energy Sector**
6. **Human Resource Management**

Non-Traditional Industry/Sector Targets:

7. **Tourism**
8. **Entrepreneurship-**fostering business start-ups, development, innovation, patent production, etc.

Complementing the above:

- **Engage and retain the region's current young professionals:** With approximately 62 percent of the region's population under the age of 44, *retention strategies are key* to sustaining growth.
- **Build a region that is a talent magnet for the next generation:** *They want better paying jobs and careers*, public transportation, and cultural connections, and engagement
- **Connect emerging professionals to *internships*, jobs, employers, and the community:** We need a robust system to connect college graduates to careers locally. Nearly 50 percent of internship students accept permanent positions with their internship employers.

The TIP report speaks to Career Pathways specifically and inclusive of Career and Technical Education; for example on pages 9 and 94.

B. Excerpts from current research in draft, focusing on the I-64 corridor, and to be formally published in late 2014:

To compete in the global economy, successful regions (and their composition of business/industry sectors) must identify their unique assets and build on them to enhance their productivity….Regions that identify a solid path to making that transformation-intentionally building on their unique assets-forge ahead to a stronger competitive position.

Note: Region 10's "unique assets" center on location, related infrastructure, and available shovel-ready development sites, as well as much potential in other adjacent land. Examples are obvious: Region 10 as a day's drive or less from 70+% of the country's population and markets; Ohio River; the Bridges Project; 3 interstates; rail systems; the Port of Jeffersonville, River Ridge Development Authority, etc., to name a few. Other unique assets are inclusive of Louisville/Jefferson County, KY. And the "solid path" includes Career and Technical Education (CTE).

The research and analysis focuses on five (5) market levers:

1. Regional Concentrations, the industries and sectors that drive the regional economy
2. Innovation
3. Human Capital
4. Spatial Efficiency
5. Governance

Excerpts focus on levers 1 and 3.

Economic growth increasingly relies on knowledge embedded in people and advanced technologies.

The new economy's premium on dynamic interactions among knowledge assets particularly favors metropolitan regions.

Each region has its own unique combination of assets, market dynamics and institutional environments that shape its economic performance. These interactions create a "whole greater than the sum of the parts"-each of the key dimensions (for example, industry concentrations, workforce characteristics, infrastructure) succeeds or fails in the context of the whole. *Strategies to impact the performance of the whole (like those to be devised and implemented via the Works Council) must be highly tailored to the individual region and mutually reinforcing.* There is not "one-size fits all" solutions for promoting economic growth.
All areas of a region – its neighborhoods and populations – are inextricably linked. Regions that develop and deploy more of their human, land and business assets do better in the long run. Long term, economic growth – across all five dimensions – must be inclusive to be sustainable.

The 2 market levers described:

1. **Enhance industry clusters and concentrations.** *Firms are more productive when interacting in clusters* of related firms, business functions and institutions.
2. **Develop and deploy human capital aligned with jobs.** The knowledge economy *places a premium on higher levels of human capital and on labor markets that enable strategically targeted and efficient training, retraining*, and deployment of workers whose skills align with changing job requirements.

A region's most promising industry clusters have a strong local presence (i.e., they are more concentrated than in other regions), are growing locally and nationally, exhibit a degree of competitive advantage (e.g., highly productive or have the potential to be) and include unique institutional and other assets that make the cluster and the region competitive. To succeed in the new economy, these clusters of firms and industries develop informal, flexible and nimble economic networks that enable them to compete on customization, product quality, new process and technology development, and other high-value-added factors.

Across all clusters but particularly for manufacturing, the dramatic shift underway toward 1) continuous technology innovation, 2) higher skills and 3) increased focus on exports represent especially critical factors that determine the region's competitive position in the new economy.

The commentary excerpts made above reflect the critical role of identifying and strengthening prominent industry clusters in a region, how they become more competitive in the "new economy" with direct relationships especially to knowledge, technology and innovation, all being facets of "human capital'/our workforce, and how that drives positive change and improvements in education/training; in this case, CTE.

Based on a high employment and location quotient, **four (4) industries clusters are most prominent:**

1. **Manufacturing** with key sub-sectors: automotive, electrical equipment and appliances, and primary materials (Plastics; Metal), with unusually strong concentration, and strong inter-dependencies and linkages. Added to this: the Food and Beverage sub-sector.
2. **Transportation, Distribution and Logistics**
3. **Healthcare**
4. **Finance and Insurance**

Note: Manufacturing is already in a resurgent mode nationally as well as regionally. "Globally, manufacturing is poised for a new industrial revolution." Some key factors bearing upon this: Overseas factors, such as increased wages, quality issues and increased transportation costs, are producing a "re-shoring" effect in the U.S. When Region 10's unique assets are in the business attraction equation as well for (advanced) manufacturing, this sector may well evidence more new growth than typically projected, as well as significant replacement growth and, thus, notable job opportunities, given the long wave of baby boomer retirement. Along with these growth scenarios is the ongoing reference to the

sector's skills gap and the establishing of "stackable credentials" (per the National Association of Manufacturers (NAM), and other sector groups). Such training and credentialing may align to CTED tracks, for instance.

Emerging clusters/Potential growth areas

5. **Technology repair and maintenance**
6. **Business Centers** for other firms
7. **Emergent manufacturing areas such as pharmaceuticals, medical devices and other biotechnology products and devices.**

Underpinning these growth sectors, and a sector in its own right, demand is seen, per STATS Indiana, the high-wage and high demand jobs listing attached, and the Top 50 Hot Jobs listing, in:

8. **Information Technology**

Across both sets of research, twelve unduplicated industry sectors are identified (green). These sectors also align to the six (6) targeted industry clusters with big, upside potential, as noted from the Indiana Education and Workforce Innovation Summit (1/25/2013):

1. **Advanced Manufacturing**
2. **Life Sciences**
3. **Logistics**
4. **Information Technology**
5. **Defense and Related**
6. **Alternative Energy**

Given the "defense corridor", consisting of CRANE, Camp Atterbury, Muscatatuck Training Center, and Ft. Knox (and the defense industry infrastructure at the Mid-America Science Park in Scottsburg), the **defense industry** might be viewed as an emerging industry also.
Based on data from STATS Indiana and the Top 50 HOT JOBS profile for Region 10, the **construction** sector merits the prospect of growth in Region 10, both in terms of commercial/industrial and residential, given a) impacts of retirement in this industry, and 2) Region 10's unique assets and economic growth potential.
The **Education and Social Services** sector continues to also show demand, per STATS Indiana, the high-wage and high demand jobs listing attached, and the Top 50 Hot Jobs listing, both in terms of new growth and replacement job openings growth.

Adding these three sectors: 1) Construction, 2) Education and 3) the Defense Industry, ***a total of 15 business/industry sectors show modest to significant growth in Region 10.***

Overall, the *diversity* of sectors seeing growth is evident.

Human Capital:

The characteristics of the new economy increase the importance of the role that human capital plays in economic growth. They also alter the labor market dynamics that efficiently produce and match supply and demand for talent.

Making the transformation to the next economy in a region requires attention to the characteristics and levels of its human capital and labor market dynamics. **Among the key factors are:**

- **High levels of human capital and rich job pools.** In the new economy, an increased *emphasis on knowledge and application of technology drives demand for higher levels of talent across all sectors.* In addition, the global nature of the labor market intensifies competition for top talent, compelling regions to emphasize the creation of the rich job pools that attract and retain the most highly skilled workers.
- **Job matching and worker mobility**. In a dynamic economy, workers change jobs more frequently and job and skill requirements change at a more rapid pace. Targeted attention must be paid to particular segments of the labor market and jobs as skill mismatches and labor market disruption occur frequently, particularly during the early transition from the older to the new economy.

  New labor market mechanisms are often needed to enable efficient movement of workers among occupations, firms, and industries. *Workers need to not only upgrade their skills continually but also to be able to document their skills through recognized certifications*, and also to find opportunities for deploying them. Employers need to be able to identify and assess candidates with the most relevant skills and experience efficiently, often on a short timeframe. ***Those changes in job markets require training and education systems to function at a new level of market focus and agility, modifying their programs to maintain alignment with market demand.***

  Strong evidence indicates that the most effective approaches trend toward: sector-specific, employer-driven credentials that build both partnerships with employers engaged around their specific skills needs and credibility for the training itself.

- **Inclusiveness and Opportunity**. Given that inclusiveness is a driver of prosperity in the next economy, regions need to ensure that workers of all skill levels, socioeconomic groups, and geographic communities have opportunities to participate in and progress in the labor market. An inclusive economy exhibits *numerous "on-ramps" for entering the workforce, accessible jobs and career* ***ladders (and lattices/matrices)****, and opportunities for continuous skill development and career change.*

From a bi-state point of view:

Based on current economic projections, the **healthcare and logistics sectors will experience the highest rates of employment growth** through the end of the decade including demand for nearly 20% more workers who hold a Bachelor's Degree. Firms in the logistic/supply chain and in healthcare offer opportunities for higher-skilled workers and managers and for career advancement at levels comparable to national rate. Technical positions in healthcare have represented on of the most solid fields in which established career ladders support workers entering and then moving up to career jobs in middle-skill fields.

Current projections show that manufacturing sectors will see lower levels of job growth, relative to logistics and healthcare, and higher skill requirements over the next decade, while the region's healthcare and logistics sectors will add significant numbers of new jobs, offering opportunities for lower-skilled, entry-level workers to earn credentials and establish careers. Manufacturing will see less new job growth, but notable "replacement" job opportunities, as noted earlier.

C. From **STATS Indiana** regarding employment share in Region 10, based on 2011 data, ranked:

	Employed	**Avg. Earnings per Job**
1. Manufacturing	17,562	$57,559
2. Retail Trade	15,709	$25,426
3. Healthcare, Social Services	9,853	$44,651
4. Accommodations, Food Service	9,108	$17,654
5. **Construction**	7,430	$42,596
6. Transportation, Warehousing	6,347	$58,784
7.Professional, Technical Services	4,140	$39,508

D. In terms of Region 10 High Wage-**High Demand Occupations** data from the Indiana Department of Workforce Development, 2008-2018 projections identify 20 categories of occupation with such jobs, across 140 occupations, about 21% of occupations in the overall labor market. Educational requirements are also listed; 85 (61%) require Post-secondary training to a credential and/or degree. See Attachment.

Occupational Categories include:	**Number of Occupations**
1. Management	12
2. Business and Financial Operations	11
3. Computer and Mathematical	6
4. Architecture and Engineering	6
5. Life, Physical and Social Science	1
6. Community and Social Services	8
7. Legal	2
8. Education, Training and Library	11
9. Arts, Design, Entertainment, Sports and Media	5
10. Healthcare Practitioners and Technical	21
11. Healthcare Support	3
12. Protective Services	3
13. Food Preparation and Serving-Related	1
14. Sales and Related	5
15. Office and Administrative Support	9
16. Farming, Fishing and Forestry	1
17. Construction and Extraction	10
18. Installation, Maintenance, and Repair	11
19. Production Occupations	9
20. Transportation and Material Moving	5

E. In terms of Region 10's Hot 50 jobs profile, per the Indiana Department of Workforce Development, based on projections to 2020, occupations are listed below by sector. **Hoosier Hot 50 Jobs** is a listing of the 50 ***fastest growing, high-wage jobs*** of tomorrow. The Hoosier Hot 50 Jobs are ranked on wages and demand in 2020 for Region 10. Even though Hoosier Hot 50 Jobs focuses on the jobs of tomorrow, there are several jobs that are hot now.

The Top 50 Hot Jobs regional profile is also attached.

Healthcare-15 Occupations

Registered Nurses
Pharmacists
Physical Therapists
Physicians and Surgeons, All Other
Medical and Health Services Managers
Dental Hygienists
Licensed Practical and Licensed Vocational Nurses
Occupational Therapists
Radiologic Technologists and Technicians
Medical Secretaries
Personal Care Aides
Family and General Practitioners
Healthcare Social Workers
Dental Assistants
Physical Therapy Assistants

Transportation, Distribution and Logistics-3 Occupations

Heavy and Tractor-Trailer Truck Drivers
First Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators
Captains, Mates, and Pilots of Water Vessels

Manufacturing-2 Occupations

Industrial Machinery Mechanics
Industrial Production Managers

Business and Professional-10 Occupations

Management Analysts
Cost Estimators
Sales Representatives, Services
Market Research Analysts and Marketing Specialists
Accountants and Auditors
First-Line Supervisors of Office and Administrative Support Workers
Lawyers
Managers, All Others
Office Clerks, General
Sales Representatives, Wholesale and Manufacturing

Information Technology-4 Occupations

Network and Computer Systems Administrators
Software Developers, Applications
Computer Systems Analysts

Information Security Analysts, Web Developers, and Computer Network Architects

Construction-12 Occupations

Electricians
Plumbers, Pipefitters and Steamfitters
First-Line Supervisors of Construction Trades and Extraction Workers
Operating Engineers and Other Construction Equipment Operators
Construction Managers
Carpenters
Brick-masons and Block-masons
Heating, Air Conditioning, and Refrigeration Mechanics and Installers
Painters, Construction and Maintenance
Construction Laborers
Civil Engineers
Cement Masons and Concrete Finishers

Education-3 Occupations

Preschool, Primary, Secondary and Special Education School Teachers
Postsecondary Teachers
Training and Development Specialists

Social Services-1 Occupation

Clinical, Counseling and School Psychologists

F. Kentuckiana Occupational Outlook:

Please reference http://www.kentuckianaworks.org/outlook/default.asp

The outlook ranks occupations in terms of:

a. Growth in terms of number of jobs, and
b. Growth in terms of percentage of Occupational change.

It also ranks fastest-growing occupations by geography, either Region 10, Louisville, KY and its neighboring counties, or the overall bi-state geography.

For each occupation, it provides detail such as:

- Skill requirements,
- Wage levels,
- Area post-secondary schools offering the education/training,
- Related occupations and their respective detail, and information on “Career Cluster/Pathways”.

The number to the left of each occupation represents its ranking among 666 occupations.

Region 10 specific information is presented below.

Healthcare

	Occupation	Median Salary	Average Annual Benefits	# of Jobs in 2010	# of Jobs in 2020	Change in # of Jobs	Projected Growth 2010 - 2020
1	Registered nurses	$57,600	$24,025	2,654	3,286	↑632	↑23%
3	Home Health Aides	$21,630	$8,722	914	1,491	↑577	↑63%
5	Personal Care Aides	$21,330	$8,601	593	1,030	↑437	↑73%
9	Nursing aides, orderlies, and attendants	$24,080	$9,839	1,557	1,837	↑280	↑17%
20	Medical Secretaries	$29,280	$13,442	415	566	↑151	↑36%
24	Licensed Practical and Licensed Vocational Nurses	$38,360	$15,280	717	848	↑131	↑18%
33	Pharmacy Technicians	$27,210	$10,838	340	449	↑109	↑32%
35	Medical Assistants	$28,240	$11,387	410	515	↑105	↑25%
39	Physicians and surgeons	$150,843	$58,370	513	606	↑93	↑18%
53	Pharmacists	$109,990	$43,811	273	342	↑69	↑25%
64	Dental Assistants	$34,460	$13,895	225	280	↑55	↑24%
66	Emergency Medical Technicians and Paramedics	$32,980	$13,137	190	244	↑54	↑28%

72	Physical Therapists	$77,580	$30,902	163	215	↑52	↑31%
83	Dental Hygienists	$59,340	$23,636	134	176	↑42	↑31%
84	Healthcare Social Workers	$44,470	$17,932	127	169	↑42	↑33%
103	Respiratory Therapists	$48,650	$19,378	115	146	↑31	↑26%
118	Rehabilitation Counselors	$35,150	$14,173	103	130	↑27	↑26%
120	Medical Records and Health Information Technicians	$32,770	$13,053	158	184	↑26	↑16%
121	Occupational Therapists	$74,450	$29,655	93	119	↑26	↑27%
132	Physical Therapist Assistants	$51,130	$20,617	59	81	↑22	↑37%
137	Diagnostic Medical Sonographers	$59,830	$23,832	50	70	↑20	↑40%

124	Massage Therapists	$41,800	$16,855	70	93	↑23	↑32%

Transportation, Distribution and Logistics

	Occupation	Median Salary	Average Annual Benefits	# of Jobs in 2010	# of Jobs in 2020	Change in # of Jobs	Projected Growth 2010 - 2020
4	Heavy and Tractor-Trailer Truck Drivers	$41,650	$20,754	2,082	2,529	447	21%
8	Laborers and Freight, Stock, and Material Movers, Hand	$26,260	$13,085	1,839	2,123	284	15%
27	Light Truck or Delivery Services Drivers	$35,540	$17,709	714	831	117	16%
30	Automotive Service Technicians and Mechanics	$34,080	$15,838	627	738	111	17%
37	Sailors and Marine Oilers	$30,370	$15,133	328	426	98	29%
48	Captains, Mates, and Pilots of Water Vessels	$54,010	$26,913	256	333	77	30%
51	Industrial Truck and Tractor Operators	$30,390	$15,143	576	647	71	12%
62	Cleaners of Vehicles and Equipment	$23,930	$11,924	299	359	60	20%
69	Packers and Packagers, Hand	$20,970	$10,449	641	694	53	8%
96	Bus and Truck Mechanics and Diesel Engine Specialists	$42,410	$19,710	226	260	34	15%
100	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	$45,860	$22,851	137	170	33	24%
101	Cargo and Freight Agents	$36,470	$16,743	95	127	32	33%
106	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	$50,060	$24,944	202	232	30	14%
114	Automotive Body and Related Repairers	$40,070	$18,622	138	165	27	19%

93	Dispatchers, Except Police, Fire, and Ambulance	$42,380	$19,456	177	213	↑36	↑20%
134	Taxi Drivers and Chauffeurs	$22,140	$11,032	102	124	↑22	↑21%

Manufacturing

	Occupation	Median Salary	Average Annual Benefits	# of Jobs in 2010	# of Jobs in 2020	Change in # of Jobs	Projected Growth 2010 - 2020
42	Team Assemblers	$40,610	$21,235	1,413	1,502	↑89	↑6%
46	Industrial Machinery Mechanics	$48,520	$22,549	353	434	↑81	↑22%
61	Welders, Cutters, Solderers, and Brazers	$37,340	$19,525	455	517	↑62	↑13%
68	Helpers--Production Workers	$24,250	$12,680	547	600	↑53	↑9%
71	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	$26,070	$13,632	219	272	↑53	↑24%
73	Inspectors, Testers, Sorters, Samplers, and Weighers	$37,760	$19,745	540	591	↑51	↑9%
75	Painters, Construction and Maintenance	$33,800	$16,455	165	213	↑48	↑29%
77	Computer-Controlled Machine Tool Operators, Metal and Plastic	$32,510	$16,999	212	257	↑45	↑21%
79	First-Line Supervisors of Production and Operating Workers	$54,250	$28,367	826	870	↑44	↑5%
81	First-Line Supervisors of Mechanics, Installers, and Repairers	$53,660	$24,938	412	455	↑43	↑10%
82	Machinists	$41,170	$21,528	519	562	↑43	↑8%
85	Meat, Poultry, and Fish Cutters and Trimmers	$24,050	$12,576	220	262	↑42	↑19%
91	Sawing Machine Setters, Operators, and Tenders, Wood	$24,510	$12,816	134	171	↑37	↑27%

92	Assemblers and Fabricators, All Other	$25,390	$13,276	340	376	↑36	↑10%
128	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	$29,970	$15,671	170	192	↑22	↑12%
131	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	$26,900	$14,066	275	297	↑22	↑8%
133	Sheet Metal Workers	$45,090	$21,951	146	168	↑22	↑15%
149	Production, Planning, and Expediting Clerks	$41,780	$19,181	277	295	↑18	↑6%

Business and Professional

Occupation		Median Salary	Average Annual Benefits	# of Jobs in 2010	# of Jobs in 2020	Change in # of Jobs	Projected Growth 2010 - 2020
2	Retail Salespersons	$23,040	$7,558	3,939	4,538	↑599	↑15%
7	Office Clerks, General	$27,790	$12,758	2,189	2,529	↑340	↑15%
10	Customer Service Representatives	$31,240	$14,342	1,547	1,761	↑214	↑13%
14	Bookkeeping, Accounting, and Auditing Clerks	$33,500	$15,380	1,380	1,559	↑179	↑12%
17	Receptionists and Information Clerks	$25,710	$11,803	803	968	↑165	↑20%
23	First-Line Supervisors of Office and Administrative Support Workers	$45,870	$21,059	1,111	1,244	↑133	↑11%
25	First-Line Supervisors of Retail Sales Workers	$38,440	$14,063	1,073	1,195	↑122	↑11%
38	Executive Secretaries and Executive Administrative Assistants	$38,890	$17,854	807	900	↑93	↑11%
41	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	$60,360	$22,083	957	1,047	↑90	↑9%
43	Accountants and Auditors	$60,000	$26,402	718	805	↑87	↑12%

52	Business Operations Specialists, All Other	$63,340	$27,872	863	933	↑70	↑8%
56	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	$29,260	$13,433	1,474	1,541	↑67	↑4%
57	Billing and Posting Clerks	$33,980	$15,600	384	448	↑64	↑16%
58	Sales Representatives, Services, All Other	$61,230	$22,401	354	418	↑64	↑18%
60	Insurance Sales Agents	$87,760	$32,107	144	207	↑63	↑43%
74	Management Analysts	$71,980	$31,674	356	407	↑51	↑14%
78	Counter and Rental Clerks	$23,300	$7,643	378	422	↑44	↑11%
95	Parts Salespersons	$27,530	$9,030	210	245	↑35	↑16%
97	Hotel, Motel, and Resort Desk Clerks	$18,810	$6,315	300	334	↑34	↑11%
102	Public Relations Specialists	$46,670	$22,310	156	188	↑32	↑20%
108	Insurance Claims and Policy Processing Clerks	$39,090	$17,946	110	140	↑30	↑27%
111	General and Operations Managers	$103,210	$45,416	1,451	1,480	↑29	↑1%
115	Bill and Account Collectors	$33,350	$15,311	283	310	↑27	↑9%
125	Payroll and Timekeeping Clerks	$35,150	$16,137	157	180	↑23	↑14%
126	Real Estate Sales Agents	$40,380	$15,300	86	109	↑23	↑26%

Construction

	Occupation	Median Salary	Average Annual Benefits	# of Jobs in 2010	# of Jobs in 2020	Change in # of Jobs	Projected Growth 2010 - 2020
13	Construction Laborers	$28,320	$13,787	722	903	↑181	↑25%
15	Carpenters	$36,330	$17,687	666	835	↑169	↑25%
31	First-Line Supervisors of Construction Trades and Extraction Workers	$53,830	$26,206	444	554	↑110	↑24%

32	Electricians	$45,910	$22,350	495	604	↑109	↑22%
44	Plumbers, Pipefitters, and Steamfitters	$45,560	$22,180	331	418	↑87	↑26%
50	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	$40,880	$18,999	189	261	↑72	↑38%
59	Cabinetmakers and Bench Carpenters	$33,100	$17,308	284	347	↑63	↑22%
65	Operating Engineers and Other Construction Equipment Operators	$41,080	$19,999	326	381	↑55	↑16%
75	Painters, Construction and Maintenance	$33,800	$16,455	165	213	↑48	↑29%
80	Cement Masons and Concrete Finishers	$33,980	$16,543	126	169	↑43	↑34%
104	Brickmasons and Blockmasons	$47,410	$23,081	57	87	↑30	↑52%
116	Helpers--Carpenters	$27,200	$13,242	51	78	↑27	↑52%
123	Drywall and Ceiling Tile Installers	$36,050	$17,550	70	94	↑24	↑34%
144	Roofers	$36,360	$17,701	88	107	↑19	↑21%

Education

	Occupation	Median Salary	Average Annual Benefits	# of Jobs in 2010	# of Jobs in 2020	Change in # of Jobs	Projected Growth 2010 - 2020
11	**Elementary School Teachers, Except Special Education**	**$51,940**	**$21,355**	**1,249**	**1,459**	**↑210**	**↑16%**
12	**Postsecondary teachers**	**$66,951**	**$29,951**	**803**	**1,003**	**↑200**	**24%**
40	**Middle School Teachers, Except Special and Career/Technical Education**	**$51,650**	**$21,236**	**545**	**637**	**↑92**	**↑16%**
47	**Preschool Teachers, Except Special Education**	**$23,280**	**$9,572**	**381**	**461**	**↑80**	**↑20%**
63	**Secondary School Teachers, Except Special and Career/Technical Education**	**$51,940**	**$21,355**	**881**	**941**	**↑60**	**↑6%**

88	**Special education teachers, preschool, kindergarten, and elementary school**	**$50,540**	**$19,907**	**188**	**228**	**↑40**	**↑21%**
99	**Educational, Guidance, School, and Vocational Counselors**	**$59,310**	**$23,915**	**190**	**223**	**↑33**	**↑17%**
119	**Kindergarten Teachers, Except Special Education**	**$54,130**	**$22,255**	**149**	**175**	**↑26**	**↑17%**
122	**Self-Enrichment Education Teachers**	**$37,600**	**$14,982**	**130**	**155**	**↑25**	**↑19%**
21	**Teacher Assistants**	**$28,460**	**$11,340**	**1,055**	**1,205**	**↑150**	**↑14%**

Social Services

45	Social and Human Service Assistants	$26,880	$10,839	329	411	↑82	↑24%
84	Healthcare Social Workers	$44,470	$17,932	127	169	↑42	↑33%
86	Child, Family, and School Social Workers	$37,850	$15,262	225	266	↑41	↑18%
98	Mental Health Counselors	$34,070	$13,738	101	135	↑34	↑33%
109	Mental Health and Substance Abuse Social Workers	$40,950	$16,512	109	139	↑30	↑27%
146	Substance Abuse and Behavioral Disorder Counselors	$36,460	$14,702	71	90	↑19	↑26%

Example of *bi-state* sector-based occupational projections, ranked by number of jobs changed/increased: Healthcare Practitioners and Technical

Occupations - Healthcare Practitioners &Technical
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new search

	Occupation	Median Salary	Average Annual Benefits	# of Jobs in 2010	# of Jobs in 2020	Change in # of Jobs	Projected Growth 2010 - 2020	
1	Registered nurses	$57,600	$24,025	15,525	19,548	↑4,023	↑25%	RELATED OCCUPATIONS
2	Physicians and surgeons	$150,843	$58,370	3,140	3,998	↑858	↑27%	RELATED OCCUPATIONS
3	Licensed Practical and Licensed Vocational Nurses	$38,360	$15,280	4,117	4,939	↑822	↑19%	RELATED OCCUPATIONS
4	Pharmacy Technicians	$27,210	$10,838	1,863	2,479	↑616	↑33%	RELATED OCCUPATIONS
5	Pharmacists	$109,990	$43,811	1,490	1,880	↑390	↑26%	RELATED OCCUPATIONS
6	Physical Therapists	$77,580	$30,902	988	1,335	↑347	↑35%	RELATED OCCUPATIONS
7	Emergency Medical Technicians and Paramedics	$32,980	$13,137	1,107	1,443	↑336	↑30%	RELATED OCCUPATIONS
8	Dental Hygienists	$59,340	$23,636	927	1,219	↑292	↑31%	RELATED OCCUPATIONS
9	Radiologic technologists and technicians	$46,700	$18,071	1,267	1,526	↑259	↑20%	RELATED OCCUPATIONS
10	Medical Records and Health Information Technicians	$32,770	$13,053	949	1,123	↑174	↑18%	RELATED OCCUPATIONS
11	Respiratory Therapists	$48,650	$19,378	632	803	↑171	↑27%	RELATED OCCUPATIONS
12	Veterinary Technologists and Technicians	$27,040	$10,771	323	490	↑167	↑51%	RELATED OCCUPATIONS
13	Occupational Therapists	$74,450	$29,655	545	711	↑166	↑30%	RELATED OCCUPATIONS

14	Diagnostic Medical Sonographers	$59,830	$23,832	293	415	↑122	↑41%	RELATED OCCUPATIONS
15	Speech-Language Pathologists	$70,910	$28,245	553	675	↑122	↑22%	RELATED OCCUPATIONS
16	Physician Assistants	$108,440	$43,194	435	543	↑108	↑24%	RELATED OCCUPATIONS
17	Medical and Clinical Laboratory Technicians	$36,460	$14,523	850	952	↑102	↑12%	RELATED OCCUPATIONS
18	Healthcare technologists and technicians, all other	$41,010	$15,869	439	537	↑98	↑22%	RELATED OCCUPATIONS
19	Surgical Technologists	$41,540	$16,546	520	609	↑89	↑17%	RELATED OCCUPATIONS
20	Medical and Clinical Laboratory Technologists	$61,680	$24,569	913	998	↑85	↑9%	RELATED OCCUPATIONS
21	Opticians, Dispensing	$33,560	$13,368	332	416	↑84	↑25%	RELATED OCCUPATIONS
22	Veterinarians	$92,220	$36,733	220	304	↑84	↑38%	RELATED OCCUPATIONS
23	Cardiovascular Technologists and Technicians	$46,190	$18,398	274	349	↑75	↑27%	RELATED OCCUPATIONS
24	Psychiatric Technicians	$24,900	$9,918	373	435	↑62	↑16%	RELATED OCCUPATIONS
25	Dentists, General	$135,550	$53,993	454	515	↑61	↑13%	RELATED OCCUPATIONS

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26	Healthcare practitioners and technical workers, all other	$39,190	$15,165	321	380	↑59	↑18%	RELATED OCCUPATIONS
27	Dietitians and Nutritionists	$48,710	$19,402	279	329	↑50	↑17%	RELATED OCCUPATIONS
28	Optometrists	$79,210	$31,551	136	179	↑43	↑31%	RELATED OCCUPATIONS
29	Chiropractors	$80,280	$31,977	134	168	↑34	↑25%	RELATED OCCUPATIONS

30	Athletic Trainers	$37,030	$14,750	79	103	24	30%	RELATED OCCUPATIONS
31	Health Diagnosing and Treating Practitioners, All Other	$60,390	$24,055	172	195	23	13%	RELATED OCCUPATIONS
32	Dietetic Technicians	$23,620	$9,408	131	151	20	15%	RELATED OCCUPATIONS
33	Nuclear Medicine Technologists	$58,760	$23,405	119	139	20	16%	RELATED OCCUPATIONS
34	Audiologists	$73,150	$28,306	64	83	19	29%	RELATED OCCUPATIONS
35	Recreational Therapists	$33,700	$13,423	116	135	19	16%	RELATED OCCUPATIONS
36	Occupational Health and Safety Specialists	$54,270	$21,617	280	298	18	6%	RELATED OCCUPATIONS
37	Radiation Therapists	$79,520	$31,675	89	105	16	17%	RELATED OCCUPATIONS
38	Therapists, all other	$76,670	$29,668	67	83	16	23%	RELATED OCCUPATIONS
39	Podiatrists	$161,580	$64,361	49	55	6	12%	RELATED OCCUPATIONS
40	Occupational Health and Safety Technicians	$34,290	$13,658	47	51	4	8%	RELATED OCCUPATIONS
41	Orthodontists	$205,420	$81,823	29	33	4	13%	RELATED OCCUPATIONS
42	Oral and Maxillofacial Surgeons	$205,420	$81,823	28	31	3	10%	RELATED OCCUPATIONS
43	Orthotists and Prosthetists	$57,820	$23,031	27	30	3	11%	RELATED OCCUPATIONS
44	Respiratory Therapy Technicians	$44,760	$17,829	78	80	2	2%	RELATED OCCUPATIONS
45	Dentists, All Other Specialists	$121,020	$48,205	26	27	1	3%	RELATED OCCUPATIONS
46	Prosthodontists	$130,820	$52,108	3	3	0	0%	RELATED OCCUPA