

College & Career Readiness in the CTE Classroom, RPOS 5.0

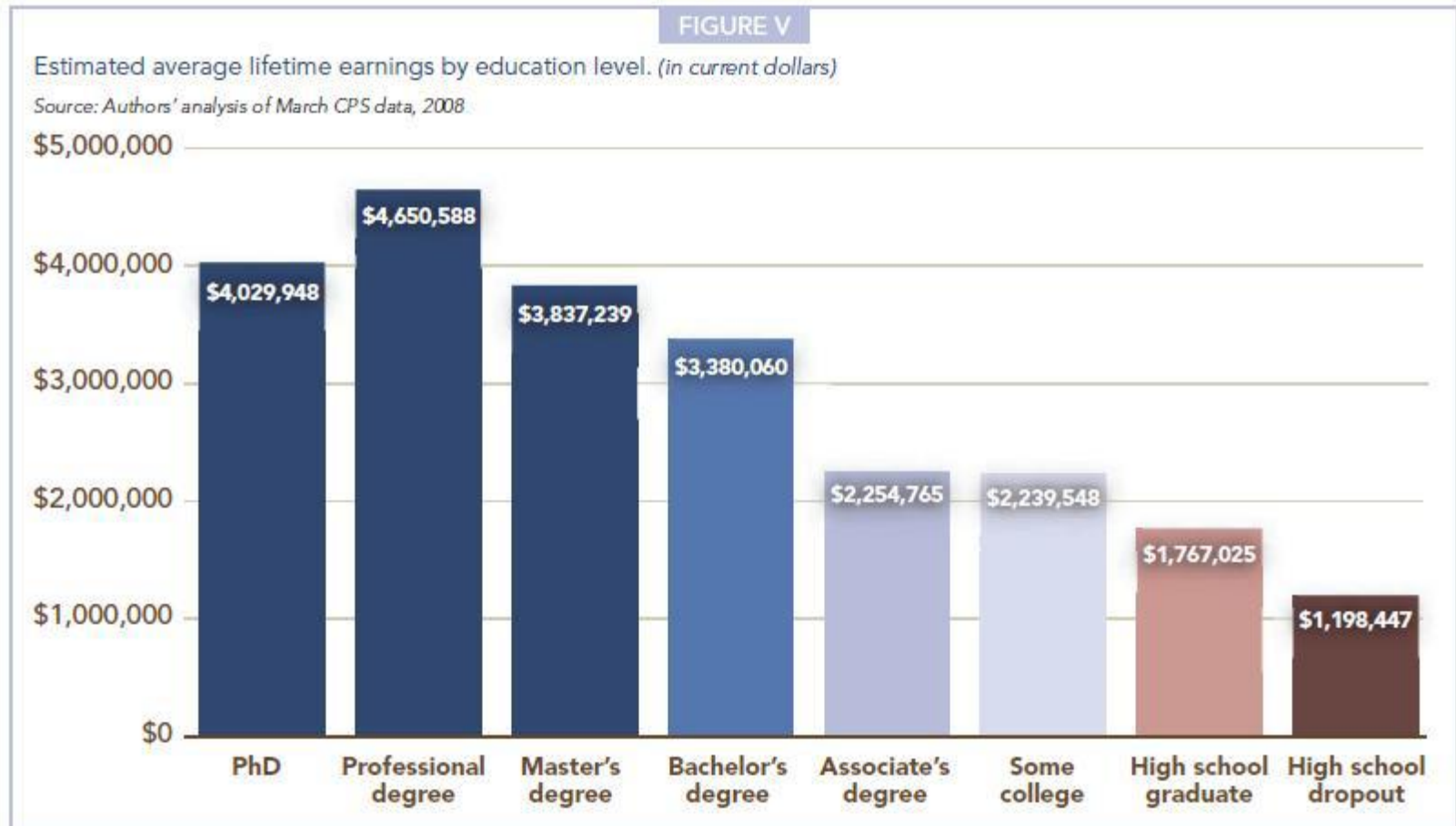
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College & Career Readiness

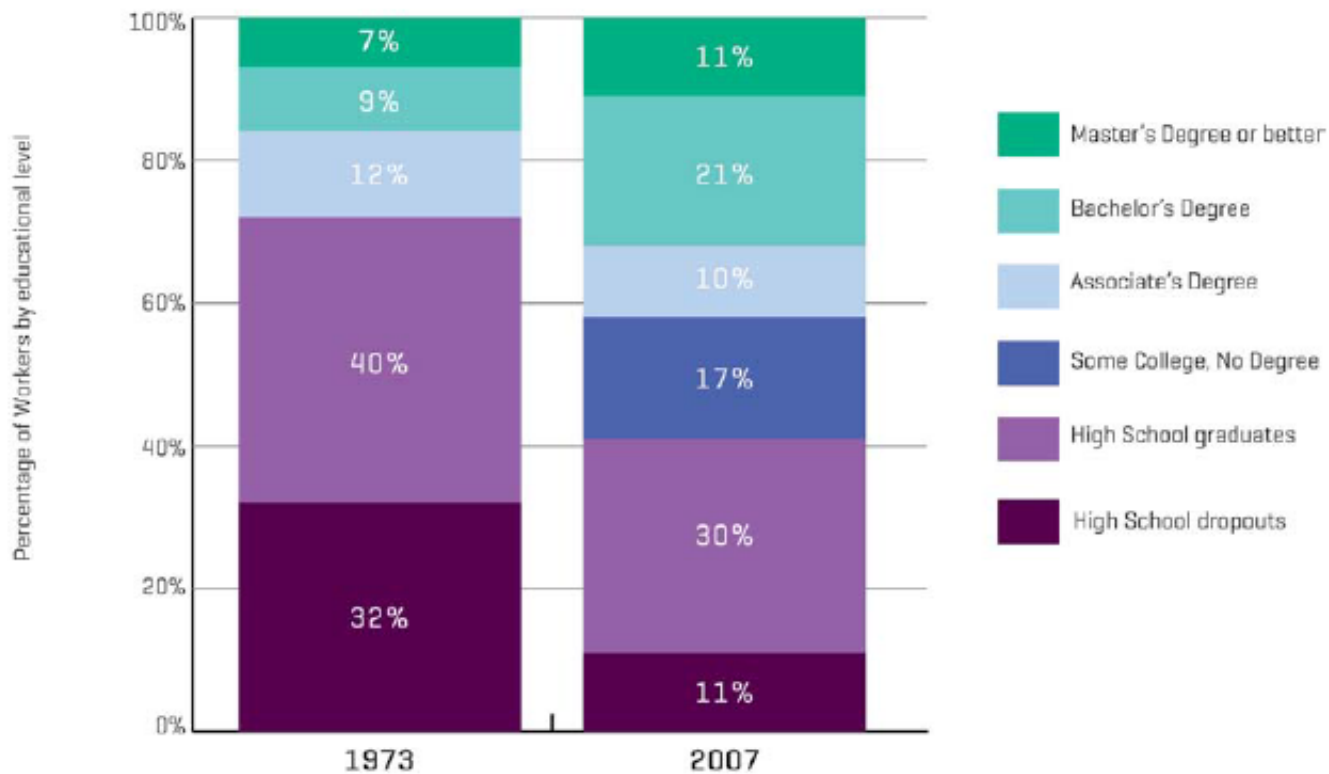


Source: Anthony P. Carnevale, Nicole Smith, Jeff Strohl, *Help Wanted: Projections of Jobs and Education Requirements Through 2018*. 2010. <http://cew.georgetown.edu/>

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FIGURE 1 Since 1973, jobs that require at least some college have exploded while opportunities for those with just a high school education have shrunk dramatically



Source: Pathways to Prosperity Project – Harvard Graduate School of Education - February 2011

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In 2009, President Barack Obama laid out a path to restoring America's international leadership in postsecondary attainment:

"...tonight I ask every American to commit to at least one year or more of higher education or career training. This can be community college, a four-year school, vocational training, or an apprenticeship. But whatever the training may be, every American will need to get more than a high school diploma."

Source: Pathways to Prosperity Project – Harvard Graduate School of Education - February 2011

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On January 23, 2012, **Governor Brownback** announced the metric his administration will use to track his Road Map for Kansas goal to increase the percentage of graduating high school students who are career or college ready.

The metric will measure: “**College Ready**” students plus “**Career Ready**” students, divided by the total number of juniors and seniors in high school in Kansas.”

Definition of College Ready: Number of high school students who score 21 or higher on the ACT. (*21 is the admissions standard set by the KBOR.*)

Definition of Career Ready: Number of high school students who receive a technical certification.

Brownback told the group the metric for 2011 is 23%.

College & Career Readiness



What do the terms
“career ready” and
“college ready”
really mean?

ACTE defines Career Readiness
using a formula that includes:

- College Readiness
- Employability Skills
- Technical Skills

WHAT IS "CAREER READY"?

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ACADEMIC SKILLS **EMPLOYABILITY SKILLS** **TECHNICAL SKILLS**

National dialogue has escalated around the concepts of college and career readiness. Influential national and state policymakers have called for high schools to prepare students to be ready for both college and a career. But what do these terms really mean?

All too often, the terms "career ready" and "college ready" are used interchangeably, and discussions around career readiness are limited to traditional academic skills that allow students to successfully enroll in postsecondary education. While there is no single, rigorous level of academic proficiency, especially in math and literacy, is essential for any posthigh school endeavor, the reality is that it takes much more to be truly considered ready for a career.

Career readiness involves three major skill areas: core academic skills and the ability to apply those skills to concrete situations in order to function in the workplace and in routine daily activities; employability skills (such as critical thinking and responsibility) that are essential in any career area; and technical, job-specific skills related to a specific career pathway. These skills have been emphasized across numerous pieces of research and allow students to enter true career pathways that offer family-sustaining wages and opportunities for advancement.

ACADEMIC SKILLS
As has been documented by such organizations as ACT and Achieve, career-ready core academics and college-ready core academics are essentially the same, with one key overlap in the preparation students need to be ready for postsecondary education and careers. All students need foundational academic knowledge, especially in math and English language arts, and, in today's economic environment, all high school students need the academic skills necessary to pursue postsecondary education without remediation—the measure many consider "college readiness."

However, to truly be career-ready, students also need to be able to attend and participate in class, and some academic skills need more attention and development. For example, employers often cite deficiencies in English and written communications, such as memos, letters, and complex technical reports. This supports the idea that most of the written material students will encounter in their careers is informational in nature, such as technical manuals and research articles, and they must be equipped academically to analyze and use these materials. Too often, these skills are not emphasized in traditional academic classrooms. Workplace deficiencies in math are also commonly noted, with more attention needed on areas such as data analysis and statistics, reasoning, and solving mathematical problems.

Students must also be able to apply academic knowledge to authentic situations they may face in their careers, a skill that takes practice and intentional instruction that may need to be tailored to a student's specific career goals. For example, students preparing to be nurses need to be able to calculate and apply ratios, proportions, rates and percentages to determine drug dosages, while construction students need building plans.

EMPLOYABILITY SKILLS
Employability skills have often been cited by employers as the skills most critical to workplace success in the 21st-century economy. These skills include (but are not limited to) critical thinking, adaptability, problem-solving, communication, and teamwork. These skills are essential for success in any career field, or in any industry.

CONCLUSION
Since most of the career opportunities for today's students will require some form of postsecondary education, there are many times when students will not be able to acquire the necessary academic, technical or employability skills in high school that will allow them to be career-ready without further education and training. Additional knowledge and specialization in one or more of these areas is often required either immediately after high school or in the future, depending on a student's career choices.

However, regardless of a student's path, it takes all three of these broad skill sets for students to be ready for a career. Twenty-first century high schools should focus on providing all students a strong foundation across all three areas so they are prepared for whatever their lives may bring.

ENDNOTES

1. Achieve, Inc., "What is College and Career-Ready?," www.achievethecore.org/what-is-college-and-career-ready.pdf.
2. Olson, Lynn, "What Does 'Ready' Mean?," Education Week, www.edweek.org/education/story/what-does-ready-mean/2012/04/11.
3. Olson, Lynn, "What Does 'Ready' Mean?," Society for Human Resource Management, "Critical Skills Needs and Resources for the Changing Workforce: Keeping Skills Current," www.shrm.org/Research/Reports/PDF/criticalskills.pdf.
4. Society for Human Resource Management, "Critical Skills Needs and Resources for the Changing Workforce: Keeping Skills Current," www.shrm.org/Research/Reports/PDF/criticalskills.pdf.
5. The Conference Board, Corporate Values for Working Families, Partnership for 21st Century Skills, and the Society for Human Resource Management, "Are They Ready Ready to Work? Employers' Perspectives on the Basic Knowledge and Applied Skills of New Graduates in the 21st Century U.S. Workforce," www.21stcenturyskills.org/documents/FINAL_REPORT_0212-03-04.pdf.
6. National Association of Manufacturers, "2005 Skills Gap Report – A Survey of the American Manufacturing Workforce," www.nam.org/medialibrary/_media_files/_naam/05020506761.pdf.
7. Skills Cluster Initiative, www.skillscluster.org.

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College Readiness:

All students need foundational academic knowledge, especially in math and English language arts, and, in today's economic environment, all high school students need the academic skills necessary to pursue postsecondary education without remediation - *the measure many consider “college readiness.”*

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Employability skills

cited by employers as the skills most critical to workplace success in the 21st-century economy. *These skills include:*

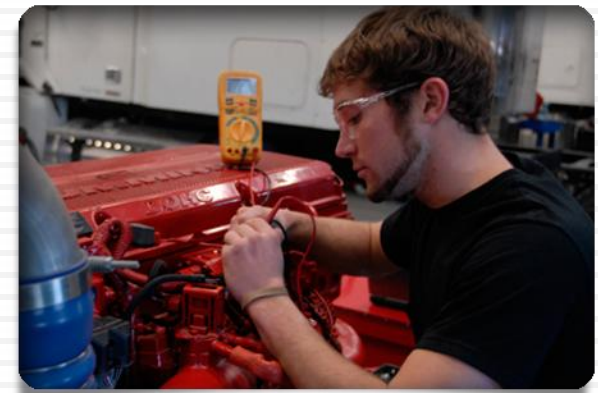
- Critical thinking
- Adaptability
- Problem solving
- Oral and written communications
- Collaboration and teamwork
- Creativity
- Responsibility
- Professionalism
- Ethics
- Technology use



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- **Employability skills (cont.)**
- In the 2006 report, “Are They Really Ready to Work?,” employability skills “dominate rankings of knowledge and skills expected to increase in importance over the next five years.”
- Employers identified these top five:
 - **critical thinking/problem solving,**
 - **information-technology application**
 - **teamwork/collaboration,**
 - **creativity/innovation**
 - **diversity**



Technical Skills

In the National Association of Manufacturers 2005 Skills Gap Report,

“technical skills”

was the top response to the question,

“What types of skills will employees need more of over the next three years?”

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Perkins POS Required Elements

POS Framework Supporting Elements

Incorporate and align secondary and postsecondary education elements

- Legislation and Policies
- Partnerships

Include academic and CTE content in a coordinated, non-duplicative progression of courses

- Course Sequences
- College and Career Readiness Standards
- Teaching and Learning Strategies
- Guidance Counseling and Academic Advisement

Offer the opportunity, where appropriate, for secondary students to acquire postsecondary credits

- Credit Transfer Agreements
- Professional Development

Lead to an industry-recognized credential or certificate at the postsecondary level, or an associate or baccalaureate degree

- Technical Skill Assessments
- Accountability and Evaluation Systems

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POS Framework Elements	Current Status			Importance		
	None	In Progress	Operational	Low	Important	Critical
1. Legislation and Policies	1	2	3	1	2	3
2. Partnerships	1	2	3	1	2	3
3. Professional Development	1	2	3	1	2	3
4. Accountability and Evaluation Systems	1	2	3	1	2	3
5. College and Career Readiness Standards	1	2	3	1	2	3
6. Course Sequences	1	2	3	1	2	3
7. Credit Transfer Agreements	1	2	3	1	2	3
8. Guidance Counseling and Academic Advisement	1	2	3	1	2	3
9. Teaching and Learning Strategies	1	2	3	1	2	3
10. Technical Skill Assessments	1	2	3	1	2	3

Self Assessment Tool: <http://cte.ed.gov/docs/POSLocalImplementationTool-9-14-10.pdf>

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College and Career Readiness Standards

Today's workplace requires that all workers be lifelong learners in order to advance in their careers. It is necessary there be a common set of knowledge and skills that all individuals acquire to successfully transition into postsecondary education or the workplace.

As individuals select specific career paths, they will then have to focus on the additional knowledge and skills (above and beyond core college and career readiness) they should acquire to be successful in their chosen field.

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How do we deliver the message and prepare our students?

CTE Classroom

- Foundation Knowledge & Skills

CTSOs

- BPA, DECA, FCCLA
- Skills USA, TSA

Guidance & Career Counseling and Academic Advising

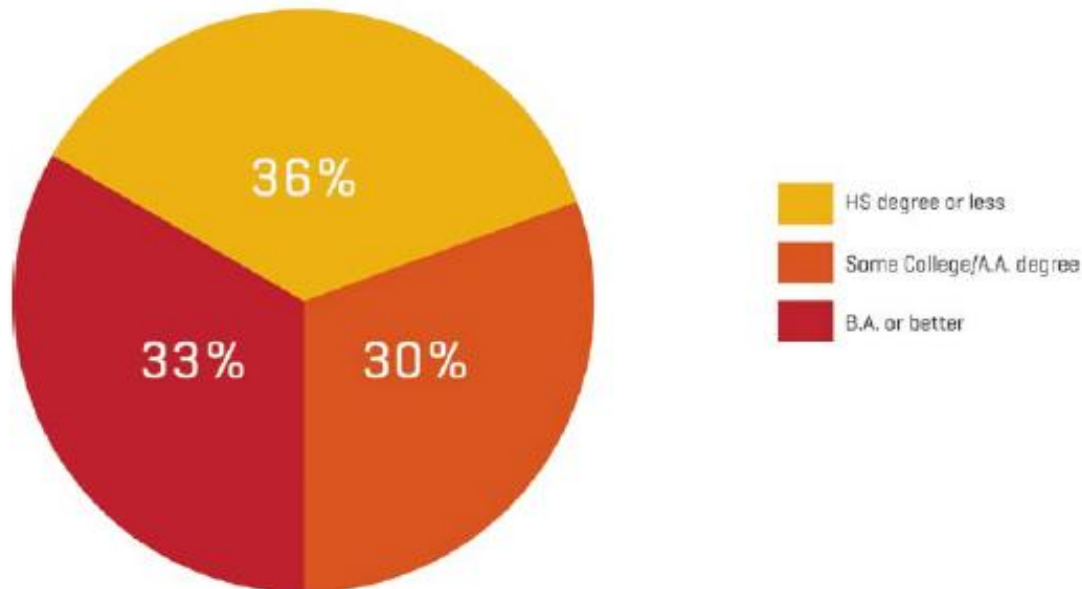
- Personal Plans of Study
- Kansas Career Pipeline, Assessments
- Career Development Planning
- Career Fairs Job Shadowing



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FIGURE 4 College for All does not mean everyone needs a B.A. Even in this decade most jobs do not require a B.A.



Source: March CPS data, various years; Center on Education and the Workforce forecast of educational demand to 2018.

The Center on Education and the Workforce at Georgetown University projects that the U.S. economy will create some 47 million job openings over the 10-year period ending in 2018. Nearly two-thirds of these jobs, in the Center's estimation, will require that workers have at least some post-secondary education.

Source: Pathways to Prosperity Project – Harvard Graduate School of Education - February 2011

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- Manpower has **4,000,000** workers employed in **80 countries** worldwide. In order to fill those positions, they interviewed **12,000,000** individuals.
- In 2011, **52% of employers** are having difficulty finding talent to fill **key positions**.
- ***The Top 10 Jobs in the United States***
 1. Skilled Trades
 2. Sales Representatives
 3. Engineers
 4. Drivers
 5. Accounting & Finance
 6. IT Staff
 7. Management/Executive
 8. Teachers
 9. Secretaries, PAs, Admins
 10. Machinists/Machine Operators
- By **2020** there will be **120 million high skill high pay jobs** and only **50 million people** to fill them.
- **Source:** *Melanie Holmes, Manpower Group – Jan. 2012, Kansas Workforce Summit*

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Technology has long changed the way we work

- It matters less what we know and more what we can find
- It matters less what we do ourselves and more how we collaborate with others
- It matters less how we look when we work and more how much work we get done
- It matters less what skills we have mastered in the past and more how well we learn new skills in the future

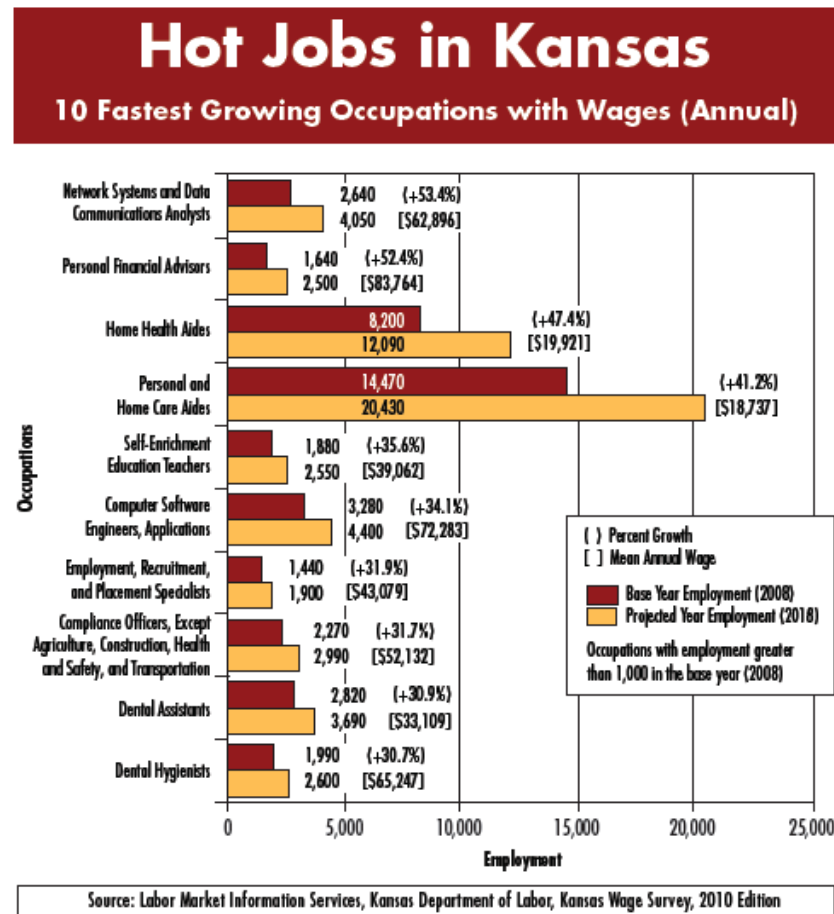


Source: Melanie Holmes, Manpower Group – Jan. 2012, Kansas Workforce Summit

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- All ten occupations are projected to grow at a rate more than three times higher than the average growth rate of all occupations in Kansas which is 9.8%
- According to the Kansas Wage Survey 7 of the above 10 occupations earn more than the statewide average annual wage for all occupations which is \$38,525.



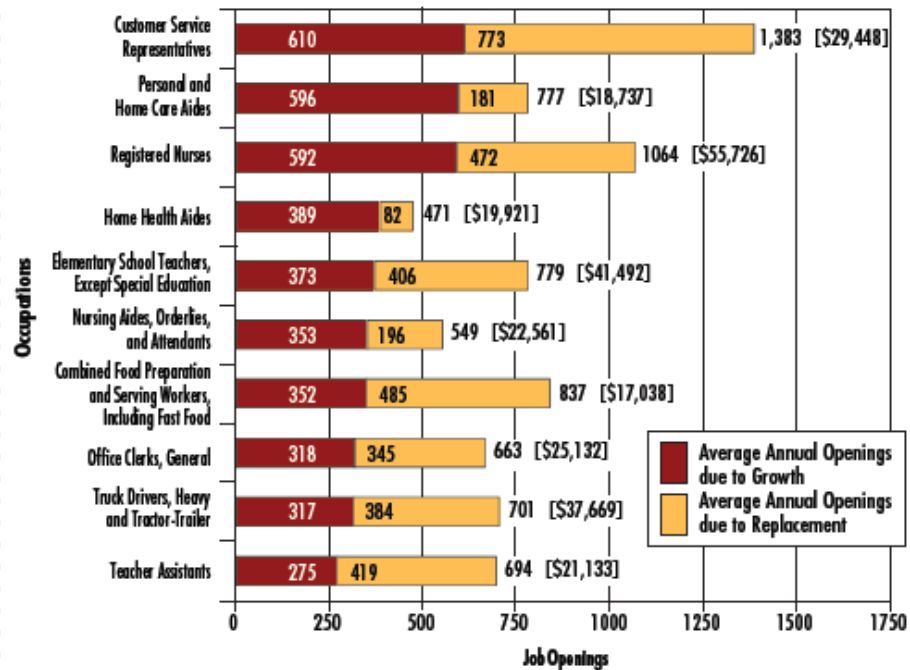
More information about the Kansas Occupational Outlook is available on the KDOL website at <http://www.dol.ks.gov/LMIS/Projections/Projections.html>

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- Job Openings from Replacement are the openings created by people leaving their current occupation to move to another occupation or to leave the labor market.
- Job openings from Growth are new openings that are the result of increased demand for working in the occupation.
- These 10 occupations account for over one quarter of all projected average annual openings (due to growth) over the projection period 2008 to 2018.

Job Openings Top 10 Average Annual Job Openings (Due to Growth)



Source: Labor Market Information Services, Kansas Department of Labor, Kansas Wage Survey, 2010 Edition

More information about the Kansas Occupational Outlook is available on the KDOL website at <http://www.dol.ks.gov/LMIS/Projections/Projections.html>

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