

**Highlights from  
Talent: The Future of Metro St. Louis in the Knowledge Economy (RCGA report)**

*“Career-long development is important not only to individuals seeking to advance, but to the companies where they work. To fill the most valued roles, firms seek talented people who have **traveled a developmental path on which they earned credentials and accumulated the knowledge, skills and experiences** required for high performance...”*

*(RCGA’s “Talent: The Future...” report, p. 89, emphasis added)*

*“Partly as a result of the many challenges facing students who are trying to juggle school, work, family life, and other responsibilities at the same time, **there are more adults in the St. Louis area who started college but did not finish (380,846) than there are working age adults with four-year degrees (299,251)**. Of those who started but did not finish college, two-thirds (67 percent) completed at least one academic year.”*

*(RCGA’s “Talent: The Future...” report, p. 82, emphasis added)*

**Employers demand more than academic credentials**—“skills such as active listening, customer-orientation, critical/analytical thinking, oral communications, time management and written communications” are necessary to achieve high levels of individual performance and organizational success.

*(RCGA’s “Talent: The Future...” report, p. 87, emphasis added)*

**Total Job Postings** by category in St. Louis Metro Service Area Nov. 2010- Feb. 2011 (Excerpt shows top 7 categories of postings found in analysis, full table on page 6.)

<b>Occupation</b>	<b>Total</b>
Computer & Mathematical	14,711
Sales & Related Occupations	10,779
Healthcare Practitioners & Technical	9,243
Other	8,075
Office & Administrative Support	7,910
Management Occupations	7,593
Business & Financial Operations	5,113

**MANY are “STEM Careers”! Here is A Definition of STEM:**

**S***cience is the study of our natural world (National Science Education Standards, National Research Council, 1996).*

**T***echnology is the modification of the natural world to meet to human wants and needs. (ITEA, 2000)*

**E***ngineering is design under constraint (William Wulf, Past-president of National Academy of Engineering)*

**M***athematics is the study of any patterns or relationships (AAAS, 1993)*

## Missouri Economic Development Council's Employment Outlook Projections 2008-2018

MERIC has developed, in partnership with the U.S. Department of Labor, long-term employment projections through 2018.

**Topping a list of occupations that have high growth rates and at least a 1,000 openings are**

- **home health and personal care aides,**
- **network systems and data communication analysts,**
- **self-enrichment education teachers,**
- **pharmacy technicians and**
- **compliance officers.**

Current openings used by the real-time jobs tool will be posted on the state's job board, which can be found at [www.MissouriCareerSource.com](http://www.MissouriCareerSource.com)

A tool for researching various careers may be found at <http://jobs.mo.gov/jobseeker/career-tools/career-exploration-tool>.

*For more information on Missouri's employment outlook and regional workforce needs, see charts and graphs on the following pages.*

### **Future Workforce Challenges**

- *Not enough students and workers with foundational and advanced math and sciences skills*
- *The percentage of first time freshman enrolled in remedial math and reading classes at Missouri Public Institutions has remained steady at roughly 30%*
- *Fewer college graduates are attaining a science and mathematics-related degree despite higher demand by industry*
- *Need to scale up postsecondary education to provide flexible training/certificate programs for worker skill enhancement*

*Outlook for Missouri's Workforce.*

Missouri Economic Research and Information Center of Missouri Department of Economic Development.

## Bill Daggett's Lexile Score Analysis

- **Entry-level jobs today often have higher reading requirements than many of the more advanced positions in the same field. Moreover, while white-collar workers may do more reading on the job, the material that many blue-collar workers must read is both complex and extremely critical to job performance. Poor comprehension of technical manuals and installation instructions, for example, can have disastrous results.** (Daggett, "**The Future of Career and Technical Education**")

### CURRICULAR & COUNSELING IMPLICATIONS

Ensure student's *Personal Plan of Study* is developed to include rigor (the right content) and relevance (hands-on or engaged learning opportunities).

Excerpts below are from *Implementing the Common Core State Standards- The Role of the School Counselor* (see Works Cited for complete reference). Also see Bill Daggett's White Paper entitled, *The Future of Career and Technical Education*.

#### CURRICULAR IMPLICATIONS -- COMMON CORE STATE STANDARDS

Common Core State Standards mean teaching and learning need to be organized to have students:

- Conduct short, focused projects and longer-term in-depth research;
- Produce clear and coherent writing, whatever the selected format;
- Communicate research findings (speaking and listening skills) and mathematical thinking;
- Model quantitative problems with mathematics;
- Persevere in solving problems; and
- Reason deeply about mathematics and mathematical situations by applying concepts to real world situations while demonstrating higher-level thinking.

#### COUNSELING IMPLICATIONS

##### Action Steps for School Counselors: Literacy Instruction

- Familiarize yourself with the CCSS literacy standards.
- Advocate for a school counselor to be a member of the school leadership team as well as the school literacy council.
- Work with school literacy leaders to analyze the current state of your school from a literacy perspective. Gather and analyze data related to standardized test scores, state assessments, grades, quantitative measures of student reading comprehension, and the number of Tier 2 and Tier 3 interventions.
- Monitor student progress and participate in discussions with the staff related to the readiness of students and the capacity of teachers to integrate literacy skills into content area instruction.
- Familiarize yourself with the common misconceptions of literacy instruction as a conversation starter with the school leadership team. School counselors are an important part of the changes in the conversation.

- ❑ Identify students with literacy needs and work with staff to match those needs to appropriate interventions.
- ❑ Integrate strategies for addressing literacy instruction standards into your Comprehensive School Counseling Plan.

#### Action Steps for School Counselors: Mathematics Instruction

- ❑ Begin by working with the school leadership team to analyze data on student mathematics participation, including:
  - Number of students who are remaining on-track for college and career readiness in the elementary grades.
  - Number of students repeating mathematics courses.
  - Number and percentage of students who successfully complete a three-year mathematics sequence of either Algebra I, Geometry, Algebra II, or a combined sequence of Mathematics 1, Mathematics 2, and Mathematics 3.
  - Students enrolled in International Baccalaureate, Advanced Placement, or dual-enrollment mathematics and science courses as well as the scores on the externally-moderated exams.
- ❑ Advocate for four years of mathematics as the graduation standard, if it is not already in place.
- ❑ Review the school's course selection, offerings, and sequencing policies to ensure that all students have access to higher-level mathematics courses.

### Works Cited

***The Future of Career and Technical Education*** by Willard R. Daggett, Ed.D. International Center for Leadership in Education. 2002.

***The Education Challenge- Preparing Students for a Changing World***, PPT graphic by Willard R. Daggett, Ed.D. International Center for Leadership in Education. 2008.

***What's the Plan? Helping students explore their futures.*** Missouri Department of Elementary and Secondary Education. 2010. <http://dese.mo.gov/divcareered/documents/career-clusters-booklet.pdf>

***Outlook for Missouri's Workforce*** PPT by Mary Bruton, Missouri Economic Research and Information Center of Missouri Department of Economic Development. <http://ded.mo.gov/Content/Workforce%20Demographics%207.29.10.pdf>

***Outlook for Missouri's Workforce.*** Missouri Economic Research and Information Center of Missouri Department of Economic Development. [http://www.missourieconomy.org/pdfs/mo\\_empl\\_outlook.pdf](http://www.missourieconomy.org/pdfs/mo_empl_outlook.pdf)

***Implementing the Common Core State Standards- The Role of the School Counselor.*** Achieve.org <http://www.achieve.org/publications/implementing-common-core-state-standards-role-school-counselor-action-brief>

**Addressing the STEM Workforce Challenge: Missouri.** BHEF Research Brief. Business Higher Education Forum, 2012. [http://www.Addressing\\_the\\_STEM\\_Workforce\\_Challenge-Missouri.pdf](http://www.Addressing_the_STEM_Workforce_Challenge-Missouri.pdf)

**Talent: The Future of Metro St. Louis in the Knowledge Economy,** 2011. R.C.G.A. (St. Louis Regional Chamber & Growth Association) <http://www.stlrcga.org/x4741>

[www.MissouriCareerSource.com](http://www.MissouriCareerSource.com)

<http://jobs.mo.gov/jobseeker/career-tools/career-exploration-tool>