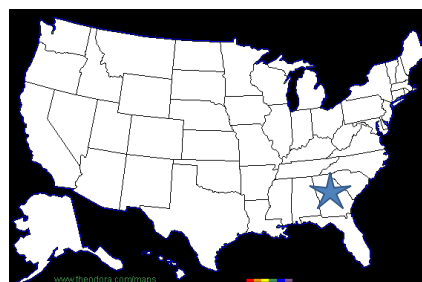


Geography Matters: Notes on VET Policy Futures

Richard D. Lakes
Department of Educational Policy Studies
Georgia State University, Atlanta USA



THE DIRECTION OF VET POLICY REFORM:

- Addressing the high school dropout problem
- Up-skilling the domestic workforce
- Attracting firms and sustain innovation in sectors
- Managing and assessing talent in sectors
- Recognizing the stockpiling of credentials (supply-side)
- Favoring employer-led skills utilization (demand-side)
- Facing the reality of declines in public funding
- Adopting a business model of accountability
- Aligning workforce & economic development efforts



A National Crisis in Youth Transitions

(http://www.gpee.org/fileadmin/files/pdf/GPEE_Policy_Statement_Tiered_Diploma_2_.pdf)

- Fewer than one-fourth of high school seniors graduating in 2008 who took the ACT scored at the 'college-ready' level in all four subject areas.ⁱ
- About 29 percent of community college students and 19 percent of students at public 4-year institutions report having to take some remedial coursework in their first year. Mathematics is the most common remedial course reported by beginning postsecondary students.ⁱⁱ
- More than 40 percent of surveyed employers say high school graduates hired are deficiently prepared for the entry-level jobs they fill. The survey finds that recent high school graduates lack the basic skills in reading comprehension, writing and math, which many respondents say were needed for successful job performance.ⁱⁱⁱ



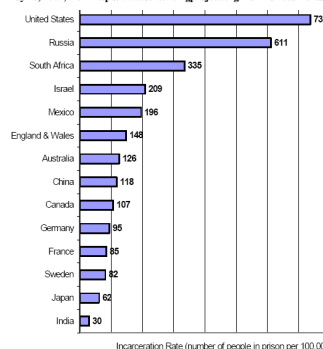
The PISA Study
(Program for International Student Assessments that
measures academic progress of 15-year-olds in 57 countries)

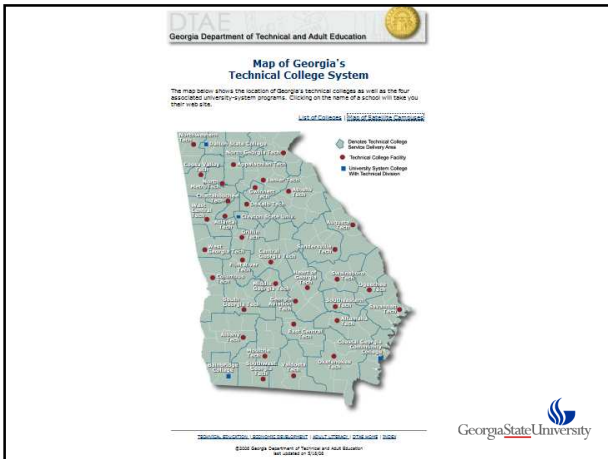
The 2006 results showed American
students in the 30 OECD countries ranked:
21st out of 30 in Science
and
25th out of 30 in Math



Rate of Incarceration in Selected Nations

The Sentencing Project, (2006, December). *New incarceration figures: Thirty-three consecutive years of growth.* [Retrieved on May 26, 2009, from http://www.sentencingproject.org/Admin/Documents/publications/inc_newfigures.pdf]





- ### VET in the State of Georgia
- Chronically underemployed and unemployed (via the public-sector federal WIA)
 - Postsecondary students preparing for technical careers (via the state technical college system and some proprietary schools)
 - Incumbent workers retraining for continuous improvement or new process and equipment upgrades (via QuickStart™ economic development offices run by the state technical college system)
- GeorgiaStateUniversity

VET SECTORS

VET centers ally with governmental workforce and economic development departments, employers and community-based organizations, to jointly solve the challenges of employability within identifiable regions of the state. About 41 percent of all Georgia's technical college students in FY 2009 were enrolled in training for jobs in one of the strategic industries named by the governor that are identified as high demand sectors.

GeorgiaStateUniversity

Skill Ecosystems

“Replacing a traditional focus on training provision with a conception of workforce development, and understanding skill formation in the context of skill ecosystems rather than simply focusing on aggregate level skill shortages, [this] allows networks to develop constructive and sustainable responses to skill formation challenges” (Hall & Lansbury, 2006, p. 588).

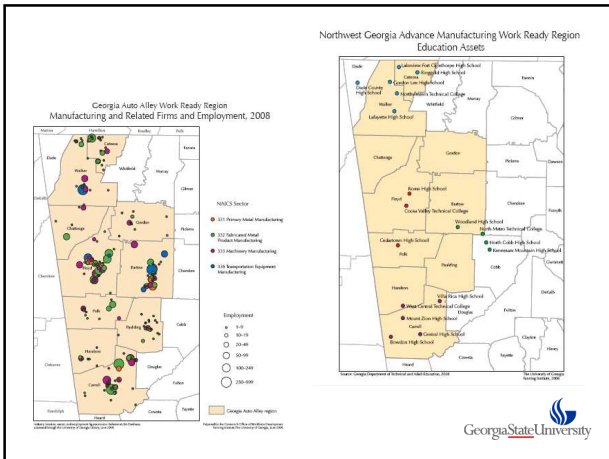
GeorgiaStateUniversity

The State Model for Workforce and Economic Development

- Identify strategic industries by region that will heighten competitive advantage and sector growth.
- Utilize the educational assets of a region to facilitate business development and resident upskilling.
- Implement a credentialing system to assess both individual and community skill levels.
- Conduct job profiling to enable employers to use scientific means to make sound hiring and promotional decisions.

GeorgiaStateUniversity





Sector Employment Projections

Georgia Auto Alley - Regional Employment Ratio

SOC Code	Occupation	Program(s)	Award Level	2009 # Needed	2008 Program Completions	Ratio	2012 Projected Need	2014 Projected Need	Work Ready Certificate level	Certificate holders at level
51-1121	Welders	Welding technology	Certificate	69	71	1.03	63	55	Silver	7,159
51-1041	Machinists	Machine shop technology	Certificate	28	88	3.14	25	23	Silver	7,159
51-1011	First-line supervisors	Operations management and supervision	Associate or work experience	55	153	2.78	68	67	Silver	7,159
17-3024	Electro-mechanical technician	Advanced PLC and HMI technician, mechatronics	Certificate to associate	4	5	1.25	12	13	Gold	2,253
49-9041	Industrial machinery mechanics	Industrial mechanics and maintenance technology	Certificate	35	54	1.54	30	45	Silver	7,159
51-9061	Inspectors, testers and weighers	Quality control technology	Certificate	10	1	0.10	27	50	Gold	2,253

Source: Economic Modeling Solutions, Inc., 1/4/2010 NA Ratio: Short-term decline or zero growth

GeorgiaStateUniversity

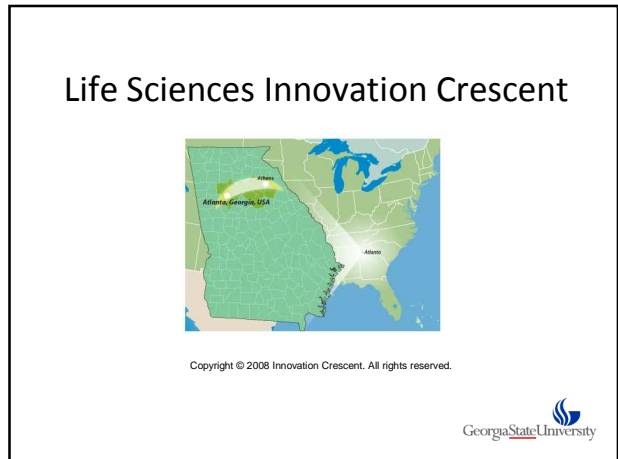
Jobs in Decline with Retraining Options

Auto Alley - Comparable Jobs (2009)

Occupation	Growth 2008-09	Compatibility Rating	Wage
Growth Occupation: Team assemblers	725		\$19.52
Comparable Job: Inspectors, testers, sorters, samplers, weighers	(20)	96	\$10.48
Comparable Job: Paper goods machine setters, operators, tenders	(56)	95	\$13.38
Growth Occupation: Welders	112		\$13.67
Comparable Job: Sawing machine setters, operators, tenders	(3)	97	\$15.19
Comparable Job: Textile knitting and weaving machine setters	(245)	93	\$13.13
Comparable Job: Textile winding, twisting and drawing-out machine setters	(105)	93	\$12.42

Source: Economic Modeling Specialists, Inc., 6/10/09

GeorgiaStateUniversity



- ### Life Sciences (Biotech) Sector in GA
- Annual economic impact of \$17.3 billion
 - 62,000 direct and indirect jobs (average salary is 63K)
 - +340 life sciences companies
 - +\$8 billion in annual sales
 - +400 marketed products; 300 in development
 - Global Health Centers for the US Centers for Disease Control, CARE International, American Cancer Society, Arthritis Foundation, American Red Cross, among others.
- Source: Georgia Bio™ Factsheet
- GeorgiaStateUniversity

- ### Sector Area Technical Colleges
- #### Bioscience Certificate Programs
- Analytical Chemistry Laboratory Technician
 - Biological Sciences Laboratory Technician
 - Bioscience Environmental Laboratory Technologist
 - Clinical Research Professional
 - Molecular Biology Technician
 - Regulatory Compliance Technician
- #### Degree Program
- Bioscience Technology
- GeorgiaStateUniversity

The Aerospace Industry in Georgia

Georgia is ranked 8th in U.S. aerospace industry employment. Over 80,000 Georgians are employed in this high-tech, high-wage industry that continues to be the leading U.S. export. The state is home to more than 500 firms that perform all facets of aerospace manufacturing; maintenance and overhaul; and electronics systems design, development, testing and support for customers and programs throughout the world. Boeing, Cessna, Gulfstream, Lockheed-Martin, Maule, Northrop-Grumman, Pratt & Whitney, Raytheon, Tiger, Thrush and Vought are just a few of the original equipment manufacturers (OEM) with major manufacturing operations in Georgia.

<http://aerospace.georgiainnovation.org/about/us>



Sector Area Technical College

- **Degree Program**
Aviation Maintenance Technology Degree
- **Diploma Programs**
Advanced Aircraft Sheet Metal
Aircraft Structural Technology
Aviation Maintenance Technology
- **Technical Certificates of Credit**
Aviation Maintenance Technician



While formal school-based credentials may have fallen out of favor, business leaders want some sort of training warrant from educators that future recruits are fit for the high-skills workplace with portable credentials.



The Work Ready assessment is administered by ACT's nationally accredited WorkKeys® system and measures both core skills and work habits. Core skills assessments measure skills in **applied mathematics, reading for information and locating information**, three skills that are highly important to the majority of jobs in the workplace. The **work habits** assessment measures work-related attitudes and behaviors in areas that are trainable and coachable, such as carefulness, cooperation, discipline and drive.



WorkKeys® Foundational Skills Assessments are the basis for the National Career Readiness Certificate

Retrieved on June 22, 2009 from <http://www.act.org/certificate/how.html>

	Bronze – scored at least a level 3 in each of the three core areas and has the necessary foundational skills for 35 percent of the jobs in the WorkKeys database.
	Silver – scored at least a level 4 in each of the three core areas and has the necessary foundational skills for 65 percent of the jobs in the WorkKeys database.
	Gold – scored at least a level 5 in each of the three core areas and has the necessary foundational skills for 90 percent of the jobs in the WorkKeys database.



Sample Items: Locating Information

Level 3 Practice Question

You regularly check the pressure gauge on a large tank. According to the gauge shown, what is the current pressure (in PSI)?

1. 30
2. 35
3. 40
4. 45
5. 100



Locating Information: Level 4

You must sort clothes in a dry cleaning establishment according to the customer's instructions. According to the form shown, how should this customer's shirt be treated?

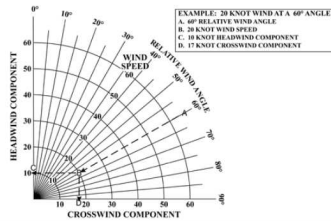
1. Dryclean it, add light starch, and fold it.
2. Dryclean it, add light starch and place it on a hanger.
3. Launder it with no starch and place it on a hanger.
4. Launder it with light starch and place it on a hanger.
5. Launder it with medium starch and fold it.

FRESH 'N' CLEAN 1200 14TH ST MAPLETON, OH 45216		555-8301	4:18 PM 8/28
75053			
PHONE	555-2261	DATE	8-29
PRINT NAME	EDNA THOMPSON		
ADDRESS			
TYPE	DRY CLEAN	WASH	IRON
STARCH	NO STARCH	NO STARCH	NO STARCH
FINISH	NO FINISH	NO FINISH	NO FINISH
MARK	NO MARK	NO MARK	NO MARK
OTHER	NO OTHER	NO OTHER	NO OTHER

Locating Information: Level 5

As an airplane pilot, you need to determine the crosswind component of the wind speed to ensure safe takeoffs and landings. According to the graph shown, if the reported wind speed is 45 knots at a 20° angle, what is the crosswind component, in knots?

- A. 15
- B. 25
- C. 43
- D. 45
- E. 65



The **WorkKeys**® talent assessment: **carefulness**—the tendency to think and plan carefully before acting or speaking; **discipline**—the tendency to be responsible and follow-through with tasks; **order**—the tendency to be neat and orderly; **stability**—the tendency to maintain composure; **optimism**—the tendency to have a positive outlook; **cooperation**—the tendency to be likeable and cordial in interpersonal relationships; **goodwill**—the tendency to be forgiving; **sociability**—the tendency to enjoy being in other people's company; **influence**—the tendency to emerge as a group leader; **striving**—the tendency to work hard and achieve goals; **creativity**—the tendency to think outside the box; and **savvy**—the tendency to read other people's motives.

Job Profiling

GA Work Ready job profiling allows companies to work with an authorized job profiler to identify the required job tasks and skill levels for each position. By comparing job profiles with individuals' Work Ready Certificates, companies can make reliable decisions about hiring, training and program development.

Work Ready Communities

The regional work-ready designation is based upon satisfying a number of criteria beyond work-ready certification numbers, such as demonstrating improvements in high school graduation rates; showing increases in higher education students majoring in technical and scientific fields related to the named strategic sector industries; and improving the training of dislocated adults as well as incumbent workers.

Obstacles to VET Sector Success

- The global recession causing insecurity and instability in working life, limited job creation
- The lack of training time due to work intensification and job expansion
- Employers hiring but at low wages in sectors
- Employers not engaged in partnerships
- The outmigration of regional talent
- Training investments not cost effective (ROI)



VET POLICY FUTURES—with emphasis upon:

- Branding VET colleges as sector identified and marketing their regional assets;
- Closing older VET programs that duplicate efforts within regions not aligned with sector initiatives;
- Creating newer VET programs to match sector industry training needs;
- Assessing VET students for job-readiness & soft skills talent management;
- Requiring work-readiness credentials a condition of VET program completion.



And then...

Holding VET colleges accountable for performance standards aligned with sector growth and sustainability.



SOURCES

ACT. [American College Testing, Inc.] (2008). *WorkKeys® Talent Assessment: User and Technical Guide*. 61 pgs. Retrieved on May 28, 2009 from <http://www.act.org/workkeys/assess/pdf/TalentUserGuide.pdf>

Brown, P., Green, A., & Lauder, H. (2001). *High Skills: Globalization, Competitiveness, and Skill Formation*. Oxford, UK: Oxford University Press.

Hall, R. & Lansbury, R.D. (2006). Skills in Australia: Towards workforce development and sustainable skill ecosystems. *Journal of Industrial Relations*, 48(5), 575-592.

Majchrzak, A. (1984). *Methods for Policy Research*. Newbury Park, CA: Sage Publications.

Porter, M.E. (2000). Location, Competition, and Economic Development: Local Clusters in a Global Economy. *Economic Development Quarterly*, 14(1), 15-34.



Questions?

