

Maryland's Education Industry



Governor's Workforce Investment Board, Education Industry Initiative Steering Committee · August 2007

Governor's Workforce Investment Board

The mission of the Governor's Workforce Investment Board (GWIB) is to guide a nationally recognized workforce development system aligned with the economic and educational goals of the State of Maryland resulting in a qualified workforce available to employers in the State of Maryland.

To fulfill this mission, GWIB has moved to a focus on a demand-driven workforce development system. This approach engages high-level leaders from businesses, government, education and the community who work collaboratively through an industry initiative process to identify and document their industry's complex workforce demands and critical issues.

Introduction and History

The Maryland Governor's Workforce Investment Board (GWIB) created a process to address issues related to Maryland's dynamic economy and growing workforce development needs. Over the past several years, leaders in key industry sectors have met in industry-based steering committees to identify workforce development issues and to create and guide action strategies. One such committee formed specifically to address education sector issues is the Education Industry Initiative Steering Committee chaired by Towson University President Robert L. Caret. The goal of the Education Industry Initiative Steering Committee is to develop a pipeline of quality educators, administrators and support staff for Maryland's educational institutions by addressing the challenges of recruitment, training, and retention. The education sector is defined as those establishments that deliver instruction and training in a wide variety of subjects within diverse settings. This includes privately or publicly owned and operated establishments/institutions such as schools, colleges, universities, and training centers — the entire K-12 spectrum of educational providers. All component industries within this sector share a common process of employing teachers or instructors with subject matter expertise and teaching skills who deliver educational services. They also share a common problem: there is a critical shortage of teachers in both private and public sectors affecting institutions across the state.

The Committee is charged with addressing the challenges of all industry sectors and is composed of leaders who represent K-12, community

colleges, business/technical/trade schools, public and private colleges and universities, state government, and educational commissions. The Committee is divided into three work groups — **K-12; Community Colleges and Business/Technical/Trade Schools;** and **Four-Year Institutions** — in order to address relevant issues more effectively.

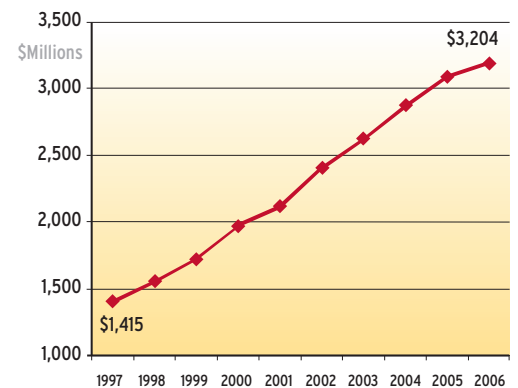
Each work group has documented specific high-demand occupations in their sector and has identified workforce issues related to hiring, training, and retaining quality candidates in those occupations. A major initiative for the Committee is to assemble key stakeholders in the education industry for an Education Symposium in November 2007. Strategies and solutions that emerge from the Symposium will guide the development of an action plan to recruit, train and retain highly qualified teachers, staff, and administrators in Maryland.

Industry Profile

Jobs in the education sector account for nearly 9% of Maryland's employment base.

From 2001-2005, nearly 11,500 jobs were created in education, with advances in elementary and secondary schools accounting for 55% of the overall growth. Geographically, Montgomery County accounted for 40% of the gains. Colleges, universities and professional schools expanded at the rate of 6.2%, adding nearly 3,300 jobs. Geographically, Baltimore City institutions accounted for 60% of the increase. The economic impact of education as an industry in Maryland was \$3.1 billion in 2005. (Source: MD Department of Labor, Licensing, and Regulation)

Maryland: Education's Gross Domestic Product by State



Source: Bureau of Economic Analysis, Regional Economic Accounts

Historical Employment in the Education Sector 2001 - 2005

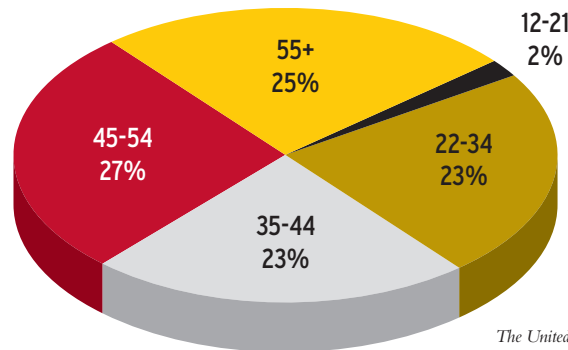
NAICS	Industry Description	Employment				
		2001	2002	2003	2004	2005
	Education	209,242	216,607	218,438	217,602	220,723
6111	Elementary & secondary schools	138,161	143,205	145,493	143,711	144,467
6112	Junior colleges	15,085	15,846	15,733	15,999	16,684
6113	Colleges, universities & professional schools	52,619	54,423	53,980	54,403	55,906
6114	Business schools and computer & management training	1,588	1,337	1,293	1,417	1,562
6115	Technical & trade schools	1,789	1,796	1,939	2,072	2,104
	Change		2001-02	2002-03	2003-04	2004-05
	Number		7,365	1,831	-836	3,12
	Percent		3.5%	0.8%	-0.4%	1.4%

Source: Maryland Department of Labor, Licensing & Regulation

Current Workforce

The education industry is at risk of losing a substantial portion of its workforce to retirements in the coming years. Across all sectors, nearly one quarter of the existing workforce is over 55 years of age and an additional 27% are in the age cohort of 45-54. Clearly, it is necessary to create a pipeline of qualified teachers and administrators if 50% of the workforce will be eligible for retirement within five to ten years. Women dominate the workforce, accounting for nearly 70% of employees in the education sector. Seventy-five percent of elementary and secondary school employees are women. However, among the oldest (65+) and youngest (14-24) age cohorts, nearly half of the workers are men.

**Maryland Education Sector
Workforce Demographics: Age Distribution**



Source:
The United States
Bureau of the Census

Projected Growth of Education Occupations in Maryland

The Maryland Department of Labor, Licensing, & Regulation projects that employment in education occupations will grow by 24% between 2004 and 2014 in Maryland. Similarly, the United States Bureau of Labor Statistics has projected that total employment in the national Education Services industry will grow by 32% between 2004 and 2014.

Table: Occupational Projections and Wage Information for the 25 Largest Education Occupations in Maryland

Occupation	2004 Employment in Maryland*	Projected 2014 Employment in Maryland*	Total Annual Growth Rate*	Median Annual Annual Openings*	Earnings (2006)**
All education, training, and library occupations	153,315	189,835	2.4%	6,854	\$45,170
Elementary school teachers, except special education	25,695	31,935	2.4%	1,191	\$49,050
Teacher assistants	19,905	24,905	2.5%	885	\$23,950
Secondary school teachers, except special and vocational education	18,565	22,625	2.2%	929	\$52,100
Middle school teachers, except special and vocational education	11,255	13,380	1.9%	461	\$47,360
Teachers and instructors, all other	11,660	14,405	2.4%	418	\$49,850
Preschool teachers, except special education	6,645	9,045	3.6%	320	\$24,150
Instructional coordinators	4,915	6,210	2.6%	205	\$50,420
Health specialties teachers, postsecondary	3,735	4,545	2.2%	165	\$111,110
Special education teachers, preschool, kindergarten, and elementary school	5,090	6,925	3.6%	305	\$49,690
Librarians	3,485	3,800	0.9%	115	\$52,250
Postsecondary teachers, all other	4,920	6,160	2.5%	235	\$50,480
Self-enrichment education teachers	4,190	5,090	2.1%	142	\$31,920
Kindergarten teachers, except special education	3,525	4,555	2.9%	145	\$45,410
Library technicians	2,115	2,395	1.3%	106	\$33,280
Graduate teaching assistants	1,870	2,285	2.2%	84	\$35,900
Special education teachers, middle school	1,480	1,985	3.4%	86	\$53,060
Special education teachers, secondary school	1,365	1,755	2.9%	72	\$54,980
Vocational education teachers, secondary school	1,100	1,340	2.1%	55	\$52,760
Education, training, and library workers, all other	1,095	1,320	2.0%	39	\$26,930
Art, drama, and music teachers, postsecondary	1,480	1,820	2.3%	68	\$44,890
English language and literature teachers, postsecondary	1,290	1,585	2.3%	59	\$55,460
Adult literacy, remedial education, and GED teachers and instructors	1,080	1,355	2.5%	41	\$44,330
Education teachers, postsecondary	940	1,155	2.3%	43	\$59,270
Nursing instructors and teachers, postsecondary	1,150	1,425	2.4%	54	\$64,830
Computer science teachers, postsecondary	1,075	1,320	2.3%	49	\$54,280

*Data Source: 2004-2014 Occupational Projections for Maryland, Maryland Department of Labor, Licensing & Regulation

**Data Source: May 2006 Occupational Employment Statistics, United States Department of Labor
Analysis: Governor's Workforce Investment Board Staff

Critical Industry Issues

By engaging in a thorough SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats), the three Education Industry Initiative work groups (**K-12; Community Colleges and Business/Technical/Trade Schools;** and **Four-Year Institutions**) identified the most pressing academic and administrative workforce issues related to their specific missions and populations. As expected, there were issues common to all sectors as well as industry-specific issues.

Critical Issues in Common: Policy, Workforce, and Workplace

- **Policy:** The industry faces an increasingly complex system of external accountability and compliance standards. Increasing federal and state mandated curriculum standards and high stakes accountability have become significant influences. There are high expectations for accountability and assessment measures that monitor the academic progress of students as well as the expertise and skills of teachers. Yet assessment and reporting models may vary by institution. Volatility and instability in federal, state, and local support challenge the development of adequate financial resources in a competitive market.

- **Workforce:** There is a general shortage of teachers at all levels and across all disciplines. Shortages are even more critical in specific academic disciplines such as science, technology, engineering and math. Compensation packages are not competitive with other industries or even within Maryland's education industry itself. Several different industries compete for a finite pool of qualified employees. Administrators and support staff often lack critical skills in technology and management. There is no process in place to ensure the availability of qualified teachers and administrators to fill future needs (pipeline).
(See table below: Comparison of Median Education Salaries)
- **Workplace:** Increasingly high expectations from both internal and external sources, combined with the pace and complexity of technological change, contribute to the demands of the workplace. The diversity and number of stakeholders - who may have conflicting philosophies, needs, and expectations, and even languages- create additional challenges to developing continuity and commonly accepted standards.

Comparison of Median Education Salaries in Maryland and Neighboring Areas

Occupation	Maryland	Virginia	Delaware	Pennsylvania	Washington, D.C.
All education, training, and library occupations	\$45,170	\$42,830	\$46,200	\$44,900	\$49,750
Elementary school teachers, except special education	\$49,050	\$51,130	\$48,260	\$48,530	N/A
Teacher assistants	\$23,950	\$21,010	\$25,090	\$18,810	\$20,260
Secondary school teachers, except special and vocational education	\$52,100	\$51,170	\$52,400	\$48,270	N/A
Middle school teachers, except special and vocational education	\$47,360	\$47,040	\$47,220	\$51,300	N/A
Teachers and instructors, all other	\$49,850	\$26,230	\$52,570	\$35,770	\$34,690
Preschool teachers, except special education	\$24,150	\$22,090	\$24,190	\$20,350	\$27,480
Instructional coordinators	\$50,420	\$62,640	\$53,010	\$49,840	\$65,860
Health specialties teachers, postsecondary	\$111,110	\$71,930	\$62,710	\$80,400	\$80,970
Special education teachers, preschool, kindergarten, and elementary school	\$49,690	\$48,280	\$53,300	N/A	\$44,510
Librarians	\$52,250	\$54,420	\$56,040	\$49,180	\$59,440
Postsecondary teachers, all other	\$50,480	\$52,060	\$67,400	\$54,770	\$57,460
Self-enrichment education teachers	\$31,920	\$42,400	\$34,920	\$34,580	\$36,260
Kindergarten teachers, except special education	\$45,410	\$47,270	\$41,690	\$47,250	\$35,250
Library technicians	\$33,280	\$31,400	\$29,400	\$24,710	\$38,330
Graduate teaching assistants	\$35,900	N/A	N/A	\$25,690	\$30,860
Special education teachers, middle school	\$53,060	\$46,490	\$50,960	\$49,500	N/A
Special education teachers, secondary school	\$54,980	\$54,750	\$54,590	\$51,210	N/A
Vocational education teachers, secondary school	\$52,760	\$49,630	\$59,340	\$51,990	N/A
Education, training, and library workers, all other	\$26,930	\$58,550	\$33,840	\$32,970	\$28,930
Art, drama, and music teachers, postsecondary	\$44,890	\$49,860	\$55,610	\$50,800	\$62,770
English language and literature teachers, postsecondary	\$55,460	\$46,960	\$62,160	\$57,200	\$60,660
Adult literacy, remedial education, and GED teachers and instructors	\$44,330	\$46,420	\$45,960	\$41,330	\$28,680
Education teachers, postsecondary	\$59,270	\$54,410	\$54,710	\$55,760	\$47,890
Nursing instructors and teachers, postsecondary	\$64,830	\$56,600	N/A	\$57,890	N/A
Computer science teachers, postsecondary	\$54,280	\$68,970	\$72,210	\$67,510	\$48,790

Gray bold text = Median wage in selected area is lower than corresponding wage in Maryland

Black bold text = Median wage in selected area is higher than corresponding wage in Maryland

Data Source: May 2006 Occupational Employment Statistics, United States Department of Labor · Analysis: Governor's Workforce Investment Board Staff

Critical Sector Issues: Industry Impact and Identification of Issues

K-12:

Impact: K-12 education contributes to the state's ability to provide a qualified workforce by preparing students to enter higher education institutions or to enter the workforce directly. K-12 education is one of the largest employers in Maryland; in many subdivisions, the local school system is the largest employer in a county.

Issues: There is a growing teacher shortage in K-12 education. Over the past twelve years, Maryland has had to hire more than 40% of its teachers from out of state; the state is currently recruiting out of country to fill slots. Non-competitive compensation packages are driving many teachers, especially those in much-needed math, science and technology disciplines, to choose more highly paid careers in the private sector. As a result, there are critical shortages in math, science, special education, English as a second language, and career and technology education. Administrators at the K-12 level typically emerge from academic disciplines, so a lack of teachers also makes it difficult to identify and develop highly qualified principals and other advanced level administrators. Increasing federal and state governance (NCLB) mandated curriculum standards are significantly influencing K-12 education. The composition of the classroom has become more challenging with the inclusion of children with disabilities, language problems and cultural issues. The complexity and demands of rapid change in this sector are obvious, yet the delivery system for K-12 education has not altered in a century.

Community Colleges and Business/ Technical/Trade Schools:

Impact: Accessibility is a mission of community colleges and provides a gateway to higher education for Marylanders. Comprehensive course offerings, including workforce training and continuing education contribute to the state's business productivity. An estimated \$5.6 billion is pumped into the state's economy by community colleges. Business/technical/trade schools provide alternative career opportunities. Their programs are responsive to the changing needs of particular sectors within industries, and graduates enter the workforce with good wages and a career path.

Issues: Community colleges and business/technical/trade schools are preparing greater numbers of students to move into the local economy. Increasingly, students are choosing to attend community colleges or business/technical/trade schools full-time, straining the physical capacity of campuses as well as faculty resources. The sheer numbers of part-time and full-time students who make community college or business/technical/trade school an educational first choice create greater needs for faculty in critical areas such as allied health and nursing. However,

qualified teachers often seek jobs with higher salaries at local hospitals and health centers. In order to meet the needs of their local economies, community colleges must adopt and manage new technologies quickly. The time and training required to adapt to these real-world technological advances impedes the creation of a readily available pipeline for upper level college administrators (including presidents), data base managers and skilled craft employees.

Four-Year Institutions:

Impact: Colleges and universities are major workforce developers for the state and serve a distinctive purpose as research engines. Universities attract and retain talented individuals who contribute to the economy of Maryland, the nation, and the world. Maryland's colleges and universities are national leaders in research and development in homeland security and the bioscience industry.

Issues: Professional workers educated in science, technology, engineering, and math related disciplines (STEM) are critical to the role of the United States as a national and international power. Non-traditional foreign languages such as Arab, Russian, Chinese, and Korean are necessary in the global economy. Yet faculty positions in these critical areas are difficult to fill due to competition within the industry as well as from the private sector. Non-competitive compensation packages and faculty workload issues such as the percentage of teaching versus research and the role of part-time versus full-time instructors are major influences. In addition, it is difficult to hire upper level administrators in institutional advancement, grants administration, and information technology. Yet these outreach positions are essential for higher education's efforts to increase financial donations, grants, and contracts. These funds provide faculty incentives as well as scholarships for talented students.

Strategic Imperative

The Governor's Workforce Investment Board, Education Industry Initiative Steering Committee believes that it is imperative for key leaders and educational stakeholders to discuss the future of Maryland's education industry. It is time to develop creative strategies and solutions that will enhance the academic and career options for Maryland's citizens and ensure the vitality of Maryland's dynamic economy. To that end, an Education Symposium is planned for November 2007. The Symposium will serve as a forum for creative problem solving and will focus on the three key areas of Policy, Workforce, and Workplace. Maryland's decision-makers, key stakeholders, and education leaders must chart the course for the future of Maryland's education industry workforce.

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