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FOR EDUCATION

Preparing for the Future:

Employer Perspectives on Work Readiness Skills

October 2006



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The Massachusetts Business Alliance for Education (MBAE) was established in 1988 in response to employer concerns about the educational attainment and skill level of public school graduates. A primary motivation for the founders was the economic and social need to meet the demands for a qualified workforce in Massachusetts.

MBAE continues to work to improve the education and preparation of students for the workplace they will enter. Our goal in this project is to inform educators and policy-makers about the work readiness skills that employers expect of Massachusetts high school graduates, and to describe the skills and characteristics these corporations require for entry-level positions with potential for growth and advancement.

As an active partner in high school reform, MBAE is often asked to speak for the business community on this issue. In order to represent this perspective accurately, MBAE examined existing information about employer driven definitions of key standards for high school graduates in the areas of basic academic skills, technical skills, and work readiness skills. In addition, we wanted to find out if Massachusetts employers shared these views. To that end,

MBAE contracted with the Donahue Institute at the University of Massachusetts to help refine the questions we needed answered, and to facilitate focus groups with Massachusetts employers in western, central and eastern Massachusetts.

The Massachusetts Business Alliance for Education (MBAE) was established in 1988 in response to employer concerns about the educational attainment and skill level of public school graduates.

MBAE's purpose was to collect credible information about the range of skills that Massachusetts employers consider necessary for jobs now and in the future with the intention of highlighting what we believe are the competencies needed for high school graduates to succeed in the workplace. Through this project, we found that the information gleaned through the focus groups is consistent with national studies and validates anecdotal information gathered by MBAE in its ongoing work with the business community. The information presented in this report underscores the critical connection between education and the economic strength of the region, and also contributes to current high school reform efforts spearheaded by the Massachusetts Department of Education (DOE). We hope you will find this information valuable and that it will contribute to the ability of Massachusetts public high school graduates to succeed in the global economy.

EXECUTIVE SUMMARY

In 2005, Massachusetts was selected as one of the National Governors Association's (NGA) ten "honor states" to receive an NGA grant of approximately \$2 million over two years. The purpose of the grant is to increase high school graduation rates and improve college and work readiness skills. This opportunity comes at a time when the nation is focusing on a conversation already begun in the Commonwealth about what needs to be done to "redesign" high schools. MBAE is a partner with the Massachusetts Department of Education (DOE) to engage the business community in promoting the statewide push to academic proficiency, articulating the skills needed to succeed in the workplace, and reminding the public that a high school diploma is a minimum essential for most jobs.

MBAE is also engaged with the DOE in developing a work readiness curriculum for high school students. Through its designation as Project Leader for the State Scholars Initiative in Massachusetts, MBAE is promoting business-school partnerships to encourage students to complete a rigorous curriculum. Our goal remains strengthening Massachusetts public schools so our graduates are prepared to succeed as contributors to a thriving society and economy.

Within the business community, and society in general, there is a great deal of concern about competition from abroad and the ability of today's students to lead and succeed in a global economy. We know that for Massachusetts, the following is true:

- **Graduation rates and student achievement are both too low to meet future challenges.** The gap between white and minority students is dramatic and must be closed since the workforce is growing increasingly diverse and there is a shortage of skilled workers.
- **A rigorous high school curriculum is an indicator of future success.** Students who complete four years of English and math through Algebra II are more likely to be in a high-paying job, and employers are requiring an increasingly advanced level of skills for entry level positions.
- **Attitude and motivation matter.** "Soft skills" are cited as a critical deficiency by employers who lament the inability of entry level applicants to communicate in writing or orally, to work well in teams, and to exhibit the determination and ingenuity that is requisite for success.
- **Postsecondary education and training is essential for most jobs.** Even students who do not plan to attend college may find that an associate's degree or certificate program is required for future jobs, and they must be prepared to perform college level work and be lifelong learners.

There was common agreement among focus group participants about the demands of the workplace and the experience of Massachusetts companies hiring entry level workers. Each of the three discussions focused on the following skills employers see students lacking, and which are vital for success:

- **Communication Skills**—Oral, written, and presentation Skills
- **Basic Math and Technical (Computer) Skills**
- **Execution Skills**—Problem-solving, following instructions, and carrying out multiple tasks—knowing how to work and get things done
- **Work Ethic**—Motivation and drive, realistic expectations about what is necessary to advance, and respect for self and colleagues
- **Conduct and Deportment**—Appropriate workplace etiquette and behavior

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In a rapidly changing world, it is critically important that students be adaptable, lifelong learners who know how to access and apply resources to whatever task or obstacle they face. **Work experience** was emphasized as an important factor in hiring decisions and as an indicator of ability to succeed and advance. Developing skills and a "portfolio of accomplishment" should be part of every student's high school experience.

There is positive news, as well, as employers with hiring experience beyond the Commonwealth commend Massachusetts high school graduates as superior to those encountered in other states. Massachusetts students also compare favorably with their American peers by some measures, despite low scores overall. To maintain an advantage and progress in the future, MBAE is proposing that state government, schools, families and the business community work together in specific ways to improve the preparation and skills of high school graduates for post-secondary study and work.

One of the major components of education reform was establishing standards for student learning and holding students and schools accountable for meeting these. MBAE has been, and continues to be, a strong advocate for raising the passing MCAS level to proficiency. Raising the bar, while critical, may not be enough. It is also necessary to measure the basic

competencies identified by employers as critical for today's jobs. It is important that revisions in curriculum and graduation standards support development and assessment of the skills that will lead to success in college and employment. The new high school curriculum and graduation standards being developed and implemented by the Massachusetts Department of Education should therefore address the following components:

- **Require work experience through internships, paid employment or community service** of all high school graduates. These opportunities can both engage students in learning (with potential for reducing the drop-out rate) and give them valuable skills for future success.
- **Incorporate public speaking** into the high school curriculum. A school-based oral exam should be considered for high schools to verify that a student is proficient in oral communication.
- **Encourage students to think of school as their first "job"** and opportunity to demonstrate the characteristics expected in the workplace. Parents and communities can have a strong and positive influence on the development of basic skills for success.
- **Support activities that impose deadlines, enforce tardiness rules, and include team projects.** According to employers in Massachusetts as well as national studies, developing habits for success is one of the most important ways that schools and families can prepare students for the future.
- **Add more value to low-level jobs to prepare workers to be effective employees.** Minimum-wage student employment must be evaluated and adapted to better prepare students for eventual full-time employment. Investments by employers in acclimating student workers to the corporate environment will reap benefits for all involved.
- **Support schools in developing, maintaining and adding co-curricular opportunities for acquiring skills.** Many companies are actively involved with local schools as financial supporters, volunteers, and providers of services. This support should continue, even as employers advocate at a statewide level for the type of well-rounded school experience that produces capable and qualified future employees.

Preparing students to be productive participants and leaders of a democratic society and a thriving economy continues to be our most important challenge.

THE CHANGING MASSACHUSETTS WORKFORCE

MBAE reviewed research and articles on employer needs in the areas of basic academic, technical, and work readiness skills for entry-level jobs. Since the focus of our study, and this review, is on the state of Massachusetts, the information summarized here is specific to the Commonwealth. Research on labor demographics in the United States and Massachusetts are included to provide context and describe the pressures experienced by employers.

High School Academic Achievement

Comparisons of U.S. high school achievement with those in other developed countries point to a crisis in our education system. Although we celebrate reports that Massachusetts students score at the top on National Assessment of Educational Progress (NAEP) tests in reading and

mathematics¹, achievements on this metric and others are not sufficiently high to meet the standards of post-secondary study and career demands. The Massachusetts economy, which is fueled by the information technology, biotechnology, health care, and higher education sectors, cannot compete globally without a skilled and competent workforce.

According to The Partnership for 21st Century Skills, 45% of 400 executives surveyed last spring rated recently hired high school graduates as “deficient” in applied skills—the ability to use knowledge to perform workplace tasks. Respondents cited written communication as the most serious shortcoming, particularly “writing memos, letters, and complex technical reports clearly and effectively.”² This is just one example of evidence that mastering and measuring content is not enough to assure that students are achieving at levels required for their future. High schools must also impart the critical thinking and problem solving skills that students will need to succeed.

High School Graduation Rates

Not only do high school students need work readiness skills to find jobs, but they also need to graduate from high school. Only 10% of employers nationwide will hire a high school dropout. The percentage of employers indicating that a high school diploma alone is sufficient for employment is also declining. ³ Achieve, Inc. found that nationally 70% of students graduate on time from high school and 55% graduate on time from college. Massachusetts has a slightly higher percentage with 72% graduating on time from high school and 68% from college. ⁴ Of great concern, however, is the achievement gap in Massachusetts between white and minority students. Data indicates only 53% of African-Americans, 66% of Hispanics and 66% of Asians graduating on time in 2003, compared with 78.5% of White students. ⁵

Labor Demographics and the Shortage of Skilled Workers

Massachusetts faces the serious problem of finding skilled workers to fill industry positions. In 2004, Massachusetts businesses had 59,891 unfilled job openings. Simultaneously, there were 164,200 people unemployed, and 746,000 without a high school diploma or GED. The trend towards job vacancies in Massachusetts is impacted further by the fact that some of its population is leaving the Commonwealth. ⁶

In 2004, Massachusetts was the only state in the U.S. to lose residents, and over half of those leaving were classified as middle class. Some primary causes for exiting the state include the very high cost of living, the slow economic recovery, and inflated housing prices. In addition, New England’s labor force has grown much slower than the national average growth rate of 11%, increasing only 1.5% in the last ten years. ⁷ This trend has put a serious dent in the state’s source of human capital.

Diversity in the Labor Force

The growing diversity of the United States workforce has profound implications for the future shape of the economy, and the challenges facing high schools. Drastic demographic changes are altering the U.S. working population. The racial and ethnic groups with the least education are experiencing the greatest growth in the U.S. In the forty-year span from 1980 to 2020, the working age white population will decrease from 82% to 63%, while the percentage of minority workers will increase from 18% to 37%. The Latino working population alone will become three times larger, growing from 6% to 17%. Raising the educational level of these populations is essential for sustaining a competitive economy. ⁸

Similarly, the labor pool in Massachusetts is becoming increasingly diverse. A report from the National Center for Public Policy and Higher Education asserts that workers from diverse ethnic and racial backgrounds will constitute 24% of the state’s population by 2020. The Latino population makes up the majority of this increase, growing from 2% in 1980 to 11% in

2020. At the same time, there is great disparity between educational attainment between whites and minorities. Latinos and African-Americans combined have the lowest level of educational attainment in Massachusetts: 41% of Latinos, and 20% of African-Americans of working age do not have a high school diploma, in contrast to 8% of whites.⁹

Students of diverse backgrounds, with the exception of Asians, are also much less likely to take college and work preparation courses than the white population. Only 19% of Latino, 29% of African-American, and 17% of Native American students took a course beyond Algebra II by graduation in Massachusetts, compared with 78% of Asian, and 55% of white students.¹⁰ Clearly, raising the achievement level of minority students is key to raising student achievement overall, meeting the needs of employers, and raising the overall standard of living in the state.

Work Preparedness of High School Graduates

A study by Achieve, Inc. looked at perceptions of over 600 recent high school graduates, 400 employers, and college students and instructors about the quality of high school preparation. The results showed that in the U.S., employers felt that 39% of high school graduates did not have the skills needed for entry-level positions, which is also the number of recent working high school graduates who reported that they were lacking in their preparation for their job. Employers also estimated that 45% of the graduates were poorly prepared to continue past entry-level positions. Achieve's research found that employers and college instructors were not content with high school graduates' ability to read and comprehend complex materials; produce good quality writing; perform research, math, and science; and have solid communication and public speaking skills.¹¹

Employers' Skill Needs for Entry-Level Positions

The skills required for entry-level positions was the topic of a study¹² based on telephone surveys and personal interviews with managers in urban labor markets, including Boston, Atlanta, Detroit, and Los Angeles. The research, which focused on inner-city workers from diverse backgrounds, found that limited skills and geographic barriers made entry-level jobs inaccessible for many from this population. However, the findings also showed that the positions did not require a high level of computer and technical skills. An important finding was that employers' stereotypes had an impact on their evaluations of job applicants' skills.

Employers place importance on "soft skills" for entry-level positions, including communication and "people" skills.

The study found that one half of all the entry-level positions "required workers to talk with customers, read instructions of at least a paragraph, do arithmetic, or work with computers every day."¹³ This was true of all job categories, including service workers, which are the lowest-paid category of positions. In addition, employers looked for a significant amount of accomplishments for these entry-level positions. Two-thirds to three-quarters of the open job positions required a high-school diploma, as well as either general or specific experience. In Boston, for example, the study found that "80% of entry-level jobs require a high school diploma, 78% require general experience, and 81% call for references"¹⁴

Other job requirements cited by employers demanded academic skills such as reading and math. Some employers commented on the need for reading written directions, or maintaining written records for equipment and safety standards. Workers needed to possess analytical ability in order to have a deeper understanding of their job. One Boston agency cited the example of home care aides, who needed more technical skills and understanding than in the past, since managed care is discharging patients who are sicker than in previous times. Also of interest is that hiring managers were less focused on finding computer skills in entry-level job candidates. One explanation given for this trend was that computers have become more user-friendly, making it easier to acquire this skill on the job.

A key finding in this study was the importance employers placed on “soft skills” for entry-level positions, including communication and “people” skills. The demand for “soft-skills” stems from an increased emphasis on customer service. High quality customer service was found to be increasingly important for staying competitive in many markets.¹⁵

As cited previously, there were few entry-level jobs in the study that did not have high requirements. Less than 6% of employers surveyed did not require academic reading, writing and math skills, use of the computer, or people skills. Less than 5% of employers were willing to hire candidates who did not have a high school diploma, training, or references. This trend was expected to intensify, with 40% of employers citing an increase in skills required for entry-level work.

Academic and Work Readiness Benchmarks

The America Diploma Project (ADP) created benchmarks which identify the skills high school graduates need to be successful in both college level courses, and in employment. ADP concluded that there is a strong similarity between the skills needed for both. This information suggests that an excellent high school curriculum can benefit the needs of students who are preparing for work, as well as those on the higher education track.¹⁶

An ADP review of the minimum high school curriculum requirements that existed in all 50 states found that those graduates who had highly paid work positions took Algebra II, and four years of grade-level English in high school. ADP also reviewed the graduation tests for high schools in six states, including Massachusetts, and found that these covered very little of the skills needed by employers in “high growth, high-performance industries”. The tests assessed some math and English basics, but not at levels sufficient for the demands of employment.

The Importance of Post-secondary Education and Training

Although this report focuses on understanding the skills required for entry-level positions, the importance of preparing high school students for post-secondary education and training cannot be overlooked. The fastest growing jobs in the country demand some education past high school (bachelor’s or associate’s degree, certificates, etc.). In fact, most employers report that a high school diploma is not sufficient preparation for working in their companies. In order to progress beyond entry-level and low paying positions, most employees will need to obtain postsecondary education or training at some point in their working life, if not immediately after high school.

Employers also claim that recent high school graduates are not prepared to work with them. In response to a 2005 survey conducted for the National Association of Manufacturers, 84% of respondents answered “no” when asked whether K-12 schools were doing a good job preparing students for the workforce. When controlling for industry segment, it is noteworthy that Aerospace and Defense, where technical skill requirements are demanded, 93% answered “no”—eight percentage points higher than the next highest segment, Process Manufacturing. When asked to elaborate on the specific deficiencies of the public education system in preparing students for the workplace, the top three most frequently cited responses were: basic employability skills (attendance, timeliness, work ethic, etc.) at 55%, math and science at 51%, and reading and comprehension at 38%.¹⁷

In light of the state’s trend towards a more diverse population, the role of community colleges takes on greater importance. A report by The Boston Foundation describes community colleges as the “training institutions for America’s less privileged, including its masses of new immigrants. They are the training systems for many large firms.”¹⁸

Education beyond high school is proving to be essential to obtaining many of the jobs in the

An excellent high school curriculum can benefit students who are preparing for work, as well as those on the higher education track.

current Massachusetts economy. Therefore, it is essential to consider the ways in which high schools are preparing students for postsecondary degrees, since employers depend on a strong education pipeline. Changing demographics and the shortage of skilled workers also make it imperative that we raise graduation rates and close the achievement gap to prepare all of our citizens for gainful employment in a global economy. The work of organizations such as Achieve and the Partnership for 21st Century Skills documents that academic skills are more important than ever, but are not sufficient to prepare for college, career or citizenship.

EMPLOYER FOCUS GROUPS

Perspectives from Massachusetts Employers

The primary goal of MBAE's project to identify the work readiness skills needed by high school graduates entering the workforce was to hear directly from Massachusetts employers about their experience. This component was facilitated by the University of Massachusetts Donahue Institute. Specifically, the Institute conducted three focus groups with representatives of significant employers across the Commonwealth to clarify what skills these Massachusetts employers require for entry-level employment opportunities.

The Donahue Institute and MBAE collaboratively developed the focus group discussion guides (see Attachment A—Focus Group Protocol). The three focus groups were convened by MBAE during June and July, 2006 and were held in the eastern, central and western regions of the Commonwealth. Two Donahue Institute staff members facilitated each group's discussion.

MBAE developed a list of potential businesses to approach for participation in the focus groups. In order to determine where gaps in industry representation might exist, the Institute analyzed data from the Massachusetts Division of Unemployment Assistance, which profiles the education and training requirements of current employment in the state. The occupational analysis was used to expand and revise the list of potential businesses in order to compile a broader listing of companies and occupations. Forty-five companies were invited to participate in the groups. In addition to selecting companies across a wide range of industries, special emphasis was placed on including companies that are significant employers in the Commonwealth or are smaller firms based in Massachusetts.

Of the companies approached for participation, representatives from 23 companies were able to attend one of the sessions. The participating companies included:

Baystate Health
Berkshire Bank
Berkshire County Regional Employment Board
Coghlin Electrical Contractors
Dunkin Donuts Northeast DCP
EMC Corporation
Fallon Community Health Plan
Four Seasons Hotel, Boston
Friendly Ice Cream Corp.
General Electric
Getronics North America
Hasbro Inc.
MassMutual Financial Group
McNairn Packaging
Ocean Spray Cranberries, Inc.
Raytheon Company

**Seven Hills Foundation
Smith & Nephew
Smith & Wesson
Stonebridge Corporation
UMass Memorial Health Care
Verizon**

Of the 23 company representatives at the focus groups, twenty-two provided additional information in response to a short questionnaire (see Attachment B—Focus Group Participant Survey) about the types of occupations available for high school graduates at their company. As shown in the table below, more than three-fourths of the participating companies (n=17) hire high school graduates for office and administrative occupations. In addition, more than half of the represented companies hire high school graduates for transportation and material moving occupations (n=14), production occupations (n=13) and building, grounds keeping and maintenance occupations (n=12).

Number of Employers Hiring	Entry Level Occupations Available for High School Graduates
17	Office and Administrative Support Occupations (e.g., secretarial or clerical staff, operators, data entry staff, customer service representatives)
14	Transportation and Material Moving (e.g., delivery, drivers, movers)
13	Production Occupations (e.g., manufacturing)
12	Building, Grounds Cleaning and Maintenance Occupations (e.g., janitors, housekeepers, groundskeepers)
7	Food Preparation and Serving Related Occupations (e.g., cooks, food servers, cafeteria attendants)
7	Installation, Maintenance, and Repair Occupations (e.g., equipment repair, riggers)
5	Sales and Related Occupations (e.g., cashiers, salespersons, telemarketers)
4	Healthcare Support Occupations (e.g., home health aides, orderlies, medical assistants)
3	Protective Service Occupations (e.g., security guards, corrections officers)
3	Construction and Extraction Occupations (e.g., construction laborers and assistants, highway maintenance)
2	Social Service Occupations (e.g., social service assistants or caseworkers)
2	Personal Care and Service Occupations (e.g., childcare workers, personal or home care aides, baggage porters/bellhops, funeral attendants)
1	Healthcare Practitioners and Technical Occupations (e.g., medical or pharmacy technicians)

In reviewing the findings from the three focus groups, it is important to note that not all industries employing entry level high school graduates participated in the groups. Most

notably, large retail chains were not represented. Although several large chains were invited to participate, representatives were unable to attend one of the scheduled groups.

Understanding the types of industries and occupations represented in the groups is critical to interpreting the findings. Although the groups were well attended by a variety of companies, the findings cannot be generalized to all businesses or industries operating within the Commonwealth or employing recent graduates of Massachusetts high schools. Additional research activities are required to determine the extent to which the focus groups findings are representative of the diverse group of industries and businesses throughout the Commonwealth. However, with these caveats in mind, findings from the focus groups are consistent with and add detail to the conclusions of the existing studies outlined in the previous section of this report. The focus group discussions also support MBAE's purpose of contributing credible information to the DOE's development of a curriculum for career and college success.

Many of the concepts and points presented below were discussed, without prompting, at all three groups. There was overall agreement at the groups about critical skills needed by high school graduates and the deficiencies regularly encountered within the applicant pool. Many of the recommendations for improvement were repeated at the groups, as were the reflections about recent and likely future hiring trends. Overall, the information from the groups validates anecdotal information gathered by MBAE in its ongoing work with the business community.

Employer Perspectives on Work Readiness Skills

Focus group participants were asked to identify specific universal skills needed by all entry level high school graduates to succeed in gaining and maintaining employment. The major themes of the discussion are summarized below. It was no surprise that skills identified fell into two distinct categories—academic skills and attitudinal or “soft” skills.

Communication skills and command of the English language were repeatedly identified as important skills and critical deficiencies among high school graduate job applicants and employees.

Primary among the academic skills discussed was the need for proficiency in basic **written and verbal communication**. Communication skills and command of the English language were repeatedly identified as important skills and critical deficiencies among high school graduate job applicants and employees. One participant said that she sees “people who can’t write, who can’t compose a simple memo even at the Bachelor’s level.” Another participant shared her frustration with poor verbal skills: “[They are not] able to speak, be understood and understand. It’s not a language issue. They don’t enunciate their words and so you can’t understand, even sitting across a table, what’s being said.”

Several group participants linked the pervasiveness of electronic mail and instant or text messaging as detrimental to written and verbal communication skills. One participant noted, “With the age of instant messaging, the internet, cutting and pasting for papers, and spell check, [applicants] don’t know how to write or how to spell.” Another felt that electronic communication is isolating younger workers and damaging their communication and social skills.

Basic math skills and **computer skills** were also identified as important but were not cited as frequently or with as much urgency as communication skills. This may be related to the fact that a number of companies in the technology and science sectors declined to participate, citing that they do not hire high school graduates without post-secondary education or training. For instance, Intel Corporation, a host company for one of the groups, does not hire high school graduates for any positions. Similarly, Raytheon, which did participate, requires Bachelor’s or advanced degrees for most positions.

Much of the discussion centered on a skill set that is not purely academic (i.e., not a particular subject taught in high school). This skill set, which was discussed without prompting at all three groups, includes **problem-solving, implementing instructions, and carrying out**

multiple tasks. Participants commented that entry level workers need to be able to “follow instructions—written and verbal,” “read something, understand and translate it into action,” “find answers to questions that they don’t know,” and interface with multiple systems and complete multiple tasks for a single assignment.

Although academic skills clearly were deemed critical, participants tended to focus more on the significance of attitude and motivation, commonly referred to as “soft skills”. Specifically, **work ethic** was described as a skill that high school (and many college) graduate employees tend to lack, but need to be successful. In general, work ethic was described as an understanding of general workplace policies and practices and an ability to focus on workplace tasks during the day. Participants voiced concern over the general lack of understanding about how to properly conduct one’s self in the workplace.

Although academic skills clearly were deemed critical, participants tended to focus more on the significance of attitude and motivation, commonly referred to as “soft skills.”

Examples of applicants’ and entry level workers’ behaviors were repeatedly shared during the groups. One participant simply stated, “The biggest problem is they don’t show up.” In fact, several participants noted that high school graduates lack understanding that a workplace is not a social gathering, that a worker is expected to arrive every day and be on time, and that a certain formality is required at work. This was clearly articulated by a participant who stated, “Kids have a difficult time understanding what’s required when you go to work, that you need to be there daily.” She went on to talk about how high school graduates are easily distracted from their tasks by electronics such as text messages, cellular phones, and access to the internet.

In addition, **respect** was a theme strongly associated with work ethic and deemed essential to success. Participants’ operational definition of respect included the ability to represent the company, execute team work, and behave appropriately with co-workers and supervisors. Furthermore, participants voiced concern that

applicants have very little self respect and, therefore, are not likely to be good representatives of employers. In discussing the lack of self respect, one participant stated, “If you have respect for yourself you’re going to go to work, you’re going to do a good job, and you’re going to be committed.”

While the themes of work ethic and respect were foremost in the discussion, participants also expressed the desire for entry level workers to demonstrate **self confidence, commitment, drive, and adaptability**. These traits were important for entry level workers to be successful in both gaining and maintaining employment. Furthermore, these characteristics were clearly identified as the most important in predicting future advancement in the company.

When asked to identify the most critical skill, participants seemed to agree that if high school graduates have a good attitude and the aptitude to learn then most of the specific job-related skills can be taught at the workplace. Participants discussed the importance of being a **lifelong learner**, which was described as a blend of academics and attitude, and presented as critical to an ever-changing workplace. The lifelong learner was portrayed as a person who is **resourceful** in solving problems and engages in **learning on the job**. This person has the capacity to find resources, engage in problem solving, and incorporate what they have learned into self-directed growth on the job. In other words, the most critical skill as identified by one participant is “all of the above,” a blend of basic academic skills and a positive attitude toward work.

Assessing the Quality of Applicants

Focus group participants were asked to discuss the ways they evaluate entry level job applicants. Several participants reported reviewing high school records for grades or attendance, but most did not engage in such activities. None of the employers were interested in MCAS scores. Some companies require pre-assessment of employees to ensure that minimum standards for written communication and other basic skills are met. Others noted the increased use of psychological testing or behavioral assessments.



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Employers noted that high school graduates have difficulties “selling themselves” in interviews and generally cannot articulate their skills, abilities and goals.

Most participants relied on **applications and resumes** to identify quality applicants. One participant noted, “If they can’t fill [the application] out right, that’s where it begins and ends for me. Once I whittle that down, I’ll call them, talk a little bit on the phone, see how that conversation goes and then I have them come in. I take a look at them. Basically you can whittle it down from 100 to four that way.”

Universally, employers were concerned by the manner in which applicants and entry level workers present themselves. Being overly casual during job interviews or during the workday was cited as an increasing problem. When asked to identify the one characteristic that serves as a critical deficit to gaining employment, participants cited clothes that are too casual or inappropriate, and the use of slang or “IM speak” in written and verbal communication. Employers noted that high school graduates have difficulties “selling themselves” in **interviews** and generally cannot articulate their skills, abilities and goals. Comments about how applicants present themselves during an interview included:

- “They are not getting basic instruction on how to show up on time and how to dress when you are going for an interview.”
- “One of the turnoffs for me is their inability to talk about themselves during an interview.”
- “We’re not asking a high school graduate or someone for an entry level job to recite Einstein’s theory of relativity, just how they benefit our company by working here. If you can’t answer that, well, I guess [they] better go back to school.”

The frustration with the dearth of qualified entry level applicants and with the manner in which applicants present themselves was articulated by a participant engaged in HR consulting. He shared that one of his clients “goes through 100 applicants, on average, to hire one person. One hundred people walk through the door looking for a job and this employer has to say no to 99 because they come in dressed inappropriately, they don’t know how to read or write, and they don’t have whatever he is looking for.”

Furthermore, employers are frustrated with the gap between the skills applicants or new hires bring to the workplace and their **unrealistic expectations** of their job and pay levels. Participants at each of the groups discussed the issue of managing the expectations of entry level applicants and new hires. One participant noted that “they are not patient and expect to advance rapidly.” Another said, “[entry level workers] want to start [at a high position] and they want to make [a high] salary and they want all kinds of leisure time.” While not a skill per se, having realistic expectations was discussed as determinant of which applicants were likely to stay, and therefore be worth the needed investment to train and retain.

Noticeable Trends in Hiring High School Graduates

Each of the three groups was asked to discuss perceived hiring trends as related to high school graduates over the past three to five years. Overall there was no consensus about trends in this area. Some participants felt that the hiring of high school graduates was the same as five years ago, some perceived an increase, and others perceived a decrease.

A participant who felt her company was less likely to hire high school graduates stated, “We are steering away from high school graduates. They are too high maintenance.” Several participants felt that the investment involved in training high school graduates for entry level positions was too labor intensive to be worthwhile. However, additional factors were cited among those who noted a decrease in the hiring of high school graduates, including the following:

- There is increased availability of college “graduates who are applying for and willing to do jobs that, quite frankly, don’t require more than a high school education”.
- Community College Associate’s degrees and re-training programs are producing applicants with specific skills and work experience.
- Technological demands of the workplace that require entry level workers to have more training than high school provides are rapidly increasing.
- Outsourcing of low skill, manual labor functions to temporary employment agencies is a growing trend.
- Visa sponsorships for technical and entry level jobs are increasing.
- Older workers are retiring from their principal career and re-entering the workforce in entry-level jobs. This was discussed as a recent trend that is likely to intensify as the population ages.

Universally, the focus group participants said that despite the poor quality of many applicants, they do not and cannot lower their standards or expectations for entry-level or high school graduate employees.

The Importance of Experience

Strongly associated with concerns about work ethic and the poor understanding of the workplace is the overall lack of employment experience among recent high school graduates. When asked to describe the ideal candidate, one participant responded with one word—“experience.” He went on to say, “They’ve either done community service or have had summer jobs so that the world of work is not new to them.”

Strongly associated with concerns about work ethic and poor understanding of the workplace is the overall lack of employment experience among recent high school graduates.

The importance of workplace experience was largely discussed in reference to graduates of vocational and technical schools. Participants in two of the three focus groups had a great deal of experience with graduates of vocational schools. Among those with knowledge of vocational schools, there was general agreement that **vocational school graduates are more job-ready** than general education or college preparatory high school graduates. In fact, a number of participants felt that vocational high school graduates were often more job-ready than college graduates.

The characteristic that distinguishes vocational school graduates from other high school graduates is genuine workplace experience. One employer noted that “the cooperative education experience is what distinguishes vocational students, and makes them attractive because they do come with work experience and understanding.” Employers felt that vocational graduates are more team-oriented, disciplined and prepared to enter the workforce. Graduates of vocational schools were described as having superior soft skills and preparation in comparison to

other graduates. As stated by one participant, “I’m not sure all students today have work experiences and I suspect that the vast majority of them do not. So the vocational students do come with the unique experience of having been trained and taught to be appropriate in a workplace setting.”

Focus group participants also felt that vocational schools provided experience that is unique in that the goal of the school is for students to **develop specific skills** and a **portfolio of accomplishment** that the graduate can demonstrate and that gives the individual confidence about what they are good at doing. Participants observed that vocational school graduates have worked on specific projects, in team settings, often with real world clients that offer a context and a tangible means of assessing skills and ability. On the other hand, it was suggested that

academic high school graduates tend not to know what they are capable of and have no context or tangible accomplishments to guide their career choices.

The importance of experience was underscored by a participant who commented that even college graduates are required to demonstrate real world work experience to be hired. She said, “They have got to go into college, and even then they have to do an internship and demonstrate that they can work.”

Massachusetts Students are Superior

Not all comments and observations about the quality of the Commonwealth’s high school graduates were negative. While very few participants had experience hiring outside of the state, those that did generally found Massachusetts graduates superior compared to other states where they had worked. One participant noted that in his recent experience hiring in North Carolina and Washington state (for establishments located in those states) “the quality of high school graduates is much higher in Massachusetts than those states.”

When asked if the quality of the high school graduate labor pool in Massachusetts created a competitive disadvantage that might lead to firms leaving the state, most participants either represented companies firmly entrenched in the Commonwealth or felt unqualified to express an opinion on behalf of their firms.

Focus Group Recommendations for Improving Work Readiness Skills

The groups were concluded with a request for suggestions about how to address the issues discussed in the group. Several participants suggested macro level changes to the educational system. For example, one participant offered, “I think the model is broken. Blow it up and fix it differently. What I mean by that is that we know that we need to squeeze in another month of study so that students come back to school fresh and stimulated and ready to learn. [We don’t want them to have] gotten stale over the summer so we need 11 months. And then we need some time after school because what they’re getting in school is not sufficient so now we need an extended day and 11 months. Then they need to be on the work site with us and learning differently with mentors and other caring adults that basically help them understand what work is about. So actually we need to have them with us 11 months of the year probably during the school day then after school, having a rich variety of experiences. Then we need to douse them with some community service and things of that sort to help build character and skills and competence. Our schools can’t do that because the rigid bureaucracies. The existing model is not working.”

It should be noted that many participants acknowledged that the shortcomings of entry level employees were not necessarily ones that high schools alone can or should be held responsible for addressing. Participants mentioned the role of parents and families in preparing students to succeed in the workplace. However, other participants offered more targeted suggestions, many of which were repeated across the groups. The following are general descriptions of participants’ recommendations:

1. Provide teachers with opportunities to become directly acquainted with the needs of businesses. Several participants suggested that teachers need more interaction with companies and the world-of-work to better incorporate a functioning, real-world context in the classroom. One specific proposal was for teachers to have summer placements in non-educational companies to gain an understanding of what workplaces are like and what these companies need out of the schools.
2. Ensure that all students have clear post-high school objectives. It was posited that students who are not bound for college and not attending vocational school need a career plan for beyond high school. The feeling was that the general high school curriculum does

Many participants acknowledged that the shortcomings of entry level employees were not necessarily ones that high schools alone can or should be held responsible for addressing.

a very poor job of preparing the non-vocation, non-college bound student for the world of work because there is no real objective for that student.

3. Prepare students for the realities of the workplace. Above all else, participants felt that students need to gain workplace experience through internships, community service, or employment in order to be prepared for the workplace.
4. Prepare students to interview—what to wear, how to respond to questions, how to complete an application. Instruction in this area was seen as universally important as all students will some day interview for work or college.
5. Provide more guidance and direction for students not planning to attend college. With so much focus on getting students college ready, there is little done in the way of providing direction to students entering the workforce. Educate students about their employment options so that they have a realistic idea of what is available. One participant suggested “career centers in high schools that prepare students for entering the workforce.”

CONCLUSIONS AND RECOMMENDATIONS

This project, and other work, has informed MBAE’s conclusions about current and future workforce demands. Our employer discussions identified a number of areas where action by the Department of Education and Board of Education; schools and educators; employers; and parents and communities can help improve the readiness of high school students for post-secondary success. It will take the concerted effort of all of these influences on high school students to have an impact.

MBAE has been and will always be a strong advocate for accountability measures to assess student achievement and school performance. Yet, we recognize that many of the skills identified by employers as critical for today’s jobs are not readily measured by standardized tests. Now that there is general acceptance of a common, standards-based approach to measuring whether students have earned a diploma, it is time to look more closely at how this system can contribute to student success beyond high school. For example, schools have focused on the 5-paragraph essay demanded for the MCAS exams—but would students be better served by more attention to multiple drafts of longer papers, or to more “practical” forms of communication and oral reports? Sample reviews conducted by the Department of Education could assure that schools are meeting state standards. Oral and written communication are the skills employers consider most important and the one they cite repeatedly as lacking in entry level job applicants. Measuring competency in this area, which cuts across all disciplines, should be our highest priority. It is critical that activities that can develop the skills that will lead to success in college and employment are not curtailed by emphasis on one form of assessment of student achievement.

Schools

- **Require work experience through internships, paid employment or community service** of all high school graduates. Many schools already incorporate such requirements in their curricula and many models exist of successful programs for high school seniors to spend time gaining experience and learning out of school. Special projects can both engage students in learning (with potential for reducing the drop-out rate) and give them valuable skills for future success. Implementing a “work readiness” elective for seniors who have passed MCAS, is another example. This option might combine several forms of preparation that employers seek, and provide an incentive for students who plan to enter the workforce to remain in school to graduation. In addition, it should be a statewide practice that school administrators refuse to sign work permits for teens unless they maintain regular attendance at school, as one way to help students understand the basic requirements of employers. The high demand for general experience and the need for

references certainly suggest that experiential learning would be a valuable part of the high school curriculum.

- **Incorporate public speaking into the high school curriculum.** A school-based oral exam is one possible way for high schools to verify that a student is proficient in oral communication. For example, having to read and summarize a document and prepare a speech to deliver to an audience or on tape would indicate whether students can express themselves in writing and orally in a coherent and relevant manner. Schools could also include mock interviews to help students learn how to master this important prerequisite for getting a job, or in some cases, college admission. Teaching students how to present themselves to influential adults can help to bridge the cultural divide between young job applicants and their prospective employers.

Parents and Community

- **Encourage students to demonstrate the characteristics expected in the workplace at school.** Parents can contribute to their child's work readiness by assuring that students arrive on time prepared for assignments, present themselves appropriately, and demonstrate respect for themselves and others. Community organizations should provide opportunities for service that are managed with the same expectations as paid positions. They should help students understand that building a resume and earning strong letters of reference will boost their career opportunities. Parents and communities can have the most influence on the development of attitude and motivation, and should be included in consideration of any attempt to improve the work skills of high school graduates.
- **Support schools when they impose deadlines, enforce tardiness rules, and include team projects** in the curriculum. According to employers in Massachusetts as well as national studies, developing habits for success is one of the most important ways that schools and families can prepare students for the future.

Business and Employers

- **Employers must add more value to low-level part-time jobs to prepare young workers to be effective employees.** MBAE found itself surprised by the dissatisfaction of employers with the work readiness skills of current entry-level applicants. The majority of high school students already work part-time or during the summer. Graduates' reportedly poor understanding of self-management expected in the workplace suggests that these first jobs have taught them very little. Our conclusion is that minimum-wage employers should re-evaluate and adapt student employment to better prepare students for eventual full-time work. Investments by employers in acclimating student workers to the corporate environment will reap benefits for all involved.
- **Support schools in developing, maintaining and adding co-curricular opportunities for acquiring skills.** Many companies are actively involved with local schools as financial supporters, volunteers, and providers of services. This support should continue, even as employers advocate at a statewide level for the type of well-rounded school experience that produces capable and qualified future employees. Especially given limited resources and local financial pressures, business can be a strong voice reminding districts of the importance of classroom and extra-curricular activities that emphasize setting objectives, establishing work plans with timelines and multiple responsibilities, and collaborating as teams to meet these goals and deadlines.

In addition to preparing students to be productive citizens, MBAE believes that these recommendations can help close the achievement gap and raise graduation rates by engaging students in their high school education in meaningful ways. Paradoxically, for students who need strong post-secondary skills the most, those who struggle to pass the MCAS, emphasis



These recommendations require new approaches, creative thinking, and the partnership of the state, schools, business and communities.

on preparation for the test may interfere with acquiring other skills equally important for success after graduation. MBAE's proposals are not radical. Many of our conclusions have been put forward by national organizations, such as Achieve, Inc. in the 2006 annual 50-state progress report, "Closing the Expectations Gap". These recommendations require new approaches, creative thinking, and the partnership of the state, schools, business and communities.

MBAE began this project as a result of its involvement in high school reform efforts in Massachusetts with the goal of identifying the skills that a high school curriculum for career readiness should provide students. Our work has confirmed the importance of raising statewide educational achievement as critical to the future of the Massachusetts economy, particularly given projected changes in workforce demographics. It is also clear that college-bound students will benefit from high school experiences that prepare them to compete in a global economy. MBAE strongly recommends that the Massachusetts Department of Education consider these proposals as it assesses the existing high school curriculum, and incorporates these into new high school graduation requirements. The future of the Massachusetts economy and the young men and women who will lead it is at stake.



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There were four members of the MBAE Board of Directors who were involved from concept to conclusion. Andre Mayer of Associated Industries of Massachusetts, JD Chesloff of the Massachusetts Business Roundtable, Penny Noyce of the Noyce Foundation, and Robert Richardson of Intel devoted countless hours to reviewing and editing lists, reports, and every document associated with this project. They deserve credit for their contributions and have no responsibility for any errors.

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Footnotes

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ATTACHMENT A

MBAE Work Readiness

Focus Group Protocol and Question Guide

Welcome and Introduction (20 minutes)

- ☐ Introduce self and Donahue Institute
- ☐ Provide background on MBAE and purpose
- ☐ Ground Rules
 - Simply stated, today's group will be a facilitated conversation. I will put out broad questions or ideas for your response. We want this to be a conversation. The idea is that by having a conversation we will tap into the best of your collective experience and thinking. You do not have to respond to every question and you do not have to respond directly to me—you may interact with one another, respond to comments, or pose questions to one another. However, we do hope that each of you will be an active participant.
 - Unless anyone has an objection, I would like to record our conversation today. As the facilitator, it is difficult for me to take notes. The recording will afford me the opportunity to listen to the group again, as well as have access to verbatim comments.
 - The companies you work for were asked to participate in this process because they hire high school graduates, are significant employers in the Commonwealth, and represent a wide range of industries. We are conducting three groups and each will have a similar mix of companies. The purpose of the groups is to identify patterns, themes, recommendations. We are not interested in the specific comments of one company compared to another. All results of the groups will be reported in the aggregate.
 - Finally, I ask that you use your best group skills in terms of time management, sharing air time, and allowing one person to speak at a time. We hope to get through all of the questions in 90 minutes. I apologize in advance if I have to move the conversation along before everyone is ready—it is very important that we get to all the questions.

Introduction

1. Does anyone have questions before we begin?
2. As a way to begin, I would like each of you to introduce yourself, identify your company, tell us how many years you have been working for your company, tell us a bit about your hiring responsibilities, and try to give us some sense of the number of high school graduates in your workforce.

Skills (20 minutes)

I'd like you to think about all types of entry level positions in your company that are appropriate for high school graduates and imagine your ideal job candidate.

3. Thinking about all types of entry level positions in your company, are there certain universal skills that all high school graduates need to successfully enter the workforce?
4. Of the skills discussed, which do you feel are the most critical?

5. Thinking about recent hires, what were the specific strengths that made these high school graduates attractive?
6. Thinking about the recent hires or candidates, what were specific concerns you had about bringing them into your workforce? Are there certain characteristics that tended to disqualify candidates.

Trends (20 minutes)

I would like to turn our conversation to the changes you may have observed in the past three to five years when hiring recent high school graduates.

7. In your experience, is your company more or less likely to hire high school graduates for entry level jobs compared to 5 years ago? If so, what is driving this change?

PROBE: Are you hiring Associate/BA for jobs historically done by HS graduates?

8. In the past 5 years, have your expectations for high school graduates changed? If so, how?

PROBE: Have you lowered your expectations? Raised expectations? Changed job descriptions/responsibilities to better fit skills?

9. We've been discussing the last five years. Now, I'd like you to think about the next five years. How will your needs/requirements change over the next five years? Will these changes impact your willingness or ability to hire high school graduates?

10. What impact does the quality of high school graduates have on your firm's decision to continue business in Massachusetts?

Hiring (10 minutes)

11. When considering candidates for entry level positions, what types of information do you rely upon to determine whether an applicant possesses the required skills?

PROBE: Transcripts, MCAS results, employment tests?

PROBE: Which is the most important indicator?

PROBE: How important is physical appearance or disposition at the interview?

12. When considering high school graduates, how important is previous work experience? What types of experience do you look for?

13. Do you recruit candidates from specific schools or types of schools?

PROBE: Vocational schools? What is it about these graduates that make them attractive?

Training (10 minutes)

I'd like to hear about the type of training you typically provide when hiring high school graduates.

14. What type of training do you provide?

15. Do the training needs of new hires exceed what you believe they should need upon graduation? If so, how does the training you actually provide compare with the training you expected to provide?

Advancement (15 minutes)

I'd like you to think about all of the possible opportunities that high school graduates may have to advance in your company, including those that may require additional training or education.

16. Thinking about high school graduates who do advance, are there certain skills or characteristics that you feel predict advancement?
17. Does advancement typically require additional training or education? Does your company offer training programs or incentives for obtaining additional education or training?

Recommendations (15 minutes)

I'd like to end our discussion with your ideas about how to improve the quality of this workforce and better prepare high school students for work

18. What changes do you think are needed in the schools to better prepare workers now and in the future?

PROBE: Of these, which are the most critical?

PROBE: Can you identify one fairly simple "fix" that would make applicants better prepared?

19. What role should business play in improving work readiness educational initiatives?

ATTACHMENT B

MBAE Work Readiness Skills Project

Thank you for participating in our discussion about work readiness skills among Massachusetts high school graduates. The information you provide will inform educational initiatives to improve the quality of the Massachusetts workforce. We value your experience, insights and opinions.

In order to provide context for today's discussion, it is important that we have a clear understanding of the types of employment opportunities available to high school graduates at your firm. Therefore, we would appreciate your cooperation in completing this short survey to best of your ability.

Thank you again for your time and assistance.

Name: _____

Title: _____

Company: _____

Office phone: _____

Office email: _____

1. Thinking about all job opportunities in your company, do you hire persons without a high school diploma?
☐ yes ☐ no ☐ don't know
2. Thinking about all job opportunities in your company, do you hire high school diploma graduates?
☐ yes ☐ no ☐ don't know
3. Thinking about all job opportunities in your company, in which of following occupational categories do you hire high school graduates? (Check all that apply)
 - ☐ Social Service Occupations (e.g., will provide a few examples for each)
 - ☐ Healthcare Practitioners and Technical Occupations
 - ☐ Healthcare Support Occupations
 - ☐ Protective Service Occupations
 - ☐ Food Preparation and Serving Related Occupations
 - ☐ Building and Grounds Cleaning and Maintenance Occupations
 - ☐ Personal Care and Service Occupations
 - ☐ Sales and Related Occupations
 - ☐ Office and Administrative Support Occupations
 - ☐ Construction and Extraction Occupations
 - ☐ Installation, Maintenance, and Repair Occupations
 - ☐ Production Occupations
 - ☐ Transportation and Material Moving
4. When considering whether to hire a high school graduate, do you review the candidate's high school transcripts or MCAS results?
☐ yes ☐ no ☐ don't know
5. When considering whether to hire a high school graduate, do you require the candidate to take an employment test?
☐ yes ☐ no ☐ don't know

6. Please categorize how the jobs available to high graduates compare to other employment opportunities in your company in terms of pay. Do the jobs available to high school graduates generally receive...
- ☐ lower pay than most other jobs ☐ similar pay compared to most other jobs
☐ higher pay than most other jobs ☐ depends upon the job ☐ don't know
7. In general, are there advancement opportunities for employees with high school diplomas?
- ☐ yes ☐ yes, with additional training ☐ yes, with additional education
☐ no ☐ depends upon the job ☐ don't know
8. Does your company recruit high school graduates?
- ☐ yes ☐ no ☐ don't know
9. Does your company recruit job candidates from vocational or technical schools?
- ☐ yes ☐ no ☐ don't know
10. In Massachusetts high schools curriculum provides students with specific academic skills. For each of the following, please indicate how important the mastery of each skill is among potential job candidates:
- Mathematical Computation
- ☐ Not important ☐ Somewhat important ☐ Important ☐ Very important
☐ Don't know
- Technical reading
- ☐ Not important ☐ Somewhat important ☐ Important ☐ Very important
☐ Don't know
- Following instructions
- ☐ Not important ☐ Somewhat important ☐ Important ☐ Very important
☐ Don't know
- Critical thinking
- ☐ Not important ☐ Somewhat important ☐ Important ☐ Very important
☐ Don't know
- Written communication
- ☐ Not important ☐ Somewhat important ☐ Important ☐ Very important
☐ Don't know
- Others?
11. How important is the availability of a skilled workforce of high school graduates to your company's continued presence in Massachusetts?
- ☐ Not important ☐ Somewhat important ☐ Important ☐ Very important
☐ Don't know
12. In the space provided, please feel free to share any thoughts you may have about the content of this survey, hiring high school graduates, or experience hiring a skilled workforce in Massachusetts.



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