

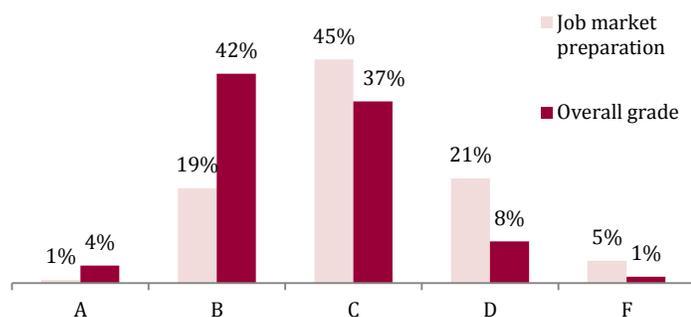
Let's get together: Massachusetts Business Leaders seek collaboration, alignment with state's education system

The MassINC Polling Group conducted an online survey of business executives in Massachusetts on the topic of public education and workforce readiness. The survey was the final phase of a three-part research project which included interviews with three Massachusetts CEOs and three focus groups with chief executives and HR administrators representing different regions and industries. The survey was distributed by various business associations who provided their contact lists and participated as identified survey sponsors. The survey and the entire project were commissioned by the Massachusetts Business Alliance for Education, with support from the Massachusetts Business Roundtable and Associated Industries of Massachusetts.

Business leaders perceive a disconnect between education and preparation for the workforce.

The K-12 public school system received higher marks from business leaders for its overall performance than for preparing graduates for positions in the Massachusetts workforce. Just 20 percent gave the K-12 system an A or B for job market preparation, while 46 percent assign one of these two grades to the system overall. These figures reveal that 1) overall satisfaction with the system is not very high, and 2) the system is doing less well at preparing graduates for work than overall. A very similar disparity in grading was observed in the CEO interviews and the focus groups.

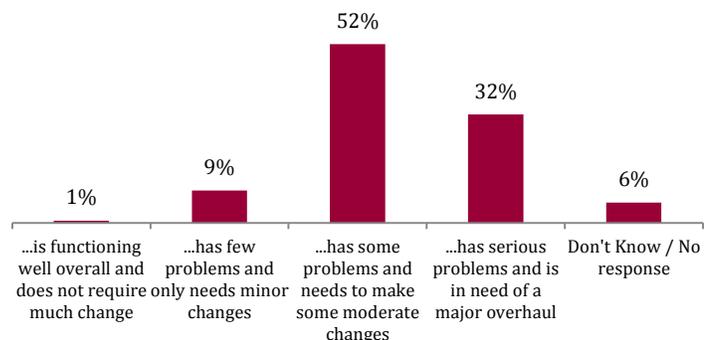
Figure 1: Business leaders give K-12 system better overall grades than for job preparation
% giving each grade for the Mass. K-12 system



In the focus groups and CEO interviews, participants acknowledged that Massachusetts schools are strong relative to public school systems in other states. They also acknowledged that many students are facing serious socio-economic challenges that are beyond the schools' control. With those caveats, participants expressed the belief that the schools were doing better at educating students in a more general sense than at producing a steady stream of graduates prepared and qualified for the workforce. One leader wrote of this concern, saying "The academic world is not connected to the business world. There needs to be practical education that connects young people to the world of work."

This lack of alignment between the educational system and the job market has real consequences. A majority (69 percent) of business leaders report some difficulty hiring Massachusetts employees with the right skills for open positions. Businesses who hire more high-school workers reported more difficulty filling positions than firms who hire most or all of their workers with a post-secondary credential, suggesting a particular problem at the K-12 level. This was a

Figure 2: Business leaders see room for improvement.
"The K-12 public education system..."



particular concern among those in manufacturing, who noted during the CEO interviews and focus groups that their current workforce is aging and that not enough new graduates seem to have interest in or awareness of careers in their field.

This disconnect may explain why a large majority of respondents said the system needs either moderate change (52 percent) or major change (32 percent). Just 10 percent say the system needs either minor change or no change (Figure 2).

When asked to grade the various components of the public higher education system in Massachusetts, the UMass system fared the best (Figure 3). More employers were also familiar with the UMass system than with state universities, community colleges and specific technical programs. As with K-12, grades for overall performances were higher than for preparing graduates for the workforce. This finding is consistent with the grades from the CEO interviews and the focus groups.

Grades for specific technical/vocational programs were lowest. There were isolated instances in the CEO interviews and focus groups where a particular executive would single a program out for praise. Examples include the plastics manufacturing program at UMass Lowell, as well as one-off programs set up by companies to train workers for specific roles and skillsets. A high number of respondents answered “don’t know” regarding these programs, suggesting a lack of familiarity with them -- and, potentially, an untapped demand among unfamiliar employers.

Graduates need work on applied to skills to prepare them for the workplace.

Throughout the research, participants mentioned the lack of applied skills as a key factor hampering new employees joining their companies straight from school. A variety of specific complaints were mentioned which, in total, painted a picture of new graduates arriving unprepared for a structured work environment. This lack of preparation was mentioned by each of the 3 CEOs we interviewed, and was among the top concerns during the focus group phase of the research. To varying degrees and in different language, each of the three focus groups identified a lack of applied skills among new hires as a chief concern. This was best summarized by one respondent, who wrote “Our youth are graduating with

Figure 3: Grades for public higher ed., overall and for individual components on job preparation.

	A / B	C	D / F	DK / No response
Overall	67%	19%	4%	10%
UMass system (job preparation)	62%	11%	4%	24%
State Universities (job preparation)	36%	24%	5%	35%
Community Colleges (job preparation)	36%	27%	10%	27%
Technical programs at state colleges and universities (job preparation)	35%	22%	4%	38%
Technical/vocational programs at Community Colleges (job preparation)	32%	22%	9%	38%

Figure 4: Low grades for K-12 system on many applied skills

“Many employers say they seek a mix of specific technical skills, subject knowledge, and ‘applied skills’, such as those listed below. Please rate the K-12 system in Massachusetts in terms of how well they prepare students in each of the following skills areas.”

	A or B	C	D or F	DK / No response
Ability to follow directions	49%	35%	11%	5%
Ability to work together in groups	48%	32%	14%	6%
Ability to write clearly	24%	45%	26%	5%
Oral communication and presentation skills	23%	51%	21%	5%
Independent and critical thinking	22%	44%	29%	5%
Awareness of work-appropriate behavior	19%	38%	38%	5%
Setting meaningful goals	15%	45%	30%	10%

an unrealistic view of work-appropriate behavior.” Another said “Many entry-level positions are tough to fill due to lack of soft skills, professionalism, and reliability of candidates.”

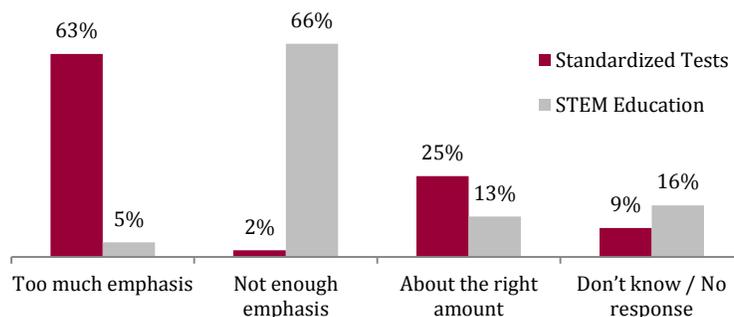
When asked to grade the K-12 system in terms of preparing students for the workforce, business leaders gave out very few B’s, and even fewer A’s (Figure 3). Following directions and working in groups were rated relatively highly, with about half giving A’s and B’s. The lowest grades were given to “setting meaningful goals”, “independent and critical thinking”, and “awareness of work-appropriate behavior”.

During the focus group phase, many participants pointed to cases where interns, co-ops, and other students started with the company during school and were later hired on a permanent basis. In addition to the well-understood probationary phase such programs offer, they also train students in applied skills and workplace norms, and offer exposure to additional career options. One respondent suggests schools “Teach students how to work, i.e. interview, speak, listen, arrive on time ... not just how to study.”

Business leaders want less teaching to standardized tests, more focus on STEM and applied skills.

Related to this lack of applied skills is another common refrain from the research: the amount of time spent preparing for standardized tests is crowding out other important educational activities. A majority (63 percent) of survey respondents said that too much emphasis is being placed on standardized tests; only a quarter (25 percent) thought testing received the “the right amount” of attention now. By contrast, two-thirds (66 percent) felt not enough emphasis is being placed on STEM (Science Technology Engineering and Math), and only 13 percent think it is receiving enough emphasis (Figure 5).

Figure 5: Too much focus on standardized tests, not enough on STEM education



Concerns about the overemphasis of testing came through in responses to an open-ended question on how to fix education (Figure 6), such as “Teaching to the test does not properly prepare students for the challenges ahead”. Deemphasizing the MCAS and spending less time teaching to the test were near the top of the list of topics mentioned. Instead, business leaders would prefer to see more focus on real-world skills and STEM, and more attention paid to vocational and technical education and creating a non-college path to work for some students. “Too much emphasis on MCAS and SAT testing (measurement tools), little emphasis on preparing students to be job- and career-ready,” wrote one respondent.

Figure 6: More STEM, applied skills, less emphasis on MCAS
 “What are the main things (if any) that you think could be done to improve the public K-12 system here in Massachusetts?”
 # of comments on each topic (Topics with 10+ mentions shown)

More focus on applied skills	32
Deemphasize MCAS/teaching to test	31
More STEM	26
Vocational education/creating non-college tract	25
Close achievement gap (both racial and socio-economic)	19
Extended learning time/longer school day	18
Other	16
More focus on critical thinking	15
Higher Standards	14
Teacher evaluation/accountability	14
Labor relations/tenure	14
Dress code/learning environment/values	12
Focus on basic subjects/downplay others	10

There were 208 comments offered in response to this question. The count here may not add up to 208 as some comments covered more than one topic.

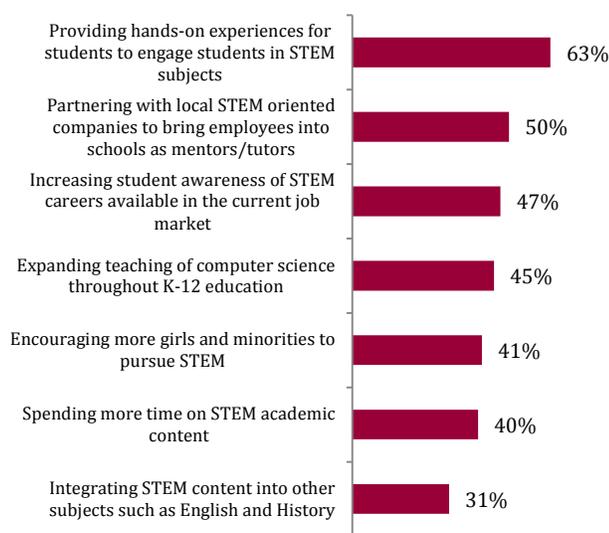
Throughout the research, business leaders expressed the belief that the type of uncritical thinking promoted by excessive focus on standardized testing is not helpful for career success. This dynamic was perhaps best summarized by one respondent who wrote, “The focus on testing this past decade has threatened the focus on creating lifelong learners and in some instances has dumbed down the curriculum,” and another who said about test preparation, “It’s unclear that this knowledge is actually preparing the students for lifelong learning or to be successful in a context outside of school.”

There was some interest in the idea this could be changed with new assessments such as the PARCC system, but a wait-and-see attitude about how much would actually change with the new assessments.

Businesses want to improve STEM through more hands-on learning and partnerships with business.

Business leaders not only want more emphasis on STEM, they also think it should be taught in a more hands-on manner and with more engagement from business. Indeed, when asked about the best ways to grow the STEM-qualified workforce, hands-on experiential learning was rated the most effective of the ideas presented (Figure 7). Partnering with STEM-focused companies was second on the list, echoing calls for tighter relationships between business and the education system expressed at several other points in the survey. Focus group participants felt that the recent emphasis on STEM has helped in terms of teaching science and math content, but that more needs to be done with regard to applied learning and career discovery such as

Figure 7: To improve STEM, focus mainly on hands-on experiences, partnerships
 % who said each idea would be “very effective” at expanding the STEM



“[expanding] awareness of the exciting and profitable career path the STEM curriculums offer,” as one participant wrote. About STEM, one participant wrote “Students generally seem to feel that most of this stuff will never apply when they get a job.” This disconnect between students and jobs was also seen when employers were asked what sorts of jobs they were have trouble filling; six of the top ten responses were in STEM fields. CEOs also distinguished between STEM as a subject matter and STEM as applied learning (i.e., teaching computer programming or hands-on engineering projects).

Vocational/Technical Education also needs partnerships, promotion.

Business leaders also saw partnerships with business and boosting career awareness as effective paths to improving the state’s vocational and technical education (Figure 8). Business leaders, particularly in manufacturing, felt it was important to educate students and parents that voc/tech programs can lead to rewarding, good-paying jobs, often with only a two-years associates degree from a community college instead of an expensive four-year degree from a public or private university.

One advanced manufacturing executive said most new workers at his company come from hiring workers away from other similar companies rather than from new entrants into the field. Another said her workforce is “aging in place”, with not enough replacement workers entering the workforce. They blamed

the worker shortage on a negative image for manufacturing, a lack of awareness among students of the availability of such jobs, and a lack of alignment between the manufacturers’ needs and the educational system. “There is too often a stigma placed upon the development of manual skill or trade education and too little education in these areas,” wrote one. “Broader exposure of these ideas is critical.” Another suggested taking steps to “supplement college prep education opportunities with vocational prep opportunities.”

Setting the agenda: the business community’s priorities for education

When asked what the business community’s role should be in education, the top open-ended responses revolved around more engagement between businesses and schools (Figure 9). Respondents felt members of the business community had the responsibility to better communicate their needs to educators, to partner with schools, and to provide more internship and other opportunities for students to experience the working world. One respondent said: “Whenever the business community engages in an internship, co-op or any on the job training, it provides students insight into fields they may have never been aware of. I believe all students can benefit from on hands training.” Other open-ended comments revealed a perception that public schools are unaware of the needs and goals of the state’s employers, and do not see the job market needs as a critical driver of education. One participant wrote and “Businesses and the public education system need to work more collaboratively to meet the employment needs of local business and support the special classes which those employers would require.”

The theme of increased partnership between business and education was apparent throughout the survey. A majority (55 percent) said “increasing partnerships between businesses and higher education should receive “a great deal” of focus as a way to improve the education system, behind only focusing on the effectiveness of teachers (Figure 10).

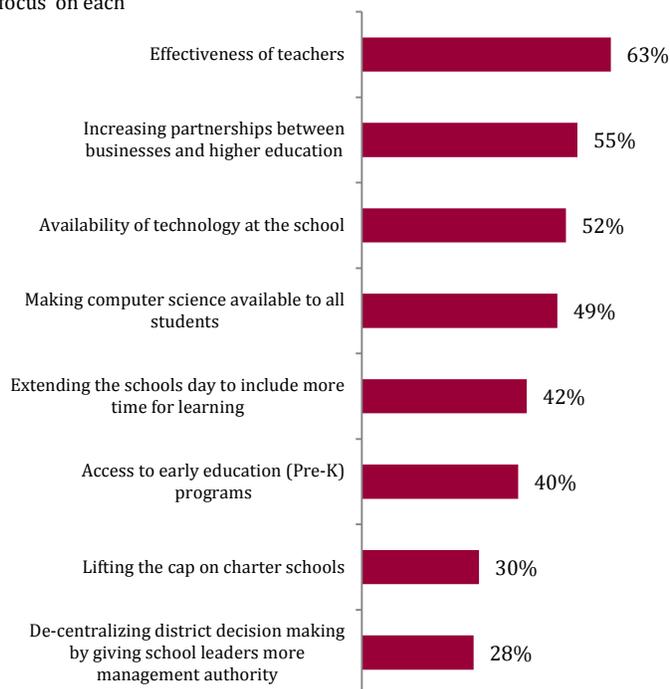
The top-rated priority was “effectiveness of teachers”. Open ended comments revealed a variety of intended meanings to this goal, including more selective recruiting, higher pay, incentives for higher performance, reducing the power of unions, and enabling easier transition from other careers into the

Figure 9: More partnerships, collaboration, communication sought between schools and business community
of comments on each topic (Topics with 10+ mentions shown)

Partnership/collaboration/integration	56
Internships/mentoring/shadowing	56
Communicate needed skills	46
Issue/policy advocacy	22
Raise awareness of career opportunities	18
Other	11
General call for more involvement	11
Provide funding	10

There were 205 comments offered in response to this question. The count here may not add up to 205 as some comments covered more than one topic.

Figure 10: Effective teachers, partnerships top the agenda
% who think the business community should place “a great deal” of focus on each



teaching profession. While there was no clear agreement on where to go with teacher effectiveness, it is clear that business leaders recognize the importance of effective teachers in education quality.

Many business leaders throughout all three phases of the research decried the lack of a system for fostering partnerships between businesses and schools. The lack of such a program has put the onus on businesses to develop ad hoc partnerships to address their workforce needs. Examples of these partnerships include sponsoring hands-on STEM activities in schools, providing internships, and participating in school visits and career days to raise awareness of career opportunities. What is lacking, however, is a formalized and easily accessible system whereby a willing business can partner with a school. Such a program could have the benefits of exposing students to career options, building a pipeline of qualified workers, and better aligning the needs of Massachusetts employers and the workforce. It would also help to “create awareness of what jobs exist in the real world,” as one respondent wrote.

Interestingly, other ideas for improving education which have received more attention in political and policy circles of late were rated as less of priority by business leaders. Only 30 percent would want the business community to focus a great deal on lifting the cap on charter schools, about the same number (28 percent) want a focus on giving schools leaders more authority. Slightly more (40 percent) would want a great deal of focus on expanding access to early education, but still short of a majority. The open-ended responses bear this out; none of these ideas received more than 10 comments.

Appendix – Questionnaire and Topline Results

How easy or difficult are you finding it to find people with the right skills to fill the positions you need to fill here in Massachusetts?

Very easy	4%
Somewhat easy	19%
Somewhat difficult	51%
Very difficult	18%
Don't Know	8%
No Response	1%

What jobs or job types are you having a difficult time filling? *There were 203 comments offered in response to this question. The count here may not add up to 203 as some comments covered more than one topic. The full list of responses can be found in Appendix B.*

Engineer	40
Manufacturing/Machinist/CNC	33
Technical/Trades (electrician, etc.)	31
Software/IT/high tech/cyber	26
Admin/Office/Entry Level	22
Sales	20
Health Care/medical devices/social work	18
Financial/Accounting/Actuarial	16
Science/R&D	16
Retail/Food Service/Hospitality	10
Customer Service/Call Center/Guest Services	9
Government/regulatory	7
Executive/Management	7
Analyst/Data/Statistics	7
Marketing	7
Project Managers	6
Other	6
Education/teacher	5
Professional/Advanced degree	5
Energy/facilities	4
Writing/Editing	4
PR/Communications/Consulting	2
Entrepreneur/Business	2
Recruiting/HR	2
Construction	2
Specific geography	2
Maintenance	2

In your view, how much emphasis should the Massachusetts K-12 educational system place on each of the following goals?

<i>Order randomized</i>	A great deal	A fair amount	Not very much	None at all	Don't Know	No Response
Learning and gaining academic knowledge for its own sake	33%	50%	12%	2%	1%	2%
Preparing students to gain employment in today's job market	59%	34%	5%	1%	1%	1%
Creating lifelong learners who can adapt to the changing job market	81%	15%	2%	0%	1%	1%
Preparing students to be productive members of society and engaged citizens.	79%	17%	3%	0%	<1%	1%

Overall, how would you grade the K-12 education system here in Massachusetts?

A	4%
B	42%
C	37%
D	8%
F	1%
Don't Know	7%
No Response	1%

How would you grade the K-12 education system here in Massachusetts in terms of preparing students for their eventual entry into the job market?

A	1%
B	19%
C	45%
D	21%
F	5%
Don't Know	9%
No Response	1%

Which statement best reflects your views, even if none of them are a perfect match?

The K-12 education system has serious problems and is in need of a major overhaul	32%
The K-12 education system has some problems and needs to make some moderate changes	52%
The K-12 education system has few problems and only needs minor changes	9%
The K-12 education system is functioning well overall and does not require much change	1%
Don't Know	5%
No Response	1%

What are the main things (if any) that you think could be done to improve the public K-12 system here in Massachusetts? *There were 208 comments offered in response to this question. The count here may not add up to 208 as some comments covered more than one topic. The full list of responses can be found in Appendix B.*

More focus on real-world skills	32
Deemphasize MCAS / “teaching to test”	31
More STEM	26
More focus on vocational / technical education and/or providing an non-college tract for some students	25
Other	20
Close achievement gap (both racial/socio-economic)	19
Provide extended learning time and/or a longer school day	18
More focus on critical thinking	15
Higher standards for students	14
Enhance teacher evaluations and accountability	14
Labor relations (reduce power of teachers’ unions, do away with teacher tenure)	14
Institute dress code / learning environment/values	12
Focus on basic subjects/downplay others	10
More Arts	9
Collaboration skills	9
Technology	8
More gifted & talented	7
More engagement with industry	7
Better school leaders/principals	7
Career Counseling/Career readiness	7
Early education	6
Computer Science	6
Raise teacher salaries	6
More physical education	6
Communication/writing	6
More individualized learning	6
More funding/resources	5
More relevant teaching methods	5
Life-long learning/enjoyment of learning	5
Charters/more school choice	4
Incentives/Pay for Performance	4
Better teachers/teacher prep	4
Focus on social/emotional state of child	4
Class size	3
More foreign language instruction	3
Parental involvement/accountability	3
Tracking students	2
Community Service	2

Many employers say they seek a mix of specific technical skills, subject knowledge, and “applied skills”, such as those listed below. Please rate the K-12 system in Massachusetts in terms of how well they prepare students in each of the following skills areas.

<i>Order randomized</i>	A	B	C	D	F	Don't Know	No Response
Ability to write clearly	3%	20%	45%	21%	5%	5%	1%
Oral communication and presentation skills	3%	19%	51%	19%	2%	5%	1%
Independent and critical thinking	3%	18%	43%	24%	5%	5%	1%
Ability to follow directions	7%	41%	35%	9%	2%	5%	1%
Ability to work together in groups	5%	42%	32%	12%	1%	6%	1%
Awareness of work-appropriate behavior	2%	16%	38%	27%	11%	5%	1%
Setting meaningful goals	2%	13%	44%	24%	6%	9%	2%

Do you think that the amount of emphasis placed on preparing students for Massachusetts standardized tests is too much, not enough emphasis, or about the right amount of emphasis?

Too much	63%
Not enough	2%
About the right amount	25%
Don't Know	8%
No Response	1%

Do you think each of the following uses of students' Massachusetts standardized test scores is appropriate or inappropriate?

<i>Order randomized</i>	Appropriate	Inappropriate	Don't Know	No Response
To identify successful schools vs failing schools	66%	23%	9%	2%
To evaluate teachers	47%	40%	12%	1%
To evaluate students	52%	36%	9%	2%
As a requirement to graduate from high school?	51%	38%	10%	2%

The next few questions are about STEM education, which stands for **Science, Technology, Engineering and Math** education.

Do you think that Massachusetts public schools put too much emphasis teaching STEM topics, not enough emphasis, or about the right amount of emphasis?

Too much	5%
Not enough	66%
About the right amount	13%
Don't Know	15%
No Response	1%

Please rate the following ideas for improving STEM education according to how effective they would be in expanding the number of STEM workers in the Massachusetts workforce.

<i>Order randomized</i>	Very effective	Somewhat effective	Not very effective	Not at all effective	Don't Know	No Response
Spending more time on STEM academic content	40%	38%	8%	2%	10%	2%
Integrating STEM content into other subjects such as English and History	31%	35%	16%	5%	11%	1%
Expanding teaching of computer science throughout K-12 education	45%	32%	6%	5%	11%	1%
Increasing awareness of STEM careers available in the current job market	47%	32%	8%	2%	9%	1%
Encouraging more girls and minorities to pursue STEM	41%	33%	10%	3%	12%	1%
Providing hands-on experiences for students to engage students in STEM subjects	63%	17%	8%	1%	9%	1%
Partnering with local STEM oriented companies to bring employees into schools as mentors/tutors	50%	29%	10%	2%	8%	1%

Some employers who hire workers for vocational / technical jobs (i.e. those that do not require a four-year college degree) have had a difficult time filling positions recently. Please rate the following ideas for improving vocational and technical education according to how effective they would be at increasing the qualified workforce in vocational / technical fields.

<i>Order randomized</i>	Very effective	Somewhat effective	Not very effective	Not at all effective	Don't Know	No Response
Partnering with local companies to create job training programs	65%	24%	5%	1%	4%	1%
Promoting technical careers to students and parents as a viable alternative to college	53%	32%	7%	1%	6%	1%
Encouraging girls and minorities to pursue technical careers	43%	33%	10%	3%	10%	1%
Increasing the number of vocational and technical programs in Massachusetts public schools	49%	32%	9%	1%	8%	<1%
Encouraging more students to prepare for vocational / technical careers rather than for a four-year college	39%	35%	15%	2%	8%	1%
Providing work-based learning experiences to students not attending a vocational high schools	52%	31%	7%	1%	7%	1%

In the past 5 years, has your company participated in any of the following partnership activities with a public school?

<i>Order randomized</i>	Yes we have	No, we have not	Don't Know	No Response
Offered internships to high school or public college students	70%	24%	4%	1%
Established a job training program with a local university or community college	25%	67%	7%	2%
Hosted college students from a co-op program	54%	38%	5%	2%
Hosted teachers for an externship to learn about career opportunities for their students at your company	16%	72%	10%	2%
Participated in a hands-on science and technology program or competition	26%	63%	8%	2%
Had an employee visit a school or campus to raise awareness about career opportunities in your industry	56%	36%	7%	1%
Participated in a high school or college career fair or other recruiting event	57%	37%	5%	1%

Overall, how would you grade the public higher education system here in Massachusetts, meaning community colleges and public universities?

A	12%
B	53%
C	18%
D	4%
F	1%
Don't Know	9%
No Response	4%

Please grade the following parts of the public higher education system according to how well they are meeting your company's employment needs.

<i>Order randomized</i>	A	B	C	D	F	Don't know	No Response
Community Colleges overall	6%	29%	27%	9%	1%	26%	3%
State Universities (such as Framingham State, Salem State, etc.)	6%	30%	24%	4%	1%	34%	1%
Technical/vocational programs at community colleges	5%	26%	21%	8%	1%	37%	2%
Specific technical programs at state colleges and universities	6%	29%	22%	4%	1%	38%	1%
The University of Massachusetts system (i.e. UMass)	15%	46%	10%	2%	1%	23%	2%

Which statement best reflects your views, even if none of them are a perfect match?

The public higher education system has serious problems and is in need of a major overhaul	16%
The public higher education system has some problems and needs to make some moderate changes	54%
The public higher education system has few problems and only needs minor changes	19%
The public higher education system is functioning well overall and does not require much change	4%
Don't Know	6%
No Response	1%

Given all we have discussed, what should the role of the business community be in working to improve the public education system in Massachusetts? *There were 205 comments offered in response to this question. The count here may not add up to 205 as some comments covered more than one topic. The full list of responses can be found in Appendix B.*

Offer more internships/mentoring/shadowing	56
More partnership/collaboration/integration with schools	56
Communicate needed skills to schools	46
Advocate for education as a matter of public policy	22
Raise awareness of career opportunities among students	18
Other	11
Provide funding (grants, donations)	10
General call for more involvement	11
More focus on community colleges and/or vocational schools	8
Teachers' union/personnel issues	8
More focus on STEM / computer science	6
Soft skills/real life skills	5
More focus on vocational/technical education	7
Better teaching/teacher education	5
Focus on UMass / public higher education	3
Focus on urban schools	4
Focus on charter schools	3
Not business's responsibility to fix education	3
Have young people start working younger	3
Hold education system accountable for improvements	2
More or better use of technology	2
More work through associations/chambers	2
Treat education as an industry	2
More early education	2

If the Massachusetts business community were to focus on changing state policy to improve the public education system, how much focus should be placed on each of the following policy areas?

<i>Order randomized</i>	A great deal	A fair amount	Not too much	None at all	Don't Know	No Response
Access to early education (Pre-K) programs	40%	21%	26%	10%	3%	1%
The effectiveness of teachers	63%	30%	5%	0%	2%	<1%
Lifting the cap on charter schools	30%	23%	23%	8%	16%	<1%
Availability of technology at the school	52%	33%	12%	<1%	3%	<1%
De-centralizing district decision making by giving school leaders more management authority	28%	35%	19%	4%	13%	1%
Increasing partnerships between businesses and higher education	55%	36%	7%	<1%	1%	1%
Making computer science available to all students	49%	38%	10%	0%	2%	<1%
Extending the schools day to include more time for learning	42%	31%	16%	4%	5%	1%

DEMOGRAPHICS

These last few questions are for statistical purposes and will not be used to identify you or your answers.

Which of following best describes your level of responsibility within your company?

Associate	3%
Manager	13%
Senior Manager	18%
Vice President	13%
Senior Vice President	5%
C-level executive (CEO, CFO, etc.)	45%
Other	3%
No Response	1%

Which of the following best describes your function or department within your company?

Accounting	4%
Marketing	5%
Government/Public Affairs	8%
Administration	10%
Physical Plant	1%
Human Resources	18%
Information Technology	3%
Executive	39%
Other	11%
No Response	1

Please select the best description of your company's primary industry.

Advanced Manufacturing	8%
Communications	6%
Construction	4%
Finance/Banking	10%
Health Care	9%
Hospitality	4%
Life Sciences / Biotech	10%
Retail	5%
Technology / IT	13%
Other	30%
No Response	1%

What percentage of jobs at your company require some sort of post-secondary credential (professional certification, 2 or 4 year college degree, advanced degree, etc.) at least the following levels of education to be hired?

Less than 50%	25%
50-75%	30%
76-99%	30%
100%	15%
No response	0%

How many total employees does your company have, at all locations?

25 or fewer	24%
26-124	20%
125-1500	30%
More than 1500	21%
No response	4%

Approximately how many employees within your company report directly to you?

Up to 2	24%
3-5	30%
6-10	22%
More than 11	17%
No response	7%

Approximately how many total employees are you responsible for, either directly or through your reporting chain?

Up to 5	26%
6-25	24%
26-150	25%
More than 150	9%
No response	16%