

New England Association of Schools & Colleges

Economic Impact Report

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New England Association of Schools & Colleges *Economic Impact Report*

This report presents findings of an economic impact study of public and private schools, colleges, and universities accredited by the New England Association of Schools and Colleges (NEASC). NEASC has issued economic impact statements annually since 2004 in an effort to inform policymakers, public officials, and citizens about the connection between educational institutions and regional economic development. The following findings highlight the economic impact of NEASC-accredited institutions and illustrate, on a broader scale, the economic impact of the region's education sector as a whole.¹

Ordinarily, studies examining the effects of educational investment highlight long-term returns, such as increased wages over the course of a lifetime, a more educated and productive workforce, and lower welfare, crime, and incarceration rates. NEASC's economic impact assessments, however, emphasize short-term benefits like job-growth, profits to the range of vendors and industries that sell goods and services to schools, and aggregated revenue earnings of educational institutions. To date, few studies have explored short-term impacts of educational institutions yet, increasingly, these impacts are recognized for their considerable effects, both direct and indirect, on employment and overall economic development.

NEASC's latest study reveals that New England's accredited schools, colleges, and universities have a remarkable annual economic impact exceeding \$135 billion as of Academic Year (AY) 2006-07, the latest year for which audited school financial data are available.² Undeniably, education is a leading enterprise in New England, yet few are aware of the full breadth or degree of fiscal benefits generated by this sector. This is not surprising given that economic impact studies in education are scant or often limited to postsecondary institutions. Moreover, the unit of analysis in most postsecondary impact studies is either one isolated institution or a small cluster of institutions so that the broader, sector-wide economic impacts are not fully examined. As for the K-12 sector, economic impact assessments are seldom undertaken. In New England, NEASC's economic impact assessment may be the only known study to analyze the economic impact of hundreds of elementary, middle, and secondary schools across the six-state region.

Inattention to the K-12 sector might be attributed to conventional assumptions that K-12 institutions are not significant financial establishments in the regional economy in the way that higher education institutions are known to be. In spite of this, NEASC's analysis consistently finds that the K-12 sector *is* a critical economic stimulus. The importance of K-12 institutions, however, is typically overshadowed by the demonstrably greater impact of the region's colleges and universities. In fact, NEASC's latest study finds that, by themselves, accredited elementary, middle, and secondary schools have an annual economic impact of over \$17 billion as of FY07. (Note: While the vast majority of secondary schools in New England are accredited by NEASC, this figure is a modest estimate for K-12 institutions overall given that non-accredited schools, most of which are in the public elementary and middle school sector, are not incorporated in the NEASC assessment.)

Given NEASC's longstanding relationship with educational institutions of all levels (K--postsecondary), NEASC recognizes a need to understand and subsequently inform members of the public about the powerful link between educational institutions and regional economic well-being. After all, the spending decisions of NEASC-accredited institutions, which include nearly all of New England's higher education institutions, the majority of the region's public and private secondary schools, and a growing number of elementary and middle schools, are often influenced by accreditation standards and recommendations of NEASC accreditation teams. Furthermore, while a comparative analysis of educational spending across the nation's school districts and states is not new, there has never been any assessment prior to

¹NEASC's access to data from accredited member schools as well as its mission to serve the needs and interests of the membership renders these educational institutions the focal point of this study. The membership base is broad, however, and encompasses the majority of public and private secondary schools, colleges and universities in the region. The study's exclusion of a large number of non-member elementary and middle schools signals only that the economic impact figures presented in this report are modest estimates of the education sector's overall regional impact.

²Final economic impact estimates are based on tuition costs for resident pupils based primarily on school district per pupil expenditure figures (Academic Year 2006-07) from the Connecticut State Department of Education, the Maine Department of Education, the Massachusetts Department of Elementary and Secondary Education, the New Hampshire State Department of Education, the Rhode Island Department of Elementary and Secondary Education, and the Vermont Department of Education. Economic impact figures for private schools are derived from each school's enrollment and tuition charge per pupil, accounting for day and boarding rates. The study also accounts for endowments of private (K-12) schools and higher education institutions (unless under \$1 million). All figures are rounded.

NEASC's 2004 study that specifically explores how money expended by New England's education sector impacts the economy.

NEASC's initial economic impact study, conducted in 2004, found that New England's accredited schools, colleges, and universities had an economic impact of \$78 billion in FY03. (NEASC's assessments are based on data for the latest year that comprehensive audited school financial records are available.) Follow-up economic impact assessments undertaken in successive years showed that the region-wide economic impact of accredited institutions amounted to more than \$93 billion in FY04 and over \$114 billion in FY06. NEASC's most recent assessment finds that accredited institutions have a collective economic impact of more than \$135 billion as of FY07.³

These latest results corroborate findings from previous studies which demonstrate that the education sector is one of the most robust and vital sectors of the New England economy, outdoing most other sectors with regard to immediate and constant benefits to the New England region. Although economic impact studies have been undertaken by businesses and industries outside of education and by various higher education institutions individually, the 2004 NEASC study is the first assessment in New England that investigates the collective economic impact of schools at the elementary, middle, secondary, and postsecondary levels. The results of this latest analysis reaffirm that discussions regarding the region's economic stability and competitive edge should take into consideration the impact of educational institutions which, collectively, are a leading contributor to the economy. The findings also emphasize the need for continued research aimed at identifying the economic impacts of educational institutions, particularly in the K-12 sector, which have been largely overlooked in other assessments.

NEASC has taken great measures to ensure the accuracy and validity of the findings, yet certain limitations should be noted. For one, these estimates are deliberately modest because they do not account for various secondary or indirect economic impacts. Secondary economic effects (also called residual or multiplier effects) correspond to, among other things, spending by employees of accredited educational institutions and the impact on employment at companies that sell services and goods to educational institutions. They may further include the impact of student spending on revenue growth to businesses serving students.

While the exclusion of these secondary impacts may be viewed by some as a shortcoming of the analysis, confining NEASC's study primarily to direct and immediate impacts allows for a more straightforward understanding of the economic impacts of educational institutions. This method also affords readers less reliance on theoretical knowledge of multiplier effects. Incorporating multiplier impacts could confound some of the results since multipliers generally rely on making speculations about how economic agents (e.g. consumers, students, businesses) *might* react to initial (or first-round) spending by a school, college, or university. NEASC's assessment is intended to be entirely straightforward, unambiguous, and precise.

This year, NEASC is releasing its *Economic Impact Report* amidst what is perhaps the worst economic recession most Americans have lived through. While the effects of the recession have been more devastating in other parts of the nation, New England certainly has not been immune to the financial crisis. There is no question that the economic crisis has and continues to impact educational institutions harmfully. For example, budgetary strains have put school officials in the unenviable position of cutting staff, programs, extra-curricular activities, services, and other resources to keep school budgets balanced. Financial strains have provoked a great deal of panic in the education community. Responding to shrinking funds, many school officials have felt compelled to reduce school personnel. From a single institution's standpoint, staff reductions may not appear to affect the economic well-being of the greater community. However, when layoffs occur simultaneously across a large number of educational establishments, as they have, the effects on the regional economy are damaging. After all, education is a leading regional employer, providing over 490,000 jobs throughout New England as of 2007, according to data from the U.S. Department of Labor.⁴ And, data from the U.S. Census Bureau's

³Schools for which financial or other pertinent data were unavailable have been omitted from the data set. Therefore, our final economic impact estimate is a conservative one given that a fraction of schools (58 in total, including five public secondary schools, 22 independent schools (K-12), 25 technical and career schools, and six postsecondary institutions) were excluded from the data set. While this method results in an underestimation of the economic impact of educational institutions in the analysis, overall, the omissions do not significantly affect the key findings of the study.

⁴Source: U.S. Department of Labor, Bureau of Labor Statistics. "May 2007 State Occupational Employment and Wage Estimates." November 12, 2008. Retrieved online September 8, 2009 from <http://www.bls.gov/oes/2007/may/oes_ri.htm> and author's calculations.

Occupational Employment and Statistics Survey indicate that about 10% of New England's labor force has a job connected with education, meaning that personnel cuts and other input reductions across school systems have significant economic consequences for the region.⁵ For these reasons, the findings of this study have more importance today than in previous years given the widespread economic implications of school budget cuts taking place region-wide.

As a major science and research hub, New England is heavily education- and skills-reliant. Our future rests on human capital and the development of human capital is dependent on a robust educational system. There is no question that educational expenditures are a high-yield investment which not only support the cultivation of human capital, but represent an economic stimulus with billions of dollars in spillover effects. It is important to recognize the potential risks that may arise over time when such an important stimulus is weakened.

A recent study by the American Association of School Administrators (AASA) found that as the recession persists, schools are increasingly responding to budget shortfalls by removing programs, laying off personnel, and instituting other emergency cost-cutting measures that have detrimental effects on student achievement.⁶ The AASA study, based on a survey of 836 school administrators, found that the proportion of surveyed schools with larger class sizes rose from 13% in the 2008-09 school year to 44% in the 2009-10 school year.⁷ The percentage of surveyed schools that had to lay off personnel increased from 11% in 2008-09 to 44% in 2009-10.⁸ The rate of schools in the study cutting academic programs (such as intervention programs and week-end classes) increased from 7% in 2008-09 to 22% in 2009-10.⁹ The proportion of schools no longer offering electives rose from 7% in 2008-09 to 27% in 2009-10.¹⁰ The AASA study also revealed that schools are withdrawing extra-curricular activities, with 10% of surveyed schools eliminating extra-curricular activities in 2008-09 and 28% of schools doing so in 2009-10.¹¹ Technology purchases have also been frozen at a greater rate: 16% of surveyed schools held off on technology purchases in 2008-09 while 32% did so in 2009-10.¹² Whereas 19% of surveyed schools reported reducing instructional materials in 2008-09, 24% reported doing so in 2009-10.¹³

AASA asserts that the economic impact of budget cuts will negatively affect communities nation-wide:

*The impact of budget cuts is not limited to students. For many communities across the nation, schools are a major employer and a reliable source of revenue. Cost saving measures have a direct impact on the community as well. When schools curtail spending through measures such as reducing payroll, curtailing energy use, reducing fuel consumption, deferring maintenance and delaying purchases, the local community is the first to share the effects.*¹⁴

Students who receive reduced educational curricula and programming due to fewer school resources may not meet their academic and subsequently their lifelong economic potential. Over time, the consequences of diminishing educational resources are an inadequate supply of human capital and a less productive labor force. Every student is an investment. That does not mean that money is a guaranteed precursor to student success and economic returns, but the correlation between the provision of adequate resources and student success is widely documented in research and well-understood among educators. It is NEASC's intention that these findings will assist policymakers in addressing the long-term economic repercussions to the region that are associated with current education cutbacks. The

⁵ Occupations connected with education include: preschool, elementary, middle, and secondary school teachers as well as vocational school and postsecondary instructors; educational administrators (pre-K through postsecondary); graduate teaching assistants; special education teachers; adult literacy and remedial education instructors; GED instructors; self-enrichment teachers; instructional coordinators; teaching assistants; and school bus drivers. Source of data: U.S. Department of Labor, Bureau of Labor Statistics. "May 2007 State Occupational Employment and Wage Estimates." November 12, 2008. Retrieved online September 8, 2009 from <http://www.bls.gov/oes/2007/may/oes_ri.htm> and author's calculations.

⁶ American Association of School Administrators. *Looking Back. Looking Forward: How the Economic Downturn Continues to Impact School Districts*. March 2009. Arlington, VA: American Association of School Administrators. (P. 2). Retrieved online October 5, 2009 from <<http://www.aasa.org/uploadedFiles/Resources/files/LookingBackLookingForward.pdf>>.

⁷ Ibid., 4.

⁸ Ibid., 4.

⁹ Ibid., 4.

¹⁰ Ibid., 11.

¹¹ Ibid., 4.

¹² Ibid., 12.

¹³ Ibid., 12.

¹⁴ Ibid., 16.

education sector represents a vital catalyst for economic growth and any large-scale return on this investment is connected to the adequacy of resources provided.

Findings

NEASC's latest economic impact study, conducted in 2009 and based on financial data from Academic Year (AY) 2006-07 (the latest year for which comprehensive school financial records are available), finds that NEASC-accredited schools (K-12), colleges, and universities across the six states of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont have a collective economic impact of \$135,209,540,664.¹⁵ The economic impact of these institutions is not only greater than that of most large and for-profit corporations based in the region but, as a cluster, they generate more employment and economic stability than most other industries in the region.

NEASC's study finds that New England's accredited schools (K-12) and higher education institutions have direct expenditures estimated at \$30,222,203,669 as of FY07. Direct expenditures correspond to money expended by educational institutions throughout the academic year to purchase goods and services from other businesses. For instance, expenditures toward everyday goods include instructional materials, textbooks, athletic equipment, art supplies, multimedia equipment, computers, and so on. Expenditures for services include staff salaries and benefits, internet service, telephone service, operating services (e.g. heating and electricity), and facilities services (e.g. custodial services and maintenance of athletic fields and property). In many states, transportation, food services, and capital outlay are also included in direct expenditure reports.¹⁶

Table 1. Economic impact of NEASC-accredited schools, AY 2006-07

Type of Institution	Economic Impact
Public Elementary Schools	\$395,254,131
Public Middle Schools	\$237,993,137
Public Secondary Schools	\$6,857,818,150
Technical & Career Schools	\$687,581,766
Independent Elementary, Middle & Secondary Schools	\$8,935,409,494
Higher Education Institutions	\$118,095,483,986
Total	\$135,209,540,664

Given that NEASC's study highlights the immediately observable effects of educational spending, long-term indirect and induced impacts are not thoroughly explored here. Indirect economic impacts arise because of third party transactions which take place following an initial (or direct) transaction. In other words, indirect impacts represent chain reactions which occur in the market following a direct transaction. In the context of educational spending, one indirect impact is the employment generated in industries that produce goods and services purchased by schools. For example, many schools today purchase internet service. The increase in demand for internet services leads to an increase in the number of jobs created in the information technology industry. The rise in employment in information technology is an *indirect* economic impact. The personal income earned and subsequently spent on local goods and services by information technology professionals employed at companies that do business with schools is an *induced* impact. Induced impacts also include the increased earnings of college and university graduates who, during the course of their lifetime, earn more than if they only completed high school. Long-term induced benefits from school-spending include public (tax) money saved on incarceration, health, and welfare expenses. This means that the economic impact of accredited schools, exceeding \$135.2 billion in FY07, is really a fraction of the schools' actual economic impact which would multiply if the long-range and induced benefits were accounted for in this assessment.

¹⁵Includes public and private institutions.

¹⁶States employ varying formulas for deriving Per Pupil Expenditures (PPEs). Expenditure figures used in this study are based on each New England state's respective formula for PPE so that one state may account for certain school-related purchases in their PPEs that another state may exclude. In general, states' PPEs account for comparable school-related purchases. However, some expenditures, such as transportation, food service and capital expenditures, are not uniformly factored into PPEs across the states. Many in the research community would like to see greater consistency in states' PPE reporting so that education studies like this one may produce findings with even greater reliability.

Figure 1: Economic impact of NEASC-accredited institutions, AY2006-07

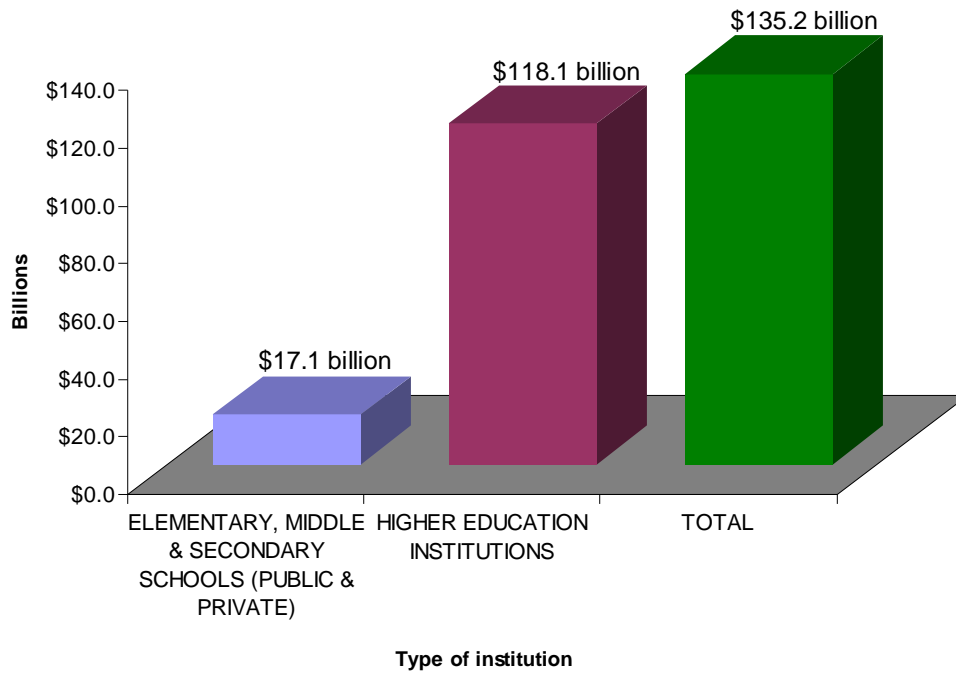
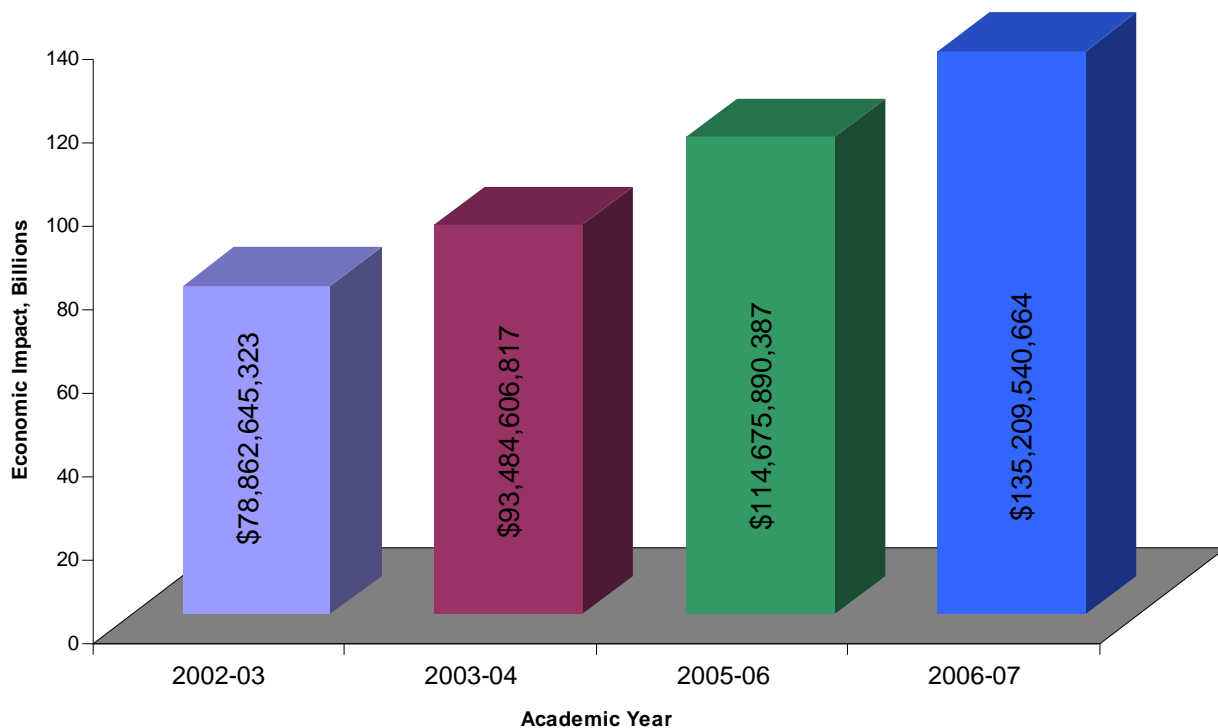


Figure 2: Economic impact of NEASC-accredited institutions, AY 2002-03 to AY 2006-07



Demographics and education

Given that schooling is generally compulsory until age 16 and is chiefly supported through taxes, it is often forgotten that students and parents are, in effect, consumers. As a consumer base, students and parents are a powerful force—the 1,728,021 students enrolled at accredited schools and higher education institutions represented 12% of the New England population as of 2007.¹⁷ Of these students, 694,029 were enrolled in public elementary, middle, and secondary schools, 189,713 were enrolled in private elementary, middle, and secondary schools, and 844,279 were enrolled in higher education institutions.

Inevitably, employment in the education sector is a function of school enrollment. Enrollment trends are predictable, allowing the education sector to be more stable and less susceptible to economic shocks relative to other sectors (since consumer ‘demand’ for educational services can be projected). Accordingly, employment needs in education are more easily forecast than they are in other sectors. Furthermore, given the high number of educational institutions in New England (owing to the high density of colleges and universities), it is not surprising that the education sector is one of the leading employers in New England, providing jobs to an estimated 493,380 people in 2007, according to data from the U.S. Department of Labor.¹⁸ In fact, the U.S. Department of Labor finds that the number of New England residents employed in education (including teachers, postsecondary professors, administrators, instructional coordinators, teacher assistants, and other staff) is greater than the number of New England residents employed in healthcare practitioner occupations (411,250), computer and math sciences occupations (204,710), and business and financial services occupations (334,720).¹⁹

The education sector is one of the top employers in New England, providing jobs to 493,380 people in FY07 .

Figure 3: Enrollment in NEASC-accredited institutions, AY 2006-07

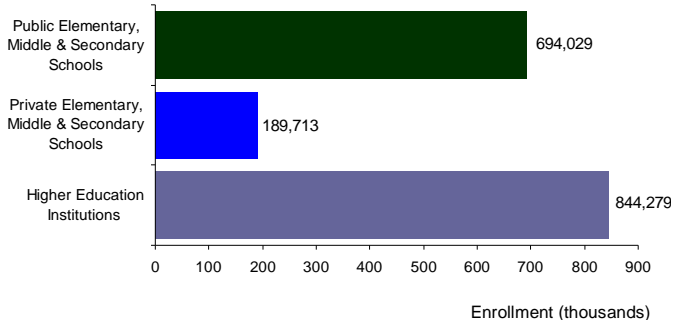
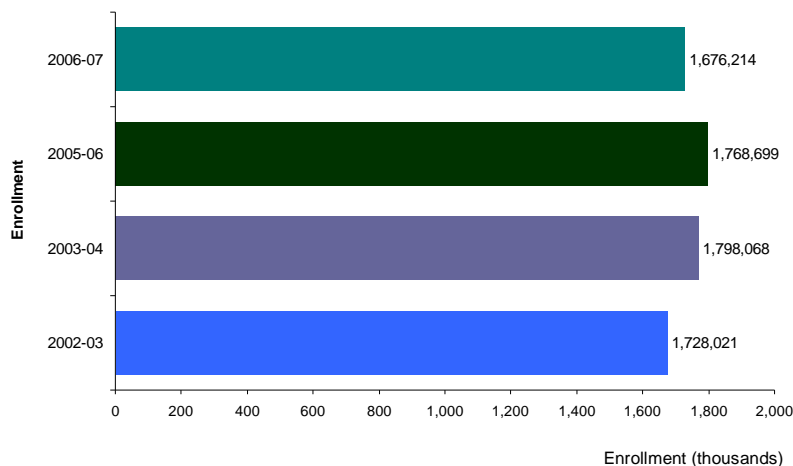


Figure 4: Enrollment in NEASC-accredited institutions, AY 2002-03 to AY 2006-07



¹⁷ Source of state population: U.S. Census Bureau, 2007 American Community Survey. Retrieved online November 3, 2009 from <http://factfinder.census.gov/servlet/ADPTable?_bm=y&-context=adp&-ds_name=ACS_2007_1YR_G00_&-tree_id=307&-redoLog=true&-caller=geoselect&-geo_id=04000US09&-format=&-_lang=en>.

¹⁸ Source: U.S. Department of Labor, Bureau of Labor Statistics. "May 2007 State Occupational Employment and Wage Estimates." November 12, 2008. Retrieved online September 8, 2009 from <http://www.bls.gov/oes/2007/may/oes_ri.htm>.

¹⁹ Source: U.S. Department of Labor, Bureau of Labor Statistics. "May 2007 State Occupational Employment and Wage Estimates." November 12, 2008. Retrieved online September 8, 2009 from <http://www.bls.gov/oes/2007/may/oes_ri.htm> and author's calculations.

Figure 5: Direct expenditures of NEASC-accredited institutions in New England, AY 2006-07

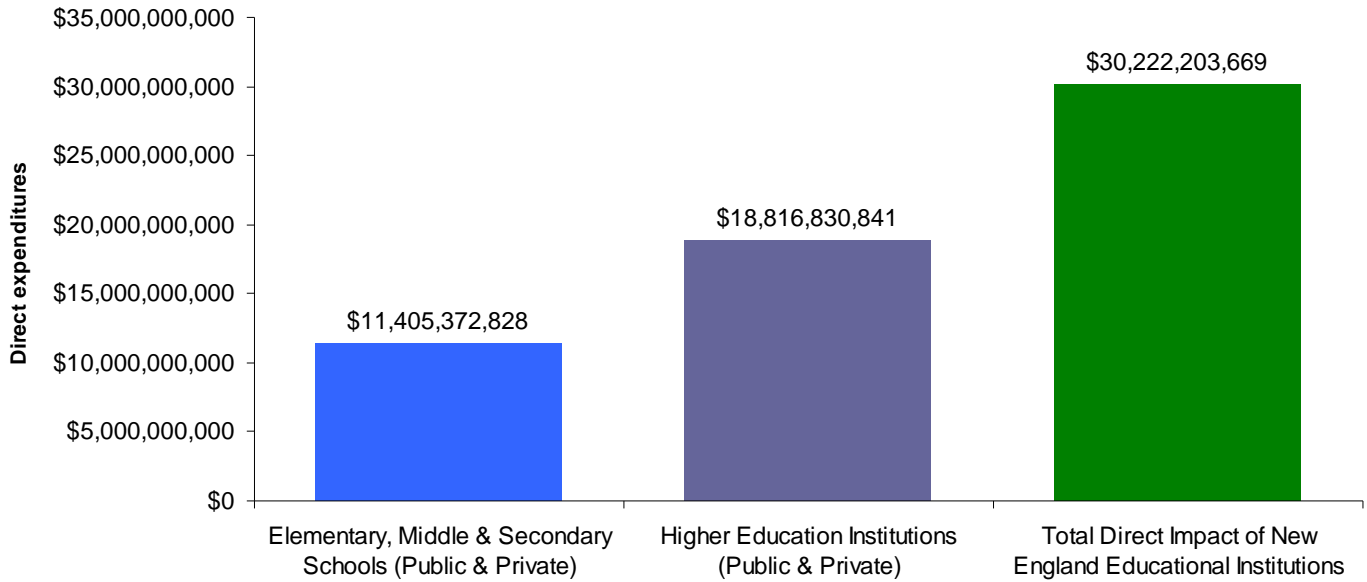
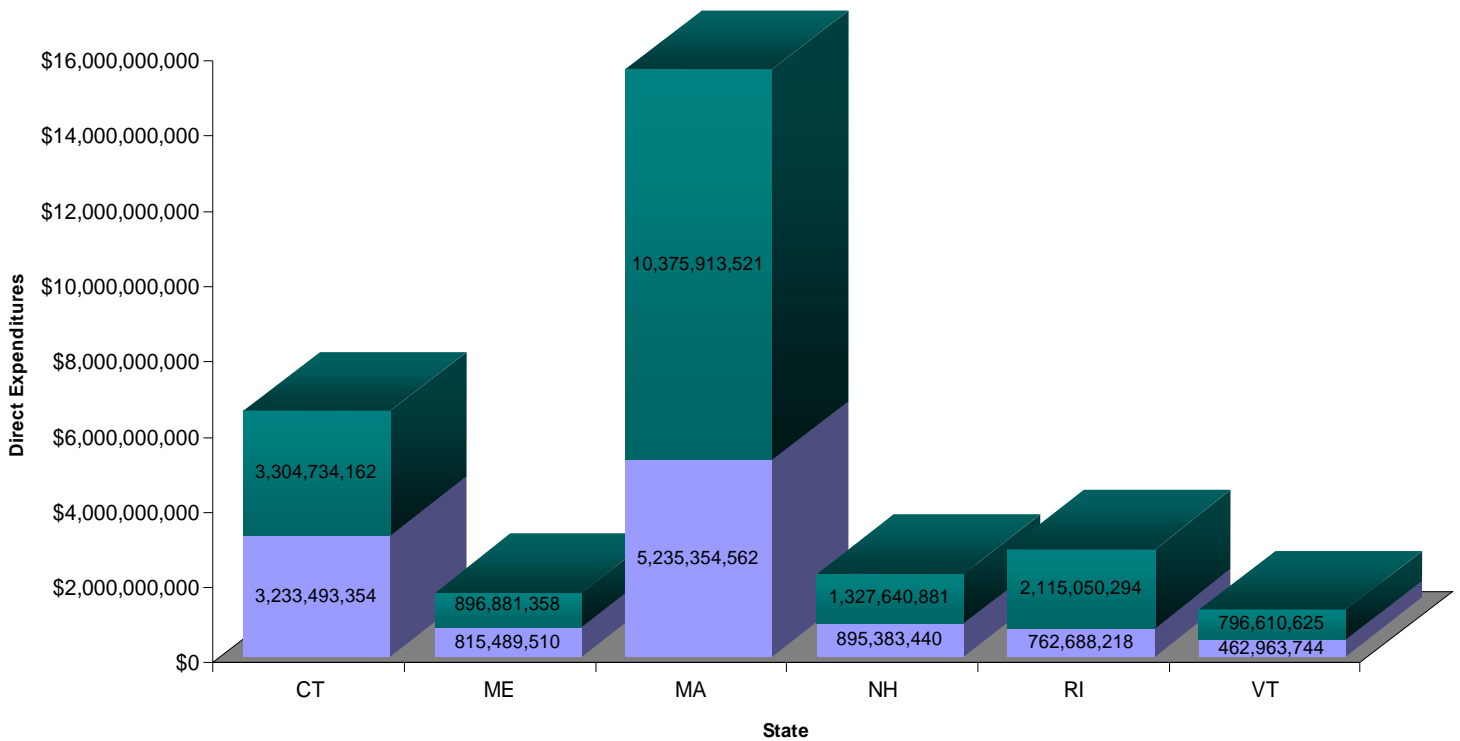


Figure 6: Direct expenditures of NEASC-accredited institutions by state, AY 2006-07

■ Elementary, Middle & Secondary Schools (Public & Private) ■ Higher Education Institutions (Public & Private)



From another angle, the total number of teachers, administrators, and other school staff in New England is greater than the number of accountants, engineers, doctors, nurses, lawyers, police officers, electricians, mechanics, dentists, clergy, photographers, construction laborers, hairdressers, psychologists, and architects in the six-state region *combined*. U.S. Census Bureau data from the 2007 Occupational Employment and Statistics Survey reveals that roughly 10% of New England's labor force is employed in some capacity by the education sector.²⁰ The Federal Reserve Bank of Boston found that the only sectors in the last year to experience annual job increases were private education and health services.²¹ In addition, the economic impact of NEASC-accredited institutions exceeds the combined expenditures of the New England states (\$88.2 billion in FY07). By themselves, public elementary, middle, and secondary schools accredited by NEASC had an estimated revenue base of \$9,597,299,951 in FY07, topping the revenues of many of the highest revenue-grossing and Fortune 500 companies in New England, including BJ's Wholesale Club, Praxair, Terex, Northeast Utilities, Pitney Bowes, Energy East, Genzyme, Hasbro, Silgan Holdings, United Natural Foods, Hubbell, Crane, Commerce Group, Magellan Health Services, and Amica Mutual Insurance which had revenues of \$8.5 billion, \$8.3 billion, \$7.6 billion, \$6.9 billion, \$5.8 billion, \$5.2 billion, \$3.2 billion, \$3.2 billion, \$2.7 billion, \$2.4 billion, \$2.4 billion, \$2.3 billion, \$1.9 billion, \$1.7 billion, and \$1.6 billion, respectively.

The estimated revenue base of NEASC-accredited public elementary, middle, and secondary schools is nearly \$9.6 billion as of FY07.

Inter-industry transactions benefit the economy

The transactions between schools and firms produce inter-industry linkages, generating employment across a broad range of industries (e.g. energy, information technology, construction, media, telecommunications, sports management, educational testing, transportation, publishing, and so on). NEASC's analysis of public school data indicates that the operating expenditures of regionally accredited public elementary, middle, and secondary schools amounted to nearly \$1.5 billion in FY07.²² Capital outlay expenditures for these schools were more than \$883.1 million.²³ The schools expended over \$5.1 billion on teacher and staff salaries and more than \$2.0 billion on teacher and staff benefits in FY07.²⁴ An estimated \$6.0 billion was spent on instruction²⁵ and over \$551.8 million on student support services in FY07.²⁶ These schools also expended an estimated \$389.4 million on student transportation and \$252.1 million on food services in FY07.²⁷

²⁰ Educational employment includes: preschool, elementary, middle, and secondary school teachers; vocational school and postsecondary instructors; educational administrators (pre-K through postsecondary); graduate teaching assistants; special education teachers; adult literacy and remedial education instructors; GED instructors; self-enrichment teachers; instructional coordinators; teaching assistants; and school bus drivers. Source of data: U.S. Department of Labor, Bureau of Labor Statistics. "May 2007 State Occupational Employment and Wage Estimates." November 12, 2008. Retrieved online September 8, 2009 from <http://www.bls.gov/oes/2007/may/oes_ri.htm> and author's calculations.

²¹ Source: Financial Institution Relations & Outreach (FIRO) program, Federal Reserve Bank of Boston. "New England Economic Snapshot." May 2009. Federal Reserve Bank of Boston. Retrieved online September 22, 2009 from <<http://www.bos.frb.org/bankinfo/firo/publications/economicssnapshot/2009/EconomicSnapshot-May09.pdf>>.

²² Source of public school operating expenditures: Zhou, L. *Revenues and Expenditures for Elementary and Secondary Education: School Year 2006-07 (Fiscal Year 2007)* (Page 14, Table 6), NCES 2009-337. 2009. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved online December 8, 2009 from <<http://nces.ed.gov/pubs2009/2009337.pdf>> and author's calculations.

²³ Source of public school capital expenditures: National Education Association, NEA Research. *Rankings & Estimates: Rankings of the States 2006 and Estimates of School Statistics 2007* (Page 96). December 2007. National Education Association. Retrieved online November 18, 2009 from <http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/3a/48/20.pdf> and author's calculations.

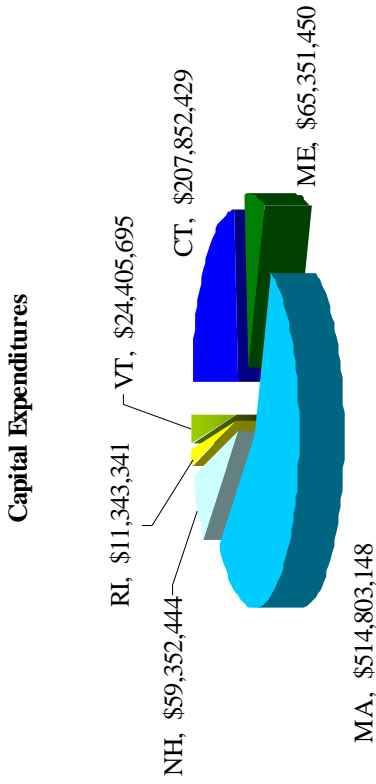
²⁴ Source of public school staff salary and benefits expenditures: U.S. Census Bureau, 2007 Census of Government Survey of Local Government finances—School Systems. "Public Education Finances 2007" (Page 8, Table 8). July 2009. U.S. Census Bureau. Retrieved online December 8, 2009 from <<http://www2.census.gov/govs/school/07f33pub.pdf>> and author's calculations.

²⁵ Instruction expenditures include spending on classroom instruction, instructional staff salaries and benefits, teacher assistants, in-service training, libraries, instructional technology, student assessment, and curriculum development.

²⁶ Source of public school instruction, instruction-related and student support services data: Zhou, L. *Revenues and Expenditures for Elementary and Secondary Education: School Year 2006-07 (Fiscal Year 2007)* (Page 14, Table 6), NCES 2009-337. 2009. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved online December 8, 2009 from <<http://nces.ed.gov/pubs2009/2009337.pdf>> and author's calculations.

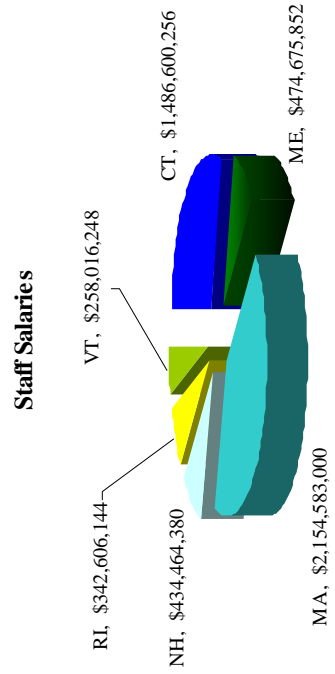
²⁷ Source of public school transportation and food service expenditure data: Zhou, L. *Revenues and Expenditures for Elementary and Secondary Education: School Year 2006-07 (Fiscal Year 2007)* (Page 3, Table 9), NCES 2009-337. 2009. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved online December 8, 2009 from <<http://nces.ed.gov/pubs2009/2009337.pdf>> and author's calculations.

Figure 7: Capital expenditures of NEASC-accredited public schools (K-12), FY07



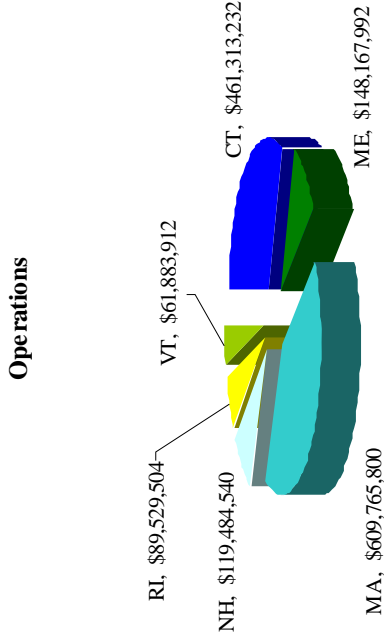
Total capital expenditures = \$883,108,508

Figure 9: Expenditures on staff salaries at NEASC-accredited public schools (K-12), FY07



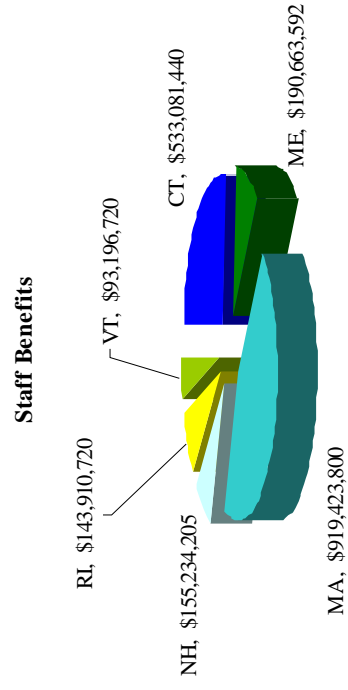
Total salaries expenditures = \$5,150,945,880

Figure 8: Operations expenditures of NEASC-accredited public schools (K-12), FY07



Total operations expenditures = \$1,490,144,980

Figure 10: Expenditures on staff benefits at NEASC-accredited public schools (K-12), FY07



Total benefits expenditures = \$2,035,510,477

Higher education: The region's most robust sub-sector

As of AY 2006-07, NEASC-accredited colleges and universities represented 95% of degree-granting higher education institutions in New England. The 844,279 students enrolled at NEASC-accredited higher education institutions comprised nearly 6% of the entire New England population in 2007.²⁸ The economic impact of NEASC-accredited higher education institutions amounted to over \$118 billion in FY07. The direct impact of these institutions (i.e. the daily spending associated with operation, maintaining facilities and grounds, paying salaries and benefits to employees, purchasing instructional materials, and providing student services) topped \$18 billion.

**NEASC-
accredited higher
education
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employed
149,964 full-time
and 59,195 part-
time faculty and
staff in FY07.**

The higher education sector in New England, with its great concentration of colleges and universities, is a leading regional employer. NEASC-accredited colleges and universities employed 149,964 full-time and 59,195 part-time faculty and staff in FY07. Altogether, NEASC-accredited colleges and universities provided jobs for roughly 209,159 people. In fact, the number of full-time employees at NEASC-accredited colleges and universities was greater than the number of doctors, police officers, construction laborers, lawyers, computer programmers, and pharmacists in New England combined, according to data from the U.S. Department of Labor.²⁹

Future considerations

NEASC hopes that this report raises awareness of the interconnectedness of educational institutions and New England's economic vitality. Further analysis can fully ascertain all the direct, indirect, and induced economic impacts of schools, colleges and universities. What is clear is that New England's educational institutions have a powerful financial impact region-wide. Indeed, educational institutions have spillover effects benefitting a range of industries. NEASC's findings also underscore the value in undertaking assessments that explore the economic impact of schools in the K-12 sector as their importance has long been ignored in spite of their key economic role.

The NEASC study identifies the *collective* economic impact of educational institutions. Individual educational institutions are often not deemed to be significant economic contributors on their own, but as a group, they represent one of the most critical agents of regional economic sustainability and development. Likewise, cuts to education at the institutional level may not appear to affect the economy by any drastic measure, yet from a macroeconomic angle, cuts across educational institutions inhibit economic development and hinder the positive spillover impacts brought about by education spending. The financial crisis has prompted major, unavoidable changes in the allocation of public investments. Responding to the fiscal emergency, many policy makers and school leaders have enacted "quick-fix" solutions to balance budgets, such as laying off school personnel, cutting extra-curricular activities, under-heating schools to reduce energy expenses, eliminating courses and electives, charging exorbitant user fees to student athletes, eliminating enrichment programs, and so on. These quick-fixes engender repercussions in the short-term by raising unemployment and reducing the level of inter-industry commerce between schools and vendors (businesses supplying goods and services to schools). The long-term consequences, however, may be even more damaging because an insufficient investment in human capital is likely to impede New England's economic competitiveness and growth as the region is increasingly dependent on skills and educational training for an ever-expanding knowledge economy.

It is NEASC's aim to provide policymakers, educators, and citizens with information that fosters effective decision making regarding educational matters. School finance is continually a topic of debate among government leaders and ordinary citizens. As these debates continue during this historical economic downturn, it is important to be cognizant of the direct and indirect impacts of public finances. Within the field of educational research, there are numerous studies highlighting the long-term economic gains

²⁸Source: U.S. Census Bureau, 2007 American Community Survey. Retrieved online November 3, 2009 from <http://factfinder.census.gov/servlet/ADPTable?_bm=y&-context=adp&-ds_name=ACS_2007_1YR_G00_&-tree_id=307&-redoLog=true&-caller=geoselect&-geo_id=04000US09&-format=&-_lang=en> and author's calculations. Figures are rounded.

²⁹Source: U.S. Department of Labor, Bureau of Labor Statistics. "May 2007 State Occupational Employment and Wage Estimates." November 12, 2008. Retrieved online September 8, 2009 from <http://www.bls.gov/oes/2007/may/oes_ri.htm> and author's calculations.

resulting from personal investment in education, yet analyses on short-term economic returns are few and far between. Ordinarily, the education sector has been ignored in discussions about the regional labor market as the discourse has disproportionately focused on large, for-profit corporations. However, we now know that the short-term economic benefits derived from school spending are significant. NEASC hopes the findings from this study are instructive and informative and will encourage similar assessments as there are sure to be important revelations that come out of continued research in this area.

FACT SHEET: ECONOMIC IMPACT OF NEASC-ACCREDITED EDUCATIONAL INSTITUTIONS

- NEASC-accredited schools, colleges, and universities (public and private) had an economic impact of more than \$135 billion as of FY07.
- NEASC-accredited public elementary, middle, and secondary schools had an economic impact of over \$8 billion while private elementary, middle, and secondary schools had an economic impact totaling nearly \$9 billion. Altogether, the economic impact of accredited elementary, middle, and secondary schools (public and private) amounted to more than \$17 billion in FY07.
- The \$135 billion economic impact of NEASC-accredited schools exceeded the combined state expenditures of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont, which collectively was \$88 billion in FY07.
- Direct expenditures of NEASC-accredited elementary, middle, and secondary schools alone were estimated at more than \$11 billion in FY07 while expenditures of accredited colleges and universities amounted to an estimated \$18 billion. Altogether, direct expenditures of NEASC-accredited elementary, middle, and secondary schools and higher education institutions topped \$30 billion in FY07.³⁰
- Schools channel millions of dollars to a range of industries outside of education, including construction, transportation, energy, and technology. In AY 2006-07, NEASC-accredited public elementary, middle, and secondary schools expended an estimated:
 - \$1.5 billion on school operation;
 - \$883.1 million on capital outlay;
 - \$5.2 billion on teacher and staff salaries;
 - \$2.0 billion on teacher and staff benefits;
 - \$6.0 billion on instruction;
 - \$389.4 million on student transportation; and
 - \$252.1 million on food services;
- The education sector provided work for 490,000 people in 2007, according to data from the U.S. Department of Labor, making education one of the top employment sectors in New England.
- NEASC-accredited colleges and universities employed 209,159 people in FY07, including 149,964 full-time and 59,195 part-time faculty and staff. The number of full-time faculty and staff employed at these institutions in 2007 was greater than the total number of doctors, pharmacists, lawyers, computer programmers, construction laborers and police officers in New England *combined*.
- Approximately 1,728,021 students were enrolled in NEASC-accredited elementary, middle, and secondary schools and higher education institutions in AY 2006-07. These students represented 12% of the total New England population as of 2007 rendering them a significant consumer base of educational services. Of these students, 694,029 attended public elementary, middle, and secondary schools and 189,713 attended private elementary, middle, and secondary schools. Approximately 844,279 students were enrolled at accredited higher education institutions.

³⁰Direct expenditures include teacher, administrator, and staff salaries, instructional supplies, building maintenance, and operating services such as heating, utilities, and cleaning. Some states include transportation, food services, and capital outlay in direct pupil expenditures.

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STATE FACTS

Connecticut

- As of Academic Year (AY) 2006-07, there were 425 NEASC-accredited schools, colleges, and universities in Connecticut, including 179 public and 187 private elementary, middle and secondary schools, 20 technical and career schools, and 39 higher education institutions. Altogether, these educational institutions had an economic impact of \$33,312,315,771 in FY07.³¹
- The statewide economic impact of NEASC-accredited elementary, middle, and secondary schools (public and private), including technical and career schools, was an estimated \$4,955,537,354 in FY07. Accredited higher education institutions had an economic impact totaling \$28,356,778,417.
- NEASC-accredited elementary, middle, and secondary schools in Connecticut enrolled 241,662 students in AY 2006-07, including 176,856 students at public schools, 53,294 students at private schools, and 11,512 students at technical and career schools. NEASC-accredited higher education institutions enrolled 170,873 students in AY 2006-07. Altogether, 412,535 students were enrolled at 425 NEASC-accredited schools and higher education institutions.

Table 1. Economic impact of NEASC-accredited institutions in CT, FY07

Type of Institution	Number of Accredited Institutions Statewide	Enrollment	Economic Impact ³²
Elementary, Middle & Secondary Schools*	386	241,662	\$4,955,537,354
Higher Education Institutions	39	170,873	\$28,356,778,417
Total	425	412,535	\$33,312,315,771

*Includes public and private schools as well as technical and career institutions

- The revenue of NEASC-accredited public elementary, middle, and secondary schools was estimated at \$2,731,524,368 in FY07—greater than the revenues of some of the highest revenue-grossing companies based in the state, such as Silgan Holdings, United Natural Foods, Hubbell, Crane, IMS Health, and Magellan Health Services which had 2007 revenues of \$2.7 billion, \$2.4 billion, \$2.4 billion, \$2.3 billion, \$2.0 billion, and \$1.7 billion, respectively.³³
- The economic impact of NEASC-accredited schools, colleges, and universities in Connecticut, totaling over \$33.3 billion in FY07, was greater than the amount of money expended by the State of Connecticut that year (\$22.8 billion).³⁴
- Direct expenditures of NEASC-accredited schools and higher education institutions were estimated at \$6,538,227,516 in FY07.³⁵
- Direct expenditures of NEASC-accredited institutions in FY07 were greater than the gross domestic products (GDPs) of some nations, such as Mauritius (\$6.4 billion), Fiji (\$3.4 billion), Belize (\$1.3 billion), and Bhutan (\$1.1 billion).³⁶

³¹The estimated economic impact of NEASC-accredited institutions accounts for direct expenditures as reported by the Connecticut State Department of Education. Figures are rounded. The report accounts for endowments of private K-12 schools and public and private higher education institutions (unless under \$1 million). Economic impact estimates for higher education institutions also take into account tuition revenue and room and board charges when applied.

³²Some schools were omitted from the data set due to unavailable up-to-date information. Altogether, 18 schools were omitted, including 16 private schools and two higher education institutions. These omissions do not have a significant bearing on the final outcome of the study.

³³Source of 2007 company revenues: Fortune Magazine online/ CNNMoney.com. "Fortune 500 Custom Ranking." 2010. Cable News Network. Retrieved online December 9, 2009 from <http://cgi.money.cnn.com/tools/fortune/custom_ranking.jsp> and Standard and Poor's Compustat. Figures are rounded.

³⁴Source of state expenditure data: National Association of State Budget Officers (NASBO). State Expenditure Report. Fall 2008. Washington, DC: National Association of State Budget Officers. Retrieved online November 4, 2009 from <<http://www.nasbo.org/Publications/PDFs/FY07%20State%20Expenditure%20Report.pdf>>. Figures are rounded.

³⁵Direct expenditures correspond to spending on goods and services for every day operation and instructional use. These include expenditures for services such as heating, facilities maintenance, electricity, water, telephone, and internet service as well as expenditures on goods such as books, blackboards, projectors, computers, desks, chairs, paper, athletics and arts equipment, copy machines, file cabinets, software, and so on.

Table 2. Direct expenditures of NEASC-accredited institutions in CT, FY07

Type of Institution	Expenditures
Public Schools, K-12*	\$2,301,159,702
Private Schools, K-12	\$932,333,652
Public Higher Education Institutions	\$1,046,013,140
Private Higher Education Institutions	\$2,258,721,022
Total	\$6,538,227,516

*Includes technical and career schools

Higher education: A vital organ in the state economy

- As of AY 2006-07, the 39 NEASC-accredited higher education institutions in Connecticut enrolled 170,873 students. These students represented nearly 5% of the entire state's population of 3.5 million.³⁷

Table 3. Enrollment in NEASC-accredited higher education institutions in CT, AY 2006-07

Type of Institution	CT Enrollment	Percent	New England Enrollment	Percent
Public	109,512	64%	441,932	52%
Private	61,361	36%	402,347	48%
Total	170,873	100%	844,279	100%

- In FY07, NEASC-accredited higher education institutions statewide employed 30,222 full-time and 12,609 part-time faculty and staff whose wage earnings contributed to the gross state product (GSP).
- As of FY07, there were more individuals employed at Connecticut's accredited higher education institutions than there were lawyers, police officers, social workers, dentists, pharmacists, photographers, psychiatrists, surgeons, real estate agents, and construction laborers in the state combined.³⁸
- Higher education institutions in Connecticut enrolled 7,403 foreign students in AY 2006-07, according to the Institute of International Education (IIE). These students contributed to the state economy through their spending on local goods, entertainment, recreation, housing, utilities, food, and so on. The IIE found that these foreign students had an economic impact of \$217.6 million in 2007.³⁹

³⁶Source of country GDP data: World Bank. "World Development Indicators Database." 2009. The World Bank Group. Retrieved online November 16, 2009 from <<http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20535285-menuPK:1192694-pagePK:64133150-piPK:64133175-theSitePK:239419,00.html>>.

³⁷Source: U.S. Census Bureau, 2007 American Community Survey. Retrieved online November 3, 2009 from <http://factfinder.census.gov/servlet/ADPTable?_bm=y&-context=adp&-ds_name=ACS_2007_1YR_G00_&-tree_id=307&-redoLog=true&-caller=geoselect&-geo_id=04000US09&-format=&-_lang=en> and author's calculations. Figures are rounded.

³⁸Source: U.S. Department of Labor, Bureau of Labor Statistics. "May 2007 State Occupational Employment and Wage Estimates." November 12, 2008. Retrieved online September 8, 2009 from <http://www.bls.gov/oes/2007/may/oes_ri.htm> and author's calculations.

³⁹Source: Institute of International Education. "Economic Impact on States from International Students." 2008. IIE Network—Member Website of the Institute of International Education. Retrieved online November 19, 2009 from <http://www.opendoors.iienetwork.org/file_depot/0-1000000/0-10000/3390/folder/58653/Economic+Impact+2007.pdf>.

Inter-industry transactions promote economic stability and growth

- Inter-industry transactions between educational institutions and other businesses help stimulate and stabilize the economy. Everyday school operating expenditures become consistent streams of revenue for companies that provide services such as heating, cleaning, phone, and internet service to educational institutions.
- In AY 2006-07, NEASC-accredited public elementary, middle, and secondary schools statewide expended an estimated:
 - \$461,313,232 on school operation;⁴⁰
 - \$207,852,429 on capital outlay;⁴¹
 - \$1,486,600,256 on staff salaries;⁴²
 - \$533,081,440 on staff benefits;⁴³
 - \$125,076,352 on student transportation;⁴⁴ and
 - \$64,798,592 on food services.⁴⁵
- Public elementary, middle, and secondary schools in Connecticut (both accredited and non-accredited) employed 39,115 teachers, 13,374 instructional aides, 1,380 guidance counselors, 794 librarians, 3,550 administrators, and 4,773 administrative support staff in AY 2006-07.⁴⁶

⁴⁰ Figure is based on extrapolations from mean per pupil operations expenditure in the state. Source: Zhou, L. *Revenues and Expenditures for Elementary and Secondary Education: School Year 2006-07 (Fiscal Year 2007)* (Page 14, Table 6), NCES 2009-337. 2009. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved online December 8, 2009 from <<http://nces.ed.gov/pubs2009/2009337.pdf>> and author's calculations.

⁴¹ Figure is based on extrapolations from mean per pupil expenditure on capital outlay (excluding interest on debt) in the state. Source: National Education Association, NEA Research. *Rankings & Estimates: Rankings of the States 2006 and Estimates of School Statistics 2007* (Page 96). December 2007. National Education Association. Retrieved online November 18, 2009 from <http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/3a/48/20.pdf> and author's calculations.

⁴² Source of public school staff salary and benefits expenditures: U.S. Census Bureau, 2007 Census of Government Survey of Local Government finances—School Systems. "Public Education Finances 2007" (Page 8, Table 8). July 2009. U.S. Census Bureau. Retrieved online December 8, 2009 from <<http://www2.census.gov/govs/school/07f33pub.pdf>> and author's calculations.

⁴³ Source of public school staff salary and benefits expenditures: U.S. Census Bureau, 2007 Census of Government Survey of Local Government finances—School Systems. "Public Education Finances 2007" (Page 8, Table 8). July 2009. U.S. Census Bureau. Retrieved online December 8, 2009 from <<http://www2.census.gov/govs/school/07f33pub.pdf>> and author's calculations.

⁴⁴ Figure is based on extrapolations from mean per pupil expenditure on student transportation in the state. Source: Zhou, L. *Revenues and Expenditures for Elementary and Secondary Education: School Year 2006-07 (Fiscal Year 2007)* (Page 3, Table 9), NCES 2009-337. 2009. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved online December 8, 2009 from <<http://nces.ed.gov/pubs2009/2009337.pdf>> and author's calculations.

⁴⁵ Figure is based on extrapolations from mean per pupil expenditure on food service in the state. Source: Zhou, L. *Revenues and Expenditures for Elementary and Secondary Education: School Year 2006-07 (Fiscal Year 2007)* (Page 3, Table 9), NCES 2009-337. 2009. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved online December 8, 2009 from <<http://nces.ed.gov/pubs2009/2009337.pdf>> and author's calculations.

⁴⁶ Source: Sable, J. and Noel, A. *Public Elementary and Secondary School Student Enrollment and Staff from the Common Core of Data: School Year 2006-07 (NCES 2009-305)* (Page 11, Table 3). 2008. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved October 9, 2009 from <<http://nces.ed.gov/pubs2009/2009305.pdf>>.

Maine

- As of Academic Year (AY) 2006-07, there were 188 NEASC-accredited schools, colleges, and universities in Maine, including 119 public and 29 private elementary, middle and secondary schools, 12 technical and career schools, and 28 higher education institutions. Altogether, these educational institutions had an economic impact of \$3,754,529,122 in FY07.⁴⁷
- The statewide economic impact of NEASC-accredited elementary, middle, and secondary schools (public and private) was an estimated \$874,438,510 in FY07 while accredited higher education institutions had an economic impact of \$2,880,090,612.
- NEASC-accredited elementary, middle, and secondary schools in Maine enrolled 81,179 students in AY 2006-07, including 65,974 students at public schools, 10,353 students at private schools, and 4,852 students at technical and career schools. NEASC-accredited higher education institutions enrolled 53,786 students in AY 2006-07. In total, 134,965 students were enrolled at 188 NEASC-accredited schools and higher education institutions.

Table 1. Economic impact of NEASC-accredited institutions in ME, FY07

Type of Institution	Number of Accredited Institutions Statewide	Enrollment	Economic Impact ⁴⁸
Elementary, Middle & Secondary Schools*	160	81,179	\$874,438,510
Higher Education Institutions	28	53,786	\$2,880,090,612
Total	188	134,965	\$3,754,529,122

*Includes public and private institutions

- The revenue of NEASC-accredited public elementary, middle, and secondary schools was an estimated \$877,180,010—greater than the revenues of some of the highest revenue-grossing companies based in New England, such as First Marblehead Corporation, Bright Horizons Family Solutions, Akamai Technologies, Courier Corporation, Chase Corporation, and Independent Bank Corporation which had 2007 revenues of \$798.6 million, \$774.6 million, \$636.4 million, \$293.1 million, \$130.9 million, and \$125.1 million, respectively.⁴⁹
- Direct expenditures of NEASC-accredited schools and higher education institutions in Maine were estimated at \$1,712,370,868 in FY07.⁵⁰
- Direct expenditures of NEASC-accredited institutions in FY07 were even greater than the gross domestic products (GDPs) of some nations, like Cape Verde (\$1.4 billion), Belize (\$1.3 billion), Bhutan (\$1.1 billion), and Guyana (\$ 1.0 billion).⁵¹

⁴⁷ The estimated economic impact of NEASC-accredited institutions accounts for direct expenditures (e.g. resident tuition, teacher/staff salaries, instructional materials and operating costs) as reported by the Maine Department of Education. Figures are rounded. The report accounts for endowments of private K-12 schools and public and private higher education institutions (unless under \$1 million). Economic impact estimates for higher education institutions also take into account tuition revenue and room and board charges when applied.

⁴⁸ Some schools were omitted from the data set due to unavailable up-to-date information. Altogether, 18 schools were omitted, including 16 private schools and two higher education institutions. These omissions do not have a significant bearing on the final outcome of the study.

⁴⁹ Source of company revenue data: Standard and Poor's Compustat. Figures are rounded.

⁵⁰ Direct expenditures correspond to spending on goods and services for every day operation and instructional use. These include expenditures for services such as heating, facilities maintenance, electricity, water, telephone, and internet service as well as expenditures on goods such as books, blackboards, projectors, computers, desks, chairs, paper, athletics and arts equipment, copy machines, file cabinets, software, and so on.

⁵¹ Source of country GDP data: World Bank. "World Development Indicators Database." 2009. The World Bank Group. Retrieved online November 16, 2009 from

<<http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20535285~menuPK:1192694~pagePK:64133150~piPK:6413175~theSitePK:239419,00.html>>.

Table 2. Direct expenditures of NEASC-accredited institutions in ME, FY07

Type of Institution	Expenditures
Public Schools, K-12*	\$662,368,903
Private Schools, K-12	\$153,120,607
Public Higher Education Institutions	\$394,970,937
Private Higher Education Institutions	\$501,910,421
Total	\$1,712,370,868

*Includes technical and career schools

Higher education: A vital organ in the state economy

- As of AY 2006-07, the 28 NEASC-accredited higher education institutions in Maine enrolled 53,786 students who represented roughly 4% of the entire state's population of 1.3 million.⁵²
- In FY07, NEASC-accredited higher education institutions statewide employed 9,888 full-time and 3,695 part-time faculty and staff whose wage earnings contributed to the gross state product (GSP).
- There were more individuals employed at Maine's accredited higher education institutions in FY07 than there were lawyers, police officers, computer programmers, architects, dentists, social workers, architects, photographers, psychiatrists, surgeons, pharmacists, and real estate agents in the state *combined*.⁵³
- Higher education institutions in Maine enrolled 1,388 foreign students in AY 2006-07, according to the Institute of International Education (IIE). These students contributed to the state economy through their spending on local goods, housing, food, transportation, utilities, entertainment, recreation, and so on. The IIE found that these foreign students had an economic impact of \$33.0 million in 2007.⁵⁴

Table 3. Enrollment in NEASC-accredited higher education institutions in ME, AY 2006-07

Type of Institution	ME Enrollment	Percent	New England Enrollment	Percent
Public	37,916	70%	441,932	52%
Private	15,870	30%	402,347	48%
Total	53,786	100%	844,279	100%

Inter-industry transactions promote economic stability & growth

- Inter-industry transactions between educational institutions and other businesses help stimulate and stabilize the economy. Everyday school operating expenditures become consistent streams of revenue for companies that provide services such as heating, cleaning, phone, and internet service to educational institutions.

⁵²Source: U.S. Census Bureau, 2007 American Community Survey. Retrieved online November 3, 2009 from <http://factfinder.census.gov/servlet/ADPTable?_bm=y&-context=adp&-qr_name=ACS_2007_1YR_G00_DP2&-ds_name=ACS_2007_1YR_G00_-tree_id=307&-redoLog=false&-_caller=geoselect&-geo_id=04000US23&-format=&-lang=en> and author's calculations. Figures are rounded.

⁵³Source: U.S. Department of Labor, Bureau of Labor Statistics. "May 2007 State Occupational Employment and Wage Estimates." November 12, 2008. Retrieved online September 8, 2009 from <http://www.bls.gov/oes/2007/may/oes_ri.htm> and author's calculations.

⁵⁴Source: Institute of International Education. "Economic Impact on States from International Students." 2008. IIE Network—Member Website of the Institute of International Education. Retrieved online November 19, 2009 from <http://www.opendoors.iienetwork.org/file_depot/0-1000000/0-10000/3390/folder/58653/Economic+Impact+2007.pdf>.

- In AY 2006-07, NEASC-accredited public elementary, middle, and secondary schools statewide expended an estimated:
 - \$148,167,992 on school operation;⁵⁵
 - \$36,546,216 on capital outlay;⁵⁶
 - \$474,675,852 on staff salaries;⁵⁷
 - \$190,663,592 on staff benefits;⁵⁸
 - \$36,546,216 on student transportation;⁵⁹ and
 - \$28,843,054 on food services .⁶⁰

- Public elementary, middle, and secondary schools in Maine (including both accredited and non-accredited) employed 16,826 teachers, 6,544 instructional aides, 636 guidance counselors, 254 librarians, 1,659 administrators, and 2,371 administrative support staff in AY 2006-07.⁶¹

⁵⁵ Figure is based on extrapolations from mean per pupil operations expenditure in the state. Source: Zhou, L. *Revenues and Expenditures for Elementary and Secondary Education: School Year 2006-07 (Fiscal Year 2007)* (Page 14, Table 6), NCES 2009-337. 2009. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved online December 8, 2009 from <<http://nces.ed.gov/pubs2009/2009337.pdf>> and author's calculations.

⁵⁶ Figure is based on extrapolations from mean per pupil expenditure on capital outlay (excluding interest on debt) in the state. Source: National Education Association, NEA Research. *Rankings & Estimates: Rankings of the States 2006 and Estimates of School Statistics 2007* (Page 96). December 2007. National Education Association. Retrieved online November 18, 2009 from <http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/3a/48/20.pdf> and author's calculations.

⁵⁷ Source of public school staff salary and benefits expenditures: U.S. Census Bureau, 2007 Census of Government Survey of Local Government finances—School Systems. "Public Education Finances 2007" (Page 8, Table 8). July 2009. U.S. Census Bureau. Retrieved online December 8, 2009 from <<http://www2.census.gov/govs/school/07f33pub.pdf>> and author's calculations.

⁵⁸ Source of public school staff salary and benefits expenditures: U.S. Census Bureau, 2007 Census of Government Survey of Local Government finances—School Systems. "Public Education Finances 2007" (Page 8, Table 8). July 2009. U.S. Census Bureau. Retrieved online December 8, 2009 from <<http://www2.census.gov/govs/school/07f33pub.pdf>> and author's calculations.

⁵⁹ Figure is based on extrapolations from mean per pupil expenditure on student transportation in the state. Source: Zhou, L. *Revenues and Expenditures for Elementary and Secondary Education: School Year 2006-07 (Fiscal Year 2007)* (Page 3, Table 9), NCES 2009-337. 2009. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved online December 8, 2009 from <<http://nces.ed.gov/pubs2009/2009337.pdf>> and author's calculations.

⁶⁰ Figure is based on extrapolations from mean per pupil expenditure on food service in the state. Source: Zhou, L. *Revenues and Expenditures for Elementary and Secondary Education: School Year 2006-07 (Fiscal Year 2007)* (Page 3, Table 9), NCES 2009-337. 2009. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved online December 8, 2009 from <<http://nces.ed.gov/pubs2009/2009337.pdf>> and author's calculations.

⁶¹ Source : Sable, J. and Noel, A. *Public Elementary and Secondary School Student Enrollment and Staff from the Common Core of Data: School Year 2006-07 (NCES 2009-305)* (Page 11, Table 3). 2008. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved October 9, 2009 from <<http://nces.ed.gov/pubs2009/2009305.pdf>>.

Massachusetts

- As of Academic Year (AY) 2006-07, there were 691 NEASC-accredited schools, colleges, and universities in Massachusetts, including 281 public and 266 private elementary, middle and secondary schools, 38 technical and career schools, and 106 higher education institutions. Altogether, these schools had an economic impact of \$80,684,450,155 in FY07.⁶²
- The statewide economic impact of NEASC-accredited elementary, middle, and secondary schools (public and private), including technical and career schools, was an estimated \$7,763,091,562 in FY07. Accredited higher education institutions had an economic impact totaling \$72,921,358,593.
- NEASC-accredited elementary, middle, and secondary schools in Massachusetts enrolled 186,680 students in AY 2006-07, including 252,748 students at public schools, 84,457 students at private schools, and 36,652 students at technical and career schools. NEASC-accredited higher education institutions enrolled 422,358 students in AY 2006-07. Altogether, 796,215 students were enrolled at 691 NEASC-accredited schools and higher education institutions.

Table 1. Economic impact of NEASC-accredited institutions in MA, FY07

Type of Institution	Number of Accredited Institutions Statewide	Enrollment	Economic Impact ⁶³
Elementary, Middle & Secondary Schools*	585	373,857	\$7,763,091,562
Higher Education Institutions	106	422,358	\$72,921,358,593
Total	691	796,215	\$80,684,450,155

*Includes public and private schools as well as technical and career institutions

- The revenue of NEASC-accredited public elementary, middle, and secondary schools in Massachusetts was an estimated \$4,252,733,000 in FY07—greater than the revenues of some of the highest revenue-grossing companies based in the state, such as Thermo Fisher Scientific, NStar Genzyme, Analog Devices, and Cabot which had 2007 revenues of \$3.8 billion, \$3.6 billion, \$3.2 billion, \$2.6 billion, and \$2.5 billion, respectively.⁶⁴
- The economic impact of NEASC-accredited schools, colleges, and universities in Massachusetts, totaling more than \$80.6 billion in FY07, is nearly double the amount of money expended by the Commonwealth of Massachusetts that year (\$41.8 billion).⁶⁵
- Direct expenditures of NEASC-accredited schools and higher education institutions in Massachusetts were estimated at \$15,611,268,083 in FY07.⁶⁶
- Direct expenditures of NEASC-accredited institutions in FY07 were greater than the gross domestic products (GDPs) of some nations, like Honduras (\$12.3 billion), Jamaica (\$10.7 billion) Armenia (\$9.2 billion), Macedonia (\$7.6 billion), Fiji (\$3.4 billion), and Bhutan (\$1.1 billion).⁶⁷

⁶²The estimated economic impact of NEASC-accredited institutions accounts for direct expenditures as reported by the Massachusetts Department of Elementary and Secondary Education. Figures are rounded. The report accounts for endowments of private K-12 schools and public and private higher education institutions (unless under \$1 million). Economic impact estimates for higher education institutions also take into account tuition revenue and room and board charges when applied.

⁶³Some schools were omitted from the data set due to unavailable up-to-date information. Altogether, 18 schools were omitted, including 16 private schools and two higher education institutions. These omissions do not have a significant bearing on the final outcome of the study.

⁶⁴Source of 2007 company revenues: Fortune Magazine online/ CNNMoney.com. "Fortune 500 Custom Ranking." 2010. Cable News Network. Retrieved online December 9, 2009 from < http://cgi.money.cnn.com/tools/fortune/custom_ranking.jsp> and Standard and Poor's Compustat. Figures are rounded.

⁶⁵Source of state expenditure data: National Association of State Budget Officers (NASBO). State Expenditure Report. Fall 2008. Washington, DC: National Association of State Budget Officers. Retrieved online November 4, 2009 from <<http://www.nasbo.org/Publications/PDFs/FY07%20State%20Expenditure%20Report.pdf>>. Figures are rounded.

⁶⁶Direct expenditures correspond to spending on goods and services for everyday operation and instructional use. These include expenditures for services such as heating, facilities maintenance, electricity, water, telephone, and internet service as well as expenditures on goods such as books, blackboards, projectors, computers, desks, chairs, paper, athletics and arts equipment, copy machines, file cabinets, software, and so on.

Table 2. Direct expenditures of NEASC-accredited institutions in MA, FY07

Type of Institution	Expenditures
Public Schools, K-12*	\$3,577,693,188
Private Schools, K-12	\$1,657,661,374
Public Higher Education Institutions	\$1,729,303,983
Private Higher Education Institutions	\$8,646,609,538
Total	\$15,611,268,083

*Includes technical and career schools

Higher education: A vital organ in the state economy

- As of AY 2006-07, the 106 NEASC-accredited higher education institutions in Massachusetts enrolled 422,358 students who represented nearly 7% of the state's population of 6.4 million.⁶⁸

Table 3. Enrollment in NEASC-accredited higher education institutions in MA, AY 2006-07

Type of Institution	MA Enrollment	Percent	New England Enrollment	Percent
Public	186,680	44%	441,932	52%
Private	235,678	56%	402,347	48%
Total	422,358	100%	844,279	100%

- In FY07, NEASC-accredited higher education institutions statewide employed 79,911 full-time and 28,336 part-time faculty and staff whose wage earnings contributed to the gross state product (GSP).
- There were more individuals employed at Massachusetts' accredited higher education institutions in FY07 than there were lawyers, dentists, computer programmers, architects, social workers, photographers, psychiatrists, surgeons, pharmacists, police officers, real estate agents, and construction laborers in the state, *combined*.⁶⁹
- Higher education institutions in Massachusetts enrolled 28,680 foreign students in AY 2006-07, according to the Institute of International Education (IIE). These students contributed to the state economy through their spending on local goods, entertainment, recreation, housing, utilities, food, and so on. The IIE found that these foreign students had an economic impact of \$937.6 million in 2007.⁷⁰

Inter-industry transactions promote economic stability & growth

- Inter-industry transactions between schools and other businesses help stimulate and stabilize the economy. Everyday school operating expenditures become consistent streams of revenue for companies that provide services such as heating, cleaning, phone, and internet service to educational institutions.

⁶⁷ Source of country GDP data: World Bank. "World Development Indicators Database." 2009. The World Bank Group. Retrieved online November 16, 2009 from <<http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20535285~menuPK:1192694~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html>>.

⁶⁸ Source: U.S. Census Bureau, 2007 American Community Survey. Retrieved online November 3, 2009 from <http://factfinder.census.gov/servlet/ADPTable?_bm=y&-context=adp&-qr_name=ACS_2007_1YR_G00_DP2&-ds_name=ACS_2007_1YR_G00_-&-tree_id=307&-redoLog=false&-caller=geoselect&-geo_id=04000US25&-format=&-lang=en>. and author's calculations. Figures are rounded.

⁶⁹ Source: U.S. Department of Labor, Bureau of Labor Statistics. "May 2007 State Occupational Employment and Wage Estimates." November 12, 2008. Retrieved online September 8, 2009 from <http://www.bls.gov/oes/2007/may/oes_ri.htm> and author's calculations.

⁷⁰ Source: Institute of International Education. "Economic Impact on States from International Students." 2008. IIE Network—Member Website of the Institute of International Education. Retrieved online November 19, 2009 from <http://www.opendoors.iienetwork.org/file_depot/0-1000000/0-10000/3390/folder/58653/Economic+Impact+2007.pdf>.

- In AY 2006-07, NEASC-accredited public elementary, middle, and secondary schools statewide expended an estimated:
 - \$609,765,800 on school operation;⁷¹
 - \$514,803,148 on capital outlay;⁷²
 - \$2,154,583,000 on staff salaries;⁷³
 - \$919,423,800 on staff benefits;⁷⁴
 - \$158,880,600 on student transportation;⁷⁵ and
 - \$111,708,400 on food services.⁷⁶

- Public elementary, middle, and secondary schools in Massachusetts (both accredited and non-accredited) employed 73,157 teachers, 21,276 instructional aides, 2,181 guidance counselors, 927 librarians, 5,629 administrators, and 10,185 administrative support staff in AY 2006-07.⁷⁷

⁷¹ Figure is based on extrapolations from mean per pupil operations expenditure in the state. Source: Zhou, L. *Revenues and Expenditures for Elementary and Secondary Education: School Year 2006-07 (Fiscal Year 2007)* (Page 14, Table 6), NCES 2009-337. 2009. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved online December 8, 2009 from <<http://nces.ed.gov/pubs2009/2009337.pdf>> and author's calculations.

⁷² Figure is based on extrapolations from mean per pupil expenditure on capital outlay (excluding interest on debt) in the state. Source: National Education Association, NEA Research. *Rankings & Estimates: Rankings of the States 2006 and Estimates of School Statistics 2007* (Page 96). December 2007. National Education Association. Retrieved online November 18, 2009 from <http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/3a/48/20.pdf> and author's calculations.

⁷³ Source of public school staff salary and benefits expenditures: U.S. Census Bureau, 2007 Census of Government Survey of Local Government finances—School Systems. "Public Education Finances 2007" (Page 8, Table 8). July 2009. U.S. Census Bureau. Retrieved online December 8, 2009 from <<http://www2.census.gov/govs/school/07f33pub.pdf>> and author's calculations.

⁷⁴ Source of public school staff salary and benefits expenditures: U.S. Census Bureau, 2007 Census of Government Survey of Local Government finances—School Systems. "Public Education Finances 2007" (Page 8, Table 8). July 2009. U.S. Census Bureau. Retrieved online December 8, 2009 from <<http://www2.census.gov/govs/school/07f33pub.pdf>> and author's calculations.

⁷⁵ Figure is based on extrapolations from mean per pupil expenditure on student transportation in the state. Source: Zhou, L. *Revenues and Expenditures for Elementary and Secondary Education: School Year 2006-07 (Fiscal Year 2007)* (Page 3, Table 9), NCES 2009-337. 2009. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved online December 8, 2009 from <<http://nces.ed.gov/pubs2009/2009337.pdf>> and author's calculations.

⁷⁶ Figure is based on extrapolations from mean per pupil expenditure on food service in the state. Source: Zhou, L. *Revenues and Expenditures for Elementary and Secondary Education: School Year 2006-07 (Fiscal Year 2007)* (Page 3, Table 9), NCES 2009-337. 2009. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved online December 8, 2009 from <<http://nces.ed.gov/pubs2009/2009337.pdf>> and author's calculations.

⁷⁷ Source: Sable, J. and Noel, A. *Public Elementary and Secondary School Student Enrollment and Staff From the Common Core of Data: School Year 2006-07* (NCES 2009-305) (Table 3, Page 11). 2008. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved October 9, 2009 from <<http://nces.ed.gov/pubs2009/2009305.pdf>>.

New Hampshire

- As of Academic Year (AY) 2006-07, there were 150 NEASC-accredited schools, colleges, and universities in New Hampshire, including 85 public elementary, middle, and secondary schools, 40 private elementary, middle, and secondary schools, and 25 higher education institutions. Altogether, these schools had an economic impact of \$7,619,541,733 in FY07.⁷⁸
- The statewide economic impact of NEASC-accredited elementary, middle, and secondary schools (public and private) was an estimated \$2,072,122,440 in FY07. Accredited higher education institutions had an economic impact totaling \$5,547,419,293.
- NEASC-accredited elementary, middle, and secondary schools in New Hampshire enrolled 42,268 students in AY 2006-07, including 68,355 students at public schools and 141,896 students at private schools. NEASC-accredited higher education institutions enrolled 66,504 students in AY 2006-07. Altogether, 149,755 students were enrolled at 150 NEASC-accredited schools and higher education institutions.

Table 1. Economic impact of NEASC-accredited institutions in NH, FY07

Type of Institution	Number of Accredited Institutions Statewide	Enrollment	Economic Impact ⁷⁹
Elementary, Middle & Secondary Schools*	125	83,251	\$2,072,122,440
Higher Education Institutions	25	66,504	\$5,547,419,293
Total	150	149,755	\$7,619,541,733

*Includes public and private schools

- The revenue of NEASC-accredited public elementary, middle, and secondary schools in New Hampshire was an estimated \$797,224,365 in FY07—greater than the revenues of some of the highest revenue-grossing companies based in New England, including Bright Horizons Family Solutions, Akamai Technologies, Courier Corporation, Chase Corporation, and Independent Bank Corporation which had 2007 revenues of \$798.6 million, \$774.6 million, \$636.4 million, \$293.1 million, \$130.9 million, and \$125.1 million, respectively.⁸⁰
- The economic impact of New Hampshire’s accredited schools, totaling more than \$7.6 billion in FY07, was greater than the amount of money expended by the State of New Hampshire that year (\$4.5 billion).⁸¹
- Direct expenditures of NEASC-accredited schools and higher education institutions were estimated at \$2,223,024,321 in FY07.⁸²
- Direct expenditures of NEASC-accredited institutions in FY07 were greater than the gross domestic products (GDPs) of some nations, like Cape Verde (\$1.4 billion), Belize (\$1.3 billion), Bhutan (\$1.1 billion), Guyana (\$1.0 billion), and Grenada (\$554.4 million).⁸³

⁷⁸The estimated economic impact of NEASC-accredited institutions accounts for direct expenditures as reported by the New Hampshire Department of Education. Figures are rounded. The report accounts for endowments of private K-12 schools and public and private higher education institutions (unless under \$1 million). Economic impact estimates for higher education institutions also take into account tuition revenue and room and board charges when applied.

⁷⁹Some schools were omitted from the data set due to unavailable up-to-date information. Altogether, 18 schools were omitted, including 16 private schools and two higher education institutions. These omissions do not have a significant bearing on the final outcome of the study.

⁸⁰Source of 2007 company revenues: Standard and Poor’s Compustat. Figures are rounded.

⁸¹Source of state expenditure data: National Association of State Budget Officers (NASBO). State Expenditure Report. Fall 2008. Washington, DC: National Association of State Budget Officers. Retrieved online November 4, 2009 from <<http://www.nasbo.org/Publications/PDFs/FY07%20State%20Expenditure%20Report.pdf>>.

⁸²Direct expenditures correspond to spending on goods and services for every day operation and instructional use. These include expenditures for services such as heating, facilities maintenance, electricity, water, telephone, and internet service as well as expenditures on goods such as books, blackboards, projectors, computers, desks, chairs, paper, athletics and arts equipment, copy machines, file cabinets, software, and so on.

⁸³Source of country GDP data: World Bank. “World Development Indicators Database.” 2009. The World Bank Group. Retrieved online November 16, 2009 from

Table 2. Direct expenditures of NEASC-accredited institutions in NH, FY07

Type of Institution	Expenditures
Public Schools, K-12	\$686,470,680
Private Schools, K-12	\$208,912,760
Public Higher Education Institutions	\$500,076,460
Private Higher Education Institutions	\$827,564,421
Total	\$2,223,024,321

Higher education: A vital organ in the state economy

- As of AY 2006-07, the 25 NEASC-accredited higher education institutions in New Hampshire enrolled 66,504 students who represented 5% of the state's population of 1.3 million.⁸⁴
- In FY07, NEASC-accredited higher education institutions statewide employed 10,316 full-time and 6,354 part-time faculty and staff whose wage earnings contributed to the gross state product (GSP).

Table 3. Enrollment in NEASC-accredited higher education institutions in NH, AY 2006-07

Type of Institution	NH Enrollment	Percent	New England Enrollment	Percent
Public	42,268	64%	441,932	52%
Private	24,236	36%	402,347	48%
Total	66,504	100%	844,279	100%

- There were more individuals employed at New Hampshire's accredited institutions in FY07 than there were lawyers, computer programmers, social workers, architects, photographers, dentists, psychiatrists, surgeons, pharmacists, police officers, and real estate agents in the state combined.⁸⁵
- Higher education institutions enrolled 2,099 foreign students in AY 2006-07, according to the Institute of International Education (IIE). These students contributed to the state economy through their spending on local goods, entertainment, recreation, housing, utilities, food, and so on. The IIE found that these foreign students had an economic impact of \$63.7 million in 2007.⁸⁶

Inter-industry transactions promote economic stability & growth

- Inter-industry transactions between schools and other businesses help stimulate and stabilize the economy. Everyday school operating expenditures become consistent streams of revenue for companies that provide services such as heating, cleaning, phone, and internet service to educational institutions.

<<http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20535285~menuPK:1192694~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html>>.

⁸⁴Source: U.S. Census Bureau, 2007 American Community Survey. Retrieved online November 3, 2009 from <http://factfinder.census.gov/servlet/ADPTable?_bm=y&-context=adp&-qr_name=ACS_2007_1YR_G00_DP2&-ds_name=ACS_2007_1YR_G00_-&-tree_id=307&-redoLog=false&-_caller=geoselect&-geo_id=04000US33&-format=&-_lang=en> and author's calculations. Figures are rounded.

⁸⁵Source: U.S. Department of Labor, Bureau of Labor Statistics. "May 2007 State Occupational Employment and Wage Estimates." November 12, 2008. Retrieved online September 8, 2009 from <http://www.bls.gov/oes/2007/may/oes_ri.htm> and author's calculations.

⁸⁶Source: Institute of International Education. "Economic Impact on States from International Students." 2008. IIE Network—Member Website of the Institute of International Education. Retrieved online November 19, 2009 from <http://www.opendoors.iienetwork.org/file_depot/0-1000000/0-10000/3390/folder/58653/Economic+Impact+2007.pdf>.

- In AY 2006-07, NEASC-accredited public elementary, middle, and secondary schools statewide expended an estimated:
 - \$119,484,540 on school operation;⁸⁷
 - \$59,352,444 on capital outlay;⁸⁸
 - \$434,464,380 on staff salaries;⁸⁹
 - \$155,234,205 on staff benefits;⁹⁰
 - \$32,058,495 on student transportation;⁹¹ and
 - \$21,805,245 on food services.⁹²

- Public elementary, middle, and secondary schools in New Hampshire (both accredited and non-accredited) employed 15,515 teachers, 6,772 instructional aides, 812 guidance counselors, 317 librarians, 1,101 administrators, and 1,299 administrative support staff in AY 2006-07.⁹³

⁸⁷ Figure is based on extrapolations from mean per pupil operations expenditure in the state. Source: Zhou, L. *Revenues and Expenditures for Elementary and Secondary Education: School Year 2006-07 (Fiscal Year 2007)* (Page 14, Table 6), NCES 2009-337. 2009. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved online December 8, 2009 from <<http://nces.ed.gov/pubs2009/2009337.pdf>> and author's calculations.

⁸⁸ Figure is based on extrapolations from mean per pupil expenditure on capital outlay (excluding interest on debt) in the state. Source: National Education Association, NEA Research. *Rankings & Estimates: Rankings of the States 2006 and Estimates of School Statistics 2007* (Page 96). December 2007. National Education Association. Retrieved online November 18, 2009 from <http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/3a/48/20.pdf> and author's calculations.

⁸⁹ Source of public school staff salary and benefits expenditures: U.S. Census Bureau, 2007 Census of Government Survey of Local Government finances—School Systems. "Public Education Finances 2007" (Page 8, Table 8). July 2009. U.S. Census Bureau. Retrieved online December 8, 2009 from <<http://www2.census.gov/govs/school/07f33pub.pdf>> and author's calculations.

⁹⁰ Source of public school staff salary and benefits expenditures: U.S. Census Bureau, 2007 Census of Government Survey of Local Government finances—School Systems. "Public Education Finances 2007" (Page 8, Table 8). July 2009. U.S. Census Bureau. Retrieved online December 8, 2009 from <<http://www2.census.gov/govs/school/07f33pub.pdf>> and author's calculations.

⁹¹ Figure is based on extrapolations from mean per pupil expenditure on student transportation in the state. Source: Zhou, L. *Revenues and Expenditures for Elementary and Secondary Education: School Year 2006-07 (Fiscal Year 2007)* (Page 3, Table 9), NCES 2009-337. 2009. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved online December 8, 2009 from <<http://nces.ed.gov/pubs2009/2009337.pdf>> and author's calculations.

⁹² Figure is based on extrapolations from mean per pupil expenditure on food service in the state. Source: Zhou, L. *Revenues and Expenditures for Elementary and Secondary Education: School Year 2006-07 (Fiscal Year 2007)* (Page 3, Table 9), NCES 2009-337. 2009. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved online December 8, 2009 from <<http://nces.ed.gov/pubs2009/2009337.pdf>> and author's calculations.

⁹³ Source: Sable, J. and Noel, A. *Public Elementary and Secondary School Student Enrollment and Staff From the Common Core of Data: School Year 2006-07 (NCES 2009-305)* (Table 3, Page 11). 2008. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved October 9, 2009 from <<http://nces.ed.gov/pubs2009/2009305.pdf>>.

Rhode Island

- As of Academic Year (AY) 2006-07, there were 117 NEASC-accredited schools, colleges, and universities in Rhode Island, including 39 public and 64 private elementary, middle and secondary schools, three technical and career schools, and 11 higher education institutions. Altogether, these educational institutions had an economic impact of \$7,064,779,200 in FY07.⁹⁴
- The statewide economic impact of NEASC-accredited elementary, middle, and secondary schools (public and private) was an estimated \$947,196,068 in FY07. Accredited higher education institutions had an economic impact totaling \$6,117,583,132.
- NEASC-accredited elementary, middle, and secondary schools in Rhode Island enrolled 65,285 students in AY 2006-07, including 43,344 students at public schools, 20,453 students at private schools, and 1,488 students at technical and career schools. NEASC-accredited higher education institutions enrolled 91,075 in AY 2006-07. Altogether, 156,360 students were enrolled at 117 NEASC-accredited schools and higher education institutions.

Table 1. Economic impact of NEASC-accredited institutions in RI, FY07

Type of Institution	Number of Accredited Institutions Statewide	Enrollment	Economic Impact ⁹⁵
Elementary, Middle & Secondary Schools*	106	66,285	\$947,196,068
Higher Education Institutions	11	91,075	\$6,117,583,132
Total	117	156,360	\$7,064,779,200

*Includes public and private schools

- The revenue of NEASC-accredited public elementary, middle, and secondary schools in Rhode Island was an estimated \$451,951,392 in FY07—greater than the revenues of some of the highest revenue-grossing companies based in New England, such as Smith & Wesson Holding Corporation, Courier Corporation, Chase Corporation, and Independent Bank Corporation which had revenues of \$295.9 million, \$293.1 million, \$130.9 million, and \$125.1 million, respectively.⁹⁶
- The economic impact of NEASC-accredited schools, colleges, and universities in Rhode Island, totaling more than \$7.0 billion in FY07, was greater than the amount of money expended by the State of Rhode Island that year (\$6.7 billion).⁹⁷
- Direct expenditures of NEASC-accredited schools and higher education institutions were an estimated \$2,877,738,512 in FY07.⁹⁸
- Direct expenditures of NEASC-accredited institutions in FY07 were greater than the gross domestic products (GDPs) of some nations, like Cape Verde (\$1.4 billion), Belize (\$1.3 billion), Bhutan (\$1.1 billion), Guyana (\$1.0 billion), and Grenada (\$554.4 million).⁹⁹

⁹⁴The estimated economic impact of NEASC-accredited institutions accounts for direct expenditures as reported by the Rhode Island Department of Elementary and Secondary Education. Figures are rounded. The report accounts for endowments of private K-12 schools and public and private higher education institutions (unless under \$1 million). Economic impact estimates for higher education institutions also take into account tuition revenue and room and board charges when applied.

⁹⁵Some schools were omitted from the data set due to unavailable up-to-date information. Altogether, 18 schools were omitted, including 16 private schools and two higher education institutions. These omissions do not have a significant bearing on the final outcome of the study.

⁹⁶Source of 2007 company revenues: Standard and Poor's Compustat. Figures are rounded.

⁹⁷Source of state expenditure data: National Association of State Budget Officers (NASBO). State Expenditure Report. Fall 2008. Washington, DC: National Association of State Budget Officers. Retrieved online November 4, 2009 from <<http://www.nasbo.org/Publications/PDFs/FY07%20State%20Expenditure%20Report.pdf>>. Figures are rounded.

⁹⁸Direct expenditures correspond to spending on goods and services for every day operation and instructional use. These include expenditures for services such as heating, facilities maintenance, electricity, water, telephone, and internet service as well as expenditures on goods such as books, blackboards, projectors, computers, desks, chairs, paper, athletics and arts equipment, copy machines, file cabinets, software, and so on.

⁹⁹Source of country GDP data: World Bank. "World Development Indicators Database." 2009. The World Bank Group. Retrieved online November 16, 2009 from

<<http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20535285~menuPK:1192694~pagePK:64133150~piPK:6413175~theSitePK:239419,00.html>>.

Table 2. Direct expenditures of NEASC-accredited institutions in RI, FY07

Type of Institution	Expenditures
Public Schools, K-12*	\$573,180,368
Private Schools, K-12	\$189,507,850
Public Higher Education Institutions	\$395,912,281
Private Higher Education Institutions	\$1,719,138,013
Total	\$2,877,738,512

Higher education: A vital organ in the state economy

- As of AY 2006-07, the 11 NEASC-accredited higher education institutions in Rhode Island enrolled 91,075 students who represented nearly 9% of the entire state's population of 1.1 million.¹⁰⁰

Table 3. Enrollment in NEASC-accredited higher education institutions in RI, AY 2006-07

Type of Institution	RI Enrollment	Percent	New England Enrollment	Percent
Public	40,374	44%	441,932	52%
Private	50,701	56%	402,347	48%
Total	91,075	100%	844,279	100%

- In FY07, NEASC-accredited higher education institutions statewide employed 12,166 full-time and 5,200 part-time faculty and staff whose wage earnings contributed to the gross state product (GSP).
- There were more individuals employed at Rhode Island's accredited higher education institutions in FY07 than there were lawyers, dentists, pharmacists, psychiatrists, computer programmers, architects, social workers, photographers, surgeons, police officers, and construction laborers in the state *combined*.¹⁰¹
- Higher education institutions in the state enrolled 3,629 foreign students in AY 2006-07, according to the Institute of International Education (IIE). These students contributed to the state economy through their spending on local goods, entertainment, recreation, housing, utilities, food, and so on. The IIE found that these foreign students had an economic impact of \$114.8 million in 2007.¹⁰²

Inter-industry transactions promote economic stability & growth

- Inter-industry transactions between educational institutions and other businesses help stimulate and stabilize the economy. Everyday school operating expenditures become consistent streams of revenue for companies that provide services such as heating, cleaning, phone, and internet service to educational institutions.

¹⁰⁰Source: U.S. Census Bureau, 2007 American Community Survey. Retrieved online November 3, 2009 from <http://factfinder.census.gov/servlet/ADPTable?_bm=y&-context=adp&-qr_name=ACS_2007_1YR_G00_DP2&-ds_name=ACS_2007_1YR_G00_-&-tree_id=307&-redoLog=false&-_caller=geoselect&-geo_id=04000US44&-format=&-_lang=en> and author's calculations. Figures are rounded.

¹⁰¹Source: U.S. Department of Labor, Bureau of Labor Statistics. "May 2007 State Occupational Employment and Wage Estimates." November 12, 2008. Retrieved online September 8, 2009 from <http://www.bls.gov/oes/2007/may/oes_ri.htm> and author's calculations.

¹⁰²Source: Institute of International Education. "Economic Impact on States from International Students." 2008. IIE Network—Member Website of the Institute of International Education. Retrieved online November 19, 2009 from <http://www.opendoors.iienetwork.org/file_depot/0-1000000/0-10000/3390/folder/58653/Economic+Impact+2007.pdf>.

- In AY 2006-07, NEASC-accredited public elementary, middle, and secondary schools statewide expended an estimated:
 - \$89,529,504 on school operation;¹⁰³
 - \$11,343,341 on capital outlay;¹⁰⁴
 - \$342,606,144 on staff salaries;¹⁰⁵
 - \$143,910,720 on staff benefits;¹⁰⁶
 - \$22,640,160 on student transportation;¹⁰⁷ and
 - \$15,467,040 on food services.¹⁰⁸

- Public elementary, middle, and secondary schools in Rhode Island (both accredited and non-accredited) employed 11,381 teachers, 2,452 instructional aides, 407 guidance counselors, 297 librarians, 535 administrators, and 817 administrative support staff in AY 2006-07.¹⁰⁹

¹⁰³ Figure is based on extrapolations from mean per pupil operations expenditure in the state. Source: Zhou, L. *Revenues and Expenditures for Elementary and Secondary Education: School Year 2006-07 (Fiscal Year 2007)* (Page 14, Table 6), NCES 2009-337. 2009. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved online December 8, 2009 from <<http://nces.ed.gov/pubs2009/2009337.pdf>> and author's calculations.

¹⁰⁴ Figure is based on extrapolations from mean per pupil expenditure on capital outlay (excluding interest on debt) in the state. Source: National Education Association, NEA Research. *Rankings & Estimates: Rankings of the States 2006 and Estimates of School Statistics 2007* (Page 96). December 2007. National Education Association. Retrieved online November 18, 2009 from <http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/3a/48/20.pdf> and author's calculations.

¹⁰⁵ Source of public school staff salary and benefits expenditures: U.S. Census Bureau, 2007 Census of Government Survey of Local Government finances—School Systems. "Public Education Finances 2007" (Page 8, Table 8). July 2009. U.S. Census Bureau. Retrieved online December 8, 2009 from <<http://www2.census.gov/govs/school/07f33pub.pdf>> and author's calculations.

¹⁰⁶ Source of public school staff salary and benefits expenditures: U.S. Census Bureau, 2007 Census of Government Survey of Local Government finances—School Systems. "Public Education Finances 2007" (Page 8, Table 8). July 2009. U.S. Census Bureau. Retrieved online December 8, 2009 from <<http://www2.census.gov/govs/school/07f33pub.pdf>> and author's calculations.

¹⁰⁷ Figure is based on extrapolations from mean per pupil expenditure on student transportation in the state. Source: Zhou, L. *Revenues and Expenditures for Elementary and Secondary Education: School Year 2006-07 (Fiscal Year 2007)* (Page 3, Table 9), NCES 2009-337. 2009. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved online December 8, 2009 from <<http://nces.ed.gov/pubs2009/2009337.pdf>> and author's calculations.

¹⁰⁸ Figure is based on extrapolations from mean per pupil expenditure on food service in the state. Source: Zhou, L. *Revenues and Expenditures for Elementary and Secondary Education: School Year 2006-07 (Fiscal Year 2007)* (Page 3, Table 9), NCES 2009-337. 2009. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved online December 8, 2009 from <<http://nces.ed.gov/pubs2009/2009337.pdf>> and author's calculations.

¹⁰⁹ Source: Sable, J. and Noel, A. *Public Elementary and Secondary School Student Enrollment and Staff From the Common Core of Data: School Year 2006-07* (NCES 2009-305) (Table 3, Page 11). 2008. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved October 9, 2009 from <<http://nces.ed.gov/pubs2009/2009305.pdf>>.

Vermont

- As of Academic Year (AY) 2006-07, there were 103 NEASC-accredited schools, colleges, and universities in Vermont, including 41 public and 27 private elementary, middle and secondary schools, 15 technical and career schools, and 20 higher education institutions. Altogether, these educational institutions had an economic impact of \$2,773,924,683 in FY07.¹¹⁰
- The statewide economic impact of NEASC-accredited elementary, middle, and secondary schools (public and private), including technical and career schools, was an estimated \$501,670,744 in FY07 while accredited higher education institutions had an economic impact totaling \$2,272,253,939.
- NEASC-accredited elementary, middle, and secondary schools in Vermont enrolled 38,508 students in AY 2006-07, including 27,728 students at public schools, 6,260 students at private schools, and 4,520 students at technical and career schools. NEASC-accredited higher education institutions enrolled 39,683 students in AY 2006-07. Altogether, 78,191 students were enrolled at 103 NEASC-accredited schools and higher education institutions.

Table 1. Economic impact of NEASC-accredited institutions in VT, FY07

Type of Institution	Number of Accredited Institutions Statewide	Enrollment	Economic Impact ¹¹¹
Elementary, Middle & Secondary Schools*	83	38,508	\$501,670,744
Higher Education Institutions	20	39,683	\$2,272,253,939
Total	103	78,191	\$2,773,924,683

*Includes public and private schools as well as technical and career institutions

- The revenue of NEASC-accredited public elementary, middle, and secondary schools in Vermont was estimated at \$486,686,816 in FY07—greater than the revenues of some of the highest revenue-grossing companies based in New England, such as Smith & Wesson Holding Corporation, Courier Corporation, Chase Corporation, and Independent Bank Corporation which had revenues of \$295.9 million, \$293.1 million, \$130.9 million, and \$125.1 million, respectively.¹¹²
- Direct expenditures of NEASC-accredited schools and higher education institutions were an estimated \$1,259,574,369 in FY07.¹¹³
- Direct expenditures of NEASC-accredited institutions in FY07 were greater than the gross domestic products (GDPs) of some nations, like Bhutan (\$1.1 billion), Guyana (\$1.0 billion), and Grenada (\$554.4 million).¹¹⁴

¹¹⁰The estimated economic impact of NEASC-accredited institutions accounts for direct expenditures as reported by the Vermont Department of Education. Figures are rounded. The report accounts for endowments of private K-12 schools and public and private higher education institutions (unless under \$1 million). Economic impact estimates for higher education institutions also take into account tuition revenue and room and board charges when applied.

¹¹¹Some schools were omitted from the data set due to unavailable up-to-date information. Altogether, 18 schools were omitted, including 16 private schools and two higher education institutions. These omissions do not have a significant bearing on the final outcome of the study.

¹¹²Source of 2007 company revenues: Standard and Poor's Compustat. Figures are rounded.

¹¹³Direct expenditures correspond to spending on goods and services for every day operation and instructional use. These include expenditures for services such as heating, facilities maintenance, electricity, water, telephone, and internet service as well as expenditures on goods such as books, blackboards, projectors, computers, desks, chairs, paper, athletics and arts equipment, copy machines, file cabinets, software, etc.

¹¹⁴Source of country GDP data: World Bank. "World Development Indicators Database." 2009. The World Bank Group. Retrieved online November 16, 2009 from <<http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20535285~menuPK:1192694~pagePK:64133150~piPK:6413175~theSitePK:239419,00.html>>.

Table 2. Direct expenditures of NEASC-accredited institutions in VT, FY07

Type of Institution	Expenditures
Public Schools, K-12*	\$377,774,343
Private Schools, K-12	\$85,189,401
Public Higher Education Institutions	\$331,948,322
Private Higher Education Institutions	\$464,662,303
Total	\$1,259,574,369

*Includes technical and career schools

Higher education: A vital organ in the state economy

- As of AY 2006-07, the 20 NEASC-accredited higher education institutions in Vermont enrolled 39,683 students. These students represented 6% of the entire state's population of 0.6 million.¹¹⁵

Table 3. Enrollment in NEASC-accredited higher education institutions in VT, AY 2006-07

Type of Institution	VT Enrollment	Percent	New England Enrollment	Percent
Public	25,182	63%	441,932	52%
Private	14,501	37%	402,347	48%
Total	39,683	100%	844,279	100%

- In FY07, NEASC-accredited higher education institutions statewide employed 7,461 full-time and 3,001 part-time faculty and staff whose wage earnings contributed to the gross state product (GSP).
- There were more individuals employed at Vermont's accredited higher education institutions in FY07 than there were lawyers, pharmacists, surgeons, psychiatrists, computer programmers, architects, photographers, dentists, police officers, real estate agents, and construction laborers in the state *combined*.¹¹⁶
- Higher education institutions in the state enrolled 983 foreign students in AY 2006-07, according to the Institute of International Education (IIE). These students contributed to the state economy through their spending on local goods, entertainment, recreation, housing, utilities, food, and so on. The (IIE) found that these foreign students had an economic impact of \$28.0 million in 2007.¹¹⁷

Inter-industry transactions promote economic stability & growth

- Inter-industry transactions between educational institutions and other businesses help stimulate and stabilize the economy. Everyday school operating expenditures become consistent streams of revenue for companies that provide services such as heating, cleaning, phone, and internet service to educational institutions.

¹¹⁵Source: U.S. Census Bureau, 2007 American Community Survey. Retrieved online November 3, 2009 from <http://factfinder.census.gov/servlet/ADPTable?_bm=y&-context=adp&-qr_name=ACS_2007_1YR_G00_DP2&-ds_name=ACS_2007_1YR_G00_-tree_id=307&-redoLog=false&-caller=geoselect&-geo_id=04000US50&-format=&-lang=en> and author's calculations. Figures are rounded.

¹¹⁶Source: U.S. Department of Labor, Bureau of Labor Statistics. "May 2007 State Occupational Employment and Wage Estimates." November 12, 2008. Retrieved online September 8, 2009 from <http://www.bls.gov/oes/2007/may/oes_ri.htm> and author's calculations.

¹¹⁷Source: Institute of International Education. "Economic Impact on States from International Students." 2008. IIE Network—Member Website of the Institute of International Education. Retrieved online November 19, 2009 from <http://www.opendoors.iienetwork.org/file_depot/0-1000000/0-10000/3390/folder/58653/Economic+Impact+2007.pdf>.

- In AY 2006-07, NEASC-accredited public elementary, middle, and secondary schools statewide expended an estimated:
 - \$61,883,912 on school operation;¹¹⁸
 - \$24,405,695 on capital outlay;¹¹⁹
 - \$258,016,248 on staff salaries;¹²⁰
 - \$93,196,720 on staff benefits;¹²¹
 - \$14,221,368 on student transportation;¹²² and
 - \$11,480,288 on food services.¹²³

- Public elementary, middle, and secondary schools in Vermont (both accredited and non-accredited) employed 8,859 teachers, 4,330 instructional aides, 437 guidance counselors, 258 librarians, 591 administrators, and 1,106 administrative support staff in AY 2006-07.¹²⁴

¹¹⁸ Figure is based on extrapolations from mean per pupil operations expenditure in the state. Source: Zhou, L. *Revenues and Expenditures for Elementary and Secondary Education: School Year 2006-07 (Fiscal Year 2007)* (Page 14, Table 6), NCES 2009-337. 2009. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved online December 8, 2009 from <<http://nces.ed.gov/pubs2009/2009337.pdf>> and author's calculations.

¹¹⁹ Figure is based on extrapolations from mean per pupil expenditure on capital outlay (excluding interest on debt) in the state. Source: National Education Association, NEA Research. *Rankings & Estimates: Rankings of the States 2006 and Estimates of School Statistics 2007* (Page 96). December 2007. National Education Association. Retrieved online November 18, 2009 from <http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/3a/48/20.pdf> and author's calculations.

¹²⁰ Source of public school staff salary and benefits expenditures: U.S. Census Bureau, 2007 Census of Government Survey of Local Government finances—School Systems. "Public Education Finances 2007" (Page 8, Table 8). July 2009. U.S. Census Bureau. Retrieved online December 8, 2009 from <<http://www2.census.gov/govs/school/07f33pub.pdf>> and author's calculations.

¹²¹ Source of public school staff salary and benefits expenditures: U.S. Census Bureau, 2007 Census of Government Survey of Local Government finances—School Systems. "Public Education Finances 2007" (Page 8, Table 8). July 2009. U.S. Census Bureau. Retrieved online December 8, 2009 from <<http://www2.census.gov/govs/school/07f33pub.pdf>> and author's calculations.

¹²² Figure is based on extrapolations from mean per pupil expenditure on student transportation in the state. Source: Zhou, L. *Revenues and Expenditures for Elementary and Secondary Education: School Year 2006-07 (Fiscal Year 2007)* (Page 3, Table 9), NCES 2009-337. 2009. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved online December 8, 2009 from <<http://nces.ed.gov/pubs2009/2009337.pdf>> and author's calculations.

¹²³ Figure is based on extrapolations from mean per pupil expenditure on food service in the state. Source: Zhou, L. *Revenues and Expenditures for Elementary and Secondary Education: School Year 2006-07 (Fiscal Year 2007)* (Page 3, Table 9), NCES 2009-337. 2009. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved online December 8, 2009 from <<http://nces.ed.gov/pubs2009/2009337.pdf>> and author's calculations.

¹²⁴ Source: Sable, J. and Noel, A. *Public Elementary and Secondary School Student Enrollment and Staff From the Common Core of Data: School Year 2006-07* (NCES 2009-305) (Table 3, Page 11). 2008. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved October 9, 2009 from <<http://nces.ed.gov/pubs2009/2009305.pdf>>.