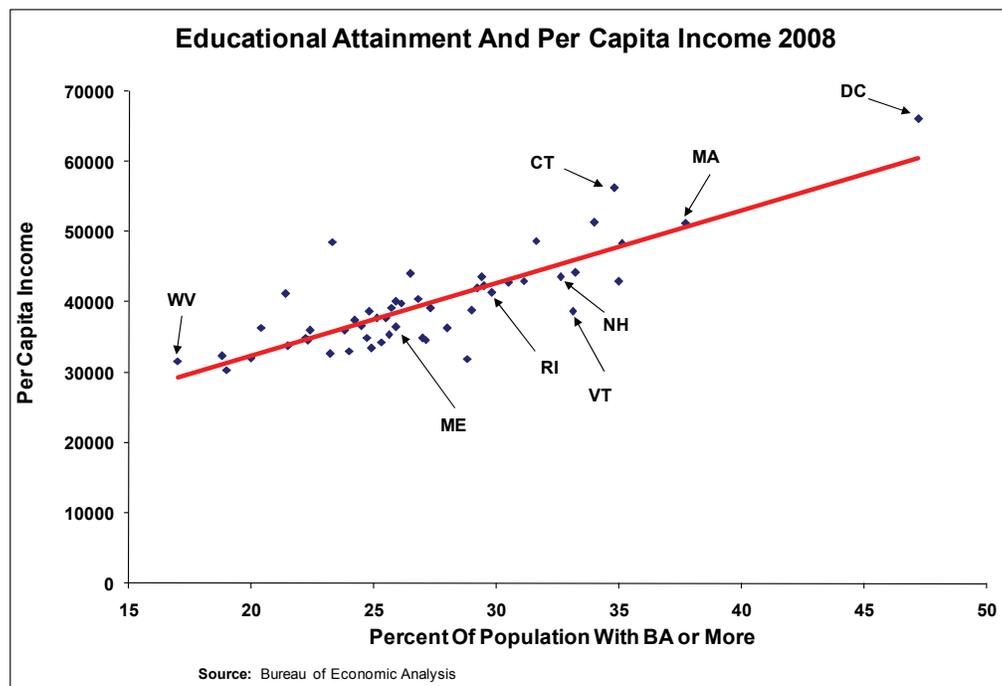


Education (Early Childhood, K-12, and Higher Education)

...” the middle class is dispersing into two opposing streams of upwardly mobile college-haves and downwardly mobile college-have-nots. Dropouts, high school graduates, and people with some college but no degree are on the down escalator of social mobility, falling out of the middle class and into the lower three deciles of family income.” “A college degree is the key to unlocking access to the middle class – or better.”

Anthony P. Carnevale, Nicole Smith, and Jeff Strohl, Help Wanted – Projections of Jobs and Education Requirements through 2018, June 2010

Education is the single most important investment that can be made to ensure successful participation in the new, knowledge-based economy, earnings growth, and improved health status. Post-secondary education/training is critical to increasing productivity, income, and career advancement. Moving each and every Mainer along the educational continuum to their highest educational potential is imperative. As the chart below illustrates, there is a strong correlation between a state’s educational attainment levels and its per capita income.



Unfortunately, Maine’s educational system is not a true, coordinated “system”. Early childhood (birth to age 5) care and education, when 85% - 90% of brain development occurs, receives minimal funding and is not integrated or well coordinated with other

components of the overall education system. The K-12 system receives the lion's share of public monies, both at the state and municipal levels, even as enrollment declines. The higher education "system," while more coordinated than ever before, is actually two totally independent systems – the Community College System and the University System, along with Maine Maritime Academy.

Education is a critical investment in Maine people and in our economy and must be treated as such, through a coordinated approach from start to finish, or it will continue to be a series of competing and ballooning costs that fall short of delivering the desired outcomes.

Survey Says

MDF worked in partnership with several Maine trade and professional associations to distribute a survey to their members to understand their experiences with investment and policy issues in the state. 1,039 business leaders responded to the survey. The following is a summary of responses connected to education.

Respondents did not comment specifically on how education affects their investment decisions. They did comment on an outcome of the education system, the workforce.

Maine's workforce ranked as a net positive issue when making investment decisions:

- Availability of professional workers ranked 6th of 19
- Availability of entry-level workers ranked 7th of 19
- Availability of skilled technical workers ranked 8th of 19

When asked about potential barriers to moving the economy forward:

- Lack of a skilled workforce was identified by 12% of all responses provided

Investment Imperatives

Recommendations (System-Wide)

Create an overarching vision for education and set specific outcome goals

- Set a goal of every Mainer achieving their greatest potential in the education system
- Create a "Blueprint for Independence" that addresses student needs throughout their educational career

Develop Executive and Legislative Branch structures that work together to hold all accountable for successfully meeting the goals and moving towards the vision

- Coordinate, prioritize and align the investment of all public monies across the birth to college spectrum
- The Governor should create an Education Sub-Cabinet Committee to coordinate and prioritize all education investments across the entire spectrum

- Legislative Leadership should empower the Joint Standing Committee on Education to participate more fully with Pre-K to 20 and treat it as an entire system

Ensure successful, seamless transition across the individual educational systems to move all Maine people along the continuum of educational offerings

- Put in place resources to ensure that the transition through the education system is smooth and welcoming
- Focus on the adult learner is a critical part of increasing post-secondary attainment

Early Childhood

“America’s future rests on the shoulders of today’s youngest children. Their early experiences will shape the architecture of their brains in enduring ways and build the foundation – whether strong or weak – for their own development and that of our nation.”

Zero to Three and Pre(K)now, Common Vision, Different Paths, December 2007

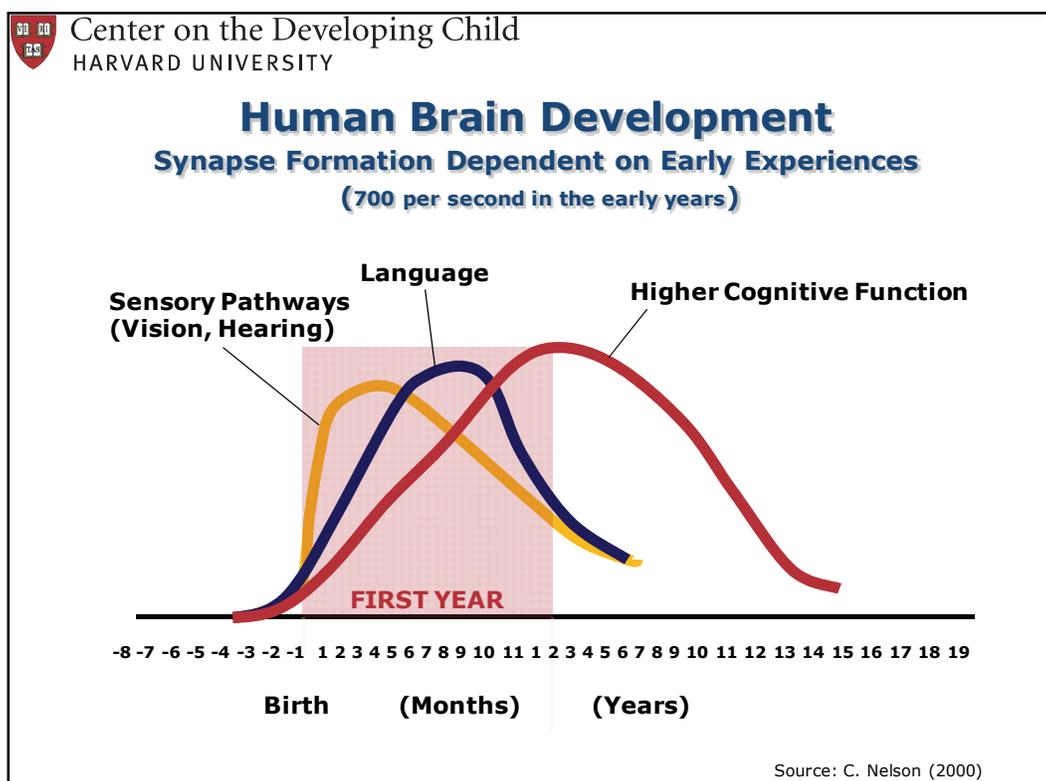
Ninety percent of a child’s brain development occurs before they enter kindergarten and once this time has passed, it becomes increasingly difficult to “alter” or “undo.” Brains are built from the bottom up. Early experiences literally shape how the brain gets built. Like the construction of a house, weak foundations significantly increase the odds of later difficulties that often last throughout a lifetime. We must acknowledge the critical social trends that affect our children and families. Stable, nurturing environments help create strong foundations for achievement in school, employability and responsible citizenship.

Facts and Findings

The experiences a child has from birth to the age of five are critical to setting the stage for development throughout life.

According to Dr. Jack Shonkoff of Harvard University’s Center on the Developing Child (following chart):

- The synapse formation of sensory pathways (vision and hearing) and language are largely determined within the first year of life and begin a natural pruning process that is completed by the first year or two of school
- The synapse formation of the higher cognitive functions peaks by the age of 3 and begins the natural pruning process through the age of 15



Note: Slide from Dr. Shonkoff presentation at 2008 MDF Annual Meeting

- Adverse childhood experiences such as violence in the home, bad nutrition, infrequent adult attention or conversation, neglect, or a lack of positive, consistent adult interactions and care can permanently harm brain development
- A national research project (ACES) indicates that these adverse experiences are major risk factors for illness and low work productivity, as well as poor quality of life

Many of Maine's youngest children are at risk

According to the Maine Task Force on Early Childhood, Invest Early in Maine, November 2008:

- 21.8% of Maine's children under the age of 5 are living in poverty
- 28% of Maine children live in a single-parent household
- 65% of Maine children under the age of 6 have working parents
- 12%-16% of Maine children have developmental problems and only one-third of them are identified before entering kindergarten

Maine under-invests in quality, early childhood education. Seventy percent of our young children have both parents, or in single-parent households, one parent, working outside the home.

According to Governor Baldacci's Business Roundtable on Early Childhood Investment, Report of Priority Recommendations for Early Childhood Investments in Maine, December 2008:

- Less than 4% of Maine's public investment is put towards education and development for children before the age of 3
- Maine's public investment in education and development during school-age years is seven times more (\$5,410 per child) than during early learning years (\$740 per child)
- For every dollar invested in school-age education, only 13.7 cents is invested in early childhood
- Maine's early childhood workforce is poorly paid (ranking 596th out of 647 detailed occupations), has few benefits, and is often under-educated

Investing early (before the age of 6) could help avoid costly remediation later in a child's education.

According to the Maine Department of Education:

- Special Education costs in Maine's K-12 system have grown from 5% of total expenditures in 1979 to 14% in 2006
- Special Education expenditures over the past 12 years alone have doubled to \$290 million dollars by the 2006-2007 school year

The return on investment (avoided educational costs, avoided criminal system costs, greater earnings over a lifetime) in early childhood education is substantial and well documented.

According to Albert Wat, Dollars and Sense: A Review of Economic Analyses of Pre-K, 2007:

- Two of the best known longitudinal studies on the effects of early childhood investment show a significant return on investment in early childhood programs
 - Abecedarian Project (through age 21) - \$4.10 total return for \$1 invested
 - Perry Preschool Project (through age 40) - \$16.14 return for \$1 invested

Experts Recommend

The following is a summary of key recommendations from various reports, committees and efforts around early childhood education over the past few years.

Governor Baldacci's Business Roundtable on Early Childhood Investment, Report of Priority Recommendations for Early Childhood Investments in Maine, December 2008:

- Develop and educate a network of public, private and non-profit entities to advocate for early childhood investments
- Develop a statewide, non-profit entity to catalyze early childhood investment
- Develop both public and parent education – a statewide “Invest Early” campaign
- Promote early childhood workforce development:
 - Increase the number of early childhood professionals
 - Improve the quality, training and education of the early childhood profession with quality improvement grants and incentives to those self-employed, affordable health-care benefits for workers, scholarships for training and higher education and loan forgiveness for those entering the field

Zero to Three and Pre(K)now, Common Vision, Different Paths, December 2007:

- States need to build a system of programs, policies, and infrastructure to support early childhood, not just individual programs

Maine Taskforce on Early Childhood, Invest Early in Maine, November 2008:

- Investments for Maine Families and Income Security: home visitation programs, family literacy programs, family networks, parenting education, strengthening Maine family, friend, and neighbor care, TANF child care benefits, paid family leave for working parents, funding mechanism to address family stress and impact of child development, livable wage
- Investments for Early Childhood Health and Family Health: address developmental screening, early identification, and referral, nutritional needs, lead exposure, immunizations, and oral health care, address infant mental health training, domestic violence, substance abuse, improve family health literacy, and improve family access to insurance
- Investments for Consumers, Workforce, and Children with Special Needs: increase capacity/access; affordability, and quality; workforce development and professional development; and administration and funding requirements
- Investments for Municipal Planning and Partnerships: training and technical assistance for Comprehensive Municipal Plans, and developing local Invest Early Plans, community hubs or co-located programs, individual, community, business, and municipal contributions to early childhood, Family Resource Centers, C4CY VISTA project, and provide community collaboratives
- Investments in Public Awareness and Marketing, Data/Evaluation, and Financing: develop marketing strategy, marketing materials, and marketing personnel and support, create statewide needs assessment, and evaluation methods and accountability mechanisms, endowment fund for workforce, and public private partnership to promote quality and provide quality incentives

Early Childhood Investment Imperatives

Recommendations (Early Childhood)

Integrate early childhood into Maine's educational system

- Bring all children ages 3 and 4 into the public schools for pre-Kindergarten screenings to ensure early identification of any health or development issues
- Require communication, collaboration and coordination of systems and services across system components, including the Department of Health and Human Services, the Department of Education, and the higher education community
- Coordinate service so that children and families receive a continuum of supportive, unduplicated services through grade 3. Early Childhood systems encompass an array of separate systems which have common goals that encompass better outcomes for children, youth and families. However, these systems are comprised of multiple programs and policies that often have non-congruent purposes that result in a siloed versus coordinated system

Improve Quality of Care

- Invest fully in the success of the Educare model for workforce training and quality education results. Use the model's policy research and evaluation components to inform policy and quality decisions
- Require and support consistent standards of quality across all systems of early care that is linked to Maine's Quality Initiatives
- Increase the overall investment in an early childhood system to support livable wages for early education providers and facility improvement grants
- Invest fully in the quality training and education of early childhood providers. Create incentives to increase the number of professionals and to reach higher levels of education and training:
 - Provide scholarships for training and higher education
 - Create loan forgiveness for those entering the field
 - Develop meaningful tax credits for providers
 - Provide quality improvement grants and incentives
- Expand access to child and family focused, preventive and comprehensive systems of service that incorporate all the components of Early/Head Start; such as child and parent education, health (mental, dental and physical), parent involvement and social service components

Create a means for the public sector to work with the private sector on Early Childhood Investment in Maine

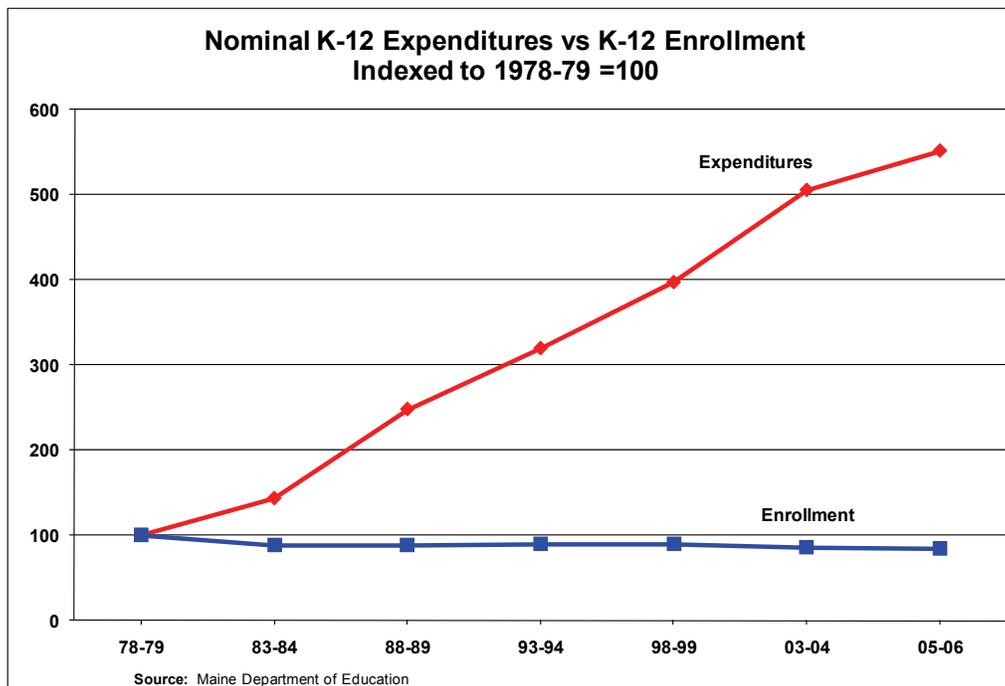
- Support the work of the Maine Children's Growth Council and use them as a means of reaching out to the private and philanthropic sectors

K-12

“All of this suggests that we have an enormously cumbersome and inefficient system, the product of historical circumstance and geographic limitations of an earlier time... There is an enormous cost to taxpayers that drains resources from the classrooms where they could positively impact student learning.”

State Board of Education Select Panel on Revisioning Education in Maine, The Learning State: Maine Schooling for the 21st Century, September 2006

Maine’s K-12 system is a critical and foundational element in the overall education of Maine’s people. Over the past several decades, however, K-12 spending has grown and currently represents one of the largest shares of our state budget and the single largest expenditure for local government. While costs have gone up, enrollment has declined (see chart below), particularly in more rural parts of the state. This has led to consolidation efforts and cost containment measures that have had mixed results. Current spending trends are unsustainable, and they are not necessarily delivering students who are adequately prepared for higher education and the workforce.



K-12 education is the single largest state and local government expenditure.

According to the Maine Municipal Association, 2008 Fiscal Survey and Analysis:

- An average of 59% of municipal government expenditures are for K-12 Education
- School expenditures represent about 53% of total expenditures in larger municipalities (over 10,000 residents) and up to 66% - 68% in smaller municipalities (1,000 – 3,499 residents)

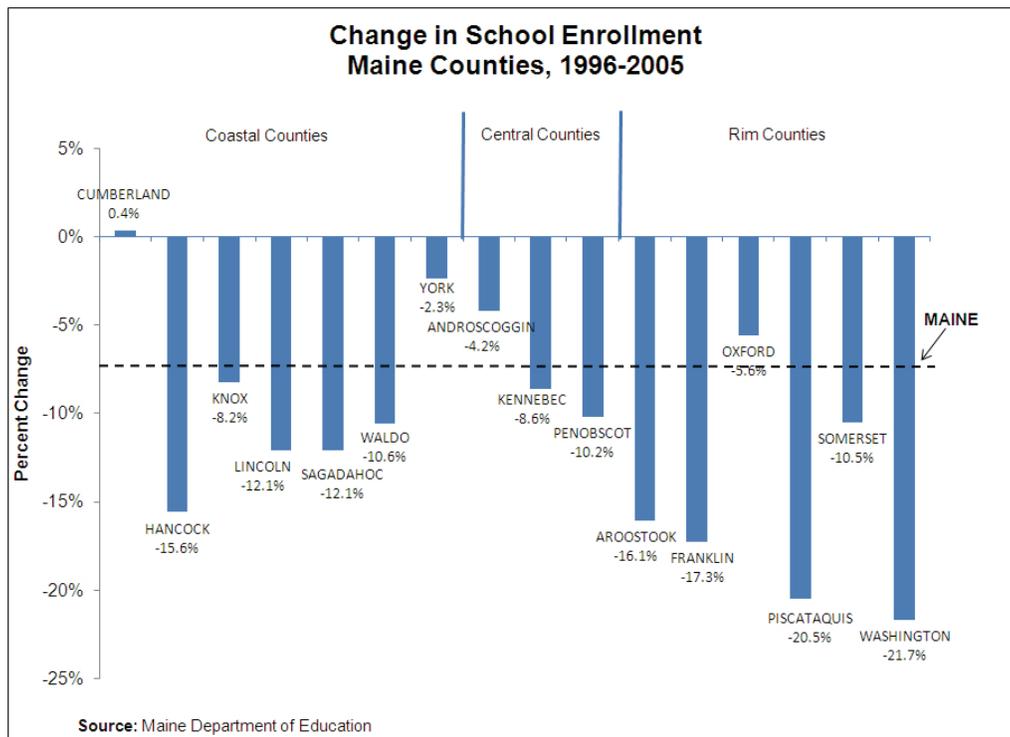
According to the Office of Fiscal and Program Review:

- 39% of the Maine State General Fund is spent on the K-12 system (2008)

K-12 expenditures have risen dramatically while enrollment has declined.

According to the Maine Department of Education:

- Over the 27-year period from 1978 to 2006, K-12 expenditures grew by over 450% while enrollment declined 16% (see chart on previous page)
- Public school enrollment in recent years has fallen in virtually every county and the projection through 2016 is that all 16 counties will experience declines (see chart below)



Sprawling development over the past five decades has been a big cost driver.

According to the Maine Economic Growth Council, Measures of Growth in Focus, 2010:

- Over the past 50 years, the percentage of people living outside of service center communities has increased from about a third to over half

According to Brookings Institution, Charting Maine's Future: An Action Plan for Promoting Sustainable Prosperity and Quality Places, 2006:

- Of Maine's 42 new schools built from 1995 to 2005, 13 were built in direct response to population dispersal in four labor market areas (Augusta, Bangor, Lewiston-Auburn, and Portland), at a cost of \$200 million

Special education is a growing cost for K-12.

According to the Maine Department of Education:

- Special Education costs in Maine's K-12 system have grown from 5% of total expenditures in 1979 to 14% in 2006
- Special Education expenditures were \$290 million dollars in school year 2006-2007

Administrative structures are driving costs upward.

According to Brookings Institution, Charting Maine's Future: An Action Plan for Promoting Sustainable Prosperity and Quality Places, 2006:

- Maine's K-12 system has 1 administrator for every 127 students, fourth highest in the nation and well above the U.S. average of 1 for every 212
- Maine has one administrator per 11.1 teachers, 9th highest in U.S.

Student outcomes are good in some areas and need improvement in others.

According to David Silvernail and Christine Donis-Keller, Maine Education Policy Research Institute, The Condition of K-12 Public Education in Maine, 2009:

- Maine's performance on National Assessment of Educational Progress (NAEP) improved in 2007
 - In Math, Maine's 4th and 8th graders scored above national average scores, ranking 19th and 12th respectively
 - In Reading, Maine's 4th graders scored 8th in nation, but behind all New England states except Rhode Island; 8th graders ranked 4th
- Maine's graduation rate in 2007 (81.64%) was the lowest it had been in years
- Educational aspirations of Mainers taking SATs are lower than New England and nation

Experts Recommend

The following is a summary of key recommendations from various reports, committees and efforts around K-12 education over the past few years.

Douglas Rooks, [A Case for Cooperation II: How School Reform Can Work for Maine Students, July 2008:](#)

- Use a wide range of incentives instead of penalties to encourage cooperation in the consolidation process
- Encourage magnet schools model
- Revise school construction policies to require regional planning and restructuring of financing options both from a state and local level

The Brookings Institution, [Charting Maine's Future: An Action Plan for Promoting Sustainable Prosperity and Quality Places, 2006:](#)

- Fully fund and enlarge the Fund for the Efficient Delivery of Education Services
- Reduce K-12 administrative spending to the national average by lowering the State's Essential Programming and Services allowance to districts above the national average
- Dramatically reduce the number of school administrative units from 286 to approximately 64 (to approach the national average district size of 3,100 students)
- Develop a statewide K-12 capital plan with a regional perspective to maximize the use of existing facilities across regions
 - Inventory the size, location, condition and maintenance needs of all facilities
 - Set priorities for construction and maintenance across the region

K-12 Investment Imperatives

Recommendations (K-12)

Develop a more cost-effective system of delivering critical K-12 services

- Fully fund the 2% set-aside of State General Fund Appropriations to the Fund for the Efficient Delivery of Educational Services as envisioned in the Maine Municipal Association's citizen's initiative that was passed
- Achieve savings by setting a goal of reducing administrative costs to the national average and shift that money to the classroom
- Offer more assistance, flexibility and incentives for the purpose of school district consolidation and cost savings

Develop high standards and specific outcomes for K-12 education in Maine and hold all accountable

- Strengthen the Magnet School and make a major stated commitment to its success
- Engage the public in debate about the viability and role of charter schools
- Reward teachers and schools, through incentives, for good student outcomes

Ensure successful, seamless transition into, through and out of the K-12 system providing students with the opportunity to participate in post-secondary training and education

- Apply recommendations put forth by Children’s Economic Growth Council to prepare young children for a smooth transition to Kindergarten
- Support and fund efforts, like the MELMAC Foundation’s (www.melmacfoundation.org), to encourage high school seniors to aspire to post-secondary education and put in place the resources and assistance needed to help them make the transition and follow through on a plan

Higher Education

“The days when a high school diploma was the key to successful employment with a reasonable income are long past.”

Maine State Board of Education Select Panel on Revisioning Education in Maine,
The Learning State: Maine Schooling for the 21st Century, 2006

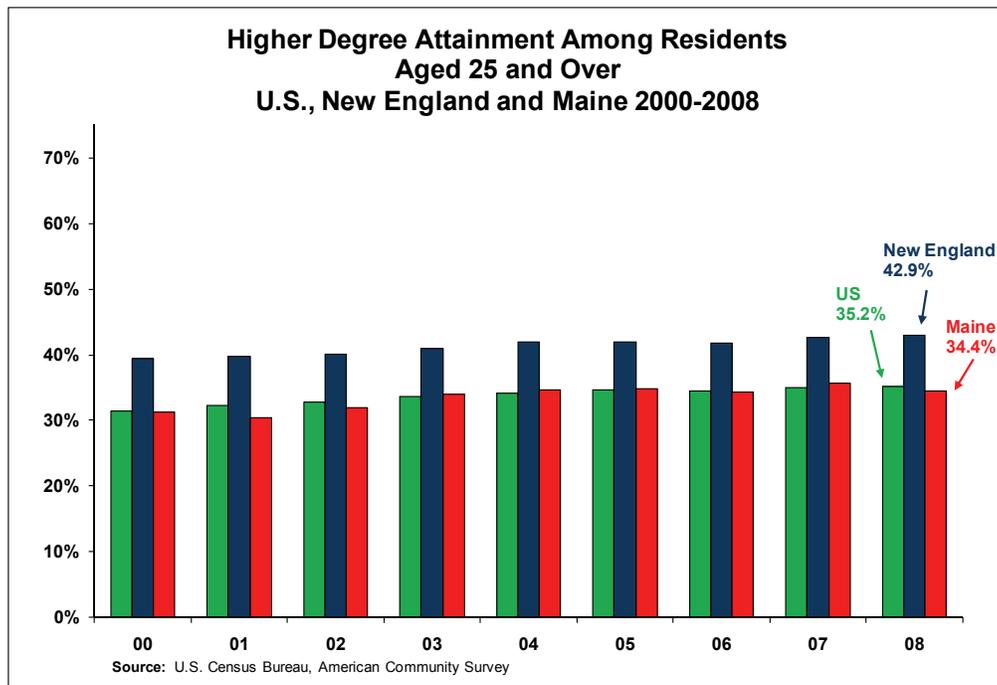
Higher education is a critical piece of Maine’s economic development strategy. An educated workforce allows Maine to be competitive in the new economy. An educated workforce is needed by existing businesses looking to expand as well as businesses looking to locate in Maine. Any higher education, whether it is traditional 4-year degrees or professional training, raises the earning potential of the worker which benefits the economy as a whole. It is important to make higher education opportunities available to high school students as well as to older non-traditional students in the workforce. Higher education needs to be affordable and aligned to provide the skills needed in today’s economy. This requires cooperation and planning from both the public and private sectors.

Facts and Findings

Higher degree attainment in Maine continues to lag the U.S. and New England (see chart on following page).

According to the Maine Economic Growth Council, Measures of Growth in Focus, 2010:

- In 2008, 34.4%, of Maine people age 25 and over held an associate’s, Bachelor’s, or advanced degree - national average (35.2%), New England average (42.9%)
- Of the types of higher degrees, associate’s degrees make up a larger share in Maine than in the U.S. or region, Bachelor’s degrees make up half of all degrees in Maine, and advanced degree are much lower when compared to the region and nation



Maine’s performance in higher education is, for the most part, average but improving in all areas except affordability, which is a great barrier to reaching the state’s goals.

According to The National Center for Public Policy and Higher Education, Measuring Up 2008 The State Report Card on Higher Education:

- **Preparation (B-)** “Maine performs fairly well in preparing its young people for college”
 - Eighth graders perform well on national assessments in math, science, reading and writing; however, small proportions of high school students score well on Advanced Placement tests and college entrance exams
- **Participation (C-)** “College opportunities for Maine residents are only fair”
 - The likelihood of enrolling in college by age 19 is high - and has increased by 23% since the early 1990s; however, a very low percentage of working-age adults (4 in 100) are enrolled in higher education
- **Affordability (F)** “Higher education has become less affordable for students and their parents”
 - Poor and working-class families must devote 47% of their income, even after aid, to pay for costs at public 4-year colleges in Maine and financial aid to low-income students is low compared to the nation
- **Completion (C+)** “Maine performs fairly well in awarding certificates and degrees relative to the number of students enrolled”
 - 58% of college students complete a bachelor’s degree within 6 years
 - Maine has increased the proportion of students completing certificates and degrees but its rate of improvement lags behind other states

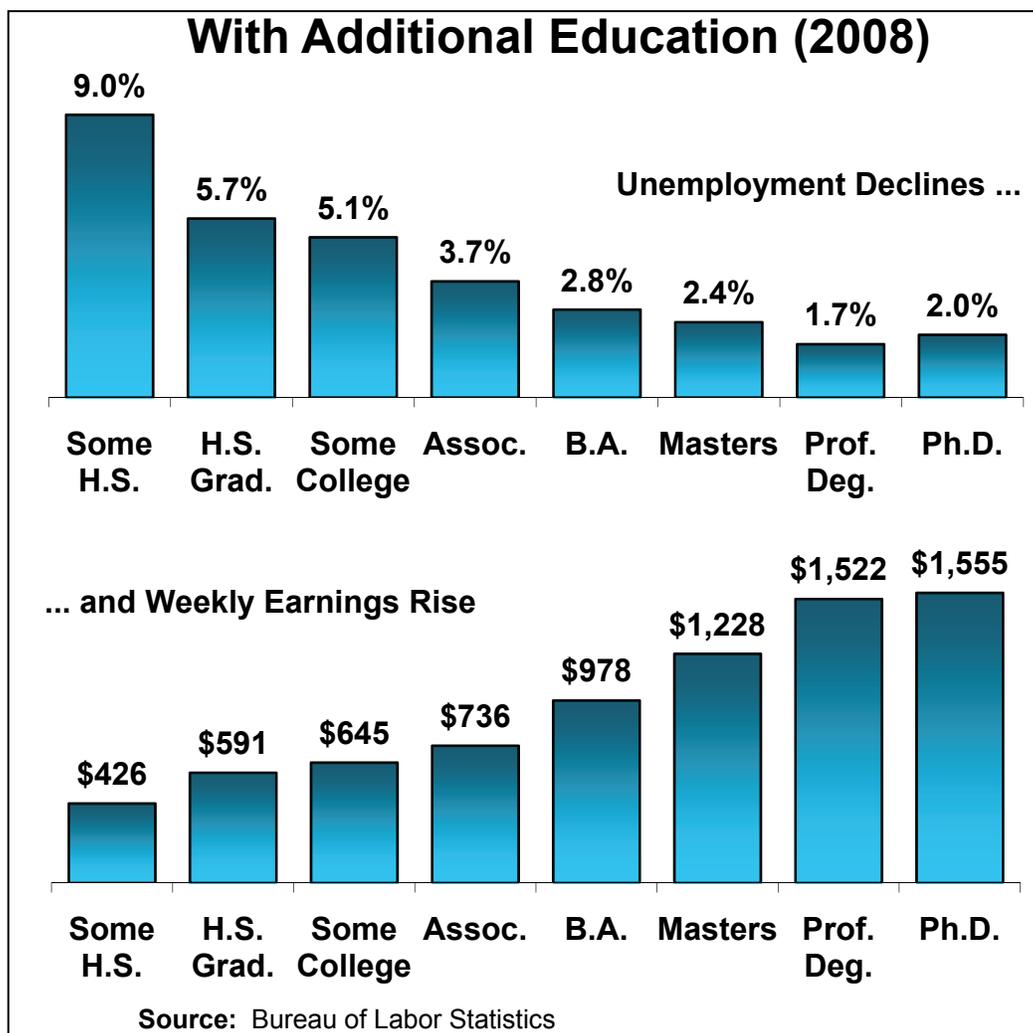
- **Benefits (C)** “Only a fair proportion of residents have a bachelor’s degree, and this weakens the state economy”

Despite the critical importance of higher education in economic development, the State’s General Fund budget priorities have shifted away from investment in Higher Education and towards K-12 Education and Health and Human Services.

According to the University of Maine System and the Office of Fiscal Program and Review:

- From 1968 to 2008, the percentage of Maine’s General Fund Expenditures on Higher Education has dropped from 18% to 9%
- In 2008, 39% of the State’s General Fund was spent on K-12 Education and a total of 32% was spent on Mental Health and Human Services

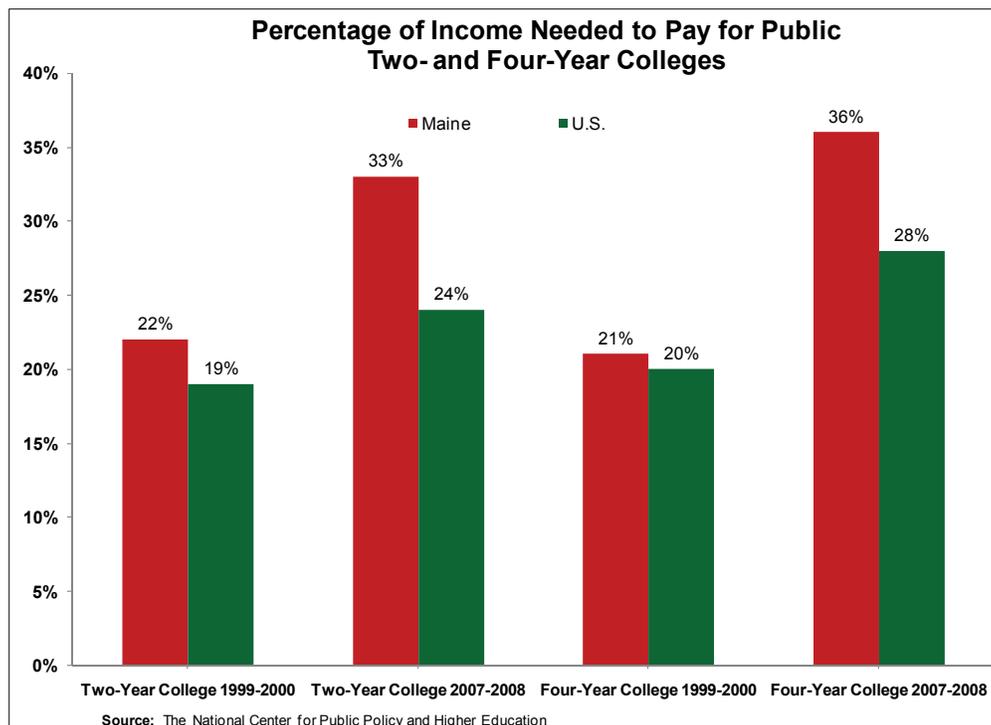
With each and every increment of education, unemployment declines and an individual’s earnings potential increases (see chart below).



Because State funding has not kept pace with rising costs, affordability at both Maine’s two-year and four-year public colleges has diminished and is more of an issue in Maine than in the U.S. as a whole.

According to the National Center for Public Policy and Higher Education (see chart below):

- The percentage of income needed to pay for a public 2-year college in Maine is 33% compared to 24% nationally (2007/2008)
- The percentage of income needed to pay for a public 4-year college in Maine is 36% in Maine and only 28% nationally (2007/2008)



Experts Recommend

The following is a summary of key recommendations from various reports, committees and efforts around higher education over the past few years.

University of Maine System New Challenges, New Directions Task Force, Report of the Task Force: New Challenges, New Directions, 2009:

- University of Maine System (UMS) must resolve financial issues and improve performance to continue adding value to Maine in the future
- UMS needs to play the important role of serving more students more efficiently, helping to strengthen the state economy (which is becoming more based on knowledge, research, and skills), and supporting society (which depends on engaged and informed citizens)
- UMS campuses must work together, rather than as seven separate universities

- UMS must address individual growth and opportunity – outcomes will include simplifying the transfer process, increasing undergraduate and graduate programs in essential fields, keeping college affordable, increasing financial aid, investing in student support programs and academic services, and recruiting students that would otherwise not attend college in Maine
- UMS must address economic competitiveness - outcomes will include adding undergraduate and graduate programs that support living in diverse societies, increasing learning opportunities for adults who work, increasing universities' role as partner in economic development, increasing and expanding distance education, strengthening research related to Maine's future, and emphasizing land grant role of the University of Maine

Maine Compact for Higher Education, Indicators of Higher Degree Attainment in Maine, August 2008:

- Create a scholarship program to ensure that no Maine student is denied college for financial reasons
- Invest in Early College efforts to encourage students to continue their education beyond high school
- Support the College Transition program to help adults earn degrees
- Support the Maine Employers' Initiative to help employers support the education of their workforce
- Campaign to change the values and behaviors of Maine people regarding higher education

Joint Select Committee on Future Maine Prosperity, Time for Change, 2008:

- Continue support for Opportunity Maine Tax Credit to keep young people in Maine
- Joint standing Committees on Education, Labor and Business, Research and Economic Development should meet with University leaders to discuss:
 - How higher education is working with business to address workforce needs
 - How greater collaboration could be fostered
- Increase access to higher education and lower tuition costs

Higher Education Investment Imperatives

Recommendations (Higher Education)

Make public higher education affordable for Maine students

- Increase student financial access to college by significantly increasing the amount of need-based scholarship aid available to students and their families through the expansion of programs like the Maine State Grant Program
- Achieve cost-savings to lower tuition costs through one comprehensive plan and financing mechanism for the maintenance, replacement and expansion of the physical plants of all the public higher education institutions

- Treat the University of Maine System as a true system and achieve cost savings through curriculum efficiencies by having campuses specialize in areas rather than under-funding a full mix at every location
- Achieve cost-savings through use of technology and support more distance and on-line learning

Align educational curriculums and training opportunities with industry needs and trends

- Support and expand partnerships between employers and public higher education institutions
- Create science and engineering campus at Brunswick Naval Air Station to help serve and build the needs of Maine's manufacturing and knowledge-based industries near the Portland-Boston-Portsmouth-Manchester market

Commit to raising the educational attainment of all Maine people – traditional students and non-traditional students that comprise the incumbent workforce

- Adopt the Compact for Higher Education's goal of reaching the New England average for higher degree or certificate attainment in the working-age population by 2020
- Continue to support programs like the Early College Initiative, the College Transitions Program and the Harold Alfond College Challenge
- Invest in the Maine Employers' Initiative to create and support regional collaborations of adult education, community college, university, regional businesses, and the location association human resource professionals to engage the adult learner in post-secondary training and education opportunities