

Improving Maine's Future through Education: *Overcoming Challenges and Learning to "Row" Together*

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Although people agree that education is a crucial ingredient in the mix of factors that will improve Maine's economic prospects, we often come at the problem from different angles and develop different methods to improve educational outcomes. In this article, Linda Silka, Karen Hutchins, Meredith Jones, and Chris Rector assert that progress in securing a bright future for Maine requires working together across disciplines and areas of expertise to support education. The authors present nine recommendations for strengthening Maine's educational systems. 🐟

INTRODUCTION

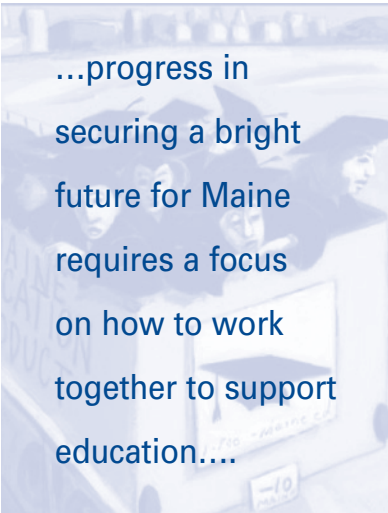
Many people have come to realize that education is a crucial ingredient in the mix of factors that will improve the economic prospects of Maine's coming generations. There is the need to ensure that more of Maine's youth are educated; that educational efforts start early in children's lives; that students are encouraged to continue their education beyond high school; and that connections are improved between higher education and business to ensure alignment for improving the economic prospects for youth. The need to improve educational outcomes is clear. Evidence shows that states and nations that fall behind in educational achievement fall behind economically (Royal Society 2011). And in Maine, with its rural character and erosion of high-paying jobs, this issue is particularly urgent. But what are the best pathways for achieving these improvements, and how do we work together to achieve them?

Other countries and states are making significant headway at improving the educational outcomes of their youth (Hanushek, Peterson and Woessman 2012). China, for example, is rapidly increasing the number of scientists it produces with the aim of dramatically improving its economy and the lives of its people (Royal Society 2011). Kentucky, Massachusetts, and North Carolina have become leaders in developing significant statewide educational initiatives linking economic development and education (Alssid, Goldberg and Schneider, 2011). And the city of Kalamazoo, Michigan, is modeling what individual communities can achieve when private and public organizations and individual citizens come together to increase the educational prospects for youth (e.g., Bartik, Eberts and Huang 2010). Although new efforts to improve education are coming to the forefront, there are concerns. Will these new efforts improve educational outcomes and lead to economic prosperity, or might they end up failing to revitalize the economy? Will individual efforts remain scattershot and cancel each other out?

In Maine, there are numerous outstanding education initiatives, including such programs as EduCare Central Maine, Early College for ME, Jobs for Maine's Graduates, and the Mitchell Institute, to name a few.

These programs provide opportunities for Maine students and families from prebirth through college graduation, helping ensure education support throughout an individual's life. High-quality research is being conducted on specific initiatives (e.g., ASSISTments efficacy trial) and on long-term education patterns and trends (e.g., Statewide Longitudinal Data Systems [SLDS]) at institutions such as the College of Education and Human Development at the University of Maine. This research provides critical data that informs the education system in Maine. Although there is a solid programmatic and research infrastructure for education in the state, there is still work to be done. For example, according to the 2010 U.S. Census, only 37.3 percent of people 25 years or older in Maine have attained a bachelor's degree or higher, and at the University of Maine, for example, only 36 percent of the fall 2007 freshman cohort graduated in four years (www.umaine.edu/ois/fact_book/graduationrates/total.htm). Improving economic prospects depends on improving educational attainment, and improving those numbers depends in large part on the ability to overcome a set of challenges currently facing the state of Maine.

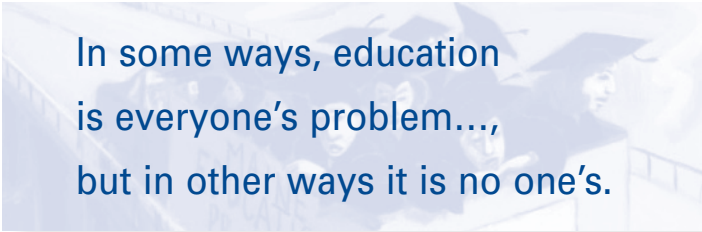
The answers are not simple, and they are complicated by the diverse voices that cite contradictory research on, and personal testimonials about, which policies and interventions will improve education. Recognizing that the problem of enhancing educational achievement will not be solved by any one group working alone and in isolation, we assert that progress in securing a bright future for Maine requires a focus on how to work together to support education, instead of on which method is the "right" method. As Bruce Katz stated at the 2012 GrowSmart Maine Summit, one has to "collaborate to compete." It does not matter who is doing the hard work—whether educators, policymakers, business leaders, or parents. Working in concert to support students and the future is what matters. But what does it mean to work together?



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If agreement on the “best” intervention remains a challenge, how can working together be achieved?

The goal of this article is not to critique current research or programs. Instead, we argue that Maine needs to strengthen current infrastructure and initiatives by reevaluating how diverse voices are accounted for in these discussions; how we make sense of data and what drives those evaluations; how we can learn from each other; and how we can work together to improve educational prospects for Maine citizens. This article discusses nine recommendations for strengthening Maine's education system and moving forward together. Our recommendations are about how to set in place approaches for using the proverbial wheel, instead of reinventing it. Although we apply these recommendations to education, they likely apply to many of the current issues society faces, such as health care.



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The way this article was developed embodies the idea that working together across institutional and disciplinary boundaries is more fruitful than working separately. We work in different environments. Chris has been a legislative leader in the Maine Senate and is a business owner and vice president of the foundation board of directors for Many Flags, One Community in Rockland, Maine; Meredith is the president and CEO of the Maine Community Foundation and second vice chair of Educate Maine; Karen is a doctoral student who has worked at many different levels of higher education and teaches graduate students who work in the K-12 school system in the U.S. and China; and Linda is an academic who directs a policy center, teaches in the UMaine School of Economics, has facilitated strategic planning for many of the coalitions in Maine working to improve STEM [science, technology, engineering and mathematics] education, and served as principal investigator on many federally funded

initiatives to build educational partnerships. None of us has educational interventions as our primary focus, yet each of us has come to see education as uppermost to Maine's future. We believe that by bringing together our differing experiences we can contribute to the discussion about how groups can work together to address Maine's educational challenges.

RECOMMENDATIONS

The Paradox of Ownership (and Lack Thereof)

The issue of who is charged with improving education is a puzzling conundrum. In some ways, education is everyone's problem (e.g., we all pay for education), but in other ways it is no one's. Everyone loses if the future generation is not well educated, but no one person or organization is fully responsible for the full spectrum of a child's education. For example, with some exceptions, preschools and K-12 schools, and K-12 schools and universities and colleges operate relatively independently. No one is in charge and everyone is in charge. All of this makes it difficult to move forward and to muster the collective will to create effective interventions. And, then when some group does step up and designs an intervention that succeeds, STEM education for example, they rightly feel ownership over the success and may well have a hard time seeing shared ownership as fair and equitable. In light of these complexities, we need to confront questions related to ownership: How are new players invited into the change process if people already involved feel that they own the process? How can educational change be made everyone's responsibility and still have each person feel that improving education is his or her responsibility?

Avoiding the Cult of Experts while Learning from Experts

One of the struggles at the heart of efforts to improve education is that experts are needed—people knowledgeable about educational practices—but their advice and skills need to be used with care. This is complicated. Although careful attention needs to be paid to the experts and what they advise, we also need to be open to solutions that are proposed by people

who have not spent their lives inside the education industry. Problems that look as though they cannot be solved when examined through expert lenses might be solvable when approached in other ways. The entrepreneur Salman Khan (www.khanacademy.org) reportedly thought a lot about what he was seeing with his own children's struggles with learning and wondered if traditional practice should be reversed: have students devote class time to doing homework where they can get immediate feedback and have the lectures take place at home with children watching them on the internet. Doing the problems in class made it possible for careful attention to be given to the central task in learning. Evidence suggests that this reversal holds promise. In short, we need to draw on the expertise available, but also need to develop a culture that allows us to evaluate and critique those expert ideas and to think creatively about how to bridge different forms of expertise.

Drawing from Examples Outside of Education

We could draw all of our examples from education, but there is much that is going on outside of education that could be of value in attempts to strengthen educational practices. Consider, for example the model being explored in Maine businesses of “fail fast, fail cheap” innovation (eurekaranch.com). The idea is that one should first test out small innovations without investing a lot of resources, then assess what happens, and only then move forward with additional investments. In Maine this model is being used in business, health care, and many other areas. Could it also be used in education?

Examples from outside of education are also potentially important for understanding key factors for innovation, such as those drawn from social networking studies. Analyzing social networks helps explain the importance of working outside of our respective social groups. Granovetter (1973) argues that if the tie between person A and person B is strong, they are likely to be similar, sharing similar values and beliefs. Strong ties promote efficient sharing of information and high levels of trust and influence, yet they also limit exposure to new ideas, which decreases challenges to the group through those new ideas (Granovetter 1983). On the other hand, weak ties help

create networks across dissimilar groups, thus facilitating the diffusion of innovative ideas (Granovetter 1973). Relating this to education, working with people outside of the education realm, or developing weak ties across diverse groups, could help promote innovation and strengthen problem solving. The strong ties that currently exist in the education system can then be used to facilitate change. Leveraging innovative ideas from different fields and industries to improve education makes sense, but the task is not simple. How would we bring people together and test these approaches? How can we do this efficiently when we likely see and approach the world differently?

Finding Better Ways to Learn

The current challenge comes not so much from the absence of ideas, but rather their surfeit. There is an overwhelming number of reports and recommendations: state reports, national reports, reports about STEM education, reports about how to reach underserved students, and reports about how to redesign education so that skills for the jobs of the future are enhanced. There is a seemingly inexhaustible supply of reports putting forth one recommendation or another, with different people basing their recommendations for change on different reports. It can be challenging to make good use of what is out there. So, part of what we need in Maine is a set of robust, regularized practices for how to find, interpret, and evaluate reports and recommendations. This set of practices should be designed to be useful not just to scholars, but to anyone who seeks to contribute to the discussion of how to improve educational prospects of Maine's youth.

Maine's Centers for Disease Control (CDC) provides an illustration of how to design a system that allows people to track and compare complex information (in their case, on environmental hazards and health in their communities [tracking.publichealth.maine.gov]). This example illustrates how to make information accessible and comparable so that it is meaningful when combined or evaluated together. Groups such as the Great Schools Partnership and the New England Secondary School Consortium have begun this much needed work, as have national groups such as Change the Equation (2012). More is needed.

Learning from Complex Data

We struggle as a state to sort through educational data to decide which will be best help us to understand where we are, what interventions we should undertake, and whether these interventions are successful. Because the data are comparative, there are many questions about which data to use. Which kinds of comparisons make the most sense? Should Maine compare itself against its own past? Should Maine compare itself against other states? Much available data, for example, compare Maine with other states, yet it is not clear which states are the most appropriate for comparison. Should Maine compare itself to other rural states? To states with similar income levels or a similar job base? To states that have undertaken similar educational interventions? The choice will make a difference in the picture of Maine's educational status. For example, if the comparison states are improving and Maine is not improving to the same degree, Maine's performance could be interpreted as in decline. This could lead people to search for an explanation for what caused this decline and to make (un)necessary changes to current programming (Silka 1989) or (un)fairly critique ongoing interventions.

The question of what represents meaningful data for assessing an intervention's effectiveness is complicated by what researchers sometimes refer to as "floor effects" or "ceiling effects." Showing that interventions have been successful can be harder at some points in the performance continuum than at others (Hanushek, Peterson and Woessman 2012). For example, if a state already performs near the top on an education measure, it can be hard to achieve a large percentage increase (a so called ceiling effect). Moreover, with measurements it can be easier to show a decline in top-scoring states than in bottom-scoring states. Often there is much more room in the middle to move up and down and thus interventions can look more effective in that range. In short, we need a set of practices that help people to think about and use data effectively so they do not draw the wrong conclusions.

Achieving the Right Scale in Interventions

As a state with strong local control of education, many of Maine's school efforts take place at the local level. In fact, the majority of municipal taxes go to

funding K-12 schools. Yet, mandates and tests frequently come from the state and the national government. Questions arise here: Should we be trying to intervene and change things at the local level? Are we better off aiming for larger scale if we want to get an impact? There is also a related question: If we start at the local level and obtain the hoped-for effect, how will we achieve local and statewide effects? How will the interventions scale up successfully? Turning again to initiatives in Kalamazoo we see an interesting example of scale. The Kalamazoo Promise is a promise made to all students of the Kalamazoo Public Schools (KPS) that upon graduation from high school they will receive a four-year scholarship to cover tuition and fees at an established list of colleges and universities. This promise is made possible through donations and partnerships in the community and state. Research documents the promising outcomes of this program in KPS schools (Bartik, Eberts and Huang 2010). This program, however, addresses just one school system. How does a state such as Michigan leverage this effort to affect statewide education? Looking to Maine, there is almost the opposite problem. There are numerous programs available to Maine students aimed at providing them with the support and resources to attain a college education (e.g., Alford Challenge, Mitchell Institute), yet it is unlikely that these programs will transform a school district; the programs are restricted by qualifications and/or the number of scholarships available in a given year. Still, these statewide programs have the potential to provide a foundation on which future locally based programs can build to transform the educational success of individual districts or counties.

Finally, how does Maine learn from the rest of the country without falling into the trap of using data that create false comparisons between Maine and other states? How do we contribute to creating an educated populace within the U.S. without losing sight of what works in our state? Again, despite the scale, achieving our educational goals requires us to work together and think about education across contexts.

Examining Our Theories of Action

Many evaluators of interventions probe what is called the "theory of action" that underlies choices

about particular programs. For example, if one is implementing a “Just Say No” program to prevent teen pregnancies, one’s theory of action could be that one assumes that teens do not yet know how to say no and need instructions to learn to do so. That theory for what will reduce teen pregnancy rates could be right, but it could be wrong. Perhaps teens are aware that they should say no, but pregnancies are occurring for other reasons. For education, we need to look at theories of action and see if data are available that support the viability of the planned intervention. Otherwise, a lot might be invested to make little, if any, difference.

Waterville, Maine, recently built a new EduCare facility, where children birth to five years old and their families get the care, support, and education necessary to succeed in kindergarten. EduCare Central Maine serves primarily low-income children in the most rural EduCare facility in the country, providing critical insights on early childhood education in rural communities (www.educarecentralmaine.org). Numerous theories of action are at play here. First, based on what we have read, one of EduCare’s theories of action is that families are a critical component of a child’s education; they need to be involved at all levels; and families may need some assistance in learning how to support their children so they are ready to learn. Second, Educare Central Maine involves a partnership between Educare Central Maine, Waterville Public Schools, Kennebec Valley Community Action Program, the local head start program, William and Joan Alford Foundation, and the Buffett Early Childhood Fund. This partnership operates under the theory of action that we emphasize in this paper, specifically that working together is essential for strengthening the educational prospects of Maine students. Finally, the theory of action at the heart of this program is that quality, holistic early childhood education, particularly for underserved students, is foundational in a child’s education career. Identifying these theories of action gives us a place to begin analyzing the success of the program. In what ways does bringing families into the education process change a child’s education? In what ways does working in partnerships strengthen education in Maine, and in what ways does early childhood education affect a child’s educational career? In addition to guiding data collection, understanding theories

of action also helps explain to other organizations and other initiatives what we are trying to achieve.

Learning to “Row” Together

In addition to attending to and thoughtfully examining theories of action, one must also be aware that those theories may not be shared. For example, some people might believe that increasing the links between education and business will better prepare students for the highly skilled jobs of the future. But if particular theories of action are not shared, we can easily end up doing things that undermine each other’s efforts. In essence, we all need to row the boat in the same direction. If we don’t—if we row in different directions—the “boat” may simply spin around and the effort we invest will result in little return. Hard as this is, it is important to the future. For example, what would happen if Educare Central Maine did not work with the school districts the students would enter for kindergarten, or if they did not work with the other local organizations supporting families? Would the process to kindergarten be hindered? Would resources be wasted? We think so.

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An exemplary case of rowing together to provide multiple pathways for students is the “Many Flags, One Community” initiative in the greater Knox County region of Maine. Three mainland high schools (Oceanside High School, Camden Hills Regional High School, Medomak Valley High School), plus three island high schools (Vinalhaven, North Haven, Isleboro), the Region 8 Career and Technical High School, along with the University of Maine, Kennebec Valley Community

College, and industry training partners (such as the Maine Marine Trades Association), have formed an innovative regional approach to secondary and postsecondary education (www.manyflags.org). The Many Flags/One Community model provides a framework for regional governance and shared services and programs that will result in an integrated and seamless 9-16 education system. Although each of the participating schools is governed by its own board and trustees, the schools have agreed to a regional Many Flags board of directors that will oversee the coordination of secondary and postsecondary programs and services.

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Developing this regional model was not easy. For more than 18 months, representatives from the participating institutions served on a steering committee designed a governance structure, a budgetary process, and a set of operating principles to guide the new regional initiative. Keys to success for This model emphasizes scheduling flexibility, the use of virtual/distance learning tools, and shared regional curriculum models, all with an emphasis on dual credit and early college and technical-training opportunities for every student. The extent to which a fully integrated and seamless secondary and postsecondary system can emerge is dependent upon the willingness of the participating institutions to continue to work together to overcome the natural organizational obstacles that will always arise. Many Flags is an ambitious concept with many “oars in the water.” While the ultimate goal is to develop a campus at the center of the region that would co-locate a new career and technical center along with a higher education center (University of Maine and Community College), and an industry training facility, the near-term goal is to coordinate 9-16 education using existing resources.

The Many Flags model exemplifies the benefits of working together and across education and business institutions to improve access to and success in K-16 education; it is a model that offers new hope for building local and regional partnerships that may have statewide benefits.

Good Ideas Are Not Enough

Finally, we must continue to remember that while it is important to constantly be on the look out for good ideas that may improve the educational prospects for Maine's youth, good ideas without action will not be enough. Implementation and evaluation are even harder than coming up with the ideas in the first place. The ideas should be drawn, at least in part, from research and be supported by data. Further, they should be tested with a tough eye to results and not simply taken at face value. The Mitchell Institute provides an excellent example of data-driven programming. Recognizing changing demographics and industry in Maine, along with Maine's low college attainment and college graduation rates, the Mitchell Institute established selection criteria (e.g., financial need and academic promise) and programming (mentoring, community service projects, network) to increase college-education attainment and improve the likelihood that students will remain in Maine after graduation. After instituting these criteria and rules, they further track their students. This allows them to understand who they are reaching, if they are meeting their goals, and most importantly, the effects of their programs on individuals and communities in Maine. If Maine develops a culture of innovation and rigorous evaluation, we will succeed. Things do and can change.

CONCLUSION

We authors came together because of collaborations on other topics, but quickly began to appreciate each other's experience and to see how much we could learn from each other about educational challenges. Our discussions on education led to the discovery that we had been working on parallel tracks with regard to education. We had each been talking to others about how the educational prospects of Maine's youth and adults might be improved, but we had been

discussing these issues with people who shared similar backgrounds and assumptions. Through collaboration, we found common ground on educational questions and identified a set of challenges that we believe should be explored and addressed to move education in Maine forward. This essay offered nine recommendations for working together to address the challenges associated with issues of power, interdisciplinary networks, complex data-driven approaches to education, scale, and partnerships.

Maine's future depends on the strength of the state's educational system, and fortunately much of the infrastructure for building a bright educational future for students in Maine is already in place. Innovators, philanthropists, committed public and private institutions, and numerous partnerships are actively invested in strengthening the education system. Maine is blessed with groups committed to educational improvement (the Maine STEM Collaborative, the Governor's STEM Council, Great Schools Partnership, the Maine Center for Research on STEM, to name just a few), helping Maine become a leader in educational innovation through such initiatives as the laptop program and the RISE Center. Yet, we face the challenge of how to mobilize integration among these disparate activities to ensure that we are indeed rowing together. We offer these nine recommendations for bringing together diverse perspectives and approaches in order to strengthen Maine's education system. These recommendations are offered by four people from diverse backgrounds who each grabbed a paddle to guide a shared canoe in search of ways to tap into the strength and innovation already flowing through the state of Maine. 🐉

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Chris Rector served two terms in the Maine Senate and three terms in the Maine House of Representatives. A career entrepreneur, his public policy interests focus on economic development, microbusiness, the creative

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