Addressing Barriers To Economic Development In Aroostook County

– March 2016 –
Table of Contents

Executive Summary ................................................................. 1
Major Findings ........................................................................ 1
Context and Population Trends .............................................. 3
Educational Attainment Trends ............................................... 4
Migration Patterns ................................................................... 7
Rural Economic Development ................................................. 8
Conclusion ................................................................................ 12
Sources .................................................................................... 13
About Aroostook Aspirations Initiative ..................................... 15
About Plimpton Research .......................................................... 15

“A special thanks to our sustaining strategic partners

“...the goals and aspirations of our young people are tied to the future prosperity of Aroostook County.”

~ Sandy Gauvin, Founder, Aroostook Aspirations Initiative
Executive Summary

Aroostook County leaders are rightfully concerned about outmigration, particularly among youth. Employers worry about who will replace the region’s aging workforce, as economic developers work to diversify the area’s employment base in the wake of changes in the region’s traditional industries of forest products and agriculture. Aroostook has many unique strengths to build on. By making strategic investments to capitalize on these strengths and to bolster already growing educational attainment and incomes, Maine’s largest county can ensure its economic health in the coming years and decades.

This report documents recent trends in educational attainment and economic indicators in Aroostook County compared with Maine and the nation. It provides context from studies within the County and around the state and the country to suggest how County leaders can invest to ensure an economically vibrant future.

Major Findings

Context and Population Trends
• Aroostook, the largest county in the eastern United States, makes up almost 20% of Maine’s land area. While the nation’s population has grown by 30% since 1970, Maine’s has increased by only 8%, and Aroostook County’s has declined by 20%.
• Aroostook County is losing its young population faster than Maine and many other rural counties in the Northeast. Only 26% of the population in Aroostook today is younger than age 25, compared with 29% in Maine and 34% in the U.S.
• Aroostook contains five higher education institutions, which provide plentiful options for Aroostook residents to earn a college degree without leaving home.
• Aroostook Aspirations Initiative was founded in 2013 to address youth outmigration and the region’s growing need for an educated workforce. AAI awards a scholarship to a graduating senior from each of the County’s sixteen high schools every year, for students who remain in the County for college, and offers leadership events and career-enhancing support programs. Its mission is to support the educational and career goals of County youth, and to mobilize the future prosperity of the County.

Educational Attainment, Careers, and Economic Indicators
• More than one-quarter (27%) of Aroostook’s 51,313 adults aged 25 and older hold an associate’s or higher degree, and another 21% have some college but no degree.
• Since 2005, the proportion of Aroostook adults with an associate’s or higher degree grew by 10%, but the proportion with a bachelor’s or higher degree has remained stagnant between 16% and 17%.
• High school graduation, college enrollment, and college completion rates in Aroostook are higher than the Maine averages.
A survey of Aroostook high school and college students conducted about a decade ago found that Aroostook youth have high educational aspirations, and that while the majority would like to leave the County for college, a strong majority of 75% wanted to either stay in the County or move back at some point in the future.

The same study found that health services, education, and business/professional services were the most common types of jobs that Aroostook high school and college students were seeking, and that many college-bound youth were interested in starting their own businesses (Colgan and Andrews).

In Aroostook, per-capita income grew by 67% from 1995 to 2005, then the rate of growth over the past decade slowed to 27%. Over the past decade in particular, Aroostook’s income growth has been closely tied to college degree attainment growth.

If the trends in educational attainment and personal income in Aroostook from 2005 to 2014 continue at the same rates for the next nine years, 29% of adults will have an associate’s or higher degree by 2023, but the proportion with a bachelor’s or higher degree will remain around 17%.

Rural Economic Development

A recent national study of rural U.S. counties found that the minority that have not lost population since 2010 are primarily located in scenic or energy boom regions, while the 1,300 rural counties losing population are widespread in regions that depend on farming, manufacturing, or resource extraction (USDA).

Nebraska’s Center for Rural Affairs argues that economic opportunity—paired with “quality of place” or less tangible aspects of being a desirable place to live—is essential to retaining and attracting people to rural communities. They encourage rural communities to focus economic development investments on building on their existing strengths and ensuring that they provide five key elements: strong small schools, social capital, high speed internet service, access to nature, and a quality environment.

Researchers at the Southern Rural Development Center studied economic growth of metropolitan and non-metro areas across the U.S. from 1980 to 2000, and concluded that “job opportunities for the highly educated are becoming more available in rural areas. The key for sustainable economic growth…is to raise the quality of local labor to handle new technologies. Non-metro communities must find the means to increase the share of college-educated workers in their labor force” (Barkley et al).

A recent synthesis of national data on postsecondary educational attainment similarly concluded that “in order to thrive, rural communities must be able to compete for the development of new high-skill jobs to replace the loss of low-skill work…Growing the number of rural residents with postsecondary education is a necessary condition” (Schiess and Rotherham).

Implications

Investing in Aroostook’s young people—ensuring that they can go to college, complete degrees, and find good-paying work in the area and in their desired career fields—paired with efforts to diversify the economy and build on other existing strengths is a promising strategy for building the County’s economic prosperity.

Aroostook Aspirations Initiative can address stalled bachelor’s degree attainment in the County. AAI’s goal of expanding its scholarship to serve more students and its approach of tying scholarship aid with career-building support programs are targeted squarely to needs Aroostook must address.
Known in Maine as “The County,” Aroostook County is the largest and northern-most county in the eastern United States. Aroostook is known for forestry, agricultural production—particularly potatoes and broccoli—and Acadian culture. The County has strong ties with its neighboring Canadian provinces of Quebec and New Brunswick, while it is remote from the rest of Maine. The stereotypical Aroostook resident is resilient, strong-willed, and hard-working.

Aroostook has several unusual characteristics for a rural county. It has Maine’s highest proportion of Native Americans (1.7% in 2010), and the highest proportion of foreign-born residents (4.7%). Most importantly for this report, there are five higher education institutions and one higher education center located in Aroostook: Husson University, Northern Maine Community College, University of Maine campuses in Fort Kent and Presque Isle, and the Houlton Higher Education Center. These institutions make it possible for Aroostook residents to earn a college degree without leaving home. Several of the colleges have notable partnerships with local schools to provide early college and dual enrollment credit-bearing courses to Aroostook high school students at low or no cost.

Today, a little less than one half of one percent of the nation’s population lives in Maine, and about 5% of Mainers live in Aroostook County. Aroostook, with an area of 6,829 square miles, makes up almost 20% of Maine’s 35,385 square miles. While the nation’s population has grown by 30% since 1970, Maine’s has increased by only 8%, and Aroostook County’s has declined by 20%.

Aroostook County’s population was at its highest—over 106,000 people—in 1960, and has since dropped by about one-third to 69,447 people in 2014. Colgan and Andrews reported in 2004 that Aroostook County’s population loss from 1960 to 2000 was the largest of any county in New England, and that the population under age 30 declined by more than half from 1970 to 2000. Today, only 26% of Aroostook’s population is under age 25, compared with 29% in Maine and 34% nationwide.

The list of current concerns in Aroostook is topped by the aging workforce, and uncertainty about whether enough qualified replacement workers will be available. This is tied to Aroostook’s perennial concern about losing young people to other parts of Maine and other states. At the same time, County leaders are working to diversify the economic base, attract businesses and employers to the area, and encourage and support home-grown business creation (Lynds).

Aroostook County has several promising organizations and projects, including the Aroostook Aspirations Initiative. Founded in 2013 in order to address the demographic and economic issues discussed in this report, AAI provides a competitive $2,000 scholarship award to a graduating senior from each of the County’s sixteen high schools every year. Students must remain in the County for college in order to be eligible for scholarship support. AAI’s mission is to support the educational and career goals of County youth, and to mobilize the future prosperity of the County. In addition to scholarship support, AAI offers leadership events and career-enhancing support programs such as an internship hub, entrepreneurship training, and mentoring from area leaders. To date, 96% of AAI scholarship recipients have graduated from college, and 75% have stayed in Aroostook after college. AAI’s current goal is to significantly expand the scholarship program in order to further contribute to a better educated local workforce, enable more young people to stay in the County, support future business leaders, and ultimately contribute to economically vibrant local communities.
Educational Attainment Trends

In 2014, just over one-quarter (27%) of Aroostook County’s 51,313 adults over age 24 held an associate’s or higher degree, and 17% held a bachelor’s or higher degree. Aroostook is home to 10,274 adults with some college education but no degree, almost as many as the 11,032 adults with an associate’s or bachelor’s degree.

While college educational attainment in the County is more than ten points below the Maine average, it grew steadily from 1990 to 2005. Since 2005, the proportion of Aroostook adults with an associate’s or higher degree grew from 24% to 26.5%, but the proportion with a bachelor’s or higher degree has remained stagnant between 16% and 17%.
High school graduation rates in Aroostook are higher than in Maine as a whole, averaging 88% in 2013 compared with a state average of 86% (Maine Department of Education). And unlike most rural superintendent regions, Aroostook has one of Maine’s highest rates of high school graduates enrolling in college: 64% in 2014, compared with a Maine average of 62%. Persistence to the second year of college, however, is lower among Aroostook high school graduates than all other superintendent regions except Washington. For example, only 78% of Aroostook’s college enrollees from the classes of 2011 and 2012 returned for the third semester of college, compared with a Maine average of 83%. Among students who enroll in college within two years after high school graduation, 58% of Aroostook residents complete a degree within six years, higher than the state average of 57%, but lower than the Cumberland region’s rate of 62%, as shown in the following charts.

“**The future of our region is our youth. Our duty as business leaders is to pursue ways that will entice them to stay in the County and grow their future here. Aroostook Aspiration’s incentive certainly personifies this philosophy. WAGM is proud to support Aroostook Aspiration as they encourage and guide our youth on their journey into adulthood and showing them that they do not need to leave the area to make a living and raise a family.”**

~ Kelly Landeen, Vice President and General Manager, WAGM-TV
Colgan and Andrews conducted an extensive survey of Aroostook County high school and college students in 2004. They learned that the vast majority of students planned to continue their education after high school, and that most would leave Aroostook for college “if there were no barriers in the way.” The primary reasons students cited for wanting to leave Aroostook were finding more job opportunities (88%) and the desire to live in a different location (77%). Three-quarters (75%) of students surveyed, however, indicated that they would like to stay in or return to Aroostook at some point in the future. In terms of educational expectations, 70% of the students expected to complete a bachelor’s degree and another 12% expected to earn a community college degree, demonstrating the high educational aspirations of County students.

“Aroostook County is a place where regardless of the time I am away, it is always home. It instills in each us a sense of important values that we come to appreciate more and more with time.”

~ Dana Connors, President, Maine State Chamber of Commerce
Migration Patterns

Population trends are influenced by both natural change—the number of births and deaths—and migration. Colgan and Andrews did an in-depth analysis of Internal Revenue Service data to examine migration trends to and from Aroostook County from 1995 to 2002. They found that a majority of residents moving out of Aroostook County left Maine, but 48% stayed in Maine. Overall, 6,482 Aroostook county residents moved to a different Maine county between 1995 and 2002, and 6,916 moved to a different state in the U.S. Among Aroostook out-migrants who remained in Maine, Penobscot County was the most popular destination, followed by Cumberland and York Counties.

From 2000 to 2010, a more recent analysis of IRS data shows that a pattern of net in-migration to Aroostook County from 2001 to 2007 has reversed, and the County experienced a net out-migration of about 500 people from 2007 to 2010 (Mattingly and Schaefer).

Nationwide, the rural population increased from natural change by 230,000 from 2010 to 2014, but this increase did not make up for net out-migration of 346,000 people. Aroostook and all of Maine’s other rural counties lost population during those years, but about 700 of the nation’s rural counties gained population. “These counties are concentrated in scenic areas such as the Rocky Mountains or southern Appalachia, or in energy boom regions such as in the northern Great Plains. The 1,300 rural counties losing population since 2010 are widespread in regions dependent on farming, manufacturing, or resource extraction” (USDA). It seems that natural beauty, tourism, and a diversified economic and employment base are key factors that help rural counties keep and attract more young people.

High School and College Students

A national study found that higher family incomes and academic test scores are the factors most strongly correlated with students leaving their home states to attend college. Students from the Northeast region of the U.S. are the most likely to out-migrate for college (Sapra). In recent years, Maine high school graduates have been staying in state for college at higher rates. Statewide, more than two-thirds—71%—of college-going high school graduates enrolled in a Maine institution in 2014, up from 67% in 2006 and 46% on 1995 (Trostel 2002). The proportion of college-bound students choosing a Maine institution varies by region, with a low of 53% of Cumberland high school graduates choosing Maine institutions and a high of 94% of Washington County college enrollees staying in Maine. Aroostook’s proportion of college enrollees staying in Maine, 91%, is the second-highest (Mitchell Institute).

Rural areas may be more likely to lose college students to other regions and states after they finish college. “Interstate migration of college graduates can cause some state and local investments in college students to end up creating fiscal benefits in other states (of course, the same can be said for state and local investments in primary and secondary students). A state’s production of college graduates does not necessarily have corresponding impact on the state’s college attainment. Thus, the fiscal return on a state’s investment in higher education is reduced by the extent of the net interstate migration of its college graduates” (Trostel 2007). Nationwide, the average state loses 7% of the people who earned bachelor’s degrees to other states.

The Colgan and Andrews survey found that health services, education, and business/professional services were the most common types of jobs that Aroostook high school and college students were seeking, and that many college-bound youth were interested in starting their own business. The authors concluded that “The long-term answer to youth out-migration lies in responding to…the desire of youth to get higher education and their expectation that they will use that education to build careers with higher incomes. This speaks well to the aspirations of Aroostook youth. The challenge is to provide an economy that meets those aspirations.”
Rural Economic Development

The disparity in educational attainment between Aroostook County and Maine as a whole is reflected across the nation; educational attainment in rural areas is significantly lower than in urban and metropolitan communities. A recent analysis of national data on postsecondary educational opportunity points out that “This gap has enormous implications for the economic health of rural communities themselves. The shift in the U.S. economy away from lower-skilled work is in some ways more acute in rural communities, where manufacturing has become increasingly capital-intensive — moving away from the employment of low-skilled labor — and where agricultural production has seen a comparable evolution through technology. The impact of this phenomenon is twofold: it reduces the number of jobs available in existing rural industries to individuals without advanced education beyond high school, and it disadvantages rural communities in attracting investment from the growing proportion of industries requiring a higher-skilled workforce.” The authors conclude that “in order to thrive, rural communities must be able to compete for the development of new high-skill jobs to replace the loss of low-skill work… Growing the number of rural residents with postsecondary education is a necessary condition” (Schiess and Rotherham).

The Center for Rural Affairs, headquartered in Nebraska, argues that economic opportunity — paired with “quality of place” or less tangible aspects of being a desirable place to live — is essential to retaining and attracting people to rural communities. They encourage rural communities to focus economic development investments on building on their existing strengths and ensuring that they provide five key elements: strong small schools, social capital, high-speed internet service, access to nature, and a quality environment. “Making our communities better places to live is one of the critical factors in enhancing their future,” they contend.

A recent study of seven successful small towns and cities across the U.S. reaches similar conclusions. Common strategies in those communities include: identifying and building on existing assets such as natural beauty and outdoor recreation; engaging all members of the community to plan for the future; capitalizing on outside funding; creating incentives for redevelopment and encouraging investment; encouraging cooperation within the community and across the region; and supporting a clean and healthy environment (US EPA).

The Impacts of Educational Attainment

Educational attainment is strongly correlated with a range of economic indicators. A recent study of the nation’s 50 largest metropolitan areas found that adding one year of college to the average educational attainment of a regional workforce increases GDP per capita by 17.4%, and wages per worker by 8.4% (DeVol et al).

Examining county economic growth and development from 1980 to 2000, another study found that, in non-metro areas, a five percentage point increase in adults attending college resulted in average increases of 3.5% ($436) in per capita income and 5.5% (150 additional employees) in employment growth. The authors conclude, “Job opportunities for the highly educated are becoming more available in rural areas. The key for sustainable economic growth… is to raise the quality of local labor to handle new technologies. Nonmetro communities must find the means to increase the share of college-educated workers in their labor force” (Barkley et al.).

Education also mitigates economic hardship for individuals and communities. In Aroostook, adults without a high school diploma are nearly twice as likely to live in poverty as those with a diploma, and adults with only a high school diploma are more than three times as likely as those with a bachelor’s degree to be poor. The differences in unemployment rates by educational attainment are also large, as shown in the following chart.
Personal Income
As discussed above, a primary benefit to individuals and communities of increased educational attainment is higher earnings and income. Per-capita income is reported annually by the U.S. Census Bureau, and these data allow for tracking and comparisons over time down to the county and metro area levels. In Aroostook, per-capita income grew by 67% from 1995 to 2005, then the rate of growth over the past decade slowed to 27%. In the state of Maine, per-capita income grew by 58% from 1995 to 2005 and 26% from 2005 to 2014. Aroostook’s rate of growth in per-capita income over the past decade in particular has been very closely tied to the growth in college degree attainment, as shown in the following chart.
Public Revenues
A more educated population means both significantly higher public revenues and lower public costs. College-educated adults pay about one-third more than those with high school diplomas in property, sales and excise taxes, on average. “Lifetime total state and local taxes increase by an average of nearly $55,000 per associate’s degree, more than $118,000 per bachelor’s degree, more than $62,000 per master’s degree, and more than $137,000 for each professional and doctorate degree” (Trostel).

Student Debt
One potential downside of college education is student loan debt. As college costs have grown faster than family resources, there has been a marked growth in student debt levels. The Federal Reserve Bank of Boston recently produced a map of student debt levels by county across New England. As shown below, about 40% of young adults in Aroostook have student debt, a higher rate than Maine’s other rural counties with the exception of Penobscot, but lower than the southern counties. The average loan amount in Aroostook, $18,000, is lower than most other counties, perhaps because many students in Aroostook save on costs and borrow less by attending one of the institutions within the County.

Source: Federal Reserve Bank of Boston 2015
Spillover Effects
Increased educational attainment has other positive “spillover effects” that are difficult to quantify in strict economic terms and that county-level statistics do not address, but that provide additional benefits to the states, counties, and communities where college-educated adults live and work. These effects are not quantified in the studies reviewed here. Examples include job creation, increased consumption, and workforce flexibility (Holman), as well as “increases in productivity among all workers due to the sharing of knowledge and skills across workers and from shifts in the industrial mix to knowledge-based activities. These productivity gains translate into higher output and earnings for all workers” (Hoffman and Rex). Growing up in rural counties like Aroostook is associated with many hands-on skills that are particularly valuable in the knowledge-based economy when paired with college education.

Projections
From 2005 to 2014, the proportion of Aroostook adults with an associate’s or higher degree grew by 2.4 points or 10%, slightly faster than the Maine average (8%), and per-capita income in Aroostook also grew slightly faster than in Maine as a whole. If these trends continue at the same rate for the next nine years, 29% of Aroostook adults will have an associate’s or higher degree by 2023, and per-capita income will grow to $45,569, as shown in the following chart.

Source: Plimpton Research calculations with data from the American Community Survey, U.S. Census Bureau
The recent rates of increase in educational attainment and per-capita income in Aroostook, however, would have to accelerate significantly in order to get the County closer to the state averages. And there is no guarantee that historical rates of growth will continue. Finally, the lack of growth in bachelor’s degree attainment since 2005 is of concern for Aroostook. Programs like Aroostook Aspirations Initiative, with its approach of helping students who stay in the County pay for college and connecting them with job opportunities in the region, can jump-start this growth, particularly if it can expand to serve more eligible students.

“\textit{At Cary Medical Center we understand that the children are our future. This is particularly true in health care with the need for nurses, doctors, and other health care specialists in great demand. We welcome the opportunity to support Aroostook Aspirations, a program that helps educate our young people, right here in the County and provides internships to acquaint students with health career opportunities.}”

~ Kris Doody, CEO, Cary Medical Center

\textbf{Conclusion}

Aroostook County—with its unique geographic location, strong educational institutions, and high-aspiring youth—is well-positioned with many strengths that other rural communities lack. It also faces the challenges of diversifying its economic base, stemming the tide of population outmigration, and addressing an aging workforce. Investing more to ensure that Aroostook young people can go to college and complete their degrees—and to help them connect with local career opportunities—is a promising approach to maintain and improve the County’s educational attainment and income growth. Increasing college attainment rates and keeping educated young people in the County can both address the needs of local employers for more skilled workers and contribute to more new business start-ups and innovation in the County. A larger, more highly-skilled workforce, with higher rates of college degree attainment, higher incomes, and lower poverty and unemployment, is essential to Aroostook’s continued economic health and growth.
Sources


U.S. Environmental Protection Agency (May 2015), How Small Towns and Cities Can Use Local Assets to Rebuild their Economies: Lessons from Successful Places. www.epa.gov/smartgrowth
About Aroostook Aspirations Initiative

Founders Ray and Sandy Gauvin launched the Aroostook Aspirations Initiative program in 2013. Funded initially by the Gauvin Fund, Aroostook Aspirations Initiative and its allies are dedicated to helping the young students of Aroostook County, Maine, realize their dreams of attending and completing college and finding successful careers. The program is designed to help stem the outmigration of youth from the County and boost the Northern Maine economy.

AAI works extensively with businesses, superintendents, principals, guidance directors, and teachers to ensure that all students are aware of college opportunities in Aroostook County. Each year, Aroostook Aspirations Initiative awards college scholarships and grants to students across the county to help them pay for college expenses. In addition, AAI has created several support programs to ensure successful college completion for the scholars. Aroostook Aspirations Initiative is dedicated to the education, inspiration and leadership of the future generations of Aroostook County youth.

About Plimpton Research

Based in South Portland, Maine, Plimpton Research specializes in collaborative research design, quantitative and qualitative data collection, analysis, and reporting. Lisa Plimpton brings 20 years of policy-oriented research experience to her consulting practice. Skilled at collecting data and combining quantitative and qualitative analysis to provide context, insight, and direction, Lisa has a knack for translating data into meaningful information and communicating findings clearly to broad audiences. Plimpton Research offers a range of research consulting services to Maine nonprofit, public, and education organizations of all sizes.

Aroostook Aspirations Initiatives commissioned Plimpton Research to research and author this report. Lisa Plimpton conducted the data collection, analysis, and literature review. Our staffs worked closely together to shape the narrative and the final product.