

**From:** [Townsend, Erle](#)  
**To:** [Beyer, Stacie R](#)  
**Subject:** RE: Windpower Expedited Area Petitions\_Substantive Reviews  
**Date:** Friday, June 10, 2016 4:00:02 PM  
**Attachments:** [Maine Wind Energy Development May 2016.xlsx](#)

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Hi Stacie

Attached is a spreadsheet I've prepared that I hope has all the information you require for your reviews. If there is a category of information that I've overlooked, please feel free to follow up on it and I'll try to round it up for you.

Not included in this list is the Aqua Ventis project off Monhegan, which is likely to be located in Monhegan Island Plantation. There is an existing General Permit for a one-eighth scale turbine, but that demonstration project ended up being constructed under a different permit off Castine as a seasonal project. The new two-turbine, 12MW project has not been formally proposed yet, and will not fit under the existing permit. I mention the project because it has been in the news, and you might have wondered why it wasn't included.

Thanks and have a terrific weekend!

Erle Townsend  
Maine Department of Environmental Protection  
(207) 287-6115

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**From:** Beyer, Stacie R  
**Sent:** Friday, June 10, 2016 9:24 AM  
**To:** Townsend, Erle  
**Subject:** RE: Windpower Expedited Area Petitions\_Substantive Reviews

Good morning, Erle.

I should be able to get the information I need on the LURC/LUPC projects that you have listed below.

Thank you.

Stacie R. Beyer  
Chief Planner  
Land Use Planning Commission  
106 Hogan Road, Suite 8  
Bangor, ME 04401  
207-941-4593

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**From:** Townsend, Erle  
**Sent:** Wednesday, June 08, 2016 3:51 PM  
**To:** Beyer, Stacie R  
**Subject:** RE: Windpower Expedited Area Petitions\_Substantive Reviews

Hi Stacie

Do you need me to provide information on the LURC/LUPC projects (Bull Hill, the Kibbys, and the Stetsons)?

Thank you

Erle Townsend  
Maine Department of Environmental Protection  
(207) 287-6115

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**From:** Beyer, Stacie R  
**Sent:** Tuesday, May 24, 2016 9:15 AM  
**To:** Townsend, Erle  
**Cc:** Bergeron, Mark  
**Subject:** Windpower Expedited Area Petitions\_Substantive Reviews

Erle,

As we discussed late in March, the Land Use Planning Commission is initiating substantive reviews of petitions for removal of specified places from the expedited permitting area for wind energy development.

If you are interested in more details on the petitions for removal or substantive reviews, we have information for both available in a process overview document and on our website:

[Process Overview](#)

[Windpower Expedited Area Petitions](#)

Title 35-A, section 3453-A(3) contains two statutory criteria; both must be met during the substantive review process to remove a place from the expedited area:

*Criterion A. The proposed removal will not have an unreasonable adverse effect on the State's ability to meet the state goals for wind energy development in section 3404, subsection 2, paragraph C.*

*Criterion B. The proposed removal is consistent with the principal values and the goals in the comprehensive land use plan adopted by the Maine Land Use Planning Commission pursuant to Title 12, section 685-C.*

In making a determination on these criteria, the Commission will consider all relevant information in the rulemaking record.

During our March discussion, you indicated that the wind energy development list that the Department of Environmental Protection had been maintaining was not current, but the Department could provide the LUPC with an updated list, if we sent your agency a written request. The LUPC believes that an updated list from the Department will be important to the Commission in making its determinations on the relevant criteria, particularly Criterion A.

By way of this e-mail, the LUPC requests an updated wind energy development list from the Department. The LUPC is interested in receiving information on existing wind energy development permitted or currently accepted as complete for processing and under review, including but not limited to the status of the development such as installed, under construction, pending appeal, permitted, or under review; the existing or proposed capacity; the startup date as applicable; and the technology deployed or proposed. Please provide a response to this request by ***June 24, 2016***.

If you have any questions about this request or would like more information about the substantive review process, including upcoming public hearings related to this process, please feel free to contact me.

Thank you.

Stacie R. Beyer  
Chief Planner, Acting Capacity  
Land Use Planning Commission  
106 Hogan Road, Suite 8  
Bangor, ME 04401  
207-941-4593

Wind Energy Development May 2016

Development Name	Developer/Owner	Town(s) with Generating Facilities	Town(s) with Associated Facilities	Status	Capacity	Startup Date	Turbine Type	Number of Turbines	Notes
Mars Hill Windpower Project	First Wind	Mars Hill (Aroostook)	Mars Hill, Aroostook County	Operational	42MW	3/27/2007	GE 1.5MW	28	Predates WEA
Rollins Wind Project	First Wind	Burlington, Lee, Lincoln, Winn (Penobscot)	Burlington, Lee, Lincoln, Mattawamkeag, Winn (Penobscot)	Operational	60MW	7/26/2011	GE 1.5MW	40	
Record Hill Wind	Independence Wind	Roxbury (Oxford)	Roxbury (Oxford)	Operational	50.6MW	12/1/2011	Seimens 2.3MW	22	
Spruce Mountain Wind	Patriot Renewables	Woodstock (Oxford)	Woodstock (Oxford)	Operational	20MW	12/1/2011	Gamesa 2.0MW	10	
Saddleback Ridge Wind	Saddleback Ridge Wind, LLC (Patriot Renewables)	Carthage (Franklin)	Canton, Carthage, Dixfield (Franklin, Oxford)	Operational	33MW	12/1/2014	GE 2.75MW	12	
Oakfield Wind	Evergreen Wind Power II, LLC (First Wind)	Oakfield, T4R3 WELS Twp (Aroostook)	Chester, Glenwood Plt, Linneus, Macwahoc Plt, Mattawamkeag, Molunkus Twp, North Yarmouth Academy Grant Twp, Oakfield, Reed Plt, T3R3 WELS Twp, T4R3 WELS Twp, Woodville (Aroostook, Penobscot)	Operational	148MW	September, 2015	Vestas 3.0MW	148	Turbine capacity in permit is 3.0MW, development website claims 148MW for 48 turbines.
Canton Mountain Wind	Canton Mountain Wind, LLC (Patriot Renewables)	Canton (Oxford)	Canton, Dixfield (Oxford)	Permitted	22.8MW	Target is 2016	GE 2.85MW	8	
Passadumkeag Windpark	Passadumkeag Windpark LLC (Noble Environmental Power LLC)	Grand Falls Twp (Penobscot)	Grand Falls Twp, Greenbush, Greenfield Twp, Summit Mountain Twp (Penobscot)	Permitted	42MW	Target unknown	Vestas 3.0MW	14	
Bingham Wind Project	Blue Sky West, LLC & Blue Sky West II, LLC (First Wind)	Bingham, Kingsbury Plt, Mayfield Twp (Piscataquis, Somerset)	Abbott, Bingham, Kingsbury Plt, Parkman, Mayfield Twp (Piscataquis, Somerset)	Under Construction	186MW	Fall 2016	Vestas 3.0MW	62	
Number Nine Wind Farm	Number Nine Wind Farm, LLC (Iberdrola)	E Twp, Saint Croix Twp, T8R3 WELS Twp, T9R3 WELS Twp, T10R3 WELS Twp, TDR2 WELS Twp (Aroostook)	E Twp, Forkstown Twp, Hammond, Haynesville, Hodgdon, Houlton, Linneus, Littleton, Saint Croix Twp, TAR2 WELS Twp, TCR2 WELS Twp, TDR2 WELS Twp, T8R3 WELS Twp, T9R3 WELS Twp, T10R3 WELS Twp (Aroostook)	Under Review	250MW	Target unknown	Gamesa 2.0MW (17); Gamesa 2.1MW (102)	119	Review is currently "on hold" pending further information from the applicant, possibly affecting additional towns.
Hancock Wind	Hancock Wind LLC (First Wind)	T16 MD Twp, T22 MD Twp (Hancock)	Aurora, Osborn, T16 MD Twp, T22 MD Twp (Hancock)	Under Construction	56.1MW	Fall 2016	Vestas 3.3MW	17	
Fox Islands Wind	Fox Islands Wind, LLC	Vinalhaven (Knox)	Vinalhaven (Knox)	Operational	4.5MW	12/1/2009	GE 1.5MW	3	Small-scale wind certification
Pisgah Mountain Windpower	Pisgah Mountain LLC	Clifton (Penobscot)	Clifton (Penobscot)	Under Construction	9MW	Target unknown	Vestas 1.8MW	5	Small-scale wind certification
Beaver Ridge Wind Project	Beaver Ridge LLC (Patriot Renewables)	Freedom (Waldo)	Freedom (Waldo)	Operational	4.5MW	11/1/2008	GE 1.5MW	3	Not permitted as a wind project. Stormwater permit only.

**From:** [Mohney, Kirk](#)  
**To:** [Beyer, Stacie R](#)  
**Subject:** RE: MHPC# 0779-16 Milton Township; petition for removal of area from expedited permitting area for wind energy developments  
**Date:** Thursday, June 16, 2016 8:34:16 AM

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There is limited data from a mid-1980s survey of Oxford County, and one property that is not eligible for listing in the National Register has been entered in CARMA.

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**From:** Beyer, Stacie R  
**Sent:** Wednesday, June 15, 2016 3:42 PM  
**To:** Reed, Robin K  
**Cc:** Mohney, Kirk  
**Subject:** RE: MHPC# 0779-16 Milton Township; petition for removal of area from expedited permitting area for wind energy developments

Robin,

Thank you for providing comments on the petition for removal of Milton Township from the expedited permitting area for wind energy development and for discussing your comments with me this afternoon. During the call, we discussed what information may be available on archeological and historic properties in the Milton area. Can you confirm whether or not there have been any surveys conducted for archaeological or historic properties in Milton? If the MHPC is not aware of any surveys that have been conducted in the area that will be helpful information to the Commission.

If you have any questions about this request for clarification, please feel free to contact me.

Thanks again,

Stacie R. Beyer  
Chief Planner  
Land Use Planning Commission  
106 Hogan Road, Suite 8  
Bangor, ME 04401  
207-941-4593

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**From:** Reed, Robin K  
**Sent:** Thursday, June 02, 2016 3:49 PM  
**To:** Beyer, Stacie R  
**Cc:** Mohney, Kirk  
**Subject:** MHPC# 0779-16 Milton Township; petition for removal of area from expedited permitting area for wind energy developments

**MHPC# 0779-16 Milton Township; petition for removal of area from expedited permitting area for wind energy developments**

Stacie:

Based on our review of the submitted materials, there may be historic properties present within Milton Township. However, our office has no concerns about this petition.

Thank you for the opportunity to review this petition.

Robin K. Reed  
Maine Historic Preservation Commission  
55 Capitol Street  
65 State House Station  
Augusta, ME 04333  
phone: 207-287-2132 ext. 1  
fax: 207-287-2335  
[robin.k.reed@maine.gov](mailto:robin.k.reed@maine.gov)  
<http://www.maine.gov/mhpc>

**From:** [Reed, Robin K](#)  
**To:** [Mohney, Kirk](#); [Beyer, Stacie R](#)  
**Subject:** RE: MHPC# 0779-16 Milton Township; petition for removal of area from expedited permitting area for wind energy developments  
**Date:** Tuesday, June 21, 2016 1:03:26 PM

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Stacie:

Regarding archaeology in the township, there are no known archaeological sites. There has never been any survey work.

Robin K. Reed  
Maine Historic Preservation Commission

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**From:** Mohney, Kirk  
**Sent:** Thursday, June 16, 2016 8:37 AM  
**To:** Beyer, Stacie R; Reed, Robin K  
**Subject:** RE: MHPC# 0779-16 Milton Township; petition for removal of area from expedited permitting area for wind energy developments

Stacie,

The message I just sent to you pertains to architectural resources only. Robin will respond separately on the matter of archaeology.

Kirk

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**From:** Beyer, Stacie R  
**Sent:** Wednesday, June 15, 2016 3:42 PM  
**To:** Reed, Robin K  
**Cc:** Mohney, Kirk  
**Subject:** RE: MHPC# 0779-16 Milton Township; petition for removal of area from expedited permitting area for wind energy developments

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If you have any questions about this request for clarification, please feel free to contact me.

Thanks again,

Stacie R. Beyer  
Chief Planner  
Land Use Planning Commission  
106 Hogan Road, Suite 8  
Bangor, ME 04401  
207-941-4593

---

**From:** Reed, Robin K  
**Sent:** Thursday, June 02, 2016 3:49 PM  
**To:** Beyer, Stacie R  
**Cc:** Mohny, Kirk  
**Subject:** MHPC# 0779-16 Milton Township; petition for removal of area from expedited permitting area for wind energy developments

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Thank you for the opportunity to review this petition.

Robin K. Reed  
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65 State House Station  
Augusta, ME 04333  
phone: 207-287-2132 ext. 1  
fax: 207-287-2335  
[robin.k.reed@maine.gov](mailto:robin.k.reed@maine.gov)  
<http://www.maine.gov/mhpc>



STATE OF MAINE  
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY  
BUREAU OF PARKS & LANDS  
22 STATE HOUSE STATION  
AUGUSTA, MAINE 04333

PAUL R. LEPAGE  
GOVERNOR

WALTER E. WHITCOMB  
COMMISSIONER

June 24, 2016

Stacie R. Beyer  
Chief Planner, Acting Capacity  
Land Use Planning Commission  
106 Hogan Road, Suite 8  
Bangor, ME 04401

Dear Stacie,

I am providing my prehearing comments associated with the petition to remove Milton Township from the Expedited Permitting Area for Wind Development. If you need clarification, more information, or different types of information, please let me know.

**Comments:**

*Note: this description of recreation resources and uses is general in nature and is intended to provide an overview of the general recreation character of the region in which the township of Milton is located. It does not indicate that all or some of the sites referenced would be visually impacted by potential windpower development. Furthermore, there is no intended opinion expressed relative to the Bureau's stance on potential windpower in Milton TWP nor is there expressed opinion on how windpower affects the perceived value of vistas or other elements of recreational experiences. Rather, this letter is intended to simply document the recreational landscape of this region.*

**Overview**

Milton Township is situated in a mountainous and recreationally significant region of Maine. While the township of Milton does not include state or federally-owned recreation assets, it is surrounded by a mosaic of differing types of nature-based outdoor recreation assets. The discussion below describes the general recreational landscape of the region and includes mention of some of the more prominent recreational features.

**Non-Motorized Trails**

*Federal*

- The Appalachian National Scenic Trail (A.T.) enters Maine from New Hampshire in Riley Township. This section of the A.T. is famed for its challenge and beauty. It is roughly 17 miles from the Milton TWP town line at its closest point.

RON HUNT, ACTING OPERATIONS DIRECTOR  
PARKS & LANDS  
18 ELKINS LANE, HARLOW BUILDING



PHONE: (207) 287-3821  
FAX: (207) 287-6170  
WWW.MAINE.GOV/DACE/

- The White Mountain National Forest spans New Hampshire and Maine and is located southwest of Milton TWP. Trails within the White Mountain National Forest, notable trails within the Caribou-Speckled Mountain Wilderness, are approximately 15 miles from the nearest Milton town line.

#### *State*

- The Grafton Loop is a 38-mile backpacking circuit comprised of segments of the A.T. and Grafton Loop Trail within the Mahoosuc Public Lands as well as segments of Grafton Loop Trail located on privately owned lands. At its nearest point, it is approximately 10 miles from the nearest Milton TWP line.
- Grafton Notch State Park includes segments of the A.T. plus park maintained/managed side trails such as the Eyebrow and Table Rock Trails. Old Speck Mt., Maine's 4th highest mountain, is within the park and roughly 17 miles from Milton TWP.
- Little Concord Pond in Woodstock is an undeveloped (i.e., largely unstaffed) state park property. A hiking trail climbs Bald Mountain and heads to Speckled Mountain in Peru (briefly crossing private land). Trails here are roughly 1.5 miles from the Milton TWP line. It is worth noting that there is an existing windpower project located west of the property/trails on an arm of Spruce Mountain in Woodstock.
- Tumbledown Public Lands and Mount Blue State Park both provide exemplary hiking trail with views of Maine's western mountains. They are a bit further away from Milton TWP, being approximately 17 miles linear distance. Nonetheless, these resources are notable for their volume of use and significance to hikers.

#### *Other*

- A number of landowners and trail managers provide hiking trails in the region. Adjacent to and within Milton is Mount Zircon. This trail to an open summit is managed by the Rumford Water District. Other notable trails in the vicinity of Milton TWP include but are not limited to: Rumford Whitecap Mountain (Rumford – Mahoosuc Land Trust), Black and White Trail (Andover, Rumford – Mahoosuc Land Trust), and Mount Will (Bethel, Newry – Town of Bethel).

#### **Off Road Vehicle Trails**

- There are substantial snowmobile and ATV trails throughout the region, including trails crossing Milton TWP. GIS trails data shows ATV trails in Milton managed by the Woodstock ATV Trail Riders club with snowmobile trails managed by the Rumford Polar Bears Snowmobile club.

#### **Commercial Recreation**

- Sunday River, Mount Abram, and Black Mountain of Maine are all significant downhill skiing destinations. Additionally, the region is one of Maine's premiere areas for Nordic skiing with multiple commercial Nordic ski destinations.

#### **Water-Based Recreation**

- The Androscoggin Watershed Council coordinates the Androscoggin River Trail, which includes the Mahoosuc segment that passes through the region relevant to Milton TWP. Additionally, the river is looked to as a fishing resource. Furthermore, the lakes and ponds in the region are resources for boating, fishing, swimming, and wildlife watching. These lakes and ponds serve as locations for camp properties as well.

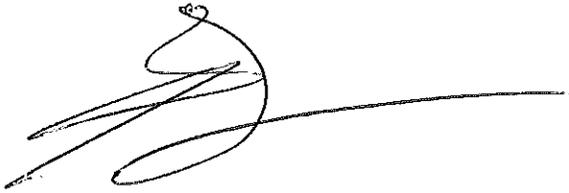
#### **Other Resources**

- The forests and open spaces in the region provide hunting opportunities as well as photography opportunities and the chance to gather wild berries, etc. Driving for pleasure – a top recreational activity based on participation – is also a component of recreation occurring in the region that relies on scenic values.

## Summary

- Milton TWP is located in a significant recreation region comprised of a mix of state and federal conservation lands augmented by private conservation (e.g., land trusts). The mountains, woods, and waters serve as the foundation for the recreational values. Commercial interests including skiing and tourism are central to the area's recreation character. The region is generally not as removed from development as some portions of Maine further north though it is in an area in which substantial lands are managed for, among other values such as timber production, remote recreation benefiting from a wild character.

Sincerely,

A handwritten signature in black ink, appearing to be 'Rex Turner', with a long horizontal line extending to the right.

Rex Turner  
Outdoor Recreation Planner

**From:** [Hersey, Michael](#)  
**To:** [Beyer, Stacie R](#)  
**Subject:** RE: Request for Information\_Substantive Review\_Milton Township  
**Date:** Monday, June 27, 2016 9:31:05 AM  
**Attachments:** [2016 CEDS.PDF](#)

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Good Morning, Stacie

We reached out to Bob Thompson at AVCOG and he provided the attached CEDS for the region which summarizes its economic drivers.

Economic conditions with the Androscoggin Valley EDD may be found on the 9<sup>th</sup> page within the attachment.

Maine Revenue Services was able to identify fewer than five businesses with a Milton Township address. According to MRS there could be more, but this is what they were able to identify.

Please let me know if you require any additional information.

Thank you,

Michael Hersey  
Director, Office of Business Development and Innovation  
Department of Economic & Community Development  
Phone: 207-624-9804  
Cell: 207-592-4889

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**From:** Beyer, Stacie R  
**Sent:** Friday, May 27, 2016 8:32 AM  
**To:** Hersey, Michael  
**Subject:** Request for Information\_Substantive Review\_Milton Township

Good morning,

The Land Use Planning Commission has begun a substantive review of the petition to remove Milton Township from the Expedited Permitting Area for Wind Energy Development. To ensure that full information is available for the review, the Commission is requesting prehearing comments and information from other government agencies with expertise in subject areas referenced in the principal values and goals of the Commission's Comprehensive Land Use Plan. Attached is a package with more information on the Milton petition, the substantive review process, the request for information, and the Commission's information needs.

Please note that for consideration at the public hearing, prehearing submissions are due by June 29, 2016.

More detailed information on the wind energy petitions, the public hearing schedule for Milton

Township, and other opportunities to comment can be found on our website at the following locations:

[Windpower Expedited Area Petitions](#)

[Substantive Review\\_Milton Township](#)

For agencies with statewide jurisdiction, also note that the LUPC may be sending you similar requests for information in the near future for substantive reviews involving other minor civil divisions. The LUPC's Windpower Expedited Area Petitions webpage contains a list of other petitions for removal and the current status.

If you have any questions about the request for information or the substantive review process, please do not hesitate to call.

Thank you.

Stacie R. Beyer  
Chief Planner, Acting Capacity  
Land Use Planning Commission  
106 Hogan Road, Suite 8  
Bangor, ME 04401  
207-941-4593



**Comprehensive Economic  
Development Strategy  
Update — March 2016**





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## Introduction to the Region

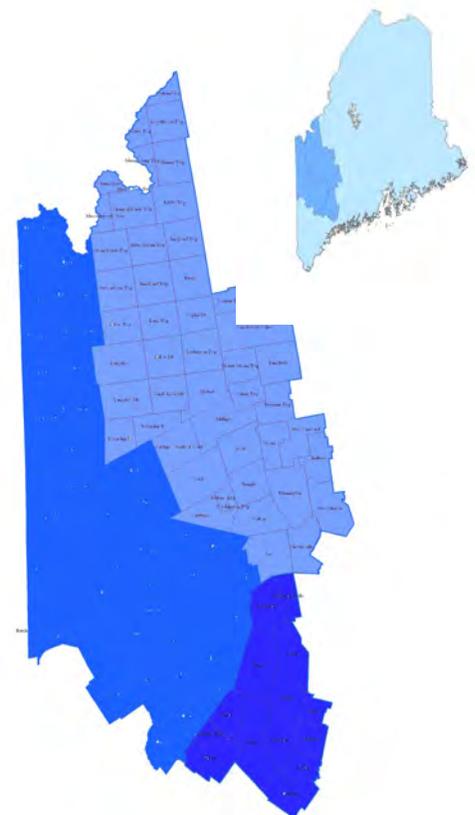
Androscoggin, Franklin and Oxford Counties, located in western Maine, include 4,429 square miles covered with significant natural resources (woods, fields, mountains, lakes, and rivers). There are over 100 communities, townships and plantations located within this tri-county area. The region consists of a total population of 194,974 and a total civilian labor force of 94,700. \*this total includes all of Oxford County

The Androscoggin Valley Council of Governments (AVCOG) is a voluntary membership organization for communities located within Androscoggin, Franklin and Northern Oxford Counties. Currently 95% of the communities representing almost 100% of the region's population are members. The AVCOG region was designated as an Economic Development District, with Lewiston-Auburn as its designated Economic Growth Center, in 1976 by the Economic Development Administration and realigned in 2011. The Androscoggin Valley Economic Development District is comprised of Androscoggin, Franklin and the majority Oxford County.

AVCOG is governed by its General Assembly, whose members are appointed by their communities. An Executive Committee of 21 members is selected from the General Assembly according to rules established in the by-laws. Twelve members are appointed by their communities; the balance includes AVCOG's immediate past president, member county representatives, and others as named by the president.

The CEDS is a strategic plan for sustaining the economic development, transportation, and community planning direction for the region. It is an evolving document that require a forward thinking approach to identifying and building on regional assets. The strategy is designed to engage the public and private sector around key assets.

The Executive Committee functions as the District Comprehensive Economic Development Strategy (CEDS) Committee to review the status of the region and to establish District economic development priorities. The Central/Western Maine Workforce Investment Board serves as the outreach and advisory committee for the CEDS.



## OUR VISION FOR WESTERN MAINE

Our shared vision for the tri-county area is a place of quality and natural beauty that offers an excellent residential and business environment with a healthy and stable economy that meets the varied and changing needs of the region. To that end the region will:

- **adequate infrastructure** to support economic development;
- **quality job opportunities**;
- **educational opportunities** for all ages;
- **strong partnership between communities**;
- **bustling downtowns**;
- **suitable development** in all parts of the region;
- **high environmental quality**; and
- **youth opportunities**

## ECONOMIC CONDITIONS

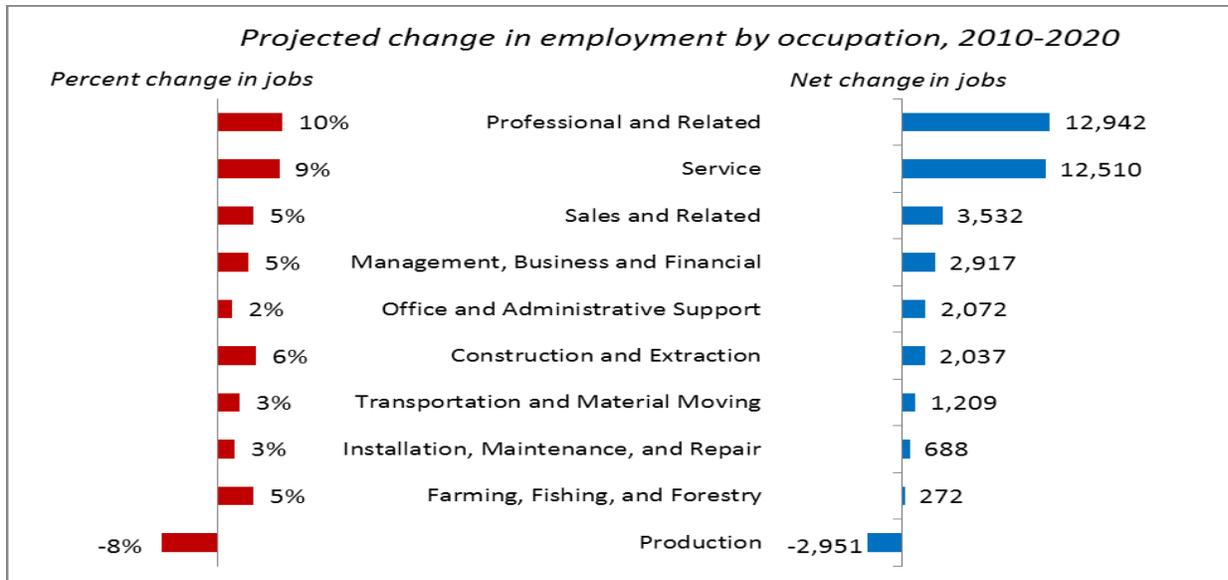
- The average unemployment rate for the region was 5.4% over the last 24 months while the national average was 5.7%. Androscoggin County's 24 month unemployment was 4.9%, Franklin County 5.8% and Oxford County 6.3%.
- The region lags in Per Capita Personal Income (PCI). According to Stats America, Franklin and Oxford Counties BEA PCI was 72.2% and 73.5% of the national average respectively and Androscoggin County's was 78.8% of the national average.
- The region has lost over 550 jobs in the past 12 months. Most recently the region has been hard hit by losses in the paper manufacturing industry with 53 layoffs in June and 300 in August. In a region with a total labor force of 94,700, the adverse economic impact from these closings is significant. With the reduction of employment at several large paper mills, and the closing or downsizing of supporting businesses, the impact will be felt across the region.
- The region's 2014 estimated population was 195,556. Population between the ages of 45 to 64 was 30.2% of the total region's population compared to 26.4% nationally. The over 65 population in the region is 16% of the total while nationally 13.4% of the total population is over 65 years old. School aged children between 5 and 17 make up 15.8% of the region's population while nationally 17% of the total population is in this age group.

### **THERE ARE BARRIERS WE MUST OVERCOME. THESE ISSUES DRIVE US TO DO BETTER**

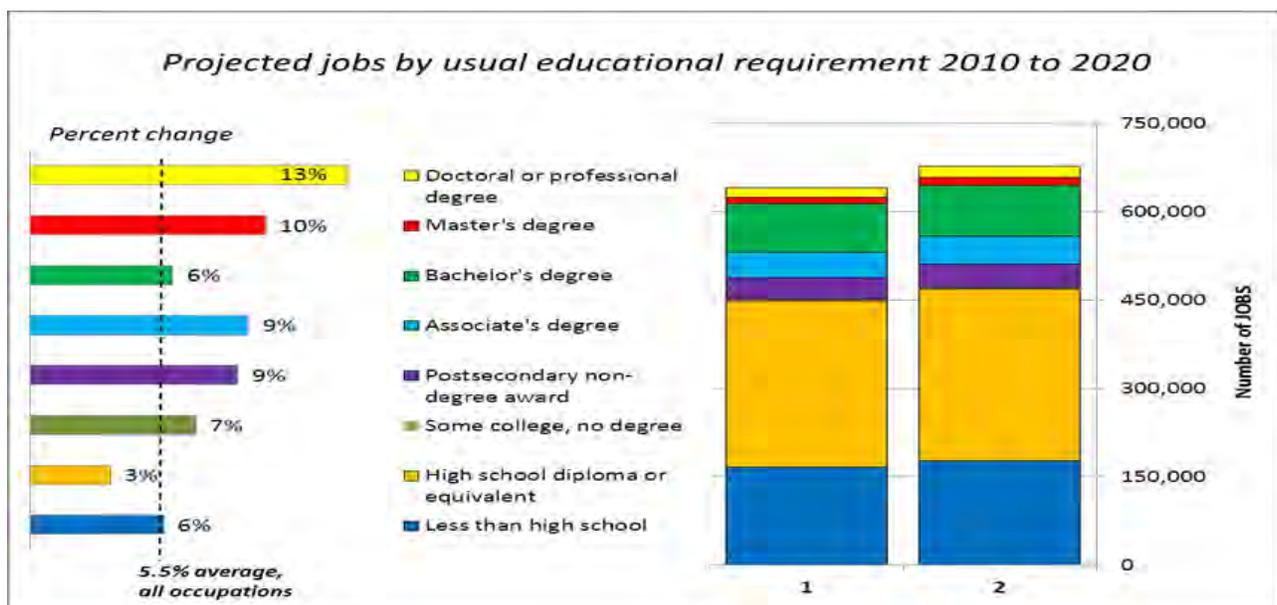
- Loss of Jobs and Low Wages
- Dependence on large manufacturers
- Lack of employment growth
- Loss of younger workers
- Lack of new/innovative jobs and entrepreneurial spirit

The most pressing issue facing the region and the state is an aging population with lack of growth in younger workers. 50% of the workforce in Oxford and Franklin County is over 55 and 24% over 45. In Androscoggin County, 46% are over 55 and 21% are over 45. Like the state, the region is challenged by a rapidly aging population. Between 2010 and 2030 the region is projected to lose 12% of its working age population (20 through 64); and within the region, the outlook ranges from a loss of 3% in Androscoggin County to 20% in Franklin County of working age population. The economic base in Androscoggin County is diversified across a broad spectrum of industries, with higher concentrations of jobs in transportation, warehousing and utilities and health care than the state. In the rim counties, the economy is less diverse and more concentrated in forest-based manufacturing and highly seasonal industries—forestry and logging and leisure and hospitality. From 2001 to 2014 Androscoggin lost 29% or 2,064 manufacturing jobs, Franklin lost 32% or 750 jobs and Oxford lost 31% or 1,170 manufacturing jobs.

Some counties weathered loss of jobs better than others. While all counties lost manufacturing jobs some added non-manufacturing jobs to offset losses. Androscoggin County experienced net job growth of 3% (1,480 jobs) from 2001-2014. In contrast, the rural counties lost both manufacturing and non-manufacturing jobs. Franklin County lost 8.6% (1,012 jobs), and Oxford County lost 7.2% (1,300 jobs) during the same period.



43% percent of net job growth is expected to occur in occupations requiring some form of post-secondary training or credential; 25 of the 40 fastest growing occupations fall into this category. On the other end of the spectrum, of the 40 occupations expected to lose the most jobs, most are occupations that require a high school diploma or less for entry. Workers entering or returning to the job market with lower levels of education are less likely to find a job or prosper in an economy that places a premium on education or training beyond high school.



*The growth of the tri-county regional economy will rely heavily on the quantity and quality of the workforce.*

## QUALITY OF PLACE. COMPETITIVE ADVANTAGES.

There are characteristics of a community or region that make it distinctive from other places and attractive as a place in which to live, work, or visit. Quality of Place encompasses a community's natural and built environment, traditional town and city centers, civic traditions, historic and cultural amenities and recreational opportunities. Western Maine is rich with quality of place attributes. These can be explored and enriched and reinvented to create an environment that supports innovation and entrepreneurship.

- **Arts and Cultural Amenities**
- **Four Season Recreational Opportunities**
- **Positive Work Ethic**
- **Quality Healthcare**
- **Quality Accessible Higher Education Opportunities**
- **Riverfront connections and access**
- **Scenic Vistas and Natural Landscapes**
- **Lakes and Mountains**
- **World Class Ski Industry**



*We can become competitive by:*

- Making infrastructure investments that support the existing and future industrial base.
- Identifying quality of place investments that make the region an attractive place for businesses to locate and employees to live.
- Looking at compatible assets and how these can fit together in an economic development strategy.
- Investing in human capital - build connections between residents, businesses and institutions and surrounding regional networks. Human capital on a regional scale is linked to economic vitality and long-term success.

## ECONOMIC CONDITIONS

Our statewide and regional economies are being transformed by economic drivers. These drivers are vital to our long term growth and prosperity. Collaboration through Mobilize Maine leverages and connects existing resources, expands access to these resources by others and implements economic development priorities through existing entities.

### THINK STRATEGIC. PLAN STRATEGIC. BE STRATEGIC

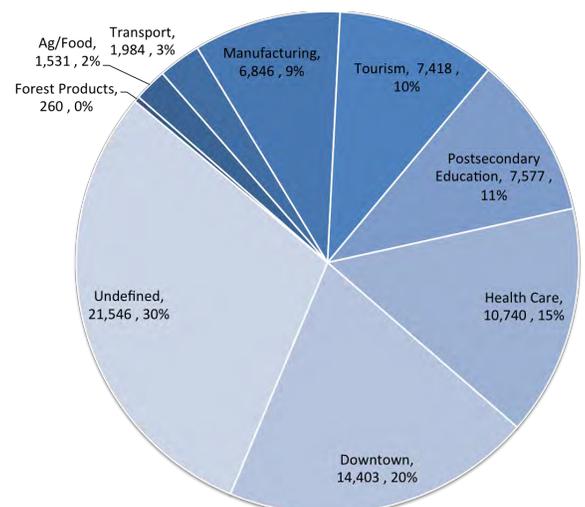
**Asset Based Cluster Development.** Asset based development involves an assessment of the region's potential for achieving economic transformation and diversification. Through indigenous resource mapping, community and industry leaders engage in a process that raises awareness and creates new economic linkages. Indigenous resource mapping discovers a region's truly unique qualities and competitive advantages. Asset based economic development focuses on a community's natural environment, socio-cultural and economic advantages and how these can be leveraged into sustained economic growth and prosperity. It focuses on building capacity in communities and strengthening connections within regions.

**An economic cluster can be defined as a group of businesses in a related industry sector that benefit from geographic proximity. Clusters are defined not by what products are made, but the knowledge and skills that reside or are developed within a region.**

Employment in the Androscoggin Valley EDD totaled 72,305 in 2013, which was down by about 2% since 2005, in line with state employment growth trends. Firms within the eight focus sectors employ roughly 70% of total regional workers, which is slightly higher than the statewide average of 67%.

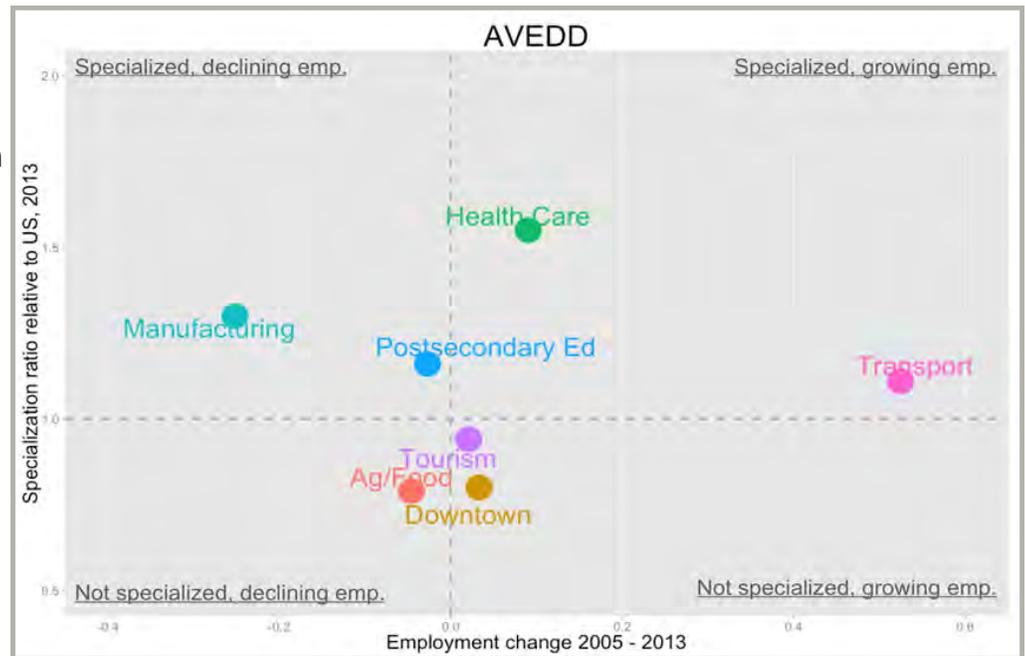
Downtown services (14,403) and health care (10,740) employ the largest number of workers, followed by postsecondary education (7,577) and tourism (7,418). Of these sectors, all but postsecondary education experienced modest employment growth between 2005 and 2013 (Figure 2). However, the most dramatic growth was in the transport and logistics sector, where employment has jumped by 52%

**Employment distribution in focus clusters**



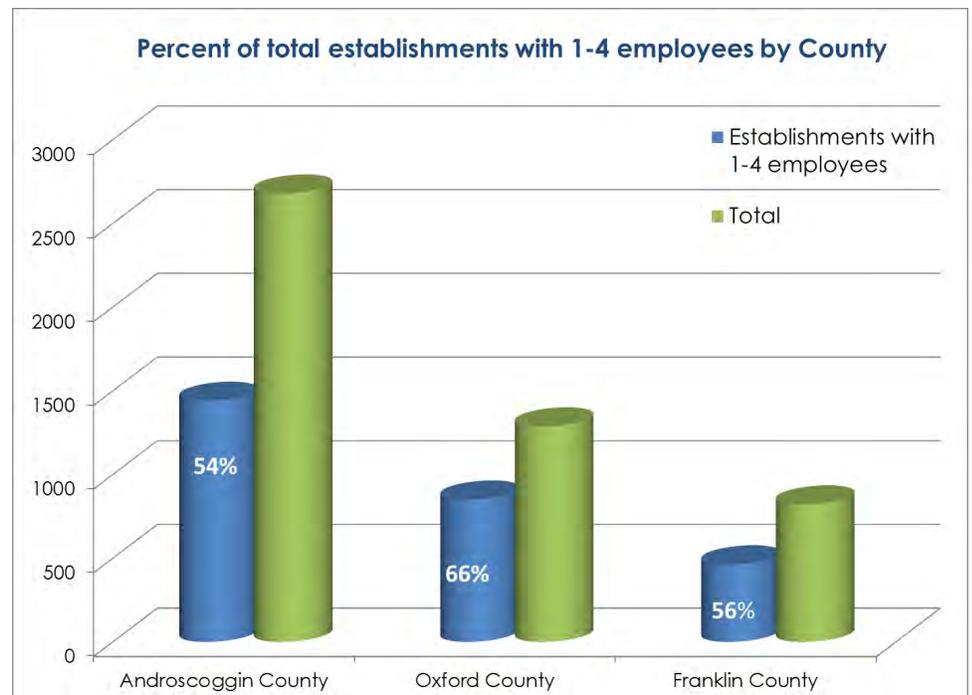
between 2005 and 2013. The manufacturing sector, although still somewhat specialized in the region relative to the US, has lost about 26% over the study period. While this follows broader national trends in manufacturing, the sector's decline in the region was much more pronounced relative to the statewide declines of 16%.

Despite significant losses in the sector, manufacturing remains a key specialization in the region, with 1.3 times as much employment relative to the national industry base as measured by the specialization ratio. Health care is another key regional specialization



(1.60), in addition to being one of the largest employing sectors in the region. The region also has relative advantages in postsecondary education (1.16) and more recently in transportation and logistics (1.11). Agriculture and food is much less specialized relative to the nation, while employment in the sector has dropped, several industries within the sector have growing employment and specialization.

**Entrepreneurship and Innovation.** The creative economy, entrepreneurship and innovation drive our quality of place. Quality of place is an economic driver and an asset of increasing value to Maine and its people. Entrepreneurship is a key source of innovation in our economy. Over half of the region's labor force is working for themselves or for a micro-enterprise with less than five employees.



***Education and Workforce Development.*** Sector strategies are becoming increasingly more common as an approach that meets employers' need for skilled workers and worker's needs for good jobs. This strategy involves partnerships with employers in an industry sector with government, education/training, economic development, labor and community organizations to focus on the needs of the industry within the region. This approach assists to address current and emerging skills gaps, provide a means to engage with the industry across traditional boundaries, and to better align programs and resources to serve employers and workers.



### Central Western Maine Workforce Investment Priorities

AVCOG and the Central Western Maine Workforce Investment Board (CWMWIB) are committed to partnering on the delivery of quality economic and workforce development for Western Maine. The partnership will insure greater efficiency and effectiveness of the federal investment into Maine's economic and workforce development efforts. The CWMWIB has recently completed its 5 year strategic plan. The plan includes the vision, goals, economic and workforce information analyses, strategies, and outcomes that the local workforce investment board (LWIB) and strategic partners collaboratively identified for the future of the region. The plan was based on a thorough understanding of the economic strengths and workforce needs and skills of the local workforce investment area, alignment with the governor's vision, strategies, and goals and the best interests of local job seekers and employers. In the plan, the CWMWIB has identified three priority industries of focus: ***Health Care, Advanced Precision Machining, Information Technology and Travel and Tourism.*** Other key industries have been identified including the industries discussed in this CEDS plan and those that are part of the regional Mobilize Maine effort. The key priorities and goals identified by the CWMWIB listed below. Detailed strategies are provided in Appendix B.

#### Improved Communication

- Support and facilitate industry sector development.
- Increase employer engagement in workforce development system.
- Improve educators understanding of employers' workforce needs/skills requirements.
- Reduce the mismatch between job seeker skills and employer needs.

#### Balance Supply and Demand of Labor

- Reduce the mismatch between job seeker skills and employer needs and increase the support system for youth.
- Increase employer engagement in workforce development system.
- Improve educators understanding of employers' workforce needs/skills requirements.

#### Improve Foundational Learning and Adaptability Skills

- Reduce the mismatch between job seeker skills and employer needs and increase the support system for youth.
- Increase employer engagement in workforce development system.

**Access to Capital.** Supporting the start up, expansion and growth plans of the region's business community and providing access to capital are critical drivers to growth and prosperity.

- AVCOG provides professional one-on-one business counseling services through the Small Business Development Center and other AVCOG programs. Services to existing businesses and start-ups include general business planning, commercial loan package development, finance, marketing, and management at no cost to the business.
- AVCOG's Direct Loan Programs provide gap financing, resulting in the creation/retention of jobs and expansion of commercial tax bases. Loan funds typically leverage additional financing from a variety of private and public sources. Additionally, to provide larger subordinated financing programs, AVCOG has partnered with Business Development Corporation of New England (BDC) to provide an additional source of subordinated debt and mezzanine financing.

### ***Infrastructure and Environment.***

Public infrastructure (water, sewer, electric, gas, telecommunications/broadband, rail, airports, roads and cultural facilities) must be improved and expanded to support new business investment. The movement of goods/services and mobility of residents is critical to the health of the local/regional economy. Community assistance will continue to be available to access federal and state funding to improve and expand public infrastructure. However, as stated in the 2012 Report Card on Maine's infrastructure, current and forecasted funding is inadequate to meet current and future needs. Increases in federal funds are unlikely. If Maine is to grow economically strategic state, local, and private investments into infrastructure need to be a high priority.



### ***Leadership.***

AVCOG provides leadership in fostering region wide planning, projects and programs. Developing the regions capacity to analyze and implement appropriate strategies to deal with economic and demographic changes in the region is a priority. There is also a need for existing economic development and business assistance providers within the region to work collaboratively on relevant projects. Unique opportunities occur when organizations pool their resources and talents together. AVCOG partners with regional organizations on many fronts particularly through the Mobilize Maine initiative, the Maine Workforce and Economic Development Alliance, Maine Woods Consortium, Maine Lakes & Mountains Tourism Council, and with local area development corporations and chambers of commerce.

## Measuring Progress — Strategic Action Plan

### *Economic Development*

- Support economic vitality of the region's businesses. Maintain and expand sources of public and private subordinated debt and equity for new, expanding, and mature enterprises and provide general business technical assistance including information on alternative financing programs.
- Improvement of Western Maine's business climate. Advocate the concerns and needs of Western Maine's communities and businesses to state and federal leaders. Improve workforce skill levels of the region's workforce by coordinating education and business needs and issues associated with workforce availability.
- Support communities ability to diversify and develop new economic opportunities. Provide assistance to communities to prepare plans to diversify local and regional economies and to businesses to explore product and value added opportunities for natural resource based industries.
- Promote tourism/economic development efforts for Western Maine.
- Improve and expand the region's public infrastructure to meet both residential and commercial needs. Ensure that communities have adequate public infrastructure to support development.
- Promote regional economic cooperation and enhance relationships with statewide public and private economic development initiatives and create opportunities to work collaboratively on relevant projects.



*Form partnerships between key stakeholders to more fully leverage resources.*



## *Transportation*

- Develop a cost-effective, environmentally sound, multi-modal transportation network serving the region and linking it to the vital national transportation network. Ensure that roads, airports, rail, transit, bicycle and pedestrian amenities are improved to meet the region's transportation needs.
- Create an integrated multi-modal metropolitan transportation system that moves people and goods in a safe, efficient, cost-effective and environmentally sound manner.



## *Community Planning & Environmental Management*

- Support community planning activities in the region. Encourage all municipalities to develop, maintain, and implement a comprehensive planning program which integrates socio-economic, environmental, capital and land use needs and which is consistent with the State Growth Management Legislation. Encourage municipalities to develop sound land use planning ordinances which provide for efficient, environmentally sound growth. Provide GIS support to municipalities and encourage the use of GIS at the local level.
- Promote natural resource protection and environmental quality and encourage municipalities and residents to protect critical natural resources for use and enjoyment by future generations.
- Encourage municipalities and businesses to comply with federal and state law and regulations. Encourage municipalities and businesses to go beyond compliance in providing facilities and programs to protect public health and environmental quality.



## AVCOG Region Industry Specialization

Analysis completed by the USM, Center for Business and Economic Research (CBER) looked at the region's competitiveness as a foundation for examining relationships within the region that may constitute cluster-based development opportunities. The analysis shows industry specialization and suggests industries where clusters may exist. The following areas will continued to be explored.



### **Transportation/Distribution/Logistics**

Strong growth and specialization in freight transportation and warehousing and storage position the region to capture a greater share of a growing US market, which is expected to continue expansion. Regional growth in these industries will be determined by linkages to other regions, fuel costs, and external demand.



### **Tourism**

Key regional strengths in tourism, such as entertainment and amusement, have been supplemented by growth in gambling and performance based industries that provide diversity in attracting more visitors to the region. Strategies that leverage a diverse set of attractions will assist in bolstering the sector.



### **Business Support**

A number of business support industries are emerging in the region with strong growth and growing regional specialization. The focus of these markets should be investigated during the interview process and whether markets are oriented towards regional firms or serve firms outside the region.



**Healthcare.** Following national and statewide trends, several health care industries have experienced strong growth since 2005. Although industries tend to serve local markets, growth is likely to continue, as an aging demographic place higher demands on health services.

## Creating Opportunity

### Transportation/Distribution/Logistics:

- Private sector leaders in the TDL sector are committed to begin discussions on assessing the assets and performing a value chain analysis to identify immediate, short term and future priorities to grow the cluster.
- Utilizing information from the MDOT recently completed a freight survey, staff will look the survey results and work with group to identify priorities and develop a local business survey to help determine next steps for an action team to pursue.



### Sustainable Agriculture/Local Food:

- Established Western Maine Sustainable Agriculture Development Fund and Maine Organic Milling Development Fund to support agriculture development. Cash and commitments are donated to support private agriculture infrastructure related activities (e.g. organic grain milling and custom blending; organic grain bagging/distribution; and local grass fed meat butchering operation).
- Implemented a grant from the Sewall Foundation fund to support grain facilities at farms throughout the region by providing grant to install grain bins.
- Participating on Good Food Council Lewiston-Auburn working to educate the public and serve as a forum for discussing issues, foster coordination between sectors in the food system, evaluate and influence policy and support programs that meet local needs. AVCOG awarded successful grant for Good Food LA to implement food system strategy.
- Implementing Sewall Grant awarded to create a Farm Energy Innovation Fund to support three demonstration projects on farms to install innovative energy conservation and renewable energy systems in three different counties in Maine.



### Health Care Workforce:

- An action team being led by the Local Workforce Investment Board is focus is on “building the healthcare pipeline” and exploring strategies to address staff shortages and education needs with the regions hospitals.
- Health Care Academy— Base training on common healthcare-related topics leading to an industry recognized certificate and progress in a tiered fashion to a variety of specialized training opportunities based specifically on employer needs.



## Androscoggin River:

- Androscoggin River Institute was established as an outgrowth of the river forum held in 2012 by AVCOG and Verso Paper. The ARI considers all aspects of the river from its tourism, education, recreation and natural resource potentials as well as environmental quality and its impact on the economic potential. 200 stakeholders have been identified. Bowdoin College lead a stakeholder survey to determine what stakeholders think is important.
- The most important issue identified is raising the public's awareness and use of the river. The assets include economic development potential and recreation on (fisheries) and next to river (amenity development); threats include non-point source pollution and fish passage as emerging topics of concern; and the vision is for greater economic development and restored fisheries coupled with addressing point source (CSOs) and non-point source pollution.
- The ARI steering committee will provide networking opportunities through regularly scheduled workshops, a list serve, and other methods including social media. The Androscoggin River Watershed Council may take the lead with support and direction from Bowdoin and AVCOG.



## Benchmark LA:

- AVCOG with Mechanics Savings Bank engaged in a cooperative effort of the Lewiston-Auburn Economic Growth Council, the Androscoggin County Chamber and Cities of Lewiston and Auburn to establish a clear picture of the LA community relative to perceived peers as it relates to quality of life and opportunity and create action teams to pursue strategies.
- Utilized Mobilize Maine and the Maine Economic Growth Council model of performance measures centered around the Economy, Community and the Environment and established benchmark in each of these categories.

## Regional Benchmarks

Regional benchmarks are established to guide direction in the process. As action teams and various partners move ahead and prioritize decisions, the benchmarks provide a clear starting point to ask, will this action help move this benchmark forward?

<b>AVCOG Region</b>	<b>Baseline 2007</b>	<b>2010</b>	<b>2014</b>	<b>Change 07-14</b>	<b>2017 Goal</b>	<b>Change 07-17</b>
Population <sup>1</sup>	193,476	196,301	194,974	1,498 (.77%)	212,823	19,347 (10%)
Employable Population (16 and older) <sup>1</sup>	153,134	159,253	159,403	6,269 (4.0%)	170,258	17,124 (11%)
Labor Participation Rate <sup>2</sup>	62.7%	64.7%	65.7%	3%	66%	3.3%
Total Employed <sup>2</sup>	96,029	103,167	104,837	-3,714 (-3.4%)	122,534	13,983 (12.8%)
Average Wage <sup>2</sup>	\$32,610	\$34,710	\$37,123	\$4,513 (13.8%)	\$40,000	\$7,390 (22%)
Total Region Wages <sup>2</sup> (total employed* avg wage)	\$3.54B	\$3.58B	\$3.89B	\$0.35B (9.8%)	\$4.9B	\$1.36B (38%)
Per Capita Income <sup>2</sup>	\$29,921	\$31,935	\$34,466	\$4,545 (15%)	\$35,000	\$5,079 (17%)
Regional GDP <sup>2</sup>	\$6.8B	\$8.06B	*	\$1.26B (18.5%)	\$8.74B	\$1.94B (28.5%)
Internet Subscribers	58,008	*	*	*	96,680	38,672 (66%)
Bachelors Degrees 25 & Over <sup>1</sup>	24,477	25,598	27,756	3,279 (13.4%)	42,834	18,357 (76%)
<b>Regional Specific Goals</b>	<b>Baseline 2007</b>	<b>2010</b>	<b>2014</b>	<b>Change 07-14</b>	<b>2017 Goal</b>	<b>Change</b>
Young Workers <sup>3</sup> 22-34	16,714	15,921	16,667	-47 (-2.8%)	25,207	1,200 (5%)
Service Center Population <sup>1</sup>	89,646	91,330	90,771	1,125 (1.25%)	98,610	8,964 (10%)

1. US Census, ACS estimates
2. BEA, Regional Data CA30 Regional Economic Profiles
3. U.S. Census Bureau, Quarterly Workforce Indicators (LED Data Maine)

\* Data not available

*Communities that fail to set goals and measure progress never know how close they are. - ViTAL Economy*

Actionable items to move the benchmarks are created and added on throughout the process. Currently through action teams and partners there are some priorities that will be pursued. These initiatives will allow the process to move forward. It is a starting point for action and will evolve over time and go through changes as new opportunities arise. These actions will be accomplished through a collaborative approach and are intended to be sustainable and replicable across sectors and throughout the region.

<b><i>Economic Growth Driver</i></b>	<b><i>Action Item</i></b>	<b><i>Responsible</i></b>	<b><i>Benchmarks</i></b>	<b><i>When</i></b>
<b><i>Education and Workforce Development</i></b>	Create new sector strategies— IT, Healthcare, Advanced Manufacturing	AVCOG, Central/Western Maine WIB (CWMWIB)	Labor participation rate; total employed; average wage; region wages; young workers	Q1-4 2016
	Identify training opportunities for identified sectors	CWMWIB	Total employed; average wage; young workers	Q1-4 2016
	Pursue EDA and NBRC funding for CMCC Precision Machining Expansion	CMCC, AVCOG	Average wage; per capita wage; regional GDP	Q2 2016
<b><i>Infrastructure &amp; Environment</i></b>	Develop priorities for the Androscoggin River Institute (ARI) network	ARI steering committee	Service center population; Regional GDP	On-going
	Implement Brownfield Assessment Program to prevent, assess, safely clean up, and sustainably reuse brownfields in the region.	AVCOG, Brownfields Steering Committee	Service center population; Regional GDP	On-going to 2019
	Continue to expand the work of the Good Food Council	Good Food Council LA	Regional GDP;	On-going
<b><i>Asset Based Development</i></b>	Work with the LAEGC on implementing strategic plan and incorporating work of Benchmark L/A action team	AVCOG, LAEGC	All	Q2-4 2016
	Implement Farm Energy Innovation Fund	AVCOG	Regional GDP;	Q2-4 2016
	Develop cluster strategies based on recently completed cluster analysis of regional economic sectors	AVCOG, CWMWIB, USM/CBER	Regional GDP; total employed	On-going



## **AVCOG**

### **Executive Committee**

Rhonda Irish, Town of Wilton  
Leslie Boness, Town of Hartford  
David Duguay, Oxford County  
Ed Barrett, City of Lewiston  
Diane Barnes, Town of Lisbon  
Stephen Brown, Town of Carthage  
James Collins, Town of Livermore Falls  
Richard Davis, Town of Farmington  
Frank DiConzo, Town of Rumford  
Fred Henderson, Town of Greenwood  
David Holt, Town of Norway  
John Johnson, Town of Jay  
John Madigan, Town of Mexico  
Phil Nadeau, City of Lewiston  
Robert Stone, City of Auburn  
Andy Titus, City of Auburn  
Charles Webster, Franklin County

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Funded by:  
US Department of Commerce,  
Economic Development  
Administration



Select County: Androscoggin

## Androscoggin County - QuickFacts

Source: United States Bureau of the Census

### Geography

	Androscoggin	Maine	United States
Land area in square miles, 2010	468	30,843	3,531,905
Persons per square mile, 2010	230.2	43.1	87.4
Average travel time to work (minutes), workers age 16+, 2009-2013	23.2	23.3	25.5

### Population

	Androscoggin	Maine	United States
Population, (July 1) 2013 est.	107,604	1,328,302	316,128,839
Population, 2010 (April 1) est. base	107,702	1,328,361	308,747,716
Population, % chg, April 1, 2010 to July 1, 2013	-0.1%		2.4%
Persons under 5 years, % 2013	6.2%	4.9%	6.3%
Persons under 18 years, % 2013	22.2%	19.7%	23.3%
Persons 65 years and over, % 2013	15.5%	17.7%	14.1%
Female persons, % 2013	50.9%	51.0%	50.8%
Foreign born persons, % 2009-2013	3.1%	3.4%	12.9%

### Race

	Androscoggin	Maine	United States
White alone, % 2013 (a)	93.0%	95.2%	77.7%
Black or African American alone, % 2013 (a)	3.8%	1.4%	13.2%
American Indian and Alaska Native alone, % 2013 (a)	0.4%	0.7%	1.2%
Asian alone, % 2013 (a)	0.7%	1.1%	5.3%
Hispanic or Latino, % 2013 (b)	1.7%	1.4%	17.1%
Two or More Races, % 2013	2.1%	1.6%	2.4%

### Income and Poverty

	Androscoggin	Maine	United States
Per capita money income in past 12 months (2013 dollars), 2009-2013	\$24,442	\$26,824	\$28,155
Median household income, 2009-2013	\$44,921	\$48,453	\$53,046
People of all ages in poverty, % 2009-2013	15.6%	13.6%	15.4%

### Education and Veterans

	Androscoggin	Maine	United States
HS graduate or higher, % of persons age 25+, 2009-2013	87.9%	91.1%	86.0%
Bachelor's degree or higher, % of persons age 25+, 2009-2013	18.8%	27.9%	28.8%
Veterans, 2009-2013	10,223	126,842	21,263,779

### Housing

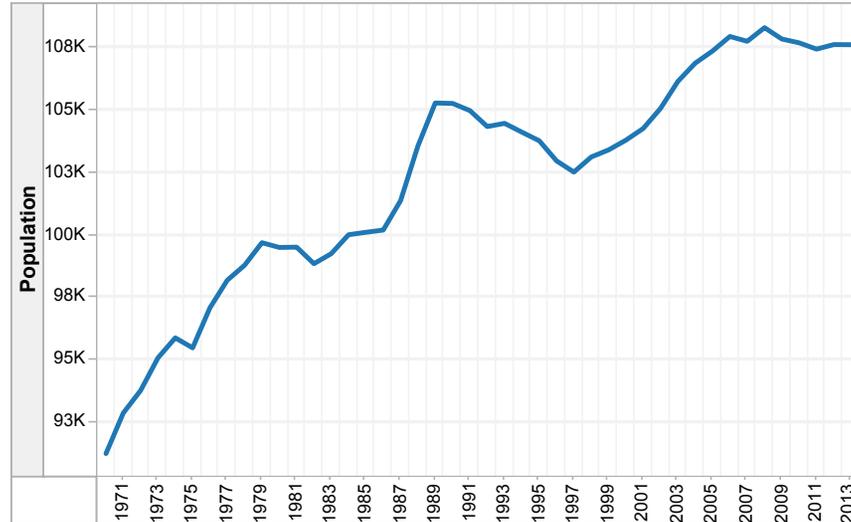
	Androscoggin	Maine	United States
Housing units, 2013	48,956	723,128	132,802,859
Homeownership rate, 2009-2013	64.6%	71.8%	64.9%
Median value of owner-occupied housing units, 2009-2013	154,800	174,500	176,700
Households, 2009-2013	44,006	553,823	115,610,216
Persons per household, 2009-2013	2.4	2.3	2.6
Housing units in multi-unit structures, % 2009-2013	31.5%	19.2%	26.0%
Building permits, 2012	129	3,001	829,658

### Business

	Androscoggin	Maine	United States
Private nonfarm establishments, 2012	2,693	40,120	7,431,808
Private nonfarm employment, 2012	44,673	486,838	115,938,468
Private nonfarm employment, % change, 2011-2012	3.5%	1.5%	2.2%
Nonemployer establishments, 2012	6,136	110,117	22,735,915
Total number of firms, 2007	9,596	150,389	27,092,908
Women-owned firms, % 2007	22.0%	25.6%	28.8%
Manufacturers shipments, 2007 (\$1000)	\$2,186,156	\$16,363,192	\$5,319,456,312
Merchant wholesaler sales, 2007 (\$1000)	\$444,572	\$8,823,719	\$4,174,286,516
Retail sales, 2007 (\$1000)	\$1,704,277	\$20,444,031	\$3,917,663,456
Retail sales per capita, 2007	\$15,973	\$15,520	\$12,990
Accommodation and food services sales, 2007 (\$1000)	\$149,702	\$2,515,827	\$613,795,732

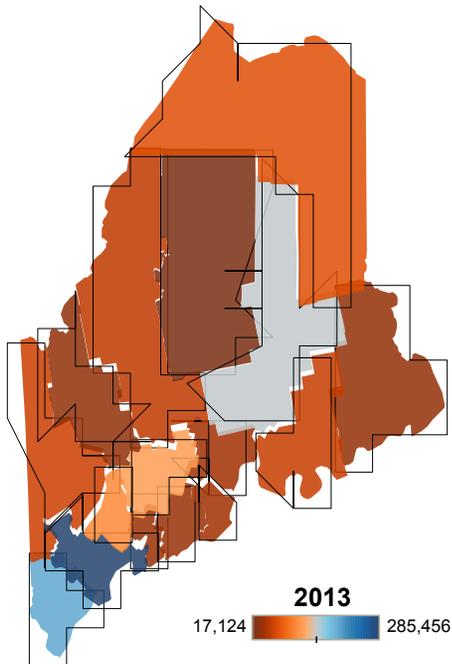
Select County: Androscoggin

Population Androscoggin County			
Year	Androscoggin	Maine	United States
2013	107,604	1,328,302	316,128,839
2012	107,609	1,329,192	313,914,040
2011	107,427	1,328,544	311,587,816
2010	107,678	1,328,361	309,326,225
2009	107,830	1,329,590	306,771,529
2008	108,284	1,330,509	304,093,966
2007	107,739	1,327,040	301,231,207
2006	107,932	1,323,619	298,379,912
2005	107,352	1,318,787	295,516,599
2004	106,867	1,313,688	292,805,298
2003	106,140	1,306,513	290,107,933
2002	105,063	1,295,960	287,625,193
2001	104,260	1,285,692	284,968,955



Source: United States Bureau of the Census

Display: Table



Population by Gender and Age, 2013 Androscoggin County						
Group	Androscoggin		Maine		United States	
	Population	%	Population	%	Population	%
Total	107,604	100.0%	1,328,302	100.0%	316,128,839	100.0%
Male	107,604	100.0%	650,220	49.0%	155,651,602	49.2%
Female	52,816	49.1%	678,082	51.0%	160,477,237	50.8%
Under 18 years	23,854	22.2%	261,276	19.7%	73,585,872	23.3%
Under 5 years	6,653	6.2%	65,014	4.9%	19,868,088	6.3%
5 to 13 years	11,901	11.1%	132,299	10.0%	37,073,596	11.7%
14 to 17 years	5,300	4.9%	63,963	4.8%	16,644,188	5.3%
18 to 64 years	67,103	62.4%	831,959	62.6%	197,838,893	62.6%
18 to 24 years	9,617	8.9%	113,795	8.6%	31,457,653	10.0%
25 to 44 years	26,469	24.6%	308,694	23.2%	83,297,277	26.3%
45 to 64 years	31,017	28.8%	409,470	30.8%	83,083,963	26.3%
65 years and over	16,647	15.5%	235,067	17.7%	44,704,074	14.1%
85 years and over	2,151	2.0%	31,146	2.3%	6,040,789	1.9%
<b>Median Age</b>	41		44		38	

Source: United States Bureau of the Census

Select County:

- Years:
- 2007
  - 2008
  - 2009
  - 2010
  - 2011
  - 2012
  - 2013

Sources of Personal Income Androscoggin County						
Income Type	Income (thousands)		Net Change		Percent Change	
	2007	2013	2007	2013	2007	2013
Personal income	\$3,626,870	\$4,054,487		\$427,617		11.79%
Net earnings	\$2,409,542	\$2,455,748		\$46,206		1.92%
Dividends, interest, and rent	\$448,946	\$527,786		\$78,840		17.56%
Earnings by place of work	\$2,495,225	\$2,683,744		\$188,519		7.56%
Wage and salary disbursements	\$1,798,411	\$1,938,019		\$139,608		7.76%
Supplements to wages and salaries	\$444,072	\$479,080		\$35,008		7.88%
Proprietors' income	\$252,742	\$266,645		\$13,903		5.50%

Source: Bureau of Economic Analysis

Display:  
Tables

Median Household Income Androscoggin County			
Year	Androscoggin	Maine	United States
2007	45,254	45,211	50,007
2008	44,484	46,807	52,175
2009	40,653	46,428	51,369
2010	41,831	46,405	51,222
2011	43,144	47,206	51,484
2012	44,518	47,344	51,771
2013	45,234	47,405	52,176

Source: U.S. Census Bureau

Per Capita Income Androscoggin County			
Year	Androscoggin	Maine	United States
2007	33,663	35,509	39,804
2008	34,626	36,656	40,873
2009	35,141	36,808	39,357
2010	34,963	37,180	40,163
2011	36,246	38,880	42,298
2012	36,845	39,863	44,200
2013	37,680	40,924	44,765

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Income Bracket Androscoggin County						
Income Bracket	Androscoggin Cty		Maine		United States	
	Households	%	Households	%	Households	%
Total households	44,364	100.0%	552,589	100.0%	115,731,304	100.0%
Less than \$10,000	3,529	8.0%	39,920	7.2%	8,692,140	7.5%
\$10,000 to \$14,999	3,230	7.3%	36,298	6.6%	6,394,344	5.5%
\$15,000 to \$24,999	5,961	13.4%	67,338	12.2%	12,631,131	10.9%
\$25,000 to \$34,999	4,786	10.8%	65,569	11.9%	11,967,794	10.3%
\$35,000 to \$49,999	6,279	14.2%	79,790	14.4%	15,760,268	13.6%
\$50,000 to \$74,999	8,920	20.1%	104,765	19.0%	20,766,581	17.9%
\$75,000 to \$99,999	5,546	12.5%	68,063	12.3%	13,778,262	11.9%
\$100,000 to \$149,999	4,290	9.7%	58,536	10.6%	14,652,992	12.7%
\$150,000 to \$199,999	1,077	2.4%	16,582	3.0%	5,540,382	4.8%
\$200,000 or more	746	1.7%	15,728	2.8%	5,547,410	4.8%

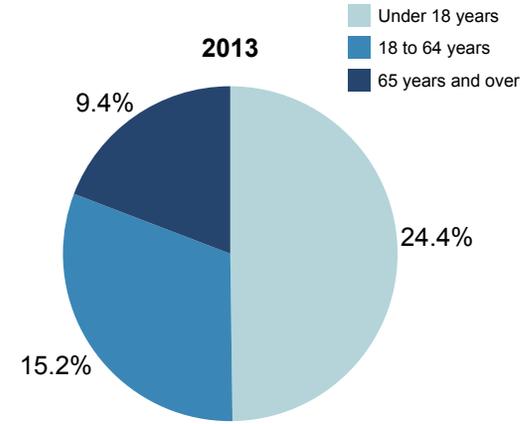
Source: United States Bureau of the Census, American Community Survey (ACS) 3 year estimates

Select County: Androscoggin

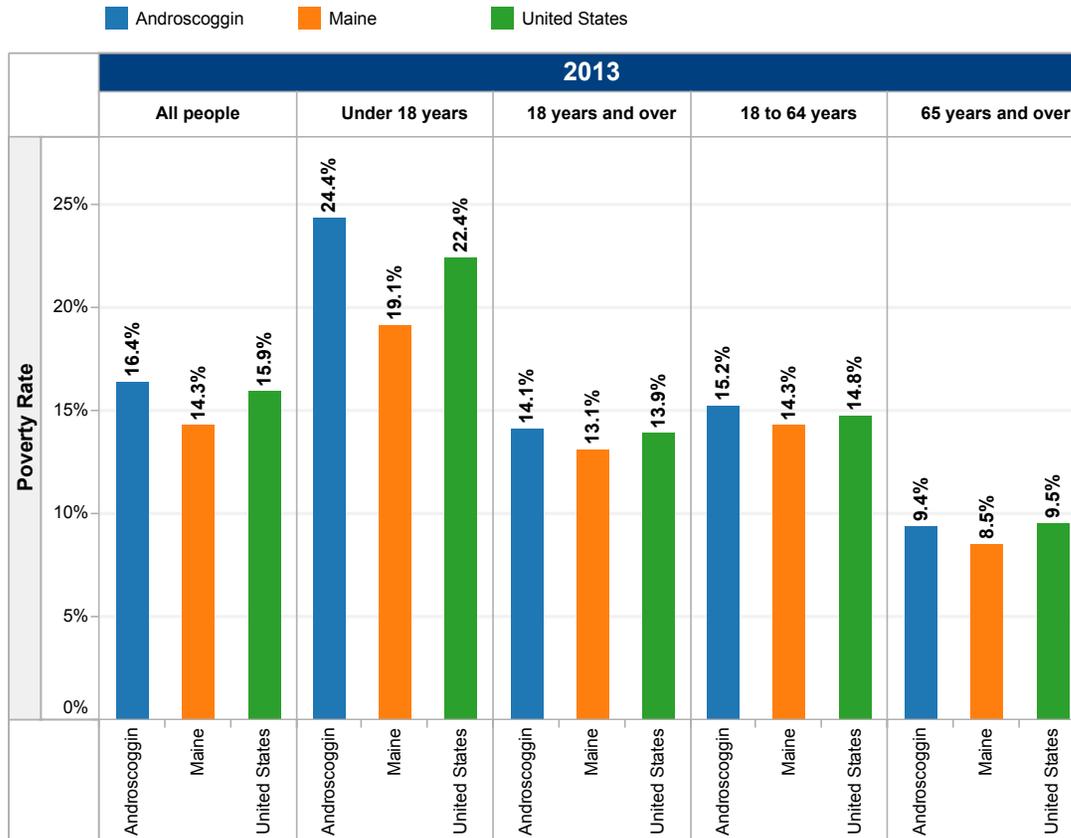
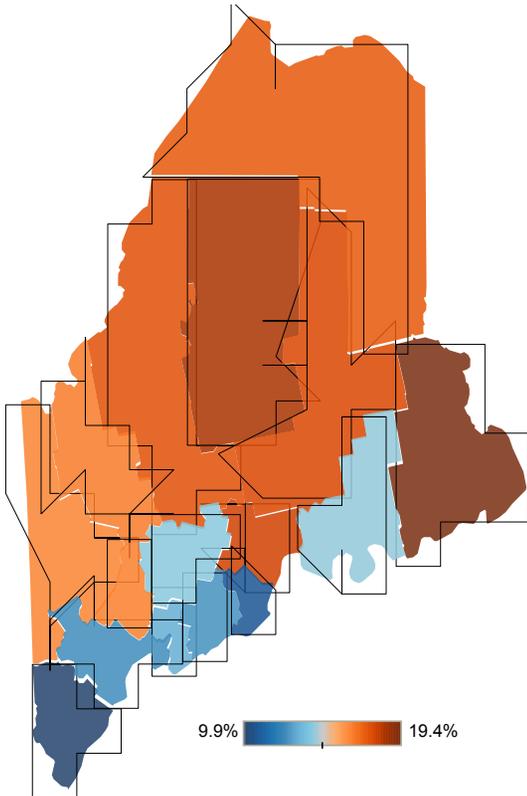
Year: 2013

Poverty Rates, 2013 Androscoggin County			
Age Group	Androscoggin	Maine	United States
All people	16.4%	14.3%	15.9%
Under 18 years	24.4%	19.1%	22.4%
18 years and over	14.1%	13.1%	13.9%
18 to 64 years	15.2%	14.3%	14.8%
65 years and over	9.4%	8.5%	9.5%
People in families	13.3%	10.4%	13.3%
Unrelated Individuals 15 yrs and older	26.5%	27.1%	27.0%

Source: United States Bureau of the Census, American Community Survey (ACS) 3 year estimates



2013 Poverty Rate for All people



Select County: Androscoggin

Display: Tables

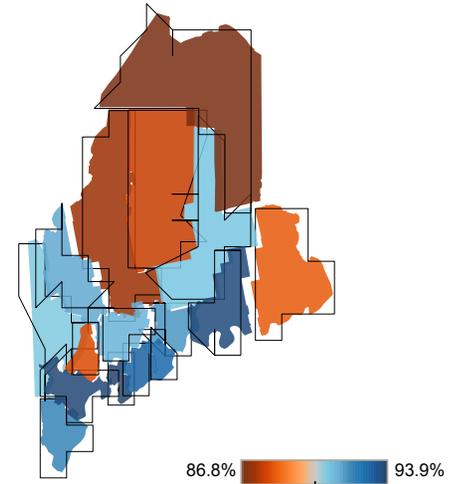
Year: 2013

**Educational Attainment Age 25+ in 2013**  
*Androscoggin County*

Educational Attainment	Androscoggin	Maine	United States
Less than 9th grade	5.0%	3.1%	5.8%
9th to 12th grade, no diploma	7.0%	5.4%	7.9%
High school graduate (includes equivalency)	38.0%	33.9%	28.0%
Some college, no degree	21.0%	20.0%	21.2%
Associate's degree	10.0%	9.3%	7.9%
Bachelor's degree	13.0%	18.1%	18.2%
Graduate or professional degree	6.0%	10.2%	10.9%

Source: United States Bureau of the Census, American Community Survey (ACS) 3 year estimates

**2013**  
**Percent high school graduate or higher**



Display:

- Percent high school graduate or higher
- Percent bachelor's degree or higher

**School Enrollment, 2013**  
*Androscoggin County*

School Enrollment	Androscoggin		Maine		United States	
	Number	%	Number	%	Number	%
Nursery school, preschool	1,365	5.0%	15,836	5.2%	5,001,620	6.0%
Kindergarten	1,260	4.7%	14,921	4.9%	4,234,628	5.1%
Elementary school (grades 1-8)	10,913	40.3%	120,478	39.8%	32,838,543	39.7%
High school (grades 9-12)	5,823	21.5%	66,383	21.9%	17,026,563	20.6%
College or graduate school	7,716	28.5%	85,456	28.2%	23,718,337	28.6%

Source: United States Bureau of the Census, American Community Survey (ACS) 3 year estimates

Select County: Androscoggin

Display: Employment & Unemployment Table

Annual Labor Force Estimates for <i>Androscoggin County</i> (not seasonally adjusted)					
Year	Area Name	Civilian Labor Force	Employment	Unemployment	Unemployment Rate
2015	Androscoggin	54,566	52,307	2,259	4.1%
	Maine	679,756	649,855	29,901	4.4%
	United States	157,130,000	148,834,000	8,296,000	5.3%
2014	Androscoggin	55,915	52,876	3,039	5.4%
	Maine	696,578	657,302	39,276	5.6%
	United States	155,922,000	146,305,000	9,617,000	6.2%
2013	Androscoggin	56,631	52,867	3,764	6.6%
	Maine	707,623	660,662	46,961	6.6%
	United States	155,389,000	143,929,000	11,460,000	7.4%
2012	Androscoggin	56,404	52,032	4,372	7.8%
	Maine	702,799	650,249	52,550	7.5%
	United States	154,975,000	142,469,000	12,506,000	8.1%
2011	Androscoggin	56,063	51,505	4,558	8.1%
	Maine	699,281	644,085	55,196	7.9%

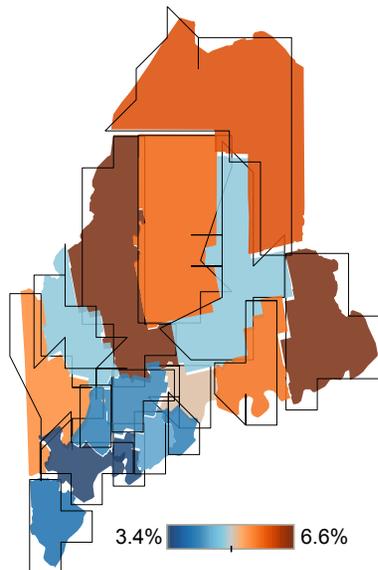
Source: Maine Department of Labor, Center for Workforce Research and Information

[View monthly unemployment statistics](#)

### Unemployment Rates..

2015

- Unemployment Rate
- One-Year Change



Display: Table

2015 Annual Average			
County	Unemployment Rate	Year Ago	One-Year Change
Androscoggin	4.1%	5.4%	-1.3
Aroostook	6.0%	7.6%	-1.6
Cumberland	3.4%	4.4%	-1.0
Franklin	4.8%	6.5%	-1.7
Hancock	5.7%	6.9%	-1.2
Kennebec	4.2%	5.3%	-1.1
Knox	4.1%	5.1%	-1.0
Lincoln	4.4%	5.9%	-1.5
Oxford	5.5%	7.0%	-1.5
Penobscot	4.8%	6.1%	-1.3
Piscataquis	5.8%	7.4%	-1.6
Sagadahoc	3.5%	4.6%	-1.1
Somerset	6.6%	7.9%	-1.3
Waldo	5.1%	6.0%	-0.9
Washington	6.6%	8.3%	-1.7
York	3.9%	5.2%	-1.3

Select County: Androscoggin

Wage Type: Annual

Occupational Group: Total, All Occupations

2014 Annual Occupational Employment for **Androscoggin County**  
Occupational Group: **Total, All Occupations**

Occupation Title (2010 Standard Occupational Classification)	Area Name	Estimated Employment	Average Wage	25th Percentile	Median Wage	75th Percentile
Total all occupations	Androscoggin	48,050	\$40,729	\$23,434	\$32,783	\$47,276
	Maine	586,390	\$42,140	\$23,440	\$33,890	\$50,700
Management Occupations	Androscoggin	2,400	\$82,988	\$55,810	\$75,324	\$98,133
	Maine	32,090	\$87,330	\$56,340	\$76,870	\$104,470
Business and Financial Operations Occupations	Androscoggin	1,770	\$56,244	\$39,836	\$48,828	\$66,474
	Maine	21,940	\$61,310	\$43,740	\$56,750	\$73,680
Computer and Mathematical Occupations	Androscoggin	580	\$58,911	\$44,308	\$56,559	\$72,553
	Maine	10,260	\$67,570	\$47,090	\$64,020	\$84,020
Architecture and Engineering Occupations	Androscoggin	290	\$67,005	\$50,138	\$67,681	\$82,602
	Maine	9,120	\$71,270	\$53,820	\$68,900	\$87,800
Life, Physical, and Social Science Occupations	Androscoggin	110	\$60,669	\$49,350	\$58,133	\$69,128
	Maine	4,140	\$59,270	\$41,740	\$52,270	\$68,360
Community and Social Services Occupations	Androscoggin	1,090	\$44,824	\$33,340	\$40,133	\$52,320
	Maine	11,700	\$41,100	\$24,500	\$30,000	\$40,000

\* Blank cells indicate undisclosable data.

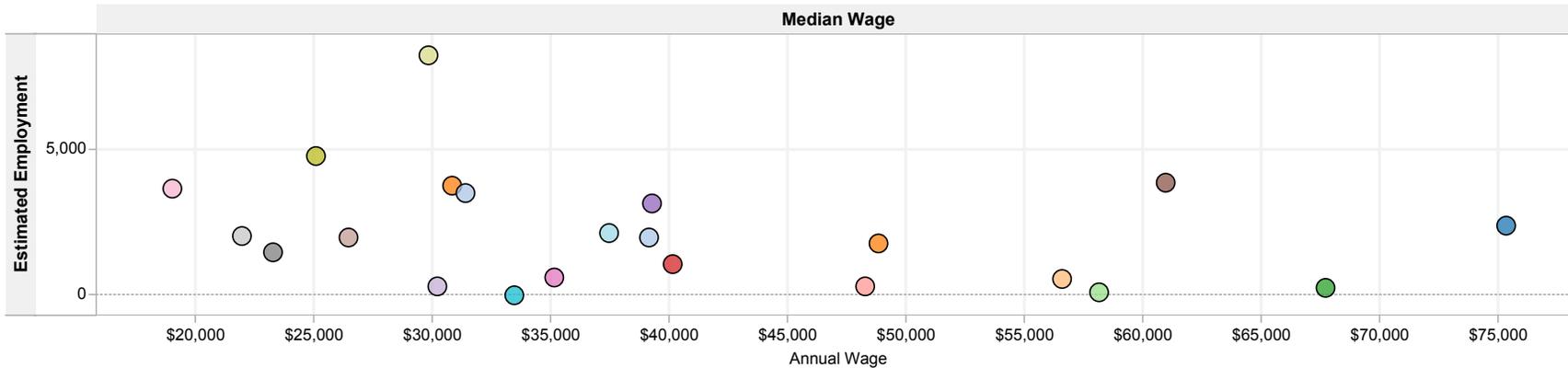
Note: County level data are locally produced as an extension of the official OES data series, and have not been reviewed or validated by the U.S. Bureau of Labor Statistics.  
Source: Maine Department of Labor, Center for Workforce Research and Information



**Display Summary Report for Detailed Occupation (select from table above)**

SOC Code	Occupation Title (2010 Standard Occupational Classification)	ONET URL
00-0000	Total all occupations	<a href="#">Unavailable</a>

Select Graph Wage Type: Median Wage



Select County: Androscoggin

<b>View:</b> <input checked="" type="radio"/> Table <input type="radio"/> Graph	<b>Display:</b> <input checked="" type="radio"/> Average Employment <input type="radio"/> Average Wage <input type="radio"/> Establishments	<b>Ownership:</b> <input checked="" type="radio"/> Private <input type="radio"/> Federal <input type="radio"/> State <input type="radio"/> Local <input type="radio"/> All	<b>Years:</b> Multiple values	<b>Industry Group:</b> Total, all industries
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[View monthly industry employment](#)

### Average Employment for *Androscoggin County*

Ownership: *Private*  
Industry Group: *Total, all industries*

NAICS	NAICS Title	Area Name	Average Employment					
			Annual		Over-the-Year Change		Percent Change	
			2001	2013	2001	2013	2001	2013
10	Total, All Industries	Androscoggin	41,630	42,526		896		2.15%
		Maine	496,308	490,637		-5,671		-1.14%
101	Goods-Producing Domain	Androscoggin	9,827	7,588		-2,239		-22.78%
		Maine	110,222	82,101		-28,121		-25.51%
1011	Natural Resources and Mining	Androscoggin	269	436		167		62.08%
		Maine	5,941	6,266		325		5.47%
1012	Construction	Androscoggin	2,498	2,288		-210		-8.41%
		Maine	29,743	25,514		-4,229		-14.22%
1013	Manufacturing	Androscoggin	7,061	4,864		-2,197		-31.11%
		Maine	74,538	50,321		-24,217		-32.49%
102	Service-Providing Domain	Androscoggin	31,803	34,938		3,135		9.86%
		Maine	386,086	408,536		22,450		5.81%
1021	Trade, Transportation and Utilities	Androscoggin	10,110	10,120		10		0.10%
		Maine	122,733	117,781		-4,952		-4.03%
1022	Information	Androscoggin	728	604		-124		-17.03%
		Maine	12,121	7,629		-4,492		-37.06%
1023	Financial Activities	Androscoggin	2,725	3,086		361		13.25%
		Maine	33,612	30,294		-3,318		-9.87%
1024	Professional and Business Services	Androscoggin	5,194	5,690		496		9.55%
		Maine	51,801	60,078		8,277		15.98%
1025	Education and Health Services	Androscoggin	8,522	10,770		2,248		26.38%
		Maine	92,620	112,872		20,252		21.87%
1026	Leisure and Hospitality	Androscoggin	3,252	3,565		313		9.62%
		Maine	56,406	62,663		6,257		11.09%
1027	Other Services	Androscoggin	1,271	1,102		-169		-13.30%
		Maine	16,510	17,126		616		3.73%

Note: Blank cells indicate non-disclosable data

Source: Maine Department of Labor, Center for Workforce Research and Information

Select County: Franklin

## Franklin County - QuickFacts

Source: United States Bureau of the Census

### Geography

	Franklin	Maine	United States
Land area in square miles, 2010	1,697	30,843	3,531,905
Persons per square mile, 2010	18.1	43.1	87.4
Average travel time to work (minutes), workers age 16+, 2009-2013	23.5	23.3	25.5

### Population

	Franklin	Maine	United States
Population, (July 1) 2013 est.	30,495	1,328,302	316,128,839
Population, 2010 (April 1) est. base	30,768	1,328,361	308,747,716
Population, % chg, April 1, 2010 to July 1, 2013	-0.9%		2.4%
Persons under 5 years, % 2013	4.6%	4.9%	6.3%
Persons under 18 years, % 2013	18.7%	19.7%	23.3%
Persons 65 years and over, % 2013	18.7%	17.7%	14.1%
Female persons, % 2013	51.0%	51.0%	50.8%
Foreign born persons, % 2009-2013	2.1%	3.4%	12.9%

### Race

	Franklin	Maine	United States
White alone, % 2013 (a)	97.2%	95.2%	77.7%
Black or African American alone, % 2013 (a)	0.4%	1.4%	13.2%
American Indian and Alaska Native alone, % 2013 (a)	0.4%	0.7%	1.2%
Asian alone, % 2013 (a)	0.6%	1.1%	5.3%
Hispanic or Latino, % 2013 (b)	1.2%	1.4%	17.1%
Two or More Races, % 2013	1.3%	1.6%	2.4%

### Income and Poverty

	Franklin	Maine	United States
Per capita money income in past 12 months (2013 dollars), 2009-2013	\$22,083	\$26,824	\$28,155
Median household income, 2009-2013	\$41,626	\$48,453	\$53,046
People of all ages in poverty, % 2009-2013	15.6%	13.6%	15.4%

### Education and Veterans

	Franklin	Maine	United States
HS graduate or higher, % of persons age 25+, 2009-2013	91.5%	91.1%	86.0%
Bachelor's degree or higher, % of persons age 25+, 2009-2013	23.7%	27.9%	28.8%
Veterans, 2009-2013	2,908	126,842	21,263,779

### Housing

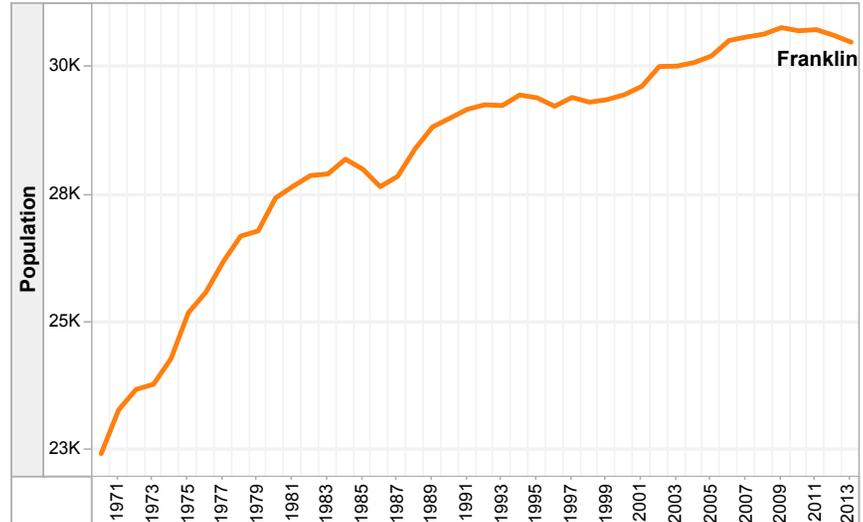
	Franklin	Maine	United States
Housing units, 2013	21,788	723,128	132,802,859
Homeownership rate, 2009-2013	77.6%	71.8%	64.9%
Median value of owner-occupied housing units, 2009-2013	132,400	174,500	176,700
Households, 2009-2013	12,098	553,823	115,610,216
Persons per household, 2009-2013	2.4	2.3	2.6
Housing units in multi-unit structures, % 2009-2013	12.6%	19.2%	26.0%
Building permits, 2012	66	3,001	829,658

### Business

	Maine	United States	Franklin
Private nonfarm establishments, 2012	40,120	7,431,808	802
Private nonfarm employment, 2012	486,838	115,938,468	9,095
Private nonfarm employment, % change, 2011-2012	1.5%	2.2%	-1.7%
Nonemployer establishments, 2012	110,117	22,735,915	2,425
Total number of firms, 2007	150,389	27,092,908	3,271
Women-owned firms, % 2007	25.6%	28.8%	26.7%
Manufacturers shipments, 2007 (\$1000)	\$16,363,192	\$5,319,456,312	\$823,516
Merchant wholesaler sales, 2007 (\$1000)	\$8,823,719	\$4,174,286,516	
Retail sales, 2007 (\$1000)	\$20,444,031	\$3,917,663,456	\$381,289
Retail sales per capita, 2007	\$15,520	\$12,990	\$12,807
Accommodation and food services sales, 2007 (\$1000)	\$2,515,827	\$613,795,732	\$43,024

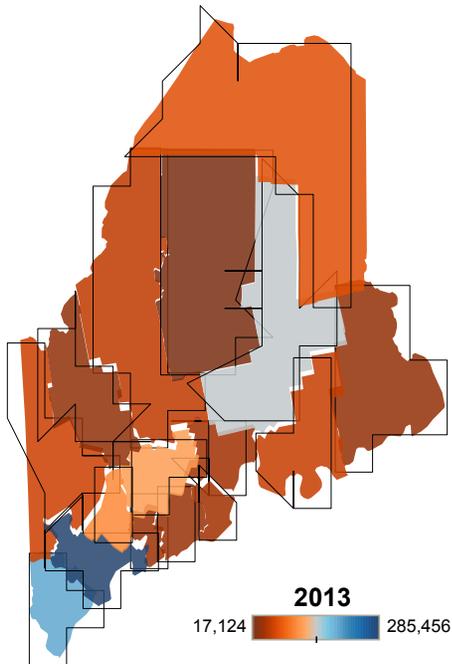
Select County: Franklin

Population Franklin County			
Year	Franklin	Maine	United States
2013	30,495	1,328,302	316,128,839
2012	30,630	1,329,192	313,914,040
2011	30,740	1,328,544	311,587,816
2010	30,718	1,328,361	309,326,225
2009	30,779	1,329,590	306,771,529
2008	30,652	1,330,509	304,093,966
2007	30,596	1,327,040	301,231,207
2006	30,528	1,323,619	298,379,912
2005	30,226	1,318,787	295,516,599
2004	30,096	1,313,688	292,805,298
2003	30,026	1,306,513	290,107,933
2002	30,019	1,295,960	287,625,193
2001	29,631	1,285,692	284,968,955



Source: United States Bureau of the Census

Display: Table



Population by Gender and Age, 2013 Franklin County						
Group	Franklin		Maine		United States	
	Population	%	Population	%	Population	%
Total	30,495	100.0%	1,328,302	100.0%	316,128,839	100.0%
Male	14,937	49.0%	650,220	49.0%	155,651,602	49.2%
Female	15,558	51.0%	678,082	51.0%	160,477,237	50.8%
Under 18 years	5,710	18.7%	261,276	19.7%	73,585,872	23.3%
Under 5 years	1,402	4.6%	65,014	4.9%	19,868,088	6.3%
5 to 13 years	2,868	9.4%	132,299	10.0%	37,073,596	11.7%
14 to 17 years	1,440	4.7%	63,963	4.8%	16,644,188	5.3%
18 to 64 years	19,095	62.6%	831,959	62.6%	197,838,893	62.6%
18 to 24 years	3,303	10.8%	113,795	8.6%	31,457,653	10.0%
25 to 44 years	6,252	20.5%	308,694	23.2%	83,297,277	26.3%
45 to 64 years	9,540	31.3%	409,470	30.8%	83,083,963	26.3%
65 years and over	5,690	18.7%	235,067	17.7%	44,704,074	14.1%
85 years and over	652	2.1%	31,146	2.3%	6,040,789	1.9%
<b>Median Age</b>	45		44		38	

Source: United States Bureau of the Census

Select County: Franklin

- Years:
- 2007
  - 2008
  - 2009
  - 2010
  - 2011
  - 2012
  - 2013

Sources of Personal Income Franklin County						
Income Type	Income (thousands)		Net Change		Percent Change	
	2007	2013	2007	2013	2007	2013
Personal income	\$857,478	\$1,010,519		\$153,041		17.85%
Net earnings	\$503,591	\$547,732		\$44,141		8.77%
Dividends, interest, and rent	\$140,358	\$172,426		\$32,068		22.85%
Earnings by place of work	\$573,621	\$601,387		\$27,766		4.84%
Wage and salary disbursements	\$399,276	\$407,431		\$8,155		2.04%
Supplements to wages and salaries	\$104,819	\$109,735		\$4,916		4.69%
Proprietors' income	\$69,526	\$84,221		\$14,695		21.14%

Source: Bureau of Economic Analysis

Display:  
Tables

Median Household Income Franklin County			
Year	Franklin	Maine	United States
2007	39,929	45,211	50,007
2008	36,405	46,807	52,175
2009	39,827	46,428	51,369
2010	39,034	46,405	51,222
2011	42,240	47,206	51,484
2012	38,973	47,344	51,771
2013	40,198	47,405	52,176

Source: U.S. Census Bureau

Per Capita Income Franklin County			
Year	Franklin	Maine	United States
2007	28,026	35,509	39,804
2008	29,374	36,656	40,873
2009	29,853	36,808	39,357
2010	30,076	37,180	40,163
2011	31,612	38,880	42,298
2012	32,319	39,863	44,200
2013	33,137	40,924	44,765

Source: U.S. Department of Commerce, Bureau of Economic Analysis

2013 Income Bracket Franklin County						
Income Bracket	Franklin Cty		Maine		United States	
	Households	%	Households	%	Households	%
Total households	11,970	100.0%	552,589	100.0%	115,731,304	100.0%
Less than \$10,000	967	8.1%	39,920	7.2%	8,692,140	7.5%
\$10,000 to \$14,999	815	6.8%	36,298	6.6%	6,394,344	5.5%
\$15,000 to \$24,999	1,658	13.9%	67,338	12.2%	12,631,131	10.9%
\$25,000 to \$34,999	1,758	14.7%	65,569	11.9%	11,967,794	10.3%
\$35,000 to \$49,999	2,042	17.1%	79,790	14.4%	15,760,268	13.6%
\$50,000 to \$74,999	2,168	18.1%	104,765	19.0%	20,766,581	17.9%
\$75,000 to \$99,999	1,281	10.7%	68,063	12.3%	13,778,262	11.9%
\$100,000 to \$149,999	838	7.0%	58,536	10.6%	14,652,992	12.7%
\$150,000 to \$199,999	227	1.9%	16,582	3.0%	5,540,382	4.8%
\$200,000 or more	216	1.8%	15,728	2.8%	5,547,410	4.8%

Source: United States Bureau of the Census, American Community Survey (ACS) 3 year estimates

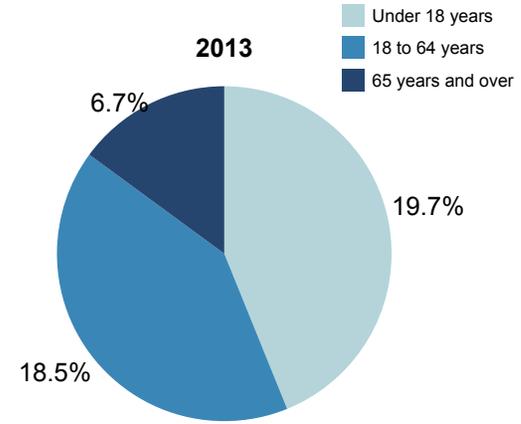
Select County: Franklin

Year: 2013

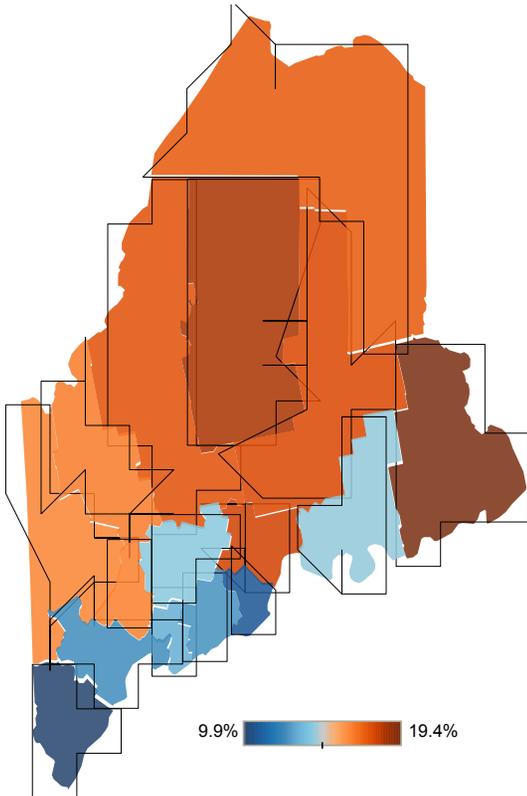
**Poverty Rates, 2013**  
*Franklin County*

Age Group	Franklin	Maine	United States
All people	16.5%	14.3%	15.9%
Under 18 years	19.7%	19.1%	22.4%
18 years and over	15.8%	13.1%	13.9%
18 to 64 years	18.5%	14.3%	14.8%
65 years and over	6.7%	8.5%	9.5%
People in families	11.5%	10.4%	13.3%
Unrelated Individuals 15 yrs and older	31.1%	27.1%	27.0%

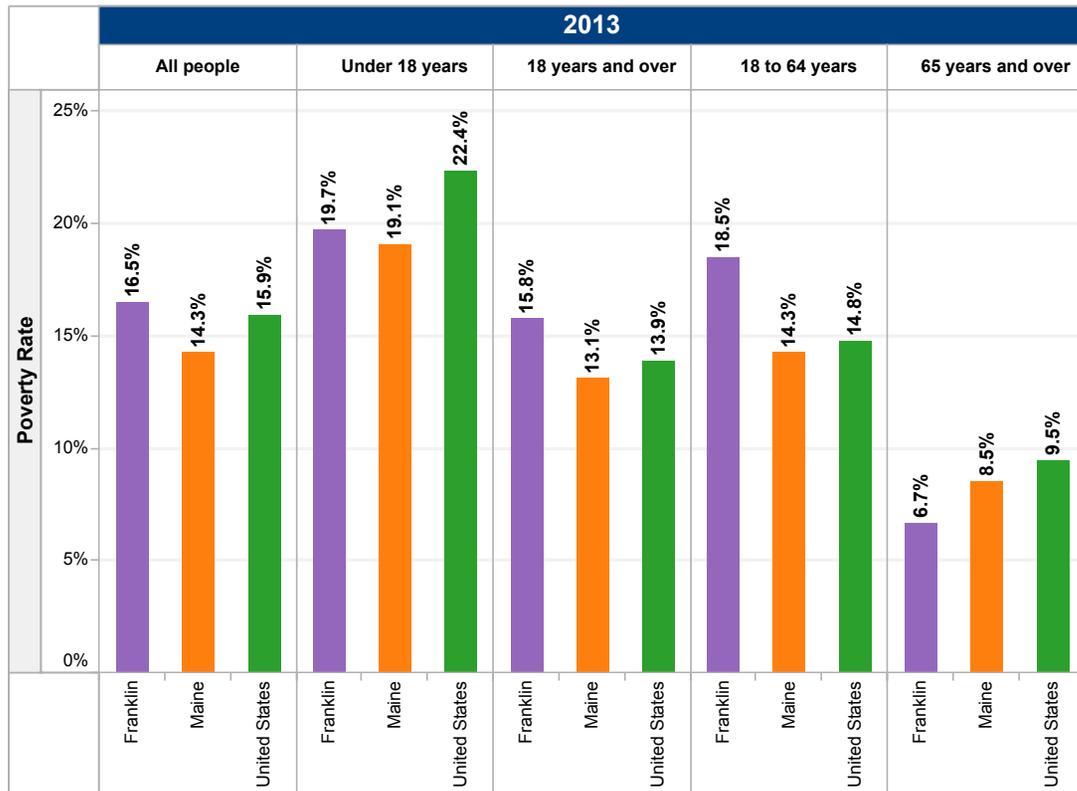
Source: United States Bureau of the Census, American Community Survey (ACS) 3 year estimates



**2013 Poverty Rate for All people**



Franklin Maine United States



Select County: Franklin

Display: Tables

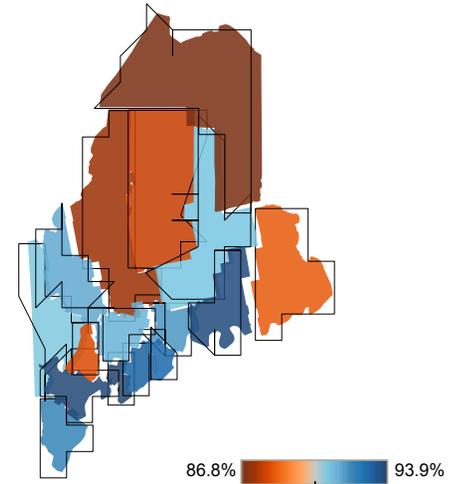
Year: 2013

**Educational Attainment Age 25+ in 2013**  
*Franklin County*

Educational Attainment	Franklin	Maine	United States
Less than 9th grade	2.9%	3.1%	5.8%
9th to 12th grade, no diploma	5.5%	5.4%	7.9%
High school graduate (includes equivalency)	37.0%	33.9%	28.0%
Some college, no degree	21.7%	20.0%	21.2%
Associate's degree	8.1%	9.3%	7.9%
Bachelor's degree	16.2%	18.1%	18.2%
Graduate or professional degree	8.6%	10.2%	10.9%

Source: United States Bureau of the Census, American Community Survey (ACS) 3 year estimates

**2013**  
**Percent high school graduate or higher**



Display:

- Percent high school graduate or higher
- Percent bachelor's degree or higher

**School Enrollment, 2013**  
*Franklin County*

School Enrollment	Franklin		Maine		United States	
	Number	%	Number	%	Number	%
Nursery school, preschool	362	5.2%	15,836	5.2%	5,001,620	6.0%
Kindergarten	255	3.6%	14,921	4.9%	4,234,628	5.1%
Elementary school (grades 1-8)	2,752	39.3%	120,478	39.8%	32,838,543	39.7%
High school (grades 9-12)	1,177	16.8%	66,383	21.9%	17,026,563	20.6%
College or graduate school	2,464	35.1%	85,456	28.2%	23,718,337	28.6%

Source: United States Bureau of the Census, American Community Survey (ACS) 3 year estimates

Select County: Franklin

Display: Employment & Unemployment Table

**Annual Labor Force Estimates for Franklin County**  
(not seasonally adjusted)

Year	Area Name	Civilian Labor Force	Employment	Unemployment	Unemployment Rate
2015	Franklin	14,492	13,801	691	4.8%
	Maine	679,756	649,855	29,901	4.4%
	United States	157,130,000	148,834,000	8,296,000	5.3%
2014	Franklin	14,998	14,018	980	6.5%
	Maine	696,578	657,302	39,276	5.6%
	United States	155,922,000	146,305,000	9,617,000	6.2%
2013	Franklin	15,496	14,309	1,187	7.7%
	Maine	707,623	660,662	46,961	6.6%
	United States	155,389,000	143,929,000	11,460,000	7.4%
2012	Franklin	15,532	14,197	1,335	8.6%
	Maine	702,799	650,249	52,550	7.5%
	United States	154,975,000	142,469,000	12,506,000	8.1%
2011	Franklin	15,522	14,124	1,398	9.0%
	Maine	699,281	644,085	55,196	7.9%

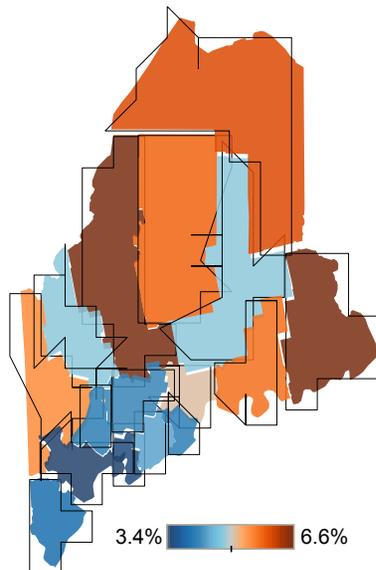
Source: Maine Department of Labor, Center for Workforce Research and Information

[View monthly unemployment statistics](#)

**Unemployment Rates..**

2015

- Unemployment Rate
- One-Year Change



Display: Table

**2015 Annual Average**

County	Unemployment Rate	Year Ago	One-Year Change
Androscoggin	4.1%	5.4%	-1.3
Aroostook	6.0%	7.6%	-1.6
Cumberland	3.4%	4.4%	-1.0
Franklin	4.8%	6.5%	-1.7
Hancock	5.7%	6.9%	-1.2
Kennebec	4.2%	5.3%	-1.1
Knox	4.1%	5.1%	-1.0
Lincoln	4.4%	5.9%	-1.5
Oxford	5.5%	7.0%	-1.5
Penobscot	4.8%	6.1%	-1.3
Piscataquis	5.8%	7.4%	-1.6
Sagadahoc	3.5%	4.6%	-1.1
Somerset	6.6%	7.9%	-1.3
Waldo	5.1%	6.0%	-0.9
Washington	6.6%	8.3%	-1.7
York	3.9%	5.2%	-1.3

Select County: Franklin

Wage Type: Annual

Occupational Group: Total, All Occupations

2014 Annual Occupational Employment for *Franklin County*  
Occupational Group: *Total, All Occupations*

Occupation Title (2010 Standard Occupational Classification)	Area Name	Estimated Employment	Average Wage	25th Percentile	Median Wage	75th Percentile
Total all occupations	Franklin	10,510	\$40,064	\$22,938	\$31,538	\$46,493
	Maine	586,390	\$42,140	\$23,440	\$33,890	\$50,700
Management Occupations	Franklin	500	\$78,486	\$53,733	\$65,658	\$91,348
	Maine	32,090	\$87,330	\$56,340	\$76,870	\$104,470
Business and Financial Operations Occupations	Franklin	250	\$49,630	\$36,721	\$48,635	\$62,317
	Maine	21,940	\$61,310	\$43,740	\$56,750	\$73,680
Computer and Mathematical Occupations	Franklin	50	\$54,481	\$40,674	\$53,914	\$68,343
	Maine	10,260	\$67,570	\$47,090	\$64,020	\$84,020
Architecture and Engineering Occupations	Franklin		\$70,389	\$50,739	\$62,950	\$91,591
	Maine	9,120	\$71,270	\$53,820	\$68,900	\$87,800
Life, Physical, and Social Science Occupations	Franklin	30	\$52,503	\$38,973	\$51,356	\$59,775
	Maine	4,140	\$59,270	\$41,740	\$52,270	\$68,360
Community and Social Services Occupations	Franklin	70	\$42,792	\$33,471	\$39,211	\$54,222
	Maine					

\* Blank cells indicate undisclosed data.

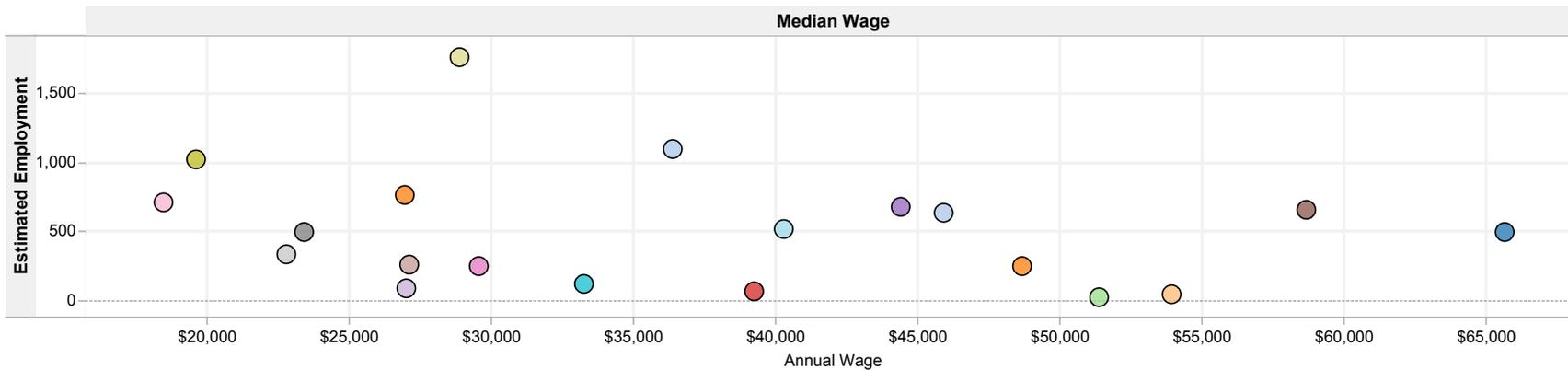
Note: County level data are locally produced as an extension of the official OES data series, and have not been reviewed or validated by the U.S. Bureau of Labor Statistics.  
Source: Maine Department of Labor, Center for Workforce Research and Information



**Display Summary Report for Detailed Occupation (select from table above)**

SOC Code	Occupation Title (2010 Standard Occupational Classification)	ONET URL
00-0000	Total all occupations	<a href="#">Unavailable</a>

Select Graph Wage Type: Median Wage



Select County: Franklin

<b>View:</b> <input checked="" type="radio"/> Table <input type="radio"/> Graph	<b>Display:</b> <input checked="" type="radio"/> Average Employment <input type="radio"/> Average Wage <input type="radio"/> Establishments	<b>Ownership:</b> <input checked="" type="radio"/> Private <input type="radio"/> Federal <input type="radio"/> State <input type="radio"/> Local <input type="radio"/> All	<b>Years:</b> Multiple values	<b>Industry Group:</b> Total, all industries
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[View monthly industry employment](#)

**Average Employment for Franklin County**  
Ownership: Private  
Industry Group: Total, all industries

NAICS	NAICS Title	Area Name	Average Employment					
			Annual		Over-the-Year Change		Percent Change	
			2001	2013	2001	2013	2001	2013
10	Total, All Industries	Franklin	9,820	8,965		-855		-8.71%
		Maine	496,308	490,637		-5,671		-1.14%
101	Goods-Producing Domain	Franklin	3,273	2,196		-1,077		-32.91%
		Maine	110,222	82,101		-28,121		-25.51%
1011	Natural Resources and Mining	Franklin	315	184		-131		-41.59%
		Maine	5,941	6,266		325		5.47%
1012	Construction	Franklin	625	380		-245		-39.20%
		Maine	29,743	25,514		-4,229		-14.22%
1013	Manufacturing	Franklin	2,333	1,632		-701		-30.05%
		Maine	74,538	50,321		-24,217		-32.49%
102	Service-Providing Domain	Franklin	6,547	6,768		221		3.38%
		Maine	386,086	408,536		22,450		5.81%
1021	Trade, Transportation and Utilities	Franklin	2,117	1,957		-160		-7.56%
		Maine	122,733	117,781		-4,952		-4.03%
1022	Information	Franklin	78	84		6		7.69%
		Maine	12,121	7,629		-4,492		-37.06%
1023	Financial Activities	Franklin	574	343		-231		-40.24%
		Maine	33,612	30,294		-3,318		-9.87%
1024	Professional and Business Services	Franklin	266	664		398		149.62%
		Maine	51,801	60,078		8,277		15.98%
1025	Education and Health Services	Franklin	1,660	1,851		191		11.51%
		Maine	92,620	112,872		20,252		21.87%
1026	Leisure and Hospitality	Franklin	1,683	1,640		-43		-2.55%
		Maine	56,406	62,663		6,257		11.09%
1027	Other Services	Franklin	170	229		59		34.71%
		Maine	16,510	17,126		616		3.73%

Note: Blank cells indicate non-disclosable data

Source: Maine Department of Labor, Center for Workforce Research and Information

Select County: Oxford

## Oxford County - QuickFacts

Source: United States Bureau of the Census

### Geography

	Oxford	Maine	United States
Land area in square miles, 2010	2,077	30,843	3,531,905
Persons per square mile, 2010	27.8	43.1	87.4
Average travel time to work (minutes), workers age 16+, 2009-2013	26.8	23.3	25.5

### Population

	Oxford	Maine	United States
Population, (July 1) 2013 est.	57,277	1,328,302	316,128,839
Population, 2010 (April 1) est. base	57,831	1,328,361	308,747,716
Population, % chg, April 1, 2010 to July 1, 2013	-1.0%		2.4%
Persons under 5 years, % 2013	4.7%	4.9%	6.3%
Persons under 18 years, % 2013	19.8%	19.7%	23.3%
Persons 65 years and over, % 2013	18.8%	17.7%	14.1%
Female persons, % 2013	50.3%	51.0%	50.8%
Foreign born persons, % 2009-2013	2.0%	3.4%	12.9%

### Race

	Oxford	Maine	United States
White alone, % 2013 (a)	97.0%	95.2%	77.7%
Black or African American alone, % 2013 (a)	0.4%	1.4%	13.2%
American Indian and Alaska Native alone, % 2013 (a)	0.4%	0.7%	1.2%
Asian alone, % 2013 (a)	0.6%	1.1%	5.3%
Hispanic or Latino, % 2013 (b)	1.2%	1.4%	17.1%
Two or More Races, % 2013	1.5%	1.6%	2.4%

### Income and Poverty

	Oxford	Maine	United States
Per capita money income in past 12 months (2013 dollars), 2009-2013	\$21,441	\$26,824	\$28,155
Median household income, 2009-2013	\$40,674	\$48,453	\$53,046
People of all ages in poverty, % 2009-2013	14.9%	13.6%	15.4%

### Education and Veterans

	Oxford	Maine	United States
HS graduate or higher, % of persons age 25+, 2009-2013	89.7%	91.1%	86.0%
Bachelor's degree or higher, % of persons age 25+, 2009-2013	18.9%	27.9%	28.8%
Veterans, 2009-2013	5,841	126,842	21,263,779

### Housing

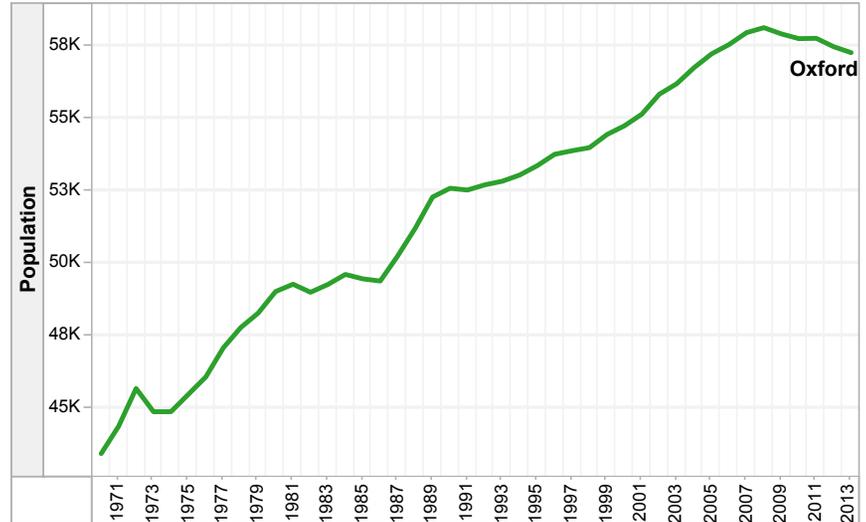
	Oxford	Maine	United States
Housing units, 2013	36,073	723,128	132,802,859
Homeownership rate, 2009-2013	78.6%	71.8%	64.9%
Median value of owner-occupied housing units, 2009-2013	137,200	174,500	176,700
Households, 2009-2013	22,890	553,823	115,610,216
Persons per household, 2009-2013	2.5	2.3	2.6
Housing units in multi-unit structures, % 2009-2013	14.9%	19.2%	26.0%
Building permits, 2012	136	3,001	829,658

### Business

	Maine	United States	Oxford
Private nonfarm establishments, 2012	40,120	7,431,808	1,281
Private nonfarm employment, 2012	486,838	115,938,468	13,817
Private nonfarm employment, % change, 2011-2012	1.5%	2.2%	-1.7%
Nonemployer establishments, 2012	110,117	22,735,915	4,320
Total number of firms, 2007	150,389	27,092,908	6,099
Women-owned firms, % 2007	25.6%	28.8%	21.6%
Manufacturers shipments, 2007 (\$1000)	\$16,363,192	\$5,319,456,312	\$865,837
Merchant wholesaler sales, 2007 (\$1000)	\$8,823,719	\$4,174,286,516	\$188,252
Retail sales, 2007 (\$1000)	\$20,444,031	\$3,917,663,456	\$489,480
Retail sales per capita, 2007	\$15,520	\$12,990	\$8,647
Accommodation and food services sales, 2007 (\$1000)	\$2,515,827	\$613,795,732	\$92,619

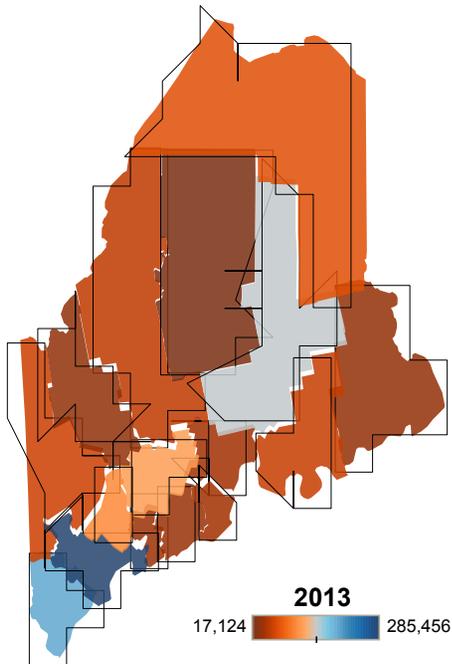
Select County: Oxford

Population Oxford County			
Year	Oxford	Maine	United States
2013	57,277	1,328,302	316,128,839
2012	57,481	1,329,192	313,914,040
2011	57,771	1,328,544	311,587,816
2010	57,759	1,328,361	309,326,225
2009	57,923	1,329,590	306,771,529
2008	58,138	1,330,509	304,093,966
2007	57,966	1,327,040	301,231,207
2006	57,556	1,323,619	298,379,912
2005	57,235	1,318,787	295,516,599
2004	56,763	1,313,688	292,805,298
2003	56,206	1,306,513	290,107,933
2002	55,843	1,295,960	287,625,193
2001	55,157	1,285,692	284,968,955



Source: United States Bureau of the Census

Display: Table



Population by Gender and Age, 2013 Oxford County						
Group	Oxford		Maine		United States	
	Population	%	Population	%	Population	%
Total	57,277	100.0%	1,328,302	100.0%	316,128,839	100.0%
Male	28,444	49.7%	650,220	49.0%	155,651,602	49.2%
Female	28,833	50.3%	678,082	51.0%	160,477,237	50.8%
Under 18 years	11,323	19.8%	261,276	19.7%	73,585,872	23.3%
Under 5 years	2,667	4.7%	65,014	4.9%	19,868,088	6.3%
5 to 13 years	5,609	9.8%	132,299	10.0%	37,073,596	11.7%
14 to 17 years	3,047	5.3%	63,963	4.8%	16,644,188	5.3%
18 to 64 years	35,190	61.4%	831,959	62.6%	197,838,893	62.6%
18 to 24 years	4,113	7.2%	113,795	8.6%	31,457,653	10.0%
25 to 44 years	12,348	21.6%	308,694	23.2%	83,297,277	26.3%
45 to 64 years	18,729	32.7%	409,470	30.8%	83,083,963	26.3%
65 years and over	10,764	18.8%	235,067	17.7%	44,704,074	14.1%
85 years and over	1,301	2.3%	31,146	2.3%	6,040,789	1.9%
<b>Median Age</b>	46		44		38	

Source: United States Bureau of the Census

Select County: Oxford

- Years:
- 2007
  - 2008
  - 2009
  - 2010
  - 2011
  - 2012
  - 2013

Sources of Personal Income Oxford County						
Income Type	Income (thousands)		Net Change		Percent Change	
	2007	2013	2007	2013	2007	2013
Personal income	\$1,627,366	\$1,948,077		\$320,711		19.71%
Net earnings	\$961,213	\$1,066,767		\$105,554		10.98%
Dividends, interest, and rent	\$243,522	\$300,842		\$57,320		23.54%
Earnings by place of work	\$851,201	\$920,891		\$69,690		8.19%
Wage and salary disbursements	\$588,432	\$611,139		\$22,707		3.86%
Supplements to wages and salaries	\$155,671	\$165,403		\$9,732		6.25%
Proprietors' income	\$107,098	\$144,349		\$37,251		34.78%

Source: Bureau of Economic Analysis

Display:  
Tables

Median Household Income Oxford County			
Year	Maine	Oxford	United States
2007	45,211	38,359	50,007
2008	46,807	41,526	52,175
2009	46,428	39,437	51,369
2010	46,405	38,789	51,222
2011	47,206	39,985	51,484
2012	47,344	40,286	51,771
2013	47,405	39,218	52,176

Source: U.S. Census Bureau

Per Capita Income Oxford County			
Year	Maine	Oxford	United States
2007	35,509	28,074	39,804
2008	36,656	29,445	40,873
2009	36,808	29,815	39,357
2010	37,180	30,766	40,163
2011	38,880	32,002	42,298
2012	39,863	32,863	44,200
2013	40,924	34,012	44,765

Source: U.S. Department of Commerce, Bureau of Economic Analysis

2013 Income Bracket Oxford County						
Income Bracket	Oxford Cty		Maine		United States	
	Households	%	Households	%	Households	%
Total households	22,609	100.0%	552,589	100.0%	115,731,304	100.0%
Less than \$10,000	1,818	8.0%	39,920	7.2%	8,692,140	7.5%
\$10,000 to \$14,999	1,633	7.2%	36,298	6.6%	6,394,344	5.5%
\$15,000 to \$24,999	3,367	14.9%	67,338	12.2%	12,631,131	10.9%
\$25,000 to \$34,999	3,256	14.4%	65,569	11.9%	11,967,794	10.3%
\$35,000 to \$49,999	3,805	16.8%	79,790	14.4%	15,760,268	13.6%
\$50,000 to \$74,999	3,953	17.5%	104,765	19.0%	20,766,581	17.9%
\$75,000 to \$99,999	2,412	10.7%	68,063	12.3%	13,778,262	11.9%
\$100,000 to \$149,999	1,882	8.3%	58,536	10.6%	14,652,992	12.7%
\$150,000 to \$199,999	253	1.1%	16,582	3.0%	5,540,382	4.8%
\$200,000 or more	230	1.0%	15,728	2.8%	5,547,410	4.8%

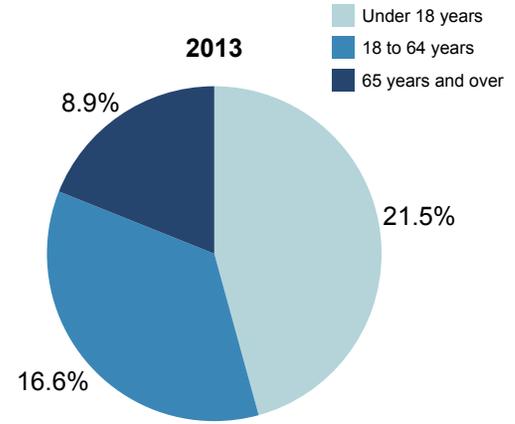
Source: United States Bureau of the Census, American Community Survey (ACS) 3 year estimates

Select County: Oxford

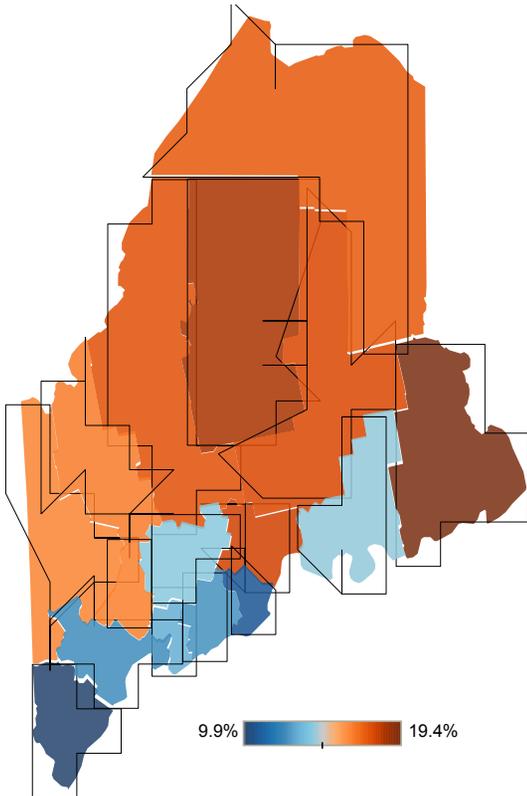
Year: 2013

Poverty Rates, 2013 Oxford County			
Age Group	Oxford	Maine	United States
All people	16.3%	14.3%	15.9%
Under 18 years	21.5%	19.1%	22.4%
18 years and over	15.0%	13.1%	13.9%
18 to 64 years	16.6%	14.3%	14.8%
65 years and over	8.9%	8.5%	9.5%
People in families	11.7%	10.4%	13.3%
Unrelated Individuals 15 yrs and older	33.0%	27.1%	27.0%

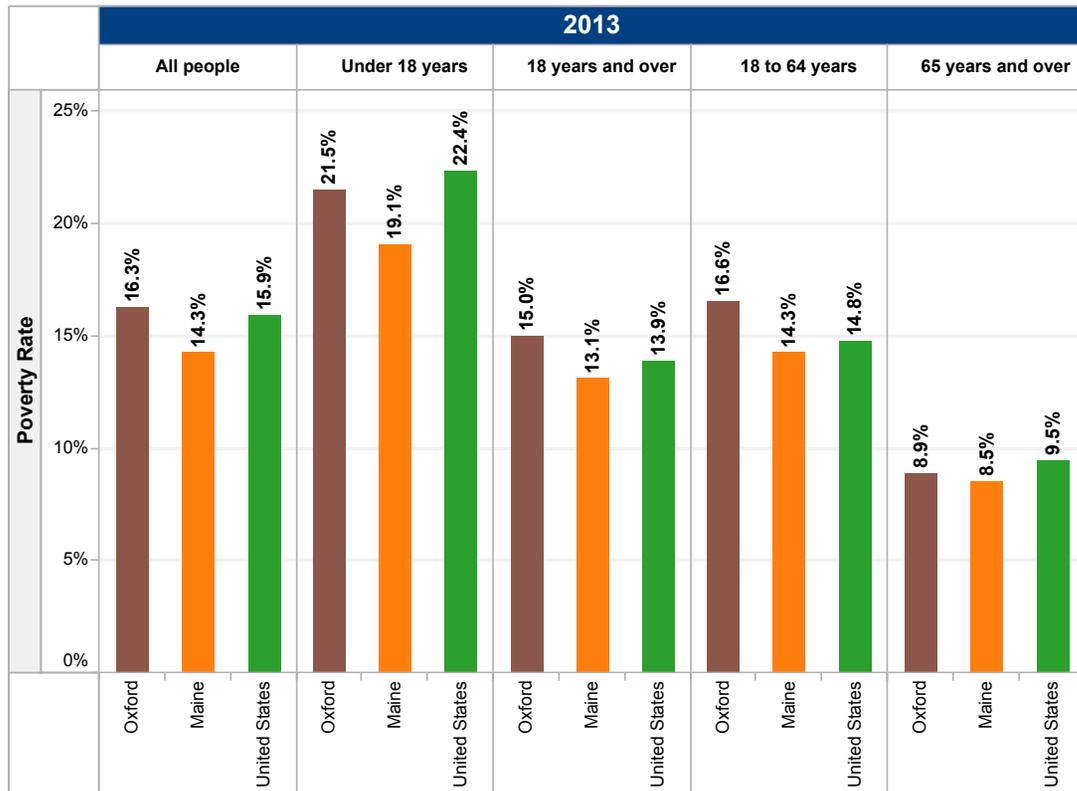
Source: United States Bureau of the Census, American Community Survey (ACS) 3 year estimates



### 2013 Poverty Rate for All people



Oxford Maine United States



Select County: Oxford

Display: Tables

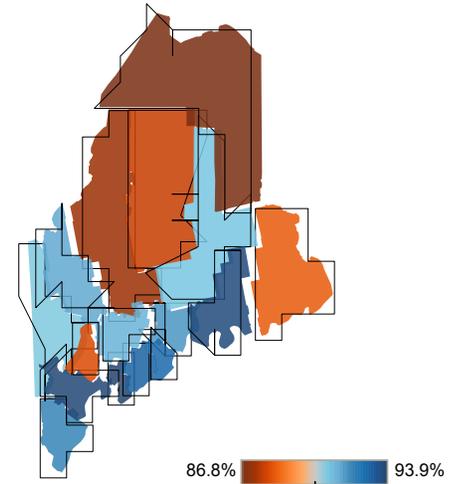
Year: 2013

**Educational Attainment Age 25+ in 2013**  
*Oxford County*

Educational Attainment	Oxford	Maine	United States
Less than 9th grade	3.2%	3.1%	5.8%
9th to 12th grade, no diploma	5.9%	5.4%	7.9%
High school graduate (includes equivalency)	46.5%	33.9%	28.0%
Some college, no degree	19.2%	20.0%	21.2%
Associate's degree	7.1%	9.3%	7.9%
Bachelor's degree	11.4%	18.1%	18.2%
Graduate or professional degree	6.7%	10.2%	10.9%

Source: United States Bureau of the Census, American Community Survey (ACS) 3 year estimates

**2013**  
**Percent high school graduate or higher**



Display:

- Percent high school graduate or higher
- Percent bachelor's degree or higher

**School Enrollment, 2013**  
*Oxford County*

School Enrollment	Oxford		Maine		United States	
	Number	%	Number	%	Number	%
Nursery school, preschool	600	4.8%	15,836	5.2%	5,001,620	6.0%
Kindergarten	762	6.1%	14,921	4.9%	4,234,628	5.1%
Elementary school (grades 1-8)	5,299	42.2%	120,478	39.8%	32,838,543	39.7%
High school (grades 9-12)	2,981	23.7%	66,383	21.9%	17,026,563	20.6%
College or graduate school	2,913	23.2%	85,456	28.2%	23,718,337	28.6%

Source: United States Bureau of the Census, American Community Survey (ACS) 3 year estimates

Select County: Oxford

Display: Employment & Unemployment Table

**Annual Labor Force Estimates for Oxford County**  
(not seasonally adjusted)

Year	Area Name	Civilian Labor Force	Employment	Unemployment	Unemployment Rate
2015	Oxford	26,479	25,032	1,447	5.5%
	Maine	679,756	649,855	29,901	4.4%
	United States	157,130,000	148,834,000	8,296,000	5.3%
2014	Oxford	27,371	25,464	1,907	7.0%
	Maine	696,578	657,302	39,276	5.6%
	United States	155,922,000	146,305,000	9,617,000	6.2%
2013	Oxford	27,888	25,571	2,317	8.3%
	Maine	707,623	660,662	46,961	6.6%
	United States	155,389,000	143,929,000	11,460,000	7.4%
2012	Oxford	27,919	25,216	2,703	9.7%
	Maine	702,799	650,249	52,550	7.5%
	United States	154,975,000	142,469,000	12,506,000	8.1%
2011	Oxford	27,893	24,953	2,940	10.5%
	Maine	699,281	644,085	55,196	7.9%

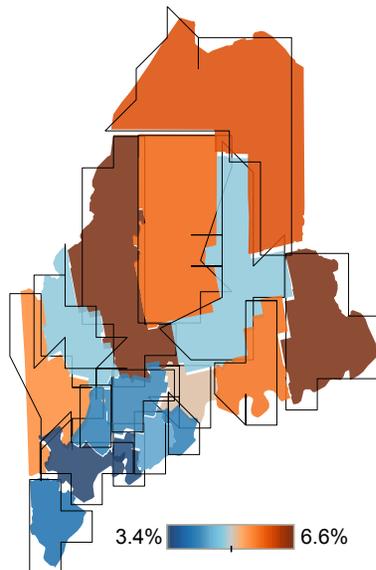
Source: Maine Department of Labor, Center for Workforce Research and Information

[View monthly unemployment statistics](#)

**Unemployment Rates..**

2015

- Unemployment Rate
- One-Year Change



Display: Table

**2015 Annual Average**

County	Unemployment Rate	Year Ago	One-Year Change
Androscoggin	4.1%	5.4%	-1.3
Aroostook	6.0%	7.6%	-1.6
Cumberland	3.4%	4.4%	-1.0
Franklin	4.8%	6.5%	-1.7
Hancock	5.7%	6.9%	-1.2
Kennebec	4.2%	5.3%	-1.1
Knox	4.1%	5.1%	-1.0
Lincoln	4.4%	5.9%	-1.5
Oxford	5.5%	7.0%	-1.5
Penobscot	4.8%	6.1%	-1.3
Piscataquis	5.8%	7.4%	-1.6
Sagadahoc	3.5%	4.6%	-1.1
Somerset	6.6%	7.9%	-1.3
Waldo	5.1%	6.0%	-0.9
Washington	6.6%	8.3%	-1.7
York	3.9%	5.2%	-1.3

Select County: Oxford

Wage Type: Annual

Occupational Group: Total, All Occupations

**2014 Annual Occupational Employment for Oxford County**  
Occupational Group: Total, All Occupations

Occupation Title (2010 Standard Occupational Classification)	Area Name	Estimated Employment	Average Wage	25th Percentile	Median Wage	75th Percentile
Total all occupations	Oxford	15,530	\$36,947	\$21,473	\$30,465	\$45,378
	Maine	586,390	\$42,140	\$23,440	\$33,890	\$50,700
Management Occupations	Oxford	680	\$78,454	\$53,499	\$68,499	\$91,556
	Maine	32,090	\$87,330	\$56,340	\$76,870	\$104,470
Business and Financial Operations Occupations	Oxford	280	\$58,887	\$45,238	\$58,071	\$72,218
	Maine	21,940	\$61,310	\$43,740	\$56,750	\$73,680
Computer and Mathematical Occupations	Oxford	140	\$55,469	\$35,682	\$46,137	\$72,903
	Maine	10,260	\$67,570	\$47,090	\$64,020	\$84,020
Architecture and Engineering Occupations	Oxford	80	\$75,922	\$63,693	\$75,432	\$90,140
	Maine	9,120	\$71,270	\$53,820	\$68,900	\$87,800
Life, Physical, and Social Science Occupations	Oxford	50	\$55,049	\$41,747	\$49,268	\$61,855
	Maine	4,140	\$59,270	\$41,740	\$52,270	\$68,360
Community and Social Services Occupations	Oxford	210	\$40,770	\$30,475	\$40,904	\$47,190
	Maine	11,500	\$38,100	\$28,500	\$38,000	\$48,000

\* Blank cells indicate undisclosable data.

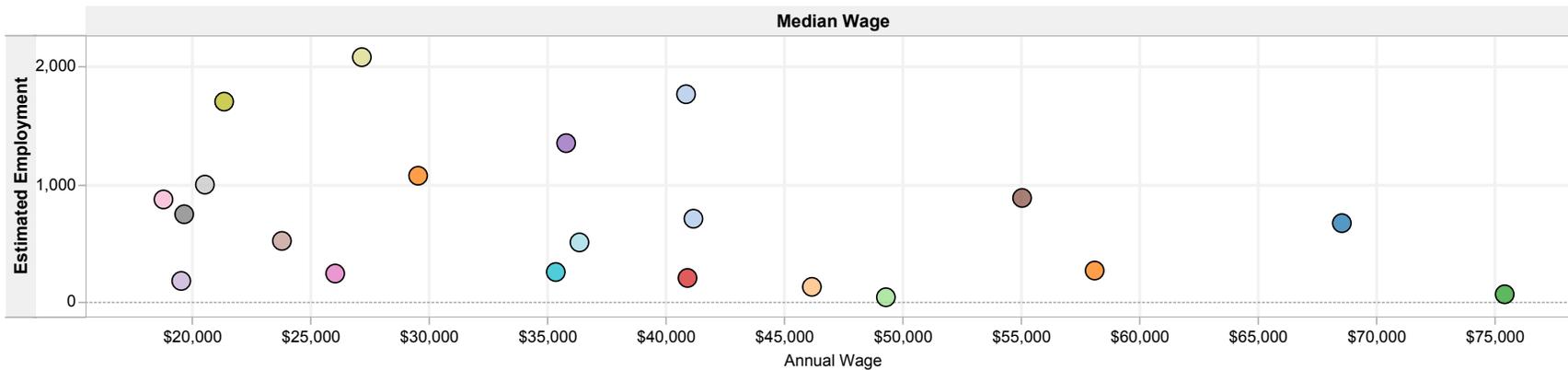
Note: County level data are locally produced as an extension of the official OES data series, and have not been reviewed or validated by the U.S. Bureau of Labor Statistics.  
Source: Maine Department of Labor, Center for Workforce Research and Information



**Display Summary Report for Detailed Occupation (select from table above)**

SOC Code	Occupation Title (2010 Standard Occupational Classification)	ONET URL
00-0000	Total all occupations	<a href="#">Unavailable</a>

Select Graph Wage Type: Median Wage



Select County: Oxford

<b>View:</b> <input checked="" type="radio"/> Table <input type="radio"/> Graph	<b>Display:</b> <input checked="" type="radio"/> Average Employment <input type="radio"/> Average Wage <input type="radio"/> Establishments	<b>Ownership:</b> <input checked="" type="radio"/> Private <input type="radio"/> Federal <input type="radio"/> State <input type="radio"/> Local <input type="radio"/> All	<b>Years:</b> Multiple values	<b>Industry Group:</b> Total, all industries
---	--	---	----------------------------------	---

[View monthly industry employment](#)

**Average Employment for Oxford County**  
Ownership: Private  
Industry Group: Total, all industries

NAICS	NAICS Title	Area Name	Average Employment					
			Annual		Over-the-Year Change		Percent Change	
			2001	2013	2001	2013	2001	2013
10	Total, All Industries	Oxford	14,855	13,344		-1,511		-10.17%
		Maine	496,308	490,637		-5,671		-1.14%
101	Goods-Producing Domain	Oxford	5,010	3,565		-1,445		-28.84%
		Maine	110,222	82,101		-28,121		-25.51%
1011	Natural Resources and Mining	Oxford	342	337		-5		-1.46%
		Maine	5,941	6,266		325		5.47%
1012	Construction	Oxford	927	680		-247		-26.65%
		Maine	29,743	25,514		-4,229		-14.22%
1013	Manufacturing	Oxford	3,740	2,548		-1,192		-31.87%
		Maine	74,538	50,321		-24,217		-32.49%
102	Service-Providing Domain	Oxford	9,845	9,778		-67		-0.68%
		Maine	386,086	408,536		22,450		5.81%
1021	Trade, Transportation and Utilities	Oxford	2,869	2,705		-164		-5.72%
		Maine	122,733	117,781		-4,952		-4.03%
1022	Information	Oxford	232	83		-149		-64.22%
		Maine	12,121	7,629		-4,492		-37.06%
1023	Financial Activities	Oxford	509	392		-117		-22.99%
		Maine	33,612	30,294		-3,318		-9.87%
1024	Professional and Business Services	Oxford	698	718		20		2.87%
		Maine	51,801	60,078		8,277		15.98%
1025	Education and Health Services	Oxford	2,747	2,916		169		6.15%
		Maine	92,620	112,872		20,252		21.87%
1026	Leisure and Hospitality	Oxford	2,235	2,566		331		14.81%
		Maine	56,406	62,663		6,257		11.09%
1027	Other Services	Oxford	556	399		-157		-28.24%
		Maine	16,510	17,126		616		3.73%

Note: Blank cells indicate non-disclosable data

Source: Maine Department of Labor, Center for Workforce Research and Information



June 29, 2016

Stacie R. Beyer, Chief Planner, Maine Land Use Planning Commission  
Department of Agriculture, Conservation & Forestry  
Land Use Planning Commission  
22 State House Station  
18 Elkins Land  
Augusta, Maine 04333

RE: Request for Information on Pending Substantive Review of a Petition for Removal from the Expedited Permitting Area for Wind Energy Development (Specified Area: Milton Township)

Dear Ms. Beyer:

Attached for the consideration of the Land Use Planning Commission (LUPC) is the information you requested from ISO New England in your June 14 email. Per your request, the attached provides a brief overview of the existing transmission system and constraints in Maine. Please let me know if there is additional information which may be useful to the LUPC.

Please note that this letter and the attached have been sent in electronic format to [Stacie.R.Beyer@maine.gov](mailto:Stacie.R.Beyer@maine.gov), and copies have been mailed to the address above as well as to 106 Hogan Road, Suite 8, Bangor, Maine 04401.

Additionally, in the coming days you will receive (via FedEx) large printed versions of the transmission map contained on page 5. This map provides details on transmission lines and generating resources.

Respectfully

A handwritten signature in blue ink, appearing to read "Michael S. Giaimo".

Michael S. Giaimo, Esq.  
External Affairs Representative  
ISO New England



## *Introduction*

ISO New England Inc. (ISO) is the private, non-profit entity that serves as the Regional Transmission Organization (RTO) for New England. The ISO plans and operates the New England bulk power system and administers New England's organized wholesale electricity market pursuant to the ISO Tariff and the Transmission Operating Agreement with the New England Participating Transmission Owners. In its capacity as an RTO, the ISO also has the responsibility to plan for the long-term reliability of the New England Control Area, which is comprised of a six-state region, and protect the short-term reliability of the control area, and to operate the system according to reliability standards established by the Northeast Power Coordinating Council and the North American Electric Reliability Corporation.

## *Regional Overview*<sup>1</sup>

In New England, the power system provides electricity to diverse areas of the region, from the rural areas of northern and western Maine to densely populated cities in southern New England. The bulk power system also integrates widely dispersed and varied types of power supply resources including renewables, nuclear, and fossil-fired generation to meet the region's demand for electricity.

When demand for power is peaking in New England, approximately 20% of the demand is in the three northern states of Maine, New Hampshire, and Vermont. The remaining 80% of the region's peak demand comes from the southern states of Massachusetts, Connecticut, and Rhode Island. Maine represents approximately 10% of the region's peak load.

Although the three northern states are much larger geographically than the southern states, the greater urban development in southern New England creates the relatively larger demand and corresponding transmission buildout. This means that while the demands on the New England transmission system can vary widely across the region, the system must be able to operate reliably at all times under these wide-ranging conditions.

The region's high-voltage transmission system is used to move power from various internal and external sources to the region's load centers. The New England transmission system consists primarily of 115 kilovolt (kV), 230 kV, and 345 kV transmission lines. Transmission lines with higher voltages allow more electricity to flow over a greater distance while mitigating potential line losses.

There are approximately 5,500 miles of 115 kV, 500 miles of 230 kV and 2,500 miles of 345 kV lines in the region. Transmission lines in northern New England are generally longer and fewer in number than in southern New England.

The region has 13 interconnections with neighboring power systems in the United States and Eastern Canada, including:

- Nine interconnections with New York, including: two 345 kV ties; one 230 kV tie; one 138 kV tie; three 115 kV ties; one 69 kV tie; and one high-voltage direct-current (HVDC) tie connecting southwest Connecticut with Long Island;
- Two HVDC interconnections with Québec, including: a 120 kV alternating current (AC) interconnection at Highgate in northern Vermont; and a  $\pm 450$  kV HVDC line with terminal configurations allowing up to 2,000 MW to be delivered at Sandy Pond in Massachusetts ; and
- Two interconnections with New Brunswick through Maine in the form of two 345 kV AC ties in northeastern Maine.

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<sup>1</sup> Please note a map of the regional transmission system which the ISO administers is included on page 5.

The region's 13 interconnections are important because they can be used to import power needed to help maintain system reliability when there are scheduled and unscheduled transmission and generation outages within New England. These interconnections also allow the region to import less expensive power from neighboring regions. In fact, in 2015, 16% of the region's energy needs were met by imports that flowed over these thirteen interconnections.

### *Maine Overview<sup>2</sup>*

New England and New Brunswick have two 345 kV interconnections leading into two 345 kV corridors at Orrington, Maine. The 345 kV corridors span hundreds of miles and eventually tie into Massachusetts. While the state has these large transmission lines, the majority of the remaining high-voltage transmission system in Maine is comprised of long 115 kV lines.

The system has been planned and designed to be sufficient to serve load (relatively light consumer demand in less densely populated areas) and existing transmission obligations. However, the transmission system in Maine is limited in places and faces numerous transmission security concerns. These could include lines that overheat when overloaded which can damage equipment.

The system of long 115 kV lines in northern and western Maine is challenged as these lines have high real- and reactive-power losses, and are also being asked to accommodate more and more generation facilities as northern New England's wind potential is developed, often exceeding its ability to accommodate all the electricity they produce, while still efficiently and reliably serving load. Also, in many instances, the capabilities of the underlying distribution system of 34.5 kV, 46 kV, and 69 kV lines are being exceeded as more renewable resources are developed on the distribution system placing greater demands on an already stressed 115 kV system.

### *Maine Power Reliability Program*

The Maine Power Reliability Program (MPRP), which was proposed in 2008 and went into service in 2015, includes the addition of significant new 345 kV and 115 kV transmission facilities and new 345 kV autotransformers at key locations in Maine. MPRP enables the Maine system to serve load at an appropriate level of system reliability and operability in accordance with applicable reliability standards. While this new infrastructure reinforces the backbone of Maine's transmission system, the northern portion of the transmission system in the state continues to present challenges for further increases in the injection and transfer of power. Certain situations have the potential to cause high voltages, low voltages, high frequencies, the loss of a large amount of generation, or system separation from New Brunswick. A number of new generation projects and elective transmission upgrades are seeking to interconnect to this part of the system, which is already stressed and is not always able to accommodate all of the generation that already exists in the area.

Over the past several years, the addition of generating facilities in Maine and New Hampshire, in combination with the area's limited ability to move power out, has increased the frequency of many northern New England transmission interfaces operating near their limits. This can result in restrictions on the amount of power northern resources can move out of the area. In some instances, the ISO has had to curtail generators in northern areas of the region because, at times, there is more power being produced than the small, long transmission lines can handle safely.

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<sup>2</sup> Please note a map of the transmission system in Maine is included on page 6.

A significant number of new wind generation projects have already interconnected to the northern portions of the New England transmission system. Several additional proposed wind projects have applied to interconnect in these areas. These portions of the system are remote from the region’s load centers and are susceptible to poor voltage performance. Power generation has also been curtailed in these locations, especially when customer demand is low and the transmission system is being protected. These types of restrictions are expected to continue in the absence of significant transmission expansion.

Other concerns in northern New England include limited system flexibility to accommodate maintenance outages, limited dynamic reactive-power resources, and high real- and reactive-power losses.

*Limited Transfer Capability across Major Interfaces in Maine*

A 2012 study identified the increase in power transfer capability across the major interfaces in Maine and neighboring systems resulting from the addition of the MPRP project. The study evaluated thermal, voltage, and stability transfer limits and demonstrated the project would provide a modest increase in transfer capability across the major interfaces in Maine, including Maine to New Hampshire. The overall limiting condition in setting the new transfer limits is the system’s stability response to faults in southern New England. The new transfer limits have been adopted in the appropriate planning and capacity market processes. Even with the new, higher transfer limits resulting from the MPRP project, transmission constraints within Maine will likely continue to limit the ability of the system to deliver power from some existing and new capacity resources.

With the MPRP transfer limits, export constraints will continue to be restrictive at the Surowiec South and Orrington South interface subareas, especially under maintenance or line-outage conditions. Affected subareas include the Rumford Area, Bigelow/Upper Kennebec, and Northern Maine/Keene Road. Additional local constraints may emerge as more resources pursue interconnection to the power system in the north. (Note: For your convenience, a system map has been included below).

The existing transmission system in Maine was built to serve minimal local load and it is at its limit with no remaining margin. Significant infrastructure is needed to integrate the quantity of proposed new wind generation in Maine. Presently, there are over 3,600 MW (nameplate) wind capacity proposed to be interconnected to the regional transmission system in northern and western Maine.

<b>Proposed Wind Development Proposal in ISO Generator Interconnection Queue as of June 1, 2016</b>		
<b>County</b>	<b>Interconnection Requests</b>	<b>Total MWs</b>
<b>Aroostook</b>	9	1,971
<b>Franklin</b>	5	575
<b>Hancock</b>	3	373
<b>Oxford</b>	4	63
<b>Penobscot</b>	5	52
<b>Penobscot/Washington</b>	1	53
<b>Somerset</b>	4	350
<b>Washington</b>	2	194
<b>Total</b>	<b>33</b>	<b>3,631</b>

*Information Request from ISO New England to  
Stacie R. Beyer, Chief Planner, Maine Land Use Planning Commission*

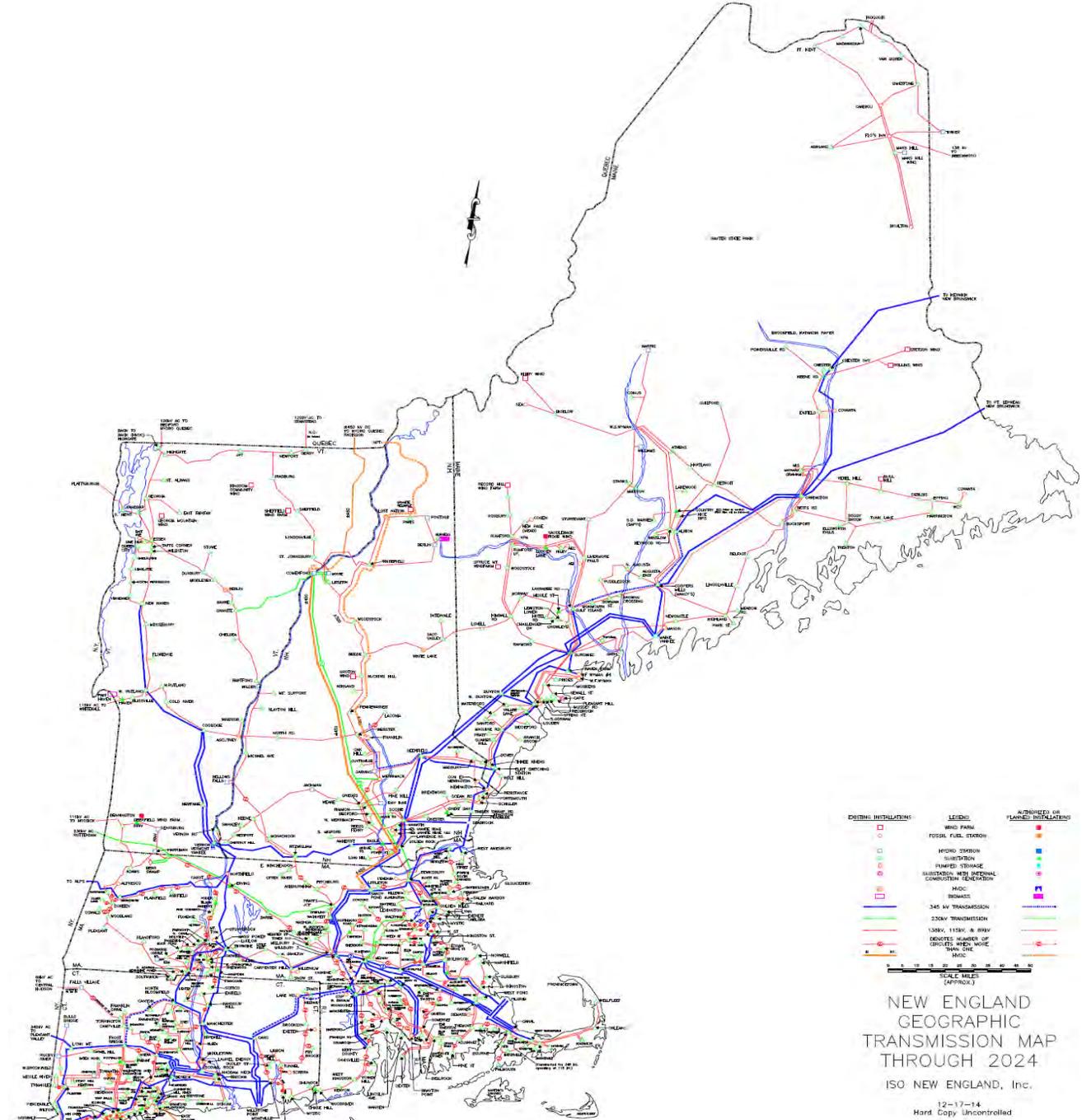
*Open-Access Transmission Tariff*

ISO New England's Open-Access Transmission Tariff sets out the processes for interconnecting generating facilities to the regional transmission system. Schedule 22 of the tariff contains the interconnection requirements for generating facilities greater than 20 MW and Schedule 23 contains the interconnection requirements for facilities 20 MW or less. The interconnection process has four key phases, including the interconnection request phase, interconnection studies phase, interconnection agreement phase, and the construction and commercialization phase. As part of the interconnection studies phase, infrastructure and upgrades are identified to ensure that the interconnection can be done reliably with no adverse impact on the existing power system. The cost of the interconnection and upgrades associated with the interconnection are borne by the project developer.

*New Transmission Will Be Needed to Interconnect More Generation*

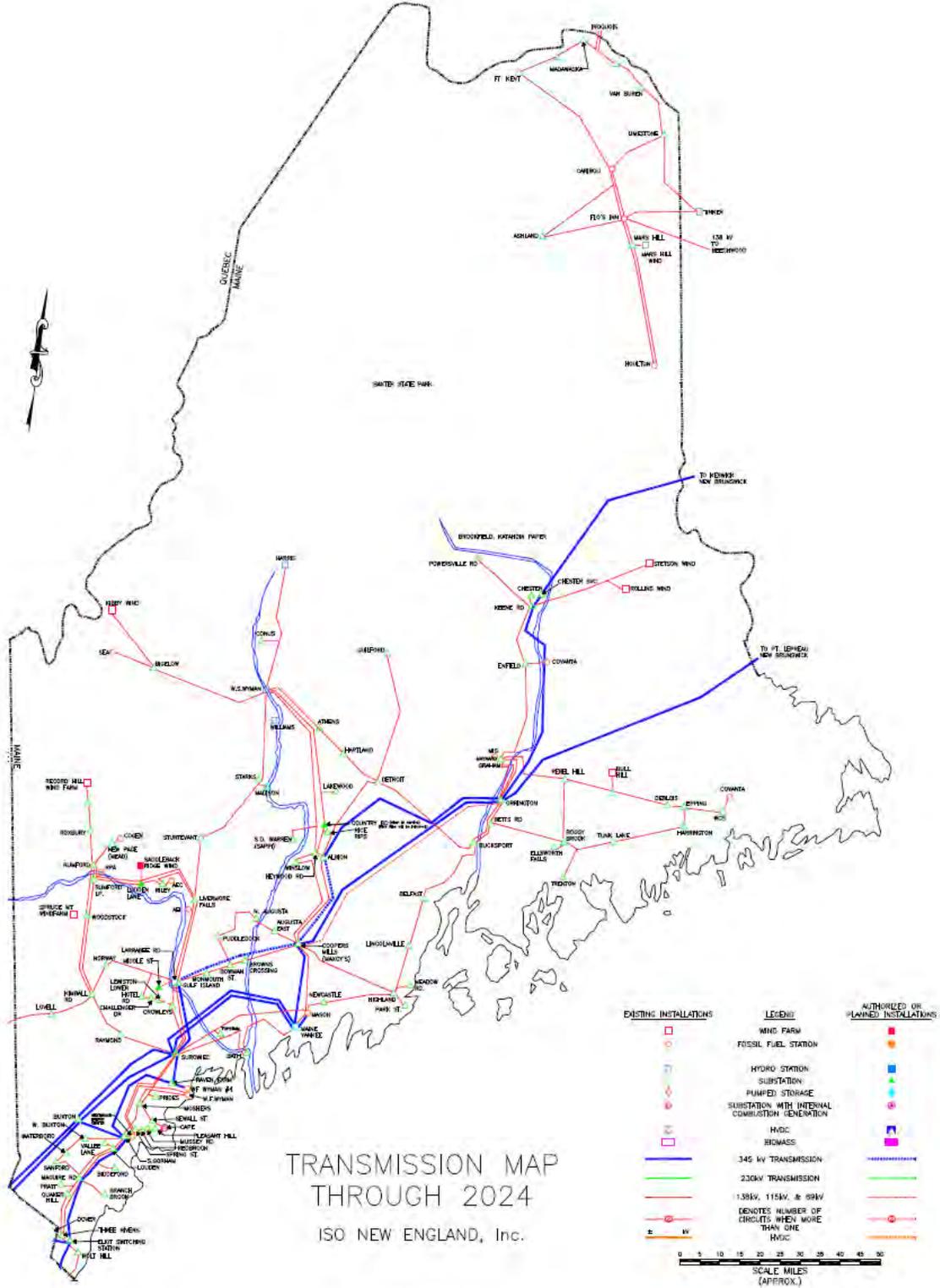
In summary, the MPRP project was successful in enabling the Maine system to continue to reliably serve load. However, even with increased power transfers resulting from MPRP, existing generation and recent additions have little remaining margin on the existing system. Absent new infrastructure, the transmission constraints within Maine will likely continue to limit the ability of the system to deliver power from some existing and new generating facilities in Maine.

New England Geographic Transmission Map (2024)<sup>3</sup>



<sup>3</sup> See [www.iso-ne.com/static-assets/documents/nswiss/grid\\_mkts/key\\_facts/iso\\_geo\\_diagram\\_sept2013\\_final\\_nonceij\\_revised.pdf](http://www.iso-ne.com/static-assets/documents/nswiss/grid_mkts/key_facts/iso_geo_diagram_sept2013_final_nonceij_revised.pdf).

Maine Transmission Map (2024)<sup>4</sup>



<sup>4</sup> Excerpt from [www.iso-ne.com/static-assets/documents/nswiss/grid\\_mkts/key\\_facts/iso\\_geo\\_diagram\\_sept2013\\_final\\_nonceii\\_revised.pdf](http://www.iso-ne.com/static-assets/documents/nswiss/grid_mkts/key_facts/iso_geo_diagram_sept2013_final_nonceii_revised.pdf).



# OXFORD COUNTY BOARD OF COMMISSIONERS

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June 29, 2016

Ms. Stacie R. Beyer, Chief Planner  
Maine Land Use Planning Commission  
22 SHS, 18 Elkins Lane  
Augusta, ME 04333

RE: Response to Request for Information on Pending Substantive Review  
Milton Township

Dear Stacie,

The following is offered in response to referenced matter:

- After review of the petition and consideration of the matter-at-hand on June 21, the Oxford County Commissioners voted unanimously to select the box indicating “No Information On The Specified Area” found on LUPC provided form, enclosed herein.
- After general review of the matter-at-hand, it is the Commissioners’ position, as expressed through unanimous resolution, that regulatory process for review of wind energy development in Milton Township currently in-place is adequate.

Please contact this office if further information is needed.

Thank you.

Sincerely,

Scott G. Cole  
County Administrator

encl



**STATE OF MAINE**  
**DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY**  
**LAND USE PLANNING COMMISSION**  
**22 SHS, 18 ELKINS LANE**  
**AUGUSTA, MAINE 04333**

PAUL R. LEPAGE  
GOVERNOR

**REQUEST FOR INFORMATION ON PENDING SUBSTANTIVE REVIEW**  
of a Petition for Removal from the Expedited Permitting Area for Wind Energy Development

Date: May 25, 2016 Specified Area: Milton Township LUPC Contact: Stacie R. Beyer  
(See petition with map, Attachment 1)

The Land Use Planning Commission has begun a substantive review on a petition for removal of the above referenced specified area from the expedited permitting area for wind energy development. Please see Attachment 2 for background information and an overview of the process.

**PREHEARING  
SUBMISSIONS ARE DUE  
BY: **June 29, 2016****

Title 35-A, section 3453-A(3) contains two statutory criteria; both must be met during the substantive review process to remove a place from the expedited area:

*Criterion A. The proposed removal will not have an unreasonable adverse effect on the State's ability to meet the state goals for wind energy development in section 3404, subsection 2, paragraph C.*

*Criterion B. The proposed removal is consistent with the principal values and the goals in the comprehensive land use plan adopted by the Maine Land Use Planning Commission pursuant to Title 12, section 685-C.*

In making a determination on these criteria, the Commission will consider all relevant information in the rulemaking record. In preparing for its review and the public hearing on this matter, the Commission has preliminary thoughts about the type of information that might be helpful in reaching a decision on the petition. A complete list of information needs is included as Attachment 3.

To ensure that full information is available, the Commission is requesting pre-hearing comments and information from other government agencies with expertise in subject areas referenced in the principal values and goals of the CLUP. The Commission requests your review and the submission of information that you may have, particularly on the subject area(s) listed below, as it relates to the referenced specified area. Please keep in mind that the Commission's review of potential impacts when considering a change to the expedited area boundary is different from a detailed evaluation of a permit application, and is conducted at the landscape level for the purpose of determining whether there is an overriding issue that bears on whether the removal is consistent with the principal values or goals of the CLUP. Please contact the LUPC if you are interested in the public hearing and public comment schedule for this petition.

<b>AGENCY or ORGANIZATION:</b>	County Administrator, Oxford County Commissioner's Office
<b>INFORMATION NEEDS:</b>	
<ul style="list-style-type: none"> <li>• Scenic resources (landscape-level resources, particularly resources of concern that do not qualify as SRSNS and/or those that do qualify, but are more than 8 miles from potential generating facilities)</li> <li>• Recreational uses and resources</li> <li>• Community character</li> </ul>	<ul style="list-style-type: none"> <li>• Other unique community facts and features</li> <li>• Economic development (the economic context of the place and region, including the economic drivers and how these would be affected by wind energy development)</li> <li>• Residential uses</li> <li>• Public infrastructure including public roads and utilities</li> </ul>

**After review of the petition and consideration of the substantive review, we have:**

No information on the specified area       Information on the specified area is included in the following page(s)

Signature:

Date: 6/29/16

More information on the substantive review process is located here: Windpower Expedited Area Petitions

**MAINE PUBLIC UTILITIES COMMISSION**  
**Pre-Hearing Comments**

Milton Township  
Petition to Remove for Removal from Wind Energy Expedited Permitting Area  
June 29, 2016

**Introduction**

The Land Use Planning Commission (LUPC) has requested that the Public Utilities Commission (PUC) provide comments regarding a Petition to remove Milton Township from the Wind Energy Expedited Permitting Area. Specifically, the LUPC requested that the PUC provide information on: energy resources (local indigenous energy resources other than wind); and availability of transmission lines within the specified area.

**Discussion**

Energy Resources

Existing electricity generation facilities in the region can be viewed with the mapping tool at the U.S. Energy Information Agency Maine State Profile Overview. <http://www.eia.gov/state/?sid=ME>

A recently developed map-based tool for identifying areas that may be suitable for clean power generation may aid LUPC in identifying energy resources in Milton Township. The Energy Zones Mapping Tool (EZMT) was developed with original leadership by the Eastern Interconnection States' Planning Council (EISPC), with research support and technical assistance from Argonne National Laboratory, National Renewable Energy Laboratory (NREL), and Oak Ridge National Laboratory. This tool provides map layer data on wind speeds, hydrography, and photovoltaic potential among other data, as well as model layers on biomass production, distance to transmission lines, and mean annual wind speeds among other models. The tool can be used to develop new models of land use suitability for energy resources for specified areas or corridors. <https://ezmt.anl.gov/>

While some of these data are incorporated in EMZT, NREL provides energy resource maps directly. <http://www.nrel.gov/gis/maps.html>

Transmission:

The EZMT provides both transmission line map layer data as well as some pre-defined models on distance to transmission lines of various capacities. No greater than 100 kV transmission lines pass through Milton Township, although two parallel 115 kV lines pass less than 1 mile in places from Milton Township, passing through the adjacent towns of Peru to the east and Woodstock to the south.

Appendix F of ISO-NE's Capacity, Energy, Loads, and Transmission (CELT) report provides a broad overview map of transmission infrastructure in New England. [http://www.iso-ne.com/static-assets/documents/2016/05/2016\\_celt\\_appendix\\_f.pdf](http://www.iso-ne.com/static-assets/documents/2016/05/2016_celt_appendix_f.pdf)

The PUC appreciates the opportunity to provide these comments.

DATED: June 29, 2016

/s/ Mitchell Tannenbaum

Mitchell Tannenbaum  
General Counsel  
State House Station #18  
Augusta, Maine, 04333-0018



PAUL R. LEPAGE  
GOVERNOR

STATE OF MAINE  
DEPARTMENT OF  
INLAND FISHERIES & WILDLIFE  
284 STATE STREET  
41 STATE HOUSE STATION  
AUGUSTA ME 04333-0041

CHANDLER E. WOODCOCK  
COMMISSIONER

June 29, 2016

Stacie R. Beyer  
Chief Planner, Acting Capacity  
Land Use Planning Commission  
106 Hogan Road, Suite 8  
Bangor, ME 04401

**RE: Request for Information for Substantive Review for Milton Township**

Dear Stacie:

The Land Use Planning Commission has begun a substantive review on a petition for removal of Milton Township from the expedited permitting area for wind energy development. Per your request, we are providing you with the following list of animal and habitat resources; recreational uses and resources; and their relative importance on a local, regional, and state-wide landscape-level context, as well as their compatibility with wind energy development.

***Endangered, Threatened, and Special Concern Species***

The following Endangered, Threatened, and Special Concern Species are confirmed to be present, or likely to be present, in Milton Township. State Endangered and Threatened Species are protected under Maine's Endangered Species Act (MESA) and are afforded special protection under 12 M.R.S §12801 - §12810. The Maine Department of Inland Fisheries and Wildlife (MDIFW) holds management responsibility for inland fish and wildlife listed under MESA, and shares responsibility with the U.S. Fish and Wildlife Service (USFWS) for inland fish and wildlife also listed under the federal Endangered Species Act (ESA).

A species of Special Concern is any species of fish or wildlife that does not meet the criteria of an Endangered or Threatened species but is particularly vulnerable, and could easily become, an endangered, threatened, or extirpated species due to restricted distribution, low or declining numbers, specialized habitat needs or limits, or other factors. Special Concern species are established by policy, not by regulation, and are used for planning and informational purposes; they do not have the legal weight of Endangered and Threatened species. MDIFW reviews the list of Special Concern species at the beginning of each calendar year, and, based on criteria in the Maine Endangered and Threatened Species Listing Handbook, revises the list as appropriate.

As no specific surveys have been undertaken for all species that could be present in Milton Township, the list in the table below does not include several species of Special Concern birds that may be summer residents in the area, based on habitat and life history requirements of the species, and it does not include

the Special Concern species of migratory birds that are likely found in the area during spring and fall migrations.

Windpower development impacts on wildlife species of concern have been documented not only in Maine but also across the country. Therefore, such impacts would not be unique to Milton Township, with the exceptions and concerns noted below.

**List of Endangered, Threatened, and Special Concern Species in Milton Township (non-inclusive)**

<i>Species</i>	<i>State Status</i>	<i>Federal Status</i>
Bald Eagle ( <i>Haliaeetus leucocephalus</i> )	Special Concern	protected under the Bald and Golden Eagle Protection Act and other federal laws
Creek Chubsucker ( <i>Erimyzon oblongus</i> )	Special Concern	NA
Eastern Red Bat ( <i>Lasiurus borealis</i> )	Special Concern	pending USFWS status review
Eastern small-footed bat ( <i>Myotis leibii</i> )	Threatened	NA
Golden Eagle ( <i>Aquila chrysaetos canadensis</i> )	Endangered	protected under the Bald and Golden Eagle Protection Act and other federal laws
Hoary Bat ( <i>Lasiurus cinereus</i> )	Special Concern	pending USFWS status review
Little Brown Bat ( <i>Myotis lucifugus</i> )	Endangered	pending USFWS status review
Northern Bog Lemming ( <i>Danaus plexippus plexippus</i> )	Threatened	petitioned ESA status review
Northern Long-eared Bat ( <i>Myotis septentrionalis</i> )	Endangered	Threatened
Northern spring salamander ( <i>Gyrinophilus p. porphyriticus</i> )	Special Concern	NA
Roaring Brook mayfly ( <i>Epeorus frisoni</i> )	Threatened	NA
Silver-haired Bat ( <i>Lasionycteris noctivagans</i> )	Special Concern	pending USFWS status review
Tri-colored bat ( <i>Perimyotis subflavus</i> )	Special Concern	NA
Wood Turtle ( <i>Glyptemys insculpta</i> )	Special Concern	petitioned ESA status review

Bats and Bat Hibernaculum

In a relatively short time, we have witnessed the precipitous decline of Maine’s bat populations from white nose syndrome, with additive losses from other sources such as wind energy turbines. Wintering populations of cave bats in Maine have declined by over 90%, and the few surviving bats that are potentially resistant to the disease likely comprise the only possibility to rebuild these populations. These declines have led to the listing of two *Myotis* bats, the little brown bat and northern long-eared bat, as State Endangered species, and the third *Myotis* bat, the eastern small-footed bat, as a State Threatened species under the Maine Endangered Species Act (MESA; 12 M.R.S., §12801, et seq., effective October 15, 2015). Four of the remaining bat species in Maine are classified as Species of Special Concern.

Windpower development is documented to have caused mortality in bats across the country. In Maine, wind energy turbines operating without appropriate operational curtailment practices have impacted Endangered, Threatened, and Special Concern bats. Windpower development is located and proposed in

many areas of Maine; however, Milton Township possesses unique characteristics with the location of a documented winter hibernaculum for bats—one of only three known bat hibernacula in Maine. Historically, this cave has supported high numbers of State-listed *Myotis* and other species during the winter months, but in recent years the numbers of cave-dwelling bats have drastically declined due to white nose syndrome. Additionally, cave dwelling bats in this area are seasonally at an increased risk from improperly curtailed wind turbines from their staging and migrating in/out of the hibernaculum.

Without legitimate measures for avoidance and minimization of impacts, including appropriate operational curtailment, windpower development puts Maine's vulnerable bat species at greater risk. MDIFW works with wind energy developers and their consultants to review their proposals, potential adverse effects on a variety of species and habitats, and provide agency recommendations. MDIFW's curtailment recommendations are based on project and resource specific considerations, research on effective procedures for avoiding and minimizing bat fatalities, recent recommendations for other similar facilities, and other relevant factors. MDIFW's recommendations take into account Agency objectives and goals for the protection of our seven vulnerable at-risk species in consideration of their particular needs and characteristics, including but not limited to migration routes and patterns, seasonal activities, associated behaviors, population trends, life history requirements, etc. As overall bat numbers have drastically declined and based on their naturally low reproductive rates, the protection of the remaining individuals is critical if there is to be a chance at a recovery of the species. Given the presence of a hibernaculum in Milton Township and the increased associated risks described, MDIFW has concerns with additional windpower development in the area as it could result in significant adverse impacts to populations of cave hibernating bats that are already catastrophically decimated.

### Golden Eagle

Golden eagles (residents and visitors) have been designated as an Endangered species in Maine since 1986, pursuant to the Maine Endangered Species Act. At present, there is no definitive evidence of golden eagle nesting activity in Milton Township or elsewhere in Maine. That said, most documented golden eagle sightings have occurred in northwestern Maine although several have been documented in Milton Township via radio telemetry. Golden eagle activity likely peaks during fall and spring migrations and while a few golden eagles overwinter in Maine, none are known to overwinter in Milton Township. Reports of sightings during the spring/summer breeding season occur, but are rarely validated. The difficulties include the immense home range (approximately 2,000 square miles) of breeding eagles, the highly mobile nature of subadult eagles, widespread misidentification of juvenile bald eagles, and the certainty that golden eagles are a very rare bird in Maine.

To date, there have been no reported golden eagle mortalities from windpower projects in Maine although they have been documented elsewhere in the country. Golden eagles are protected under several federal laws, including the Bald Eagle – Golden Eagle Protection Act which is administered by the U.S. Fish and Wildlife Service.

## ***Significant Wildlife Habitat***

### Deer Wintering Areas (P-FW Zones)

A zoned P-FW (Deer Wintering Area) occurs within the project review study area. These resources contain habitat cover components that provide conditions where deer find protection from deep snow and cold wind, which is important for overwinter survival. MDIFW generally recommends that any development projects, including windpower development, be designed to avoid losses or impacts to the continued availability of coniferous winter shelter. Concerns from direct and indirect impacts from windpower development to this resource would not be unique to Milton Township and MDIFW would endeavor to review proposals and make recommendations to avoid and minimize potential impacts, as it does in other areas.

### Inland Waterfowl and Wading Bird Habitats

There is a single mapped moderate value Inland Waterfowl and Wading Bird Habitats (IWWH) in Milton Township. These habitats provide important breeding, feeding, migration, staging, and wintering habitat for waterfowl and wading bird species. The IWWH includes both the wetland complex and a 250-foot upland zone. MDIFW generally recommends that any development projects, including windpower development, be designed to avoid these resources, including no clearing within the 250-foot undisturbed buffer from the wetland edge. Concerns from direct and indirect impacts from windpower development to this resource would not be unique to Milton Township and MDIFW would endeavor to review proposals and make recommendations to avoid and minimize potential impacts, as it does in other areas.

### Significant Vernal Pools

At this time, MDIFW Significant Wildlife Habitat maps indicate no known presence of Significant Vernal Pools in Milton Township. However, a comprehensive statewide inventory for Significant Vernal Pools has not been completed so it is possible that Significant Vernal Pools are present but not yet mapped. MDIFW generally recommends that any development projects, including windpower development, be designed to avoid these resources, including no clearing within the 250-foot critical terrestrial habitat associated with Significant Vernal Pools. Concerns from direct and indirect impacts from windpower development to this resource would not be unique to Milton Township and MDIFW would endeavor to review proposals and make recommendations to avoid and minimize potential impacts, as it does in other areas.

### *Fisheries Habitat Concerns*

Numerous perennial and intermittent coldwater streams are located within Milton Township, with the major watercourses including the Concord River, tributary to Androscoggin River, and Barkers Brook, a tributary to Concord River. MDIFW generally recommends that any development projects, including windpower development, be designed to avoid direct and impacts to these resources including maintaining intact 100-foot riparian buffers. Regardless of whether they are perennial or ephemeral in nature, these waters provide critical linkages to downstream resources for many species, including brook

trout. Movement by instream migrants links headwaters with downstream and terrestrial ecosystems, as do exports such as emerging and drifting insects. Evidence suggests that headwater streams are critically important to downstream ecosystems and that small streams, including intermittent streams, can provide crucial rearing habitat, cold water for thermal refugia, and abundant food for juvenile salmonids on a seasonal basis and therefore should be protected. Maintaining buffers along coldwater fisheries is critical to the protection of water temperatures, water quality, and inputs of coarse woody debris necessary to support conditions required by brook trout.

In addition, MDIFW generally recommends that stream crossings be avoided, but if a stream crossing is necessary, or an existing crossing needs to be modified, it should be designed to provide full fish passage. Generally, MDIFW recommends that all new, modified, and replacement stream crossings be sized to span 1.2 times the bankfull width of the stream. In addition, we generally recommend that stream crossings be open bottomed (i.e. natural bottom), although embedded structures which are backfilled with representative streambed material have been shown to be effective in not only providing habitat connectivity for fish but also for other aquatic organisms.

These concerns from direct and indirect impacts from windpower development to fisheries resources would not be unique to Milton Township and MDIFW would endeavor to review proposals and make recommendations to avoid and minimize potential impacts, as it does in other areas.

Thank you for the opportunity to comment on MDIFW jurisdictional features and concerns as part of this substantive review. Please feel free to contact my office if you have any questions regarding this information, or if I can be of any further assistance.

Best regards,

A handwritten signature in blue ink, appearing to read 'John Perry', with a stylized flourish at the end.

John Perry  
Environmental Review Coordinator