

## 8.0 Rail Transportation

### 8.1 Introduction

Rail service is an important component of the transportation mix in Maine and is particularly cost-effective and energy efficient when moving high-volume, low-value commodities over long distances as it minimizes heavy truck traffic on roads. Maine has 1,119 miles of active railroad. Although railroads in Maine are not capacity-constrained by volume, sections of active track will not support 286,000-pound rail cars, the standard with Class I railroads. In 2015, Maine had nearly 4.7 million tons of freight moved annually by rail. Freight rail service, operations and infrastructure investment are directly related to market forces and the business cycle and typically are not influenced by governmental policy.

### 8.2 Freight Transportation

Maine’s Freight System consists of seaports, airports, border crossings, intermodal facilities, distribution centers, and a network of rail and road connections. The largest and most important component of Maine’s transportation system is its highway network. Trucking is the dominant mode for freight shipments accounting for almost 90 percent of all freight tonnage moved to, from, and within the State. Key Transportation Facilities and Freight Hubs in the Bangor area are depicted in Figure 8.1

HIGHWAYS		I-95 , I-395
RAILROADS		Central Maine and Quebec Railroad, Pan Am Railways, Northern Maine Junction
AIRPORTS		Bangor International Airport
FREIGHT GENERATORS		General Electric, Old Town Canoe, UPS

Factors that contribute to determining which mode of freight transportation is most effective and efficient include size, weight, and resource of the product and location of both customer and seller. However, the primary factors that determine the transportation decisions are how much it costs to get freight from origin to destination, reliability and consistency of the arrival/departure of freight and the amount of time it takes to get from origin to destination. Trucks carry the largest shares by value, tons, and ton-miles for shipments moving 750 or fewer miles, while rail is the dominant mode by tons and ton-miles for shipments moved from 750 to 2,000 miles. Air, multiple modes and mail, and other modes accounted for more than half of the value of shipments moved more than 2,000 miles.

### 8.3 Freight Rail Lines

Unlike much of the rest of the United States in which rail systems were established to connect regions to the rest of the country, many of Maine’s rail lines were designed to link the state and its ports to Montréal and the Great Lakes. Maine’s freight rail system consists of two Class II railroads, six Class III railroads, and one terminal and switching operation. The Class II rail system and Class III system comprise approximately 51 percent and 49 percent of the State’s active route miles, respectively. Of the 1,197 miles of total serviceable lines, 1,130 miles are currently active freight lines connected to the North American rail system. The remaining 67 miles are operational track segments that are not currently providing freight service.

## 8.4 Operators

Freight rail service is primarily privately owned, operated and maintained, and infrastructure investment is related to market forces and business cycle with little to no influence by governmental policy or priority. While government may establish policy and funding priorities, planning for rail is unlike other modes of transportation that rely on publicly owned and maintained infrastructure.

In October 2010, Montreal, Maine and Atlantic Railway (MMA), filed a Notice of Intent to abandon 233 miles of its track in northern Maine between Millinocket and Madawaska. To avoid economic loss from disruptions in service to northern Maine, the State purchased the track and signed a lease and operating agreement for the Aroostook Lines with Maine Northern Railway in July 2011. Subsequent to the Lac Megantic derailment and explosion in July 2013, MMA filed for bankruptcy in both the United States and Canada. Central Maine and Quebec Railway (CMQ) purchased more than 470 route miles of former Montreal Maine and Atlantic (MMA) track in June 2014 (Figure 8.2).

Total Active Freight Rail Lines in Maine by Operating Railroad (2013)	
Railroad Operator	Mileage
<b>Class II Rail System</b>	
Central Maine and Quebec Railway	222.23
Pan Am Railway	394.67
<b>Class III Rail System</b>	
Maine Northern Railway	232.64
Maine Eastern Railroad	90.69
Eastern Maine Railway	137.31
Saint Lawrence and Atlantic Railroad	85.00
New Hampshire North Coast Railroad	.30
<b>Terminal and Switching</b>	
Turner's Island LLC	1.57

Source: *Maine State Rail Plan, July 2014.*  
[http://maine.gov/mdot/ofbs/docs/Rail\\_Plan\\_7-9-2015.pdf](http://maine.gov/mdot/ofbs/docs/Rail_Plan_7-9-2015.pdf)

**Maine Eastern Railroad (MER)** operated the state-owned Rockland Branch rail line from 2003 until the end of 2015, providing freight service year-round and passenger service seasonally between Brunswick and Rockland. Operations ended at the end of 2015 as a result of MaineDOT selecting Central Maine and Quebec Railway to operate the line starting January 1, 2016.

**Central Maine and Quebec Railway (CMQ)** began operations in June 2014 after purchasing the former MMA track and now owns 207 miles of track from Millinocket to Searsport as well as a line from

Brownville Junction to the international border west of Jackman and into Canada. CMQ also has a ten-year lease, which began January 2016, for the state-owned Rockland Branch.

CMQ provides the shortest, most-direct rail link between northern Maine, Saint John, New Brunswick and Montreal. In addition, CMQ provides access to port facilities at St. John, New Brunswick and Searsport. The route between Searsport and Montréal is able to accommodate double stack intermodal services and the newer 286,000 pound rail cars. CMQ primarily transports forest and paper products, construction materials, chemicals and fertilizers, grains and feeds, and energy products and fuels. In addition to connecting with Pan Am Railways at the Northern Maine Junction in Hermon, with CN at St. Leonard and EMR at Brownville Junction; CMQ also connects with two Class I railroads outside of Maine.

**Maine Northern Railroad (MNR)** is owned by the JD Irving Company and operates the 233 miles of railroad acquired by MaineDOT when MMA abandoned it in 2010. The rail lines serve Caribou, Presque Isle, Easton and Houlton. MNR connects with the CMQ in Millinocket and its sister railroad the Eastern Maine Railway in Madawaska. Forest products are the major commodity carried on MNR which include finished lumber, wood products, wood chips and paper. Also carried are paper mill chemicals, propane, diesel oil, vegetable oil, fertilizer and aggregate.

**Pan Am Railways (PAR)** is North America's largest regional railroad system. Pan Am began in 1981, then known as the Guilford Transportation Industries, when it purchased the former Maine Central Railroad operating from Portland to the north. Guilford Transportation Industries then purchased the

bankrupt Boston & Maine railroad in 1983 operating from Portland to the south. In 2006, following the purchase and rebranding of bankrupt Pan Am Airways, the railroad was rebranded as Pan Am as well.

Based in Waterville, PAR's main freight line runs from South Berwick to Mattawamkeag with branches to most of the major paper mills. A critical link for PAR is not just their southern mainline, but also their connection to the Canadian provinces through the EMR. PAR owns a total of 372 miles of rail in Maine and connects to many Class I railroads. PAR also connects to the St. Lawrence & Atlantic Railroad (SLR) at Danville Junction, which was upgraded in 2012.

**St. Lawrence & Atlantic Railroad (SLR)** operates on 85 miles of track in Maine from Portland west to New Hampshire and into Montreal. SLR provides a key transportation link through Lewiston/Auburn, Mechanic Falls, and South Paris and serves warehouse distribution, intermodal and bulk transloading facilities in Maine, including the SLR operated 35-acre Maine Intermodal Terminal in Auburn. The primary commodities transported by SLR include forest products of lumber, pulp and paper, as well as chemicals and agricultural products.

**Eastern Maine Railway (EMR)** is a non-operating subsidiary of New Brunswick Southern Railroad (NBSR), a holding company of JD Irving Company, with 100 miles of track between Brownville Junction and Vanceboro. EMR connects to CMQ at Brownville and NBSR connects at the Maine/New Brunswick border in Vanceboro. In addition, the EMR operates the 26 mile Van Buren subdivision between Madawaska making a connection with the MNR and Van Buren where it connects at the border with the CN.

### 8.5 General Purpose Freight Interchange Facilities

In the normal course of moving commodities from origin to destination it is often necessary for a railcar to move from lines owned by one railroad to lines owned by another railroad. The interchanges between the state's rail providers are key areas for improvement to the flow of goods into and out of Maine. Figure 8.3 shows the General Freight Rail Yards in Maine as presented in the 2014 Maine State Rail Plan.

Location Name of Yard	General Description	Overall Length of Yard	Number of Functional tracks at present time	Clear Length of Longest tracks	Function
<b>PAN AM RAILWAY</b>					
Mattawamkeag	Small yard where Maine Central connected to Canadian Pacific	5,700'	5	3,200'	Currently is end of Pan Am Railway and interchange with Eastern Maine RR
Bucksport	Small yard stretched out along end of branch at Bucksport	7,300'	14 tracks strung out in several groups over the 7,300' plus a number of tracks into mill	2,000'	Currently supports Verso Bucksport mill. Was some oil traffic in past and copper ore transload.
Bangor (Bucksport connection)	Several tracks at junction of Bucksport & Freight Main. Long track is runaround	3,275'	4 - inc. run-around	2,500'	Long track needed to reverse direction as Bucksport Branch connects in North direction.
Northern Maine Junction	On Pan Am, interchange with MM&A. Long, series of yards, max. of 4 tracks wide.	10,565'	8 tracks	5,700'	Currently regional yard. Supports freight main to Mattawamkeag, Bucksport Br. & local businesses.
<b>CENTRAL MAINE &amp; QUEBEC</b>					
Searsport	Port side yard plus oil loading tracks and to Mack Point.	3,000'	4 tracks plus various loading tracks beyond and adjacent to main yard.	2,400'	Serves port and nearby chemical plant. Major commodities were coal, then oil. Four tracks removed in main yard.
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Waterville	Larger yard with system shops, intermodal facility	5,100' / 7,690'	17 in main yd. + shop	4,200' / 6,200'	System shop, unused I. M facility, supports Sappi & Madison mills, E. Augusta Br & local businesses.
Danville Junction	Small interchange yard with St. Lawrence & Atlantic	3,000'	4 (shared with SLA)	2,150'	Recently reconfigured to improve interchange operations. Several other sidings in area.
Rigby Yard	Large	7800'	13 tracks 2 thru tracks	5200'	Regional classification and switching yard
<b>PAN AM RAILWAY</b>					
Rumford	Small yard that supports adjacent New Page mill with some cars for Rileys	2,600' / 5,100'	8 in main yd. + 7 - 8	2,100'	Car storage and switching for mill at Rumford and also for mill at Rileys(Jay)
Rileys (Jay)	Long, narrow yard that supports adjacent Verso Androscoggin Mill	7,000'	15-16	2,000'	Long layout of several smaller yards with numerous tracks extending to pulp & paper mill
<b>SAINT LAWRENCE &amp; ATLANTIC</b>					
Lewiston Junction	Three tracks along main line, loco shop and adjacent Port of Auburn tracks	5,500'	3 + 6 shorter	5,000'	Long range plans to add several more tracks along main line
Danville Junction	Small interchange yard with Pan Am Railway	3,000'	4 (shared with PAR)	2,150'	Recently reconfigured to improve interchange operations. Several other sidings in area.
South Paris	Two storage tracks along main line plus tracks near center of S. Paris.	1,825'	2	1,410'	Used to store cars and switch cluster of industries in South Paris & south towards Mechanic Falls
<b>MAINE EASTERN</b>					
Rockland	Small yard and round house at Rockland.	1,485'	4	900'	Used mostly to support Dragon Cement plant at Thomaston, passenger excursion, loco servicing.
Brunswick	Interchange track and siding.				

**Northern Maine Junction** in Hermon is the only railyard located within the BACTS area. It was once a very large, active yard where tens of thousands of cars per year were interchanged between the Maine Central Railroad (now PAR) and the Bangor & Aroostook Railroad (now CMQ). Most recently, interchange volume has reduced to several thousand cars per year and the yard's active tracks have been reduced. It is currently primarily used to handle the interchange volumes and to support local industry that has established itself within and near the yard.

### 8.6 Intermodal/Transloading Facilities

More than 90 percent of all freight shipments in Maine are moved by truck for at least part of their journey. Intermodal rail facilities are locations within the rail network where international and domestic containers or trailers are exchanged between the rail mode and highway or port mode of transporting freight. Figure 8.4 shows the intermodal facilities identified in the 2014 Maine State Rail Plan.

Location Name of Facility	General Description	Number and Length of transfer tracks	Number and Length of support tracks	Comments on Operations
<b>MAINE NORTHERN RAILROAD</b>				
Presque Isle Intermodal Facility	Small facility located within airport property	1 at 1,200'	N/A	Intermittent Operation. Handles frozen foods, various mulch material
Truck/Rail Log/Chip Transfer	There are a dozen or more siding locations where logs and chips are transferred between modes	Note 2	Note 2	
<b>PAN AM RAILWAY</b>				
Waterville Intermodal Facility	Two 3,000' ramp (loading) tracks, with 100' between. Created by removing yard tracks	2 at 3,000'	Numerous - see Waterville Yd.	Facility idle for last seven years.
Turners Island, LLC	Bulk cargo, roll on-roll off loading, 98 acres open storage, 9,000 SF dry warehouse			Short line rail way connects to Pan Am at Rigby Yard.
<b>SAINT LAWRENCE &amp; ATLANTIC</b>				
Auburn Intermodal Facility	Small facility, paved with compacted gravel.	2 at 1,200'	1 at 1,700' +tracks nearby	Has been successful in attracting related economic development - trucking and warehousing to the region.
Port of Auburn	Single ended yard for storage plus tracks for ethanol and bunker "C" oil transload	6-8 at 900'-1,100'		Primarily rail car storage and transload of bulk materials.
Savage, Auburn	Extensive rail to truck transload facility for dry and liquid chemicals and food grade products	9-10 tracks from 400' to 1,110' long		This facility has seen steady growth as intermodal services (bulk) have replaced direct rail service for some regions within the state.
<b>MAINE EASTERN</b>				
Rockland Cement Pier	Small facility used to transfer bulk cement from rail car to barge using vacuum system	1 at 350'	N/A	One double ended siding where specialized covered hoppers are vacuum discharged to a barge.

**Auburn Intermodal Facility** opened in 1994. The facility was originally a 35-acre terminal that has since been expanded to over 50 acres increasing trailer/container storage. The facility consists of two 1,200-foot long tracks that accommodate transfer of containers and trailers between truck and rail. The greater portion of the facility is used for trailer/container parking, containerized storage, and a weighing and freight control center. The cargo is lifted between flatbed rail cars and trucks via a side loader. Several trucking companies service the Auburn Intermodal facility which is located less than three miles from I-95.

**Savage-Safe Handling** facility is located in Auburn on SLR and is a major bulk transload operation dealing in industrial chemicals and food grade products such as edible oils, flour and corn syrup.

It is also a major toll processing company, mixing and repackaging various products for other companies. There are over a half dozen tracks for transferring various liquid and dry products between rail cars and trucks and also buildings for toll processing.

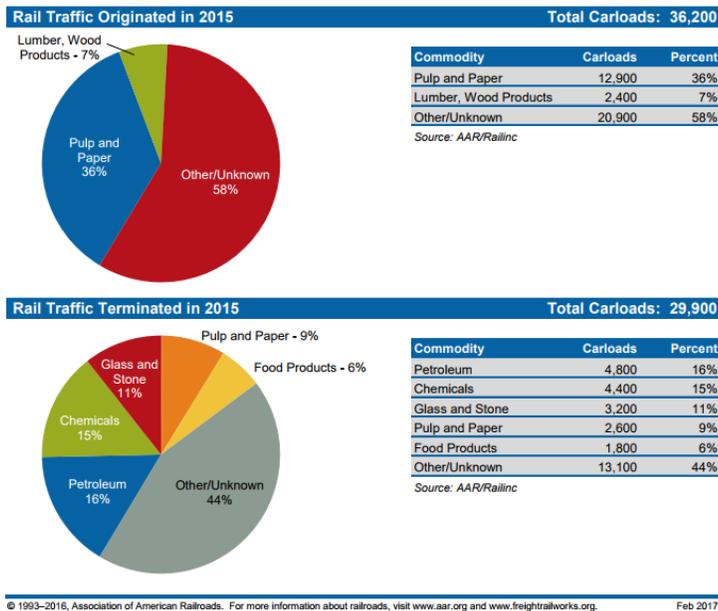
**The Port of Auburn** is served by SLR and is comprised of rail facilities around Lewiston Junction in Auburn, including a U.S. Customs station and warehouse space that are all within a foreign trade zone (FTZ).

**Turners Island Terminal** is a privately owned and operated marine-rail cargo terminal located in South Portland. The facility can handle almost any cargo that can be shipped by either rail or barge. The 1.6 mile terminal railway connects with PAR for shipping destinations nationwide. Goods are shipped by barge or rail via bulk cargo off-loading areas, roll on/roll off ramp for marine-marine or marine-rail transfers, heavy lift services, construction and demolition debris transloading area, and bulk storage. The bulk storage consists of 14 acres of open storage at the terminal, 84 acres of open storage accessible by rail and located in Scarborough and 9,000 square feet of dry warehouse space with loading docks, parking, and rail access.

**Rockland Cement Pier** is a Cement Transfer Terminal (CTT) where cement is transferred from rail cars to barges through means of a pneumatic pumping system. The cement is moved by rail car the four to five miles to the pier head in special pressure differential rail cars where the cement is transferred to barges via a vacuum system.

**The Waterville Intermodal Facility** is served by PAR. After several years of inactivity, the Waterville facility was revitalized in 2016 when Poland Springs bottling plant in Kingfield started trucking containers of bottled water to the Waterville facility where the containers are shipped to South Portland and connected to the train into Massachusetts.

**Figure 8.5**



### Commodities

According to the Association of American Railroads (AAR), pulp and paper products are the top originating commodities transported by rail in Maine followed by lumber and wood products. The top commodities terminating in Maine include petroleum, chemicals, glass and stone. Total tonnage of goods hauled by Maine’s railroads continues to decline, as is the case nationally. Two rail systems, Pan AM Railways and Central Maine and Quebec Railway (CMQ), which provides freight rail connections to Canada and the remainder of the United States, run through the BACTS area (Figure 8.5).

### 8.7 Freight Rail Funding

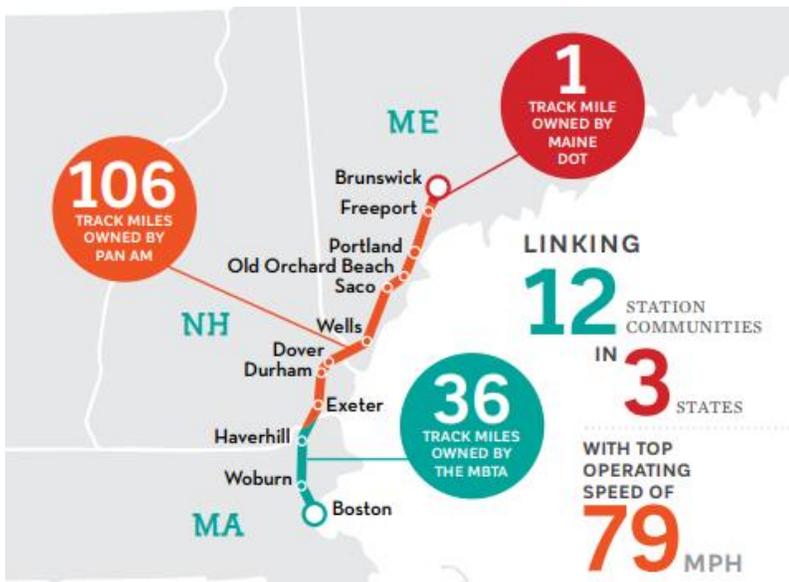
MaineDOT and private railroads work jointly on several capital projects around the state. MaineDOT’s three year work plan budgets \$1.2 million annually in FHWA crossing safety funds for improving safety at highway-rail crossings, which typically funds between four and five crossing improvement projects annually.

In 2015, Maine received a federal TIGER grant of \$20 million for the Maine Regional Railways Project to improve 384 miles of track and increase system usage and ensure the Maine railroad network remains an efficient and effective means of passenger and freight transportation. Pan Am Railways committed to contribute \$4 million to a \$10 million project to increase train speed to 25 mph from 10 mph between

Northern Maine Junction in Hermon to their large yard in Waterville. Central Maine & Quebec Railway committed to contribute \$4 million to a \$10 million project to replace 34,650 ties and provide new ballast and new rail on 78-miles between Hermon and Searsport, which will allow trains to operate at increased speeds (from 10 mph to 25 mph). The Maine Northern Railway and Eastern Maine Railway committed to contribute \$6.5 million toward a \$17.4 million project to upgrade the line connecting Maine railroads with New Brunswick, Canada which will allow increased speeds of 40 mph (from 25 mph). The project is expected to be completed in 2017.

### 8.8 Passenger Transportation

There are no passenger rail facilities located in or serving the BACTS area. However, residents of the Greater Bangor area can leave the area on the Concord Coach Lines bus and easily make direct transfers to Amtrak Downeaster service in two different locations. The Bangor, Augusta & L-A to Portland bus route connects to Amtrak Downeaster service at the Portland Transportation Center, and the Midcoast Maine to Portland bus route connects to Amtrak Downeaster service at the Brunswick Visitors Center (Figure 8.6).



Source: Northern New England Passenger Rail Authority Annual Report Fiscal Year 2016. [http://www.nnepra.com/sites/default/files/NNEPRA\\_FY16\\_AR\\_M1-web.pdf](http://www.nnepra.com/sites/default/files/NNEPRA_FY16_AR_M1-web.pdf)

**Northern New England Passenger Rail Authority (NNEPRA)** operates the Amtrak Downeaster passenger. Daily runs from Portland to Brunswick and a new stop in Freeport were added in 2012. A stop in Kennebunk is being developed and is planned to open in 2018. NNEPRA completed a layover and maintenance facility in Brunswick in 2016, and secured \$1.15 million in funding for a new rail siding in Cumberland.

Amtrak Downeaster currently operates from six stations in Maine (Wells, Saco, Old Orchard Beach, Portland, Freeport and Brunswick). The Downeaster makes five round-trips each day between Portland and Boston, two of which extend to Freeport and

Brunswick. After completion of the Royal Junction Siding project, expected in 2018, all five trips will be between Brunswick and Boston. In fiscal year 2016, Amtrak reported an increase of 8.1 percent in the Downeaster ridership from the previous year, with 35 percent of the riders living in counties other than York and Cumberland.

Although there has been some interest expressed in bringing passenger rail up to the Bangor area, there are no current plans to expand the Downeaster service or implement service with a different operator. To implement new services, capital investments to existing railroad infrastructure will be required to achieve passenger operating standards, expand capacity to protect ongoing freight needs, and to develop station locations. The overall goals of such investments are to enhance mobility, encourage more sustainable land development patterns and to reduce the growth of highway congestion in the region. Maine continues to develop its tourism business and opportunities for “car free” tourism is viewed as essential to maintaining the quality of life for both tourists and residents. A 2013 study of extending passenger service from

Portland to Lewiston-Auburn estimated the cost of such an expansion to be \$138 million. Bangor is five times the distance of Lewiston.

### *8.9 Intermodal Facilities*

The Bangor area does not have passenger rail service; however, Concord Coach bus connects to Amtrak Downeaster service either at the Portland Transportation Center and the Brunswick Visitors Center, providing intermodal connectivity from Amtrak rail to Concord bus into and out of the Greater Bangor area.

### *8.10 Recommendations*

- Encourage efforts to increase intermodal freight traffic through improved highway-rail and water-rail intermodal connectivity.
- Support efforts to increase passenger mobility options and access to intercity rail service via other transit modes through the proximity of new stations and/or system expansions.
- Encourage improved coordination among freight and intercity passenger systems with other modes of transportation among the railroads, Federal Government, Canada and other states in the New England region.
- Explore potential for incremental passenger rail improvements such as new stations, passing sidings, new and/or expanded services.
- Encourage linking rail transportation and land use planning in regional and statewide development practices.
- Support enhancements to the quality of service and market served by the Downeaster intercity passenger rail service to provide alternatives to medium and long distance highway and air travel.
- Support the State's efforts to conduct reviews with municipalities for redundant crossing locations and alternative traffic pattern opportunities to improve efficiency of the rail systems;
- Support the State's efforts to develop policies to increase and improve intermodal freight transportation, including improving data collection;

June 2014 Maine Integrated Freight Strategy:

<http://www.maine.gov/mdot/ofbs/docs/FreightStrat.pdf>

July 2014 Maine State Rail Plan:

[http://maine.gov/mdot/ofbs/docs/Rail\\_Plan\\_7-9-2015.pdf](http://maine.gov/mdot/ofbs/docs/Rail_Plan_7-9-2015.pdf)

ASCE 2016 Report Card for Maine's Infrastructure:

[https://www.infrastructurereportcard.org/wp-content/uploads/2016/10/Maine-Report\\_Card\\_final\\_booklet.pdf](https://www.infrastructurereportcard.org/wp-content/uploads/2016/10/Maine-Report_Card_final_booklet.pdf)