In order to better understand the size of Maine's pretrial population, we compiled the following analysis of publicly-available information, ultimately arriving at an estimate of 40,000 people held in Maine jails pretrial every year.

1. Calculation of annual number of pretrial defendants in Maine.

Step 1: Daily pretrial population of county jail¹ = Daily population of county jail x percentage of county jail that is pretrial $\div 100$

County jail	Daily	Percentage of	Daily pretrial
	population ²	jail population	population
		that is pretrial ³	
Androscoggin	168	82	138
Aroostook	87	76	66
Cumberland	414	62	257
Franklin	4	77	3
Hancock	51	70	36
Kennebec	185	77	143
Knox	77	55	42
Oxford	10	80	8
Penobscot	165	67	111
Piscataquis	39	56	22
Reentry Center	23	0	0
Somerset	158	69	109
Two Bridges	182	70	127
Waldo	0	60	0
Washington	41	58	24
York	240	74	178

Figure 1. Daily population of Maine jails and percentage of each jail population that is pretrial, December 14, 2014.⁴

¹ Calculations assume that the percentage of each jail's population that is pretrial remains fairly consistent. ² State of Maine Department of Corrections, "County Jail Bed Space Snapshot," December 14, 2014, https://www.maine.gov/corrections/BOC/refs/E%204%20County%20Population%20Snapshot%20-%20Dec%2015%2014.pdf (last viewed October 15, 2018).

³ Mullen, Task Force, Appendix H.

⁴ We chose to calculate the percentage of Maine's pretrial population held in each jail using data from December 14, 2014 because we had few daily population counts available to us. Our calculations also draw on April 2015 data from Sorrell's *Five County* report. December 2014 made sense because it was relatively close to April 2015.

Step 2: Percentage of total Maine pretrial jail population held in county jail =
Daily pretrial population $_{\text{county jail}} \div \text{Daily pretrial population }_{\text{Total for all Maine jails }} x 100$

County jail	Daily pretrial	Percentage of
	population of	total Maine
	county jail	pretrial
		population held
		in county jail
Androscoggin	138	11
Aroostook	66	5
Cumberland	257	20
Franklin	3	.2
Hancock	36	3
Kennebec	143	11
Knox	42	3
Oxford	8	.6
Penobscot	111	9
Piscataquis	22	2
Reentry Center	0	0
Somerset	109	9
Two Bridges	127	10
Waldo	0	0
Washington	24	2
York	178	14
Total	1264	

Figure 2. Percentage of total Maine detained pretrial defendant population held in each county jail.

Step 3: The total number of pretrial defendants incarcerated in Androscoggin, Aroostook, Kennebec, Penobscot, and Two Bridges jails (hereafter "the five county sample") in April 2015 was 1,556.⁵ In order to determine the annual pretrial population of those five counties, we multiplied the monthly population by 12.⁶

⁵ Sorrells, *Five County*, 2.

⁶ This calculation assumes that the pretrial population stays relatively steady from month to month. This calculation also assumes that all pretrial inmates are held for less than one month. Given that only a relatively small minority of pretrial defendants are held for multiple months (Sorrells, *Five County*), the inevitable inflation of pretrial population numbers produced by this calculation should be minimal.

Pretrial population of five county sample $_{1 \text{ year}}$ = Pretrial population of five county sample $_{1 \text{ month}} \ge 12$

There were 18,672 pretrial inmates in the five-county sample in 2015.

Step 4: Percentage of all Maine pretrial inmates five county sample = Percentage of all Maine pretrial inmates Androscoggin + Percentage of all Maine pretrial inmates Aroostook + Percentage of all Maine pretrial inmates Kennebec + Percentage of all Maine pretrial inmates Penobscot + Percentage of all Maine pretrial inmates Two Bridges

$$11 + 5 + 11 + 9 + 10 = 46$$

46% of Maine's pretrial jail population is held in the five-county sample.

Step 5: Annual number of pretrial inmates $_{Maine}$ = Annual number of pretrial inmates $_{five \ county \ sample}$ + Percentage of Maine pretrial jail population represented by five county sample

$$18,672 \div 46 \ge 100 = 40,591$$

There were 40,591 pretrial defendants incarcerated in Maine jails in 2015.

2. Calculation of average cost of pretrial detention per defendant charged with a misdemeanor offense.

Step 1: Total number of defendants charged with Class E misdemeanors in five county sample = Total number of defendants in five county sample x percentage of defendants in five county sample charged with Class E misdemeanors \div 100

$$1267^7 \times 21^8 \div 100 = 266$$

Step 2: Total number of defendants charged with class D misdemeanors in five county sample = Total number of defendants in five county sample x percentage of defendants in five county sample charged with class D misdemeanors \div 100

$$1267^9 \ge 31^{10} \div 100 = 393$$

Step 3: Total number of defendants charged with misdemeanors = Total number of defendants charged with Class E misdemeanors + Total number of defendants charged with Class D misdemeanors

$$266 + 393 = 659$$

Step 4: Percentage of defendants charged with misdemeanors that are charged with Class E misdemeanors = Number of defendants charged with Class E misdemeanors ÷ Number of defendants charged with misdemeanors x 100

$$266 \div 659 \ge 100 = 40$$

Step 5: Percentage of defendants charged with misdemeanors that are charged with Class D misdemeanors = Number of defendants charged with Class D misdemeanors ÷ Number of defendants charged with misdemeanors x 100

$$393 \div 659 \ge 100 = 60$$

⁷ Sorrells, *Five County*, 8

⁸ Ibid.

⁹ Ibid.

¹⁰ Ibid.

Average length of stay for misdemeanor defendants = (Average length of stay _{Class E} _{misdemeanors} x Percentage of total misdemeanor defendants _{Class E}) + (Average length of stay _{Class D misdemeanors} x Percentage of total misdemeanor defendants _{Class D}) =

 $(31.65^{11} \text{ x } 40) + (32.75^{12} \text{ x } 60) \div 100 = 32.31 \text{ days}$

Step 6: Average jail cost per defendant charged with a misdemeanor = Average length of stay x jail cost per day

$$32.31 \times 100^{13} = $3,231$$

The average cost to Maine jails of pretrial incarceration for a defendant charged with a misdemeanor is \$3,231.

3. Calculation of average cost per person for defendants charged with class C felonies.

Step 1: Average jail cost per defendant charged with Class C felony = Average length of stay for a defendant charged with a Class C felony x jail cost per day

$$84.7^{14} \times 100 \text{ a day} = \$8,470$$

The average cost to Maine jails of pretrial incarceration for a defendant charged with a Class C felony is \$8,470.

4. Calculation that the sample of seven jails for which we have 2017 booking by offense data represents 45 percent of the total jail population in Maine.

¹¹ Sorrells, *Five County*, 9

¹² Ibid.

¹³ Mullen, *Task Force*, 2.

¹⁴ Sorrells, *Five* County, 9

Step 1: Using data from Figure 1 chart above, we added the daily populations of every jail in Maine to calculate the total daily jail population for the state.

Total daily jail population in Maine = 1,844

Step 2: We added the daily populations of the 7 jails from which have 2017 booking by offense data.

Daily population of seven jail sample = Daily population Androscoggin + Daily population Cumberland + Daily population Oxford + Daily population Penobscot + Daily population Piscataquis + Daily population Waldo + Daily population Washington

168 + 414 + 10 + 165 + 39 + 0 + 41 = 837

Step 3:Percentage of Maine daily jail population incarcerated in seven jail sample = Daily jail population 7 jail sample ÷ Daily jail population Maine x 100

$$837 \div 1844 \ge 100 = 45$$

The seven Maine jails for which we have 2017 booking data represent 45 percent of the jail population in Maine.