

Appendix E

Population and Employment Forecast Methodology and Data

Part I – Population Forecast Methodology

Part II – Employment Forecast Methodology

Part III – Municipal Population, Employment and Household Forecasts

Part I – Population Forecast Methodology

The 2025 population forecast for the PACTS region was developed using a top down, econometric approach that relies on an employment forecast for York and Cumberland counties generated through Regional Economic Models, Inc. (REMI). The county forecast has a national employment driver as part of its base assumptions. Population is a by-product of the employment forecast. Population was assigned to individual municipalities based on the average growth rate from three periods of time: 1980-1989, 1990-1999 and 2000-2002. The municipal 2025 population totals were aggregated to produce the PACTS region forecast. The forecast relies on several assumptions:

- At the regional level, the economy will continue to be the primary driver of population growth.
- At the community level, the best predictor of future growth is the recent past.
- There is a dynamic relationship between municipal and regional growth: for example, if growth limits are imposed on a particular municipality that growth will occur elsewhere in the region.

The Model area consists of the 15 PACTS communities plus 13 additional communities that form a ring around the PACTS communities and allow for a more accurate model. Greater emphasis was placed on the 15 PACTS communities than on the 13 additional communities in the development of population and employment forecasts. The communities are listed below in Table C-1.

Table C-1 – Communities in PACTS Model Area

PACTS Communities		Additional Communities	
Biddeford	Old Orchard Beach	Arundel	Kennebunkport
Cape Elizabeth	Saco	Brunswick	Lyman
Cumberland	Scarborough	Buxton	New Gloucester
Falmouth	South Portland	Dayton	Pownal
Freeport	Westbrook	Durham	Raymond
Gorham	Windham	Gray	Standish
North Yarmouth	Yarmouth	Hollis	
Portland			

Step 1: Generating the County Control Forecasts

The 2025 county control forecasts were obtained from two sources. For Cumberland County, the control was generated by the University of Southern Maine’s Center for Business and Economic Research (CBER), using REMI. The CBER/REMI forecast did not reflect the results of the 2000 U.S. Census that, it was determined, resulted in the forecast control for York County being low relative to recent growth patterns in York County and to the forecast for Cumberland County. This required the development of an alternative method for generating the York County control forecast which is described in the addendum starting on page C-5. (Because of its more stable growth patterns, the exclusion of the 2000 U.S. Census did not appear to bias the Cumberland County control forecast.) Table C-2 lists the control forecasts.

Table C-2 – Control Forecasts

Area	Census 2000	2025 Forecast	Net Change	% Change
Cumberland County	265,612	315,910	50,298	19%
York County	186,742	229,454	42,712	23%
Total	452,354	547,389	93,010	21%

Step 2: Calculating Municipal Growth Rates

The net change in population from 2000-2025 (see Table **X-1**) was assigned to each municipality based on the average of its share of the county's growth between 1980-1989, 1990-1999 and 2000-2002 as shown in Equation 1.

Equation 1

$$\left[\left[\left(\frac{\Delta Munic80-89}{\Delta County80-89} \right) * \Delta County00-25 \right] + \left[\left(\frac{\Delta Munic90-99}{\Delta County90-99} \right) * \Delta County00-25 \right] + \left[\left(\frac{\Delta Munic00-02}{\Delta County00-02} \right) * \Delta County00-25 \right] \right] / 3 = Munic.Share$$

The 1980, 1990 and 2000 U.S. Census were used to determine the growth rates between 1980-1989 and 1990-1999. The growth rate between 2000 and 2002 was determined as follows.

Calculating Growth between 2000 and 2002

Municipal population estimates were developed for 2002 using a rate of growth based on the issuance of residential building permits in 2000 and 2001. These estimates were controlled by the U.S. Census Bureau's published 2002 population estimates for York and Cumberland counties. The Census estimates report the components of population change separately – births, deaths, domestic migration, and international migration. Domestic migration, reflected by residential building construction, is the most volatile factor in the estimate.

Residential building permit data was collected for 2000 and 2001 from the U.S. Census Bureau at <http://censtats.census.gov/bldg/bldgprmt.shtml>. For each municipality, single family permits by unit and multi-family permits by unit were totaled separately. To translate permit data into municipal population estimates, the number of units was multiplied by the municipality's average household size for the appropriate housing type as reported by the 2000 Census. See Equation 2.

Equation 2

$$(SFunits * AvgHHsizeofOwnedUnits) + (MFunits * AvgHHsizeofRentedUnits) = MaximumPopulationGrowth2000-2002$$

The estimates calculated with Equation 2 represent the maximum (uncontrolled) number of new residents that could be accommodated in a particular municipality based on added housing capacity and average household size by housing type in 2000. The true number will necessarily be higher or lower due to a number of factors including:

- Births and deaths
- Vacancy rates
- Loss of existing units due to demolition, fire, code violations, and other factors
- Seasonal use of new housing units
- Mobile home placements
- Non-completion of units for which permits were issued
- Declines in average household size since the 2000 Census
- Absorption of new units by households already living in the town
- Changes in the group quarters population

Equation 3 was used to determine each municipality's uncontrolled share of the county's uncontrolled population increase.

Equation 3

$$\left(\frac{\text{MunicMaxPopGrowth}2000 - 2002}{\text{CountyMaxPopGrowth}2000 - 2002} \right) = \text{MunicShareofCountyPopInrease}2000 - 2003$$

The results from Equation 3 were then substituted into Equation 1 ($\Delta\text{MunicGrowth}00-02$). The $\Delta\text{CountyGrowth}00-02$ values were obtained from the U.S. Census Bureau and are reported in Table C-3.

Table C-3 – County Controls for 2000-2002 from U.S. Census Bureau

County	Net population increase, 2000-2002
Cumberland County	3,471
York County	8,745

Step 4: Applying Municipal Rates of Growth to the County Control Forecasts

Equation 4 was used to determine each municipality's population increase based on its share of the County's growth between 2000 and 2025. Equation 5 added each municipality's increase to its 2000 U.S Census population to arrive at its 2025 population forecast.

Equation 4

$$(\text{Munic}\% \text{ShareofGrowth}) * \text{CountyGrowth}00 - 25 = \text{MunicGrowth}00 - 25$$

Equation 5

$$\text{MunicPop}2000 + \text{MunicGrowth}00 - 25 = \text{MunicPopForecast}2025$$

Example

An example of the above process is provided below. The Town of Scarborough is used in this example. Answers have been rounded to whole numbers that may change some of the exact calculations.

Equation 1 – Assigning Municipal Share

$$\left[\left[\left(\frac{\Delta\text{Munic}80 - 89}{\Delta\text{County}80 - 89} \right) * \Delta\text{County}00 - 25 \right] + \left[\left(\frac{\Delta\text{Munic}90 - 99}{\Delta\text{County}90 - 99} \right) * \Delta\text{County}00 - 25 \right] + \left[\left(\frac{\Delta\text{Munic}00 - 02}{\Delta\text{County}00 - 02} \right) * \Delta\text{County}00 - 25 \right] \right] / 3 = \text{Munic.Share}$$

$$\left[\left[\left(\frac{1,171}{27,349} \right) * 50,298 \right] + \left[\left(\frac{4,452}{22,477} \right) * 50,298 \right] + \left[\left(\frac{672}{3,558} \right) * 50,298 \right] \right] / 3 = 7,205$$

Equation 2 – Estimating Uncontrolled Municipal Population Increases 2000-2002

$$(\text{SFunits} * \text{AvgHH sizeofOwnedUnits}) + (\text{MFunits} * \text{AvgHHsizeof RentedUnits}) = \text{MaximumPopulationGrowth}2000 - 2002$$

$$(558 * 2.73) + (61 * 1.96) = 1,643$$

Equation 3 – Municipal Share of County Population Increase 2000-2002

$$\left(\frac{\text{MunicMaxPopGrowth}2000 - 2002}{\text{CountyMaxPopGrowth}2000 - 2002} \right) = \text{MunicShareofCountyPopInrease}2000 - 2002$$

$$\left(\frac{1,643}{8,695} \right) = 18.9\%$$

Equation 4 – Forecast Municipal Population Increase 2000-2025

$$(Munic\%ShareofGrowth) * CountyGrowth00 - 25 = MunicGrowth00 - 25$$

$$0.189 * 3,558 - 25 = 643$$

Equation 5 – Forecast Municipal Population 2025

$$MunicPop2000 + MunicGrowth00 - 25 = MunicPopForecast2025$$

$$16,970 + 7,205 = 24,175$$

Step 5: Adjusting Municipal Baselines

Baseline results were examined for reasonableness including considering limitations on growth imposed by building permit caps in 18 York and Cumberland county communities. For each of these communities, the maximum number of new units possible over the next 25 years was multiplied by its average household size in 2000 to identify the maximum number of new residents that could be accommodated. This number was compared with the forecasted increase in population. In some cases, however, because multi-family units and grandfathered subdivisions are excluded from the cap, the number of possible housing units that will be constructed in the future is unknown. In only one municipality – Scarborough – did the 2025 forecasted increase exceed the maximum number of residents possible under building permit caps. PACTS staff and town officials reached consensus on an appropriate forecast for Scarborough. Other limitations on growth, such as lack of developable land or affordable housing can only be examined on a case-by-case basis that was beyond the scope and need of this forecast.

Addendum – Methodology for York County 2025 Control Forecast

The original Year 2025 control total for York County of 217,702 developed by the University of Southern Maine’s Center for Business and Economic Research (CBER) was considered to be low based on recent York County growth patterns and relative to Cumberland County. The following methodology was used to develop the York County 2025 forecast control total.

Step 1: First and Second Estimates of Year 2025 York County Control Total

The Maine State Planning Office (SPO) forecasts for York County to Year 2015 (see Table C-4) were extrapolated to Year 2025 by matching the equation of the SPO 2015 forecast trendline (Equation 1) to the equation of the trendline when the SPO forecast was extended to Year 2025 (Equation 2) using a best-fit regression. The interim years (2016-2024) were then interpolated by fitting them to Equation 2 (Equation 3). . Table C-5 lists the three trend line equations and associated R² values.

Table C-4 – SPO York County and State of Maine Forecasts

Year	Maine	York County	County Share of State Population
1-Jul-00	1,270,299	187,253	14.7%
1-Jul-01	1,276,726	189,659	14.9%
1-Jul-02	1,282,777	191,914	15.0%
1-Jul-03	1,288,753	194,047	15.1%
1-Jul-04	1,294,448	196,048	15.1%
1-Jul-05	1,300,000	197,946	15.2%
1-Jul-06	1,305,327	199,714	15.3%
1-Jul-07	1,310,889	201,424	15.4%
1-Jul-08	1,316,766	203,061	15.4%
1-Jul-09	1,323,109	204,737	15.5%
1-Jul-10	1,330,117	206,430	15.5%
1-Jul-11	1,337,537	208,128	15.6%
1-Jul-12	1,345,401	209,791	15.6%
1-Jul-13	1,353,686	211,464	15.6%
1-Jul-14	1,362,245	213,066	15.6%
1-Jul-15	1,371,022	214,609	15.7%

Table C-5 – Trendline Equations and R² Values

Eq #	Equation Description	Equation	R ²
1	SPO Year 2015 Forecast	y = -51.411x + 2235	0.7875
2	SPO forecast extrapolated to 2025	y = -51.404x + 2235	0.8794
3	SPO forecast interpolated 2016-2024	y = -51.422x + 2235.3	0.9451

The first estimate of the Year 2025 control total was derived by adding the population growth for each year from Equation 3 to the SPO 2015 county control total. The result was 226,424.

Equations 6 and 7 and Table C-4 were used to derive the second estimate of the Year 2025 control total. The result was 235,032.

Equation 6

$$A = \left[\frac{Y}{X} \right]^{\frac{1}{B-C}} \quad A = \left[\frac{214,609}{187,253} \right]^{\frac{1}{2015-2000}} \quad A = 1.009131919 \text{ or } 0.913\%$$

Equation 7

$$Y = X * A^{(B-C)} \quad Y = 187,253 * 1.009131919^{(2025-2000)} \quad Y = 235,032$$

where

- A=the annual growth rate
- Y=population in future year
- X=population in current year
- B=the future year
- C=the current year

Step 2: Generating the Year 2025 Control Total for the State of Maine

Two Year 2025 control totals for the State of Maine were available.

- U.S. Census Bureau value of 1,423,000.
- University of Southern Maine’s Center for Business and Economic Research (CBER) value of 1,443,107.

A third Year 2025 control total for Maine was calculated by applying Equations 6 and 7 to the SPO State of Maine forecasts in Table C-4. Equation 6 resulted in an annual growth rate of 0.51% and a control total of 1,442,569.

Equation 6

$$A = \left[\frac{Y}{X} \right]^{B-C} \quad A = \left[\frac{1,371,022}{1,270,299} \right]^{\frac{1}{2015-2000}} \quad A = 1.0050999$$

Equation 7

$$Y = X * A^{(B-C)} \quad Y = 1,270,299 * 1.0050999^{(B-C)} \quad Y = 1,442,569$$

Through conversations with the SPO consensus was reached that the U.S. Census 2025 Maine forecast was conservative. This consensus, the high degree of confidence in the CBER numbers, the use of CBER numbers for Cumberland County, and the relative closeness of the CBER value to that of the SPO value led to use of the CBER value of 1,443,107 being used as the Year 2025 control total for the State of Maine.

Step 3: Comparison of County Shares of State Population – Third Estimate of County Control Total

York County's share of Maine's population has been increasing, and is expected to continue to increase based on historical data, conversations with the SPO and the CBER forecast. (See Table C-4.)

The first estimate of the York County control (226,424) results in a 15.7% York County share of the State population, and was rejected as too low as it did not increase the County's share of the State's population. The second estimate results in a 16.3% share of the state population and was rejected because it assumption that York County's share of the State population would continue to increase at the same rate. A third estimate was developed based on York County's share of the State population over the final five years of the SPO forecast (2011-2015). This time period was used to reflect a more conservative approach. Equations 6, 7 and 8 were used to develop this third estimate.

Equation 6

$$A = \left[\frac{Y}{X} \right]^{B-C} \quad A = \left[\frac{0.157}{0.156} \right]^{\frac{1}{2015-2011}} \quad A = 1.0015987$$

Equation 7

$$Y = X * A^{(B-C)} \quad Y = 1,443,107 * 1.0015987^{(2025-2011)} \quad Y = 0.1595$$

Equation 8

$$Maine2025ControlTotal * YorkCountyShareofTotal = YorkCounty2025ControlTotal$$

$$1,443,107 * 0.1595 = 230,176$$

Step 4: Finalization of Year 2025 York County Control Total

Based on staff judgment, available data, conversations with SPO, CBER and planners from York County, the third estimate of 230,176 developed in Step 3 was selected as the York County 2025 control total.

Note to Addendum: The York County control total was developed through the methodology described above. However, a slight error was discovered during the writing of this documentation. The error was that the value used for the York County share in Equation 8 was 0.159 instead of 0.1595. The result of this error is that the correct York County control total should have been stated as 230,176 instead of 229,454, the value that is contained within the model. The difference (722, 0.3%) was not significant enough for any changes to be made within the Model.

Part II – Employment Forecast Methodology

The 2025 employment forecast for the PACTS region was developed using a top down, econometric approach that relies on an employment forecast for York and Cumberland counties generated through Regional Economic Models, Inc. (REMI). The county forecast has a national employment driver as part of its base assumptions. County control totals were developed for each of four employment types – manufacturing, trade, services and residual – and were used in assigning employment to individual municipalities. The four employment types are aggregated from the Standard Industrial Classification manual that groups employment into ten categories. The aggregation is based on the expected traffic generation with employment categories grouped as follows:

Manufacturing: manufacturing;

Trade: retail trade;

Services: includes finance, insurance, real estate, local state and federal government and military; and

Residual: includes mining, construction, agriculture, forestry, fishing, transportation, public utilities, and wholesale trade.

The PACTS forecast was based on the average of a municipality's share of the county's employment by type at four different time periods: 1981, 1990, 2000 and 2002. (Data for 1980 was not available therefore 1981 was used. Data for 2002 was the latest year for which data was available.)

The forecast relies on several assumptions:

- Job growth will occur primarily in planned locations where public infrastructure is available, such as downtowns, interstate exits, and business parks
- Although manufacturing continues to decline, the plants left behind will provide attractive locations for commercial redevelopment
- Only the service economy is expected to grow. In order to account for growth in other sectors of the economy, such as a planned big box development, jobs were shifted from elsewhere in the town.

Using Different Data Sources and Total Employment

Within the context of the PACTS Model, employment is defined as total employment and includes wage and salaried employees, sole proprietors and the self-employed. To fully capture total employment data it was necessary to use three different data sources, listed below. Mathematical relations were developed to allow for combining the different data sets.

- The University of Southern Maine’s Center for Business and Economic Research (CBER) captures total employment by type at the county level.
- The Maine Department of Labor ES 202 statistics capture wage and salaried employment by type by municipality.
- Dunn & Bradstreet employment data captures (most) employment by type by location.

Step 1: Generating the County Control Forecasts

The 2025 county control forecasts were obtained from the University of Southern Maine’s Center for Business and Economic Research (CBER), using REMI and are shown in Table D-1.

Table D-1 – CBER County Control Forecasts

Area	2000 Employment	2025 Forecast	Num Change	% Change
Manufacturing	16,912	12,939	-3,973	-23%
Trade	41,842	45,313	3,471	8%
Services	123,020	163,751	40,731	33%
Residual	36,979	36,287	-692	2%
Cumberland County Total	218,753	258,290	39,487	18%
Manufacturing	13,409	10,934	-2,475	18%
Trade	19,573	20,727	1,154	6%
Services	44,753	61,157	16,404	37%
Residual	12,901	14,607	1,706	13%
York County Total	90,636	107,425	16,789	19%

Step 2: Disaggregating the County Control Forecasts into Baseline Municipal Shares

The county level net change in each type of employment and total employment from 2000-2025, as determined in Step 1, was assigned to each municipality based on the average of its share of the county’s jobs, by type, in 1981, 1990, 2000 and 2002. Shares of average annual employment, rather than growth rates by decade, were used so as not to produce negative numbers. The shares were calculated from Maine Department of Labor ES 202 data factored up to match the CBER control total by developing proportionality between the ES 202 and CBER data, as described in Equation 1. Annual averages were used for the ES 202 data. Equation 2 was used to assign the county control total to each municipality. Equation 3 was used to determine the Baseline Municipal 2025 forecast.

Equation 1 (Example for trade employment only.)

$$\left(\frac{ESMunicTrade}{ESCountyTrade} \right) = \left(\frac{X}{CBERCountyTrade} \right) X = \left(\frac{ESMunicTrade * CBERCountyTrade}{ESCountyTrade} \right)$$

Equation 2 (Example for trade employment only.)

$$\left[\frac{MunicTrade1981}{County1981} + \frac{MunicTrade1990}{County1990} + \frac{MunicTrade2000}{County2000} + \frac{MunicTrade2002}{County2002} \right] / 4 = Munic Share of County Growth$$

Equation 3 (Example for trade employment only.)

$$MunicTrade2000 + MunicShareof CountyGrowth = MunicTradForecast 2025$$

Step 3: Adjusting Baseline Municipal Shares

Decline in Manufacturing Employment

Due to a historical trend of declining manufacturing employment that is forecasted to continue, the CBER manufacturing control total was disaggregated based on the location of the region's manufacturers with 35 or more employees as reported by Dunn & Bradstreet. Based on the relatively low trip generation rates of manufacturing employment and the overall manufacturing employment level relative to the other three types of employment, this was deemed an appropriate approach. PACTS staff conferred with municipal officials to ensure that this approach reasonably captured all significant manufacturers.

Adjustments based on Municipal Input

In conjunction with municipal officials, adjustments were made where appropriate in municipal shares. This step was relatively straight forward, as any adjustment required shifting employment from one municipality to another while staying within the CBER county controls. Given the desire for greater accuracy in the PACTS' municipalities, these shifts were made only from a non-PACTS municipality to a PACTS municipality.

Step 4: Disaggregating Municipal Shares to the TAZ level

Each municipality within the Model is divided into a number of Traffic Analysis Zones or TAZ. The number of TAZ is based on the structure of the roadway network and the degree of detail desired; more complex roadway networks or a desire for greater detail require greater numbers of TAZ. The Model contains 720 TAZ; Portland has the most with 171, Durham has the least with just two TAZ.

After completion of Step 3, the municipal shares needed to be further disaggregated to the TAZ level. Mapping the location of each employer (and the associated number of employees) within the Dunn & Bradstreet database provided the basis for the preliminary disaggregation. Employees not captured by the Dunn & Bradstreet data set (as determined by cross-checking with the CBER control and ES 202 data) were distributed proportionally by type to the appropriate TAZ.

Step 5: Adjusting Baseline TAZ Distribution

The baseline TAZ distribution was based on Dunn & Bradstreet and historical data and therefore did not necessarily capture proposed/future planned large developments (e.g., Great Island Development in Scarborough), large employment reductions (e.g., Sappi Paper Mill in Westbrook), or a change in municipal focus on what location(s) would best be suited for development.

PACTS staff worked with officials from each municipality to determine the size and location of any of these potential changes not represented in the historical data. Based on this information, employment types and locations were shifted within a municipality, where appropriate. In some cases, changes in municipal totals were also made; there were less of this type of change because adding employment to one municipality required subtracting it from another to stay within the CBER county control totals.

Within a municipality and when appropriate shifts in location and type of employment were made between traffic analysis zones (TAZ). In some instances shifts were also made between municipalities. In these cases employment was shifted from a non-PACTS community to a PACTS community to improve the functioning of the Model in the more crucial areas.

Step 6: Finalizing Employment Disaggregation

Throughout the process, results were examined for reasonableness and extreme results with adjustments made if required. Before finalizing the employment disaggregation, a final check for reasonableness and extreme results was made and a final consensus by municipal officials was reached.

Part III – Municipal Population, Employment and Household Forecasts

Table E-1 -- Municipal Population Forecasts *				
Municipality	2000 Pop	2025 Pop	Net Change	% Change
Biddeford	20,942	22,785	1,843	9%
Cape Elizabeth	9,016	10,048	1,032	11%
Cumberland	7,159	9,270	2,111	29%
Falmouth	10,310	13,530	3,220	31%
Freeport	7,800	9,556	1,756	23%
Goham	14,141	18,265	4,124	29%
No Yarmouth	3,210	4,439	1,229	38%
Old Orchard Beach	8,856	10,879	2,023	23%
Portland	64,249	67,580	3,331	5%
Saco	16,822	20,383	3,561	21%
Scarborough	16,970	24,177	7,207	42%
South Portland	23,376	24,334	958	4%
Westbrook	16,142	17,292	1,150	7%
Windham	14,904	18,479	3,575	24%
Yarmouth	8,360	9,736	1,376	16%
PACTS Total	242,257	280,752	38,495	16%
Arundel	3,570	4,744	1,174	33%
Brunswick	21,172	24,376	3,204	15%
Buxton	7,452	8,951	1,499	20%
Dayton	1,805	2,591	786	44%
Gray	6,820	9,266	2,446	36%
Hollis	4,114	5,108	994	24%
Kennebunkport	3,716	4,528	812	22%
Lyman	3,795	4,830	1,035	27%
New Gloucester	4,803	6,451	1,648	34%
Long Island	202	216	14	7%
Pownal	1,491	1,812	321	22%
Raymond	4,299	6,273	1,974	46%
Standish	9,285	12,550	3,265	35%
Non-PACTS Total	72,524	91,696	19,172	26%
Total Model Area	314,781	372,448	57,667	18%
* Forecast excludes the Town of Durham.				

Table E-2 -- Municipal Employment Forecasts *

Municipality	2000	2025	2000	2025	2000	2025	2000	2025	2000	2025	Net	Percent
	Manufacturing	Manufacturing	Residual	Residual	Trade	Trade	Services	Services	Total	Total	Change	Change
Biddeford	2,670	578	1,992	2,299	2,190	2,330	8,641	13,097	15,493	18,304	2,812	18%
Cape Eliz	57	57	187	183	236	256	1,507	1,621	1,987	2,117	130	7%
Cumberland	48	48	319	313	129	137	1,107	1,564	1,603	2,061	458	29%
Falmouth	197	197	1,155	1,137	1,125	1,243	3,535	4,764	6,012	7,340	1,328	22%
Freeport	396	316	488	479	5,646	6,048	2,035	3,858	8,565	10,701	2,136	25%
Gorham	706	569	1,209	1,190	732	810	3,109	4,072	5,756	6,641	885	15%
North Yarmouth	18	18	226	223	29	31	250	303	523	575	52	10%
Old Orchard Beach	2	2	254	287	682	726	1,896	2,258	2,834	3,273	439	16%
Portland	5,003	3,612	16,679	16,324	11,113	12,102	62,170	77,624	94,648	109,978	15,330	16%
Saco	783	399	1,070	1,208	2,329	2,480	4,793	7,212	8,975	11,299	2,324	26%
Scarborough	868	670	3,542	3,474	3,430	3,647	5,754	10,339	13,594	18,130	4,536	33%
South Portland	2,722	2,288	4,196	4,103	8,215	8,899	15,003	21,091	30,135	36,380	6,244	21%
Westbrook	3,300	2,277	3,345	3,292	1,909	2,069	4,699	7,188	13,253	14,827	1,574	12%
Windham	317	284	817	801	1,953	2,122	3,578	4,741	6,665	7,948	1,283	19%
Yarmouth	462	431	1,144	1,121	1,097	1,179	1,893	2,504	4,596	5,236	640	14%
PACTS Total	17,549	11,746	36,623	36,435	40,815	44,080	119,969	162,234	214,639	254,811	40,172	19%
Arundel	6	6	264	291	306	321	422	672	998	1,290	292	29%
Brunswick	947	650	1,092	1,068	3,443	3,778	11,334	13,784	16,816	19,280	2,464	15%
Buxton	40	40	449	497	268	282	801	971	1,558	1,790	232	15%
Dayton	61	61	54	80	9	9	30	39	154	190	36	23%
Gray	182	151	746	734	660	713	1,079	1,427	2,667	3,025	358	13%
Hollis	52	52	169	186	87	91	418	725	726	1,055	329	45%
Kennebunkport	47	47	475	547	595	638	1,133	1,308	2,250	2,540	290	13%
Lyman	3	3	80	89	95	99	174	224	352	415	63	18%
New Gloucester	71	71	263	258	115	123	417	1,422	866	1,875	1,009	116%
Pownal	16	16	55	54	22	24	87	124	180	217	37	21%
Raymond	584	401	125	121	172	187	502	890	1,383	1,599	216	16%
Standish	398	265	439	430	434	461	1,194	1,637	2,465	2,794	329	13%
Non-PACTS Total	2,407	1,763	4,211	4,355	6,206	6,725	17,591	23,225	30,415	36,068	5,653	19%
Model Area Total	19,956	13,509	40,834	40,790	47,021	50,805	137,560	185,459	245,054	290,879	45,825	19%

* Forecast excludes the Town of Durham

Table E-3 -- Municipal Household Forecasts *

Municipality	Households 2000	Population 2000*	Households 2025	Population 2025*	Household Numeric Change	Household Percent Change
Biddeford	8,636	20,942	9,715	22,785	1,079	12%
Cape Elizabeth	3,488	9,068	4,013	10,047	525	15%
Cumberland	2,378	6,803	3,246	8,915	868	36%
Falmouth	3,948	10,310	5,379	13,530	1,431	36%
Freeport	3,065	7,800	3,918	9,556	853	28%
Gorham	4,875	14,141	6,570	18,265	1,695	35%
North Yarmouth	1,118	3,210	1,605	4,439	487	44%
Old Orchard Beach	4,294	8,856	5,476	10,879	1,182	28%
Portland	29,241	63,237	31,883	66,562	2,642	9%
Saco	6,801	16,822	8,510	20,383	1,709	25%
Scarborough	6,462	16,970	9,551	24,176	3,089	48%
South Portland	10,047	23,324	11,034	24,624	987	10%
Westbrook	6,863	16,142	7,633	17,292	770	11%
Windham	5,522	14,904	7,108	18,479	1,586	29%
Yarmouth	3,432	8,360	4,149	9,736	717	21%
PACTS Total	100,170	240,889	119,789	279,668	19,619	20%
Arundel	1,363	3,571	1,880	4,744	517	38%
Brunswick	663	1,883	792	2,167	129	19%
Buxton	2,804	7,452	3,497	8,951	693	25%
Dayton	638	1,805	951	2,591	313	49%
Durham	1,226	3,381	1,273	3,381	47	4%
Gray	2,637	6,820	3,719	9,266	1,082	41%
Hollis	1,507	4,114	1,943	5,108	436	29%
Kennebunkport	1,615	3,720	2,043	4,532	428	26%
Lyman	1,366	3,795	1,805	4,830	439	32%
New Gloucester	1,761	4,803	2,455	6,451	694	39%
Pownal	560	1,491	707	1,812	147	26%
Raymond	1,616	4,299	2,448	6,273	832	51%
Standish	3,205	9,285	4,497	12,550	1,292	40%
Non-PACTS Total	20,961	56,419	28,009	72,656	7,048	34%
Model Area Total	121,131	297,308	147,799	352,324	26,668	22%

* Forecast excludes the Town of Durham