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Workforce Conditions & Demographic Challenges to Growth, Presented to the Consensus Economic Forecasting Commission & Revenue Forecasting Commission - July 23, 2013

Maine Center for Workforce Research and Information

Maine Department of Labor

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Workforce conditions & demographic challenges to growth

Presented to the
Consensus Economic Forecasting Commission
& Revenue Forecasting Commission

July 23, 2013

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Labor force & unemployment
Unemployment rates continue to trend lower...
...a rising share of employed population is the primary reason Maine unemployment is lower. Nationally, the share of employed population is not up; lower labor force participation is the reason unemployment is down.

[Graph showing Employment to Population Ratio (Seasonally-Adjusted) for U.S. and Maine from Jan 08 to Apr 13. The graph illustrates the decrease in employment to population ratio for both the U.S. and Maine, with Maine showing a higher ratio than the U.S., especially in the later years.]
The gradual upward job trend continues...
...government declines continue to partially offset private growth

![Graph showing private and government jobs from January 2008 to January 2013. The graph indicates a decline in government jobs and a variation in private jobs with estimates for both private and government sectors, with private estimates to be revised in March 2014.]

- **Private Job Count**
- **Private Estimates (to be revised March 2014)**
- **Government Job Count**
- **Government Estimates (to be revised March 2014)**
Job gains...total wages paid?

(adjusted for inflation)
Maine had a lower rate of job loss during the downturn and a slower job recovery (as well as personal income and GDP) than the U.S. The age structure of our population is seriously constraining growth.

Recent news coverage has prominently announced we rank near the bottom among states in growth, but provided no context as to why this is the case.
Demographic headwinds & the job outlook
The population in their peak years of labor force participation and earnings is declining, limiting job and economic growth.
Compared to before the recession, the share of employed population is up for those age 55+ and down for younger groups. The largest declines occurred among the youngest.
Based on recently published population projections, what would total employment be if the employment to population ratio for each age group recovered to:

-the 2000 to 2012 average by 2015?

-the 2000 to 2007 average by 2020?
Age 16 to 19

Population & Employment (in thousands)

2012 Emp: 26,000
@avg E-Pop:
2015 +2,000; 2020 +3,000
Avg monthly earnings: $541
Age 20 to 24

- Employment & Population (in thousands)

- Labor Force Participation & Employment to Population Rates (lines)

- 2012 Emp: 55,000
  @avg E-Pop:
  2015 +8,000; 2020 +7,000
  Avg monthly earnings: $1,553
Age 25 to 34

Population & Employment (in thousands)

2012 Emp: 100,000
@avg E-Pop:
2015 +8,000; 2020 +16,000
Avg monthly earnings: $2,675

Labor Force Participation & Employment to Population Rates (lines)

Population | Employment | LFPR | E-Pop
--- | --- | --- | ---
2012 | Emp: 100,000 | @avg E-Pop:
2015 | +8,000; 2020 +16,000 | Avg monthly earnings: $2,675
Age 35 to 44

2012 Emp: 130,000
@avg E-Pop:
2015 -6,000; 2020 -8,000
Avg monthly earnings: $3,614

Labor Force Participation & Employment to Population Rates (lines)

Population
Employment
LFPR
E-Pop

2012
Emp: 130,000

2015 -6,000; 2020 -8,000
Avg monthly earnings: $3,614
**Age 45 to 54**

- **Population**: 2012 Emp: 165,000
- **Employment**: @avg E-Pop:
  - 2015 -5,000; 2020 -24,000
- **Average monthly earnings**: $3,897

**Labor Force Participation & Employment to Population Rates (lines)**

- **Population**
- **Employment**
- **LFPR**
- **E-Pop**

**Graph Details**

- **Year Range**: 2000 to 2020
- **Population** and **Employment** trends shown over time, with notable decreases in employment starting in 2015.
- **Average monthly earnings** of $3,897 noted for 2012.
Age 55 to 64

2012 Emp: 133,000
avg E-Pop:
2015 -2,000; 2020 -3,000
Avg monthly earnings: $3,855

<table>
<thead>
<tr>
<th></th>
<th>Population</th>
<th>Employment</th>
<th>LFPR</th>
<th>E-Pop</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td></td>
<td>133,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td>-2,000</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
<td>-3,000</td>
<td></td>
</tr>
<tr>
<td>Avg</td>
<td></td>
<td></td>
<td></td>
<td>$3,855</td>
</tr>
</tbody>
</table>

Labor Force Participation & Employment to Population Rates (lines)
Age 65+

Employment & Population (in thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>Employment</th>
<th>LFPR</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>40,000</td>
<td>70%</td>
<td>2012</td>
</tr>
<tr>
<td>2015</td>
<td>47,000</td>
<td>75%</td>
<td>2015 +7,000</td>
</tr>
<tr>
<td>2020</td>
<td>49,000</td>
<td>77%</td>
<td>2020 +21,000</td>
</tr>
</tbody>
</table>

Avg monthly earnings: $2,590
Age 16+

2012 Emp: 650,000
Avg E-Pop: 650,000
2015 +12,000; 2020 +13,000
Avg monthly earnings: $3,256
Even if there had not been a recession employment would likely be lower today than in 2007

This finding is based on applying the average employment to population ratio that prevailed for each age group in the eight years before the downturn to the population in that cohort to estimate what employment would have been, other things equal. Once we have recovered to “full employment,” baby boomers aging out of the labor force will take employment lower. Absent significant in-migration of working-age population, we may not see 2007 levels of employment again.
The population age structure will make it difficult to meet the CEFC’s April jobs forecast, especially after 2015.
The age structure of the population is limiting earnings as well as job growth.

If there were no change in average earnings among age groups, total wages paid would rise modestly through 2015 and then decline through 2020. This is a simple simulation based on possible employment growth in each group. Labor markets are more dynamic than this, of course, but it is impossible to ignore the fact that growth is concentrated among those outside their peak years of productivity and earnings.

Jobs will continue to shift toward human capital intensive functions, many of which cannot be filled by young people who have not yet accumulated the required education or experience.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Average Monthly Earnings</th>
<th>Change in total wages paid from 2012 implied by avg earnings times change in employment (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2015</td>
</tr>
<tr>
<td>Total</td>
<td>$3,256</td>
<td>$46</td>
</tr>
<tr>
<td>16-19</td>
<td>$541</td>
<td>$12</td>
</tr>
<tr>
<td>20-24</td>
<td>$1,553</td>
<td>$137</td>
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<tr>
<td>25-34</td>
<td>$2,675</td>
<td>$236</td>
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<tr>
<td>35-44</td>
<td>$3,614</td>
<td>-$239</td>
</tr>
<tr>
<td>45-54</td>
<td>$3,897</td>
<td>-$215</td>
</tr>
<tr>
<td>55-64</td>
<td>$3,855</td>
<td>-$85</td>
</tr>
<tr>
<td>65+</td>
<td>$2,590</td>
<td>$200</td>
</tr>
</tbody>
</table>
Appendix

Recent trends in payroll jobs

Highlights:

- **Sectors near all-time highs:**
  - Healthcare & social services, professional & business services, and educational services. These sectors tend to be human capital intensive, often requiring specialized education, knowledge, or skills.
  - Leisure & hospitality, which tends to be labor intensive.

- **Jobs in sectors that make, move, or sell physical products generally have stabilized, but there is no significant growth:**
  - Manufacturing, construction, wholesale & retail trade, and transportation, warehousing & utilities.

- **All three levels of government continue to shed jobs.**
Professional & Business Services Jobs
(seasonally adjusted in thousands)

Benchmarked Job Count
Estimates (to be revised March 2014)
Likely Revisions
Educational Services Jobs
(seasonally adjusted in thousands)

Benchmarked Job Count
Estimates (to be revised March 2014)
Likely Revisions
Manufacturing Jobs
(seasonally adjusted in thousands)

- Benchmark Job Count
- Estimations (to be revised March 2014)
- Likely Revisions

Jan-08 | Jan-09 | Jan-10 | Jan-11 | Jan-12 | Jan-13
Transportation, Warehousing & Utilities Jobs
(seasonally adjusted in thousands)

Benchmarked Job Count
Estimates (to be revised March 2014)
 Likely Revisions
Federal Government Jobs
(seasonally adjusted in thousands)

Benchmarked Job Count
Estimates (to be revised March 2014)
Likely Revisions

Temporary
Census Jobs
Growth in the University and Community College Systems has largely offset declines elsewhere in state government.