Workforce conditions & demographic challenges to growth

Presented to the
Consensus Economic Forecasting Commission
& Revenue Forecasting Commission
July 23, 2013

Glenn Mills
Chief Economist
Center for Workforce Research
Maine Dept. of Labor

Glenn.mills@maine.gov
207-621-5192
Labor force & unemployment
Unemployment rates continue to trend lower...

Unemployment Rates (Seasonally-Adjusted)

- U.S.
- Maine
...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.
Jobs & Wages
The gradual upward job trend continues...

Nonfarm Payroll Jobs (Seasonally-adjusted)

- **Benchmarked Job Count**
- **Estimates (to be revised March 2014)**
- **Likely Revisions**
...government declines continue to partially offset private growth
Job gains...total wages paid?

*(adjusted for inflation)*

---

The graph shows the trend of wage and salary jobs (left scale) and total wages (right scale) from 2000.1 to 2013.1. The total wages are adjusted for inflation and are measured in billions of 2011Q1 dollars.

- Jobs (left scale): The blue line indicates the number of wage and salary jobs over time.
- Total Wages (right scale): The red line represents the total wages paid, adjusted for inflation.

Key data points include:
- In 2000.1, wage and salary jobs were approximately 560,000.
- Total wages were around $4.75 billion in 2000.1.
- By 2013.1, wage and salary jobs increased to approximately 620,000.
- Total wages reached $6.25 billion in 2013.1.
Maine had a lower rate of job loss during the downturn and a slower job recovery (as well as personal income and GDP) compared to the United States.

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. The age structure of our population is seriously constraining growth.
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

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

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Employment</th>
<th>LFPR</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>100,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

@avg E-Pop:
- 2015 +8,000; 2020 +16,000

Avg monthly earnings: $2,675
Age 35 to 44

- Population: 2012 Emp: 130,000
- Employment to Population Rates (lines): @avg E-Pop:
  2015 -6,000; 2020 -8,000
- Avg monthly earnings: $3,614

Table:

<table>
<thead>
<tr>
<th>Year</th>
<th>Employment</th>
<th>LFPR</th>
<th>E-Pop</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>Emp: 130,000</td>
<td>@avg E-Pop:</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>-6,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>-8,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Average monthly earnings: $3,614
Age 45 to 54

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

### Population

- 2012: 165,000 @ avg E-Pop:
- 2015: -5,000; 2020: -24,000

### Employment

- Avg monthly earnings: $3,897
Age 55 to 64

2012 Emp: 133,000
@avg E-Pop:
2015 -2,000; 2020 -3,000
Avg monthly earnings: $3,855
Age 65+

- 2012 Emp: 40,000
- @ projected E-Pop:
  - 2015 +7,000; 2020 +21,000
- Avg monthly earnings: $2,590
Age 16+

Labor Force Participation & Employment to Population Rates (lines)

Population

Employment

LFPR

E-Pop

2012 Emp: 650,000
@avg E-Pop:
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>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>
</tr>
<tr>
<td>25-34</td>
<td>$2,675</td>
<td>$236</td>
</tr>
<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
Leisure & Hospitality Jobs
(seasonally adjusted in thousands)

Benchmarked Job Count

Estimates (to be revised March 2014)

Likely Revisions
Construction Jobs
(seasonally adjusted in thousands)

- Benchmarkeded Job Count
- Estimates (to be revised March 2014)
- Likely Revisions
Wholesale Trade Jobs
(seasonally adjusted in thousands)

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

Benchmarked Job Count

Estimates (to be revised March 2014)

Likely Revisions
Financial Activities 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

Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13
State Government Jobs
(seasonally adjusted in thousands)

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

Growth in the University and Community College Systems has largely offset declines elsewhere in state government.
Local Government Jobs
(seasonally adjusted in thousands)

Benchmarked Job Count

Estimates (to be revised March 2014)

Likely Revisions