REGIONAL ECONOMIC EVALUATION OF THE HIGHLANDS REGION

New Jersey Highlands Water Protection and Planning Council
DRAFT March 19, 2015

PLACEWORKS
Fiscal Impact Assessment

- Regional Economic Evaluation
- Demographic and Real Estate Analysis
- Fiscal and Financial Analysis
- Final Fiscal Impact Assessment Report
AGENDA

• Data Sources
  + Where do the numbers come from?

• Municipal Classification
  + Comparing like to like

• Economic Evaluation
  + Measuring employment change

• Correlations
  + Factors that influence employment change
Data Sources
EMPLOYMENT DATA

Quarterly Census of Employment and Wages (QCEW)
• Data collected by State for Workmen’s Compensation
• Data for each job location
• Monthly job counts
• Data lag about 9 months
• < 1% data error
• Confidential

Longitudinal Employer-Household Dynamics Program (LEHD)
• Census Bureau program linking QCEW data with tax returns
• Consistency across states
• Most recent data is 2011; almost a year behind schedule
• Public
SOCIAL/DEMOGRAPHIC DATA

Decennial Census
- Data collected by the Census Bureau every 10 years
- Consistent across states
- High sample rate, low statistical error rate
- Beginning in 2010, no long-form; census collects only number of people, age, race, and gender

American Community Survey (ACS)
- Successor to the Census
- Surveys conducted each year
- Small sample size, higher statistical error rates
- For jurisdictions with less than 20,000 people, data are combined over a five-year period
Municipal Classification
Municipal Classifications

• Meant to ensure that the analysis compares similar jurisdictions
• Classification based on population and employment density
• Classification uses a net acreage for each jurisdiction
• Population data from 2000 Census; Employment data for 2004 LEHD

• Net acreage excludes water, wetlands, and federal, state, and local open space
• Agricultural easements were not excluded
## Density Classification Values

<table>
<thead>
<tr>
<th>Density Type</th>
<th>Greater Than</th>
<th>Less Than</th>
<th>Classification Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low population density</td>
<td>0</td>
<td>.62</td>
<td>10</td>
</tr>
<tr>
<td>Medium population density</td>
<td>.62</td>
<td>4.5</td>
<td>20</td>
</tr>
<tr>
<td>High population density</td>
<td>4.5</td>
<td>19.83</td>
<td>30</td>
</tr>
<tr>
<td>Low employment density</td>
<td>0</td>
<td>.12</td>
<td>1</td>
</tr>
<tr>
<td>Medium employment density</td>
<td>.12</td>
<td>2.08</td>
<td>2</td>
</tr>
<tr>
<td>High employment density</td>
<td>2.08</td>
<td>17.59</td>
<td>3</td>
</tr>
</tbody>
</table>

Population Density: Persons per Acre | Employment Density: Total Jobs per Acre
Economic Evaluation
Purple areas show the time periods analyzed in the FIA
US Total Employment, Seasonally Adjusted

Purple areas show the time periods analyzed in the FIA
Purple areas show the time periods analyzed in the FIA
NEW JERSEY AREA COMPARISON

• Using Confidential Data from the Quarterly Census of Employment and Wages (QCEW)

• Data represents average monthly employment for the years 2004, 2008, and 2013
Rate of Change in Total Employment

<table>
<thead>
<tr>
<th></th>
<th>Highlands Region</th>
<th>Highlands County Municipalities not in the Highlands Region</th>
<th>Northern New Jersey</th>
<th>Total New Jersey</th>
</tr>
</thead>
<tbody>
<tr>
<td>04 to 08</td>
<td>12,000</td>
<td>20,000</td>
<td>48,000</td>
<td>61,000</td>
</tr>
<tr>
<td>08 to 13</td>
<td>-10,000</td>
<td>-19,000</td>
<td>-84,000</td>
<td>-122,000</td>
</tr>
</tbody>
</table>
TOTAL EMPLOYMENT, HIGHLANDS REGION

<table>
<thead>
<tr>
<th>Area</th>
<th>2004</th>
<th>2008</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preservation Area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conforming Planning Area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Conforming Planning Area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning Area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conforming Highlands Centers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highlands Region</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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The chart above illustrates the total employment trends in the Highlands Region from 2004 to 2013 across various planning areas. The bars represent the employment numbers for each year, with color-coded sections indicating the specific planning area.
Change in Total Employment

<table>
<thead>
<tr>
<th>Area</th>
<th>04 to 08</th>
<th>08 to 13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preservation Area</td>
<td>-300</td>
<td>-2,000</td>
</tr>
<tr>
<td>Conforming Planning Area</td>
<td>6,000</td>
<td>-2,000</td>
</tr>
<tr>
<td>Non-Conforming Planning Area</td>
<td>6,000</td>
<td>-5,000</td>
</tr>
<tr>
<td>Planning Area</td>
<td>12,000</td>
<td>-7,000</td>
</tr>
<tr>
<td>Conforming Highlands Centers</td>
<td>4,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Highlands Region</td>
<td>12,000</td>
<td>-10,000</td>
</tr>
</tbody>
</table>

Annual Rate of Change in Total Employment

-300 6,000 6,000 12,000 4,000 12,000
-2,000 -2,000 -5,000 -7,000 1,000 -10,000
NEW JERSEY AREA CONCLUSIONS

- Relative to Northern New Jersey and the State as a whole, the Highlands Region had a higher employment growth rate from 2004 to 2008, and less job loss from 2008 to 2013.

- Within the Highlands Region, the preservation area was the only geographic area with negative job growth rate from 2004 to 2008, for a decline of 300 jobs. It also had the highest job loss rate from 2008 to 2013, for a total five-year decline of 2,400 jobs.

- The conforming Highlands Centers generated the highest employment growth rates from 2004 to 2008 and from 2008 to 2013.
INTERSTATE COMPARISONS

• Using Data from the Census Bureau’s Longitudinal Employer-Household Dynamics (LEHD) Program
• Data represents average annual employment for each year from 2002 to 2011
### Recession Effect on Employment

<table>
<thead>
<tr>
<th></th>
<th>Highlands Region</th>
<th>Highlands County Municipalities not in the Highlands Region</th>
<th>Northern New Jersey</th>
<th>Adjacent New York Region</th>
<th>Adjacent Pennsylvania Region</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>07 to 08</strong></td>
<td>700</td>
<td>500</td>
<td>-6,000</td>
<td>4,000</td>
<td>-700</td>
</tr>
<tr>
<td><strong>08 to 09</strong></td>
<td>-16,000</td>
<td>-20,000</td>
<td>-57,000</td>
<td>-26,000</td>
<td>-14,000</td>
</tr>
<tr>
<td><strong>09 to 10</strong></td>
<td>1,000</td>
<td>-2,000</td>
<td>6,000</td>
<td>10,000</td>
<td>4,000</td>
</tr>
</tbody>
</table>

**Change in Total Employment**

- 20,000
- 40,000
- 60,000

**Rationale:**

- Highlands Region: Indicates a positive employment trend with slight gains.
- Highlands County Municipalities not in the Highlands Region: Shows mixed results with varying employment changes.
- Northern New Jersey: Exhibits significant job losses, particularly in the early recession years.
- Adjacent New York Region: Demonstrates mixed employment trends with both positive and negative changes.
- Adjacent Pennsylvania Region: Shows consistent employment losses.

**Note:** The table includes employment changes from 2007 to 2010, reflecting the economic impacts during the recession.
Rate of Change in Employment

- Highlands Region
- Highlands County Municipalities not in the Highlands Region
- Northern New Jersey
- Adjacent New York Region
- Adjacent Pennsylvania Region

<table>
<thead>
<tr>
<th>Period</th>
<th>Highlands Region</th>
<th>Highlands County Municipalities not in the Highlands Region</th>
<th>Northern New Jersey</th>
<th>Adjacent New York Region</th>
<th>Adjacent Pennsylvania Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>02 to 04</td>
<td>800</td>
<td>-2,000</td>
<td>-16,000</td>
<td>-5,000</td>
<td>14,000</td>
</tr>
<tr>
<td>04 to 08</td>
<td>7,000</td>
<td>9,000</td>
<td>25,000</td>
<td>22,000</td>
<td>20,000</td>
</tr>
<tr>
<td>08 to 11</td>
<td>-15,000</td>
<td>-19,000</td>
<td>-61,000</td>
<td>-10,000</td>
<td>700</td>
</tr>
</tbody>
</table>
ANNUAL RATE OF EMPLOYMENT CHANGE

Highlands Region

-5%  -4%  -3%  -2%  -1%  0%  1%  2%  3%
2003  2004  2005  2006  2007  2008  2009  2010  2011

- Observed Growth Rate
ANNUAL RATE OF EMPLOYMENT CHANGE

Highlands Region

-5%
-4%
-3%
-2%
-1%
0%
1%
2%
3%

2003 2004 2005 2006 2007 2008 2009 2010 2011

- Observed Growth Rate
- Expansion Period Trend
- Slowing Growth and Recession Trend
- Early Recovery Period Trend
ANNUAL RATE OF EMPLOYMENT CHANGE

Highlands Region
Highlands County Municipalities Not in the Highlands Region
Northern New Jersey
ANNUAL RATE OF EMPLOYMENT CHANGE

2003 2004 2005 2006 2007 2008 2009 2010 2011

Highlands Region

18-County Interstate Region
INTERSTATE COMPARISON CONCLUSIONS

• From 2004 to 2008, the Highlands Region rate of employment change was higher than the NJ comparison regions and lower than the interstate comparison regions.

• From 2008 to 2011, the Highlands Region had the lowest rate of employment growth among the comparison regions, but this reflects recovery from the recession rather than an economic trend.

• The QCEW data show that the Highlands Counties (in the Highlands Region and outside) outperformed Northern New Jersey from 2008 to 2013, while the LEHD shows the opposite from 2008 to 2011. This suggests that employment recovery came more slowly to these seven counties.
• The Highlands Region’s trend in rate of employment change was more or less similar to the other regions; it was never the extreme value.

• Recession-related job losses were the end result of a five-year trend of slowing then declining rate of employment change among the comparison regions.

• The trend in the Highlands Region appears to be tied to the overall regional economy rather than a result of the Act and the RMP.

• The trends in the Highlands county municipalities not in the Highlands Region appear to the somewhat out of sync with the broader regional economy.
MUNICIPAL-LEVEL COMPARISONS
**ANNUAL EMPLOYMENT GROWTH RATE**

**Low Population and Low Employment Density**

- **04 to 08:**
  - Highlands Region (13)
  - Non-Highlands Municipalities (11)
  - Northern New Jersey (26)

- **08 to 13:**
  - Highlands Region (13)
  - Non-Highlands Municipalities (11)
  - Northern New Jersey (26)

**Medium Population and Medium Employment Density**

- **04 to 08:**
  - Highlands Region (47)
  - Non-Highlands Municipalities (27)
  - Northern New Jersey (83)

- **08 to 13:**
  - Highlands Region (47)
  - Non-Highlands Municipalities (27)
  - Northern New Jersey (83)
CONCLUSION FROM MUNICIPAL LEVEL ANALYSIS

• There is no consistent pattern of employment change at the municipal level to find that a municipality’s location in the Highlands Region had a positive or negative impact on economic growth from 2004 to 2008 and from 2008 to 2013.
Correlations
• **12.1 percent of the change in employment explained by:**
  + Population density in 2000 (negative)
  + Percentage change in portion of population with only a high school diploma 2000 to 2010 (negative)
  + Manufacturing sector’s share of total jobs in 2004 (positive)

• **Location in the Highlands Region does not have a statistically significant correlation with the rate of change in employment growth from 2004 to 2008.**
• 19.3 percent of the change in employment explained by:
  + Percentage change in median age from 2010 to 2013 (negative)
  + Construction sector’s share of total jobs in 2008 (positive)

• Location in the Highlands Region does not have a statistically significant correlation with the rate of change in employment growth from 2008 to 2013.
Overall Conclusion
OVERALL CONCLUSION

The employment and demographic data analysis revealed no statistically relevant basis to conclude that the Act or the RMP had a positive or negative impact on economic growth in the Highlands Region.
FIA: Next Steps

• Regional Economic Evaluation
• Demographic and Real Estate Analysis
• Fiscal and Financial Analysis
• Final Fiscal Impact Assessment Report