Pains, Trains and Automobiles

Assessing the Economic Impact of Multiple Rail Crossings in Claremore, OK

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Ground-transportation and other Claremore facts

• Three state highways intersect in the middle of town.
• Two Class 1 railways intersect in the middle of town.
• Rail traffic yields 40 trains per day.
• Claremore has 18 at-grade rail crossings within a two-mile span.
• Population of Claremore is 19,069
Data collected at the 18 crossings for 31 consecutive days in summer 2015 revealed delays:

• 5,861 minutes
• 3 hours 9 minutes daily
• Emergency responders delayed 9 hours 6 minutes
  • 17 minutes 37 seconds daily
  • Duration of delay ranged from 20 minutes to 2 hours 40 minutes.
Time Spent at Crossing
<table>
<thead>
<tr>
<th>Delay in minutes, all intersections</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 minutes</td>
<td>1,403</td>
</tr>
<tr>
<td>6-10 minutes</td>
<td>2,008</td>
</tr>
<tr>
<td>11-15 minutes</td>
<td>897</td>
</tr>
<tr>
<td>16-20 minutes</td>
<td>612</td>
</tr>
<tr>
<td>21-25 minutes</td>
<td>184</td>
</tr>
<tr>
<td>26-30 minutes</td>
<td>168</td>
</tr>
<tr>
<td>Longer than 30 minutes</td>
<td>589</td>
</tr>
<tr>
<td>Total minutes in 31-day period*</td>
<td>5,861</td>
</tr>
</tbody>
</table>

189.05 = minutes per day
3.15 = hours per day

*Delay in minutes calculated as the product of the mid-point of each range and its frequency per intersection and time.
There have been tragedies.

• 17 train accidents in the last 10 years
• 3 train/pedestrian accidents resulted in fatalities
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- Claremore is a suburb of Tulsa – avg annual growth of 0.6 percent.
• Gross-product loss of $77.9 million in 2015
FINDINGS

• 1,403 Claremore workers, or 12 percent of all Claremore wage-earners, commute across tracks daily to work.

• The 2015 estimate of gross product of $1.95 billion for the Claremore study area is 3.8 percent below its potential due to delays at the 18 BNSF and Union Pacific crossings in the city of Claremore.
FINDINGS

• Based on an estimate of 2015 gross product per worker of $139,193 and a full work year of 2,080 hours per worker, the 1,403 track-crossing workers account for lost gross product daily of $299,493.

• The gross product lost in 2015 due to delays at Claremore railroad crossings is estimated to be $77.9 million.
Use: OnTheMap ([https://onthemap.ces.census.gov](https://onthemap.ces.census.gov)) to determine number of track-crossing commuters

- 1,403 workers
- Perform paired-area analysis on area divided by Union Pacific RR (UP)
Determine lost gross product for Claremore

• Use IMPLAN (www.implanonline.com) to get total 2015 gross product for Claremore zip codes ($1.95 billion).

• Use OnTheMap zip code-based worker total of 14,024 to get annual gross product per worker.

• Use OnTheMap total of 1,403 resident-workers who cross tracks to get to work to get total affected gross product.
Action Taken Based on Economic Analysis

• Claremore transportation-development initiative was reinstated in Oklahoma Department of Transportation’s Eight-year Plan.
  • Re-routing State Highway 20 around city to ease congestion (2019).
  • Construction over overpass at one southern crossing location (2019).
  • Construction of overpass at a prominent northern crossing location (2021).
Action Taken Based on Economic Analysis

• City has received agreements with BNSF and UP to begin construction of channelization.

• Development of Quiet Zone to create a more livable community.
  • UP and BNSF
  • Federal, state and local governments
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