Oregon Population Forecast Program
Regional Forecast Meeting – March 13, 2019

Preliminary Coordinated Forecasts for Wheeler County, its Urban Growth Boundaries (UGBs), and the Area Outside UGBs
Oregon Population Forecast Program
Project Team

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Agenda

• Present and discuss preliminary forecast results
  • Proposed Forecasts by March 31st, 2019; To be posted on Oregon Population Forecast Program (OPFP) website: http://www.pdx.edu/prc/opfp

• Explain our assumptions for future change

• Obtain your feedback
Preliminary Forecast Results

2018-2021 Update

• Modified Methodology (50 Year Period)
• Forecast Methods (2019-44)
  • Cohort-Component and Housing Unit Model
• Modified Method (2044-69):
  • County: AAGR of the last 5 year period (2040-45) is extrapolated out for the remaining 25 years.
  • Sub-areas: Trend the sub-area share of the County for the remaining 25 years.

These numbers represent Preliminary Forecast Results
Assumptions for Wheeler County and Larger Sub-Area Forecasts

1. As the economy strengthens, we assume housing construction to persist through the 2010-2020 decade.
   a) We expect population decline to steepen in the 2020-25 period as job growth slows and Oregon’s population ages.
   b) Net in-migration will increase steadily over the forecast period in tandem with deaths as housing becomes available.

2. We incorporate state and local trends into our assumptions for fertility and mortality.
   a) As a result of aging Baby Boomers, deaths increase and peak in the 2040s.
   b) Total fertility rates decline and births stagnate throughout the period.
   c) As a result, the County and its sub-areas will continue to experience a natural decrease at a growing magnitude.

3. Total population is expected to decline as natural decrease outpaces net in-migration.
Preliminary Forecast Results

These numbers represent *Preliminary* Forecast Results.
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**Historical and Forecast Trends**

**Wheeler County—Average Annual Births**

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>2035</th>
<th>2040</th>
<th>2045</th>
</tr>
</thead>
<tbody>
<tr>
<td>Births</td>
<td>10</td>
<td>10</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

Sources: Oregon Health Authority, Center for Health Statistics. Calculations and Forecast by Population Research Center (PRC).

Note: The years signify the end of the period for which average annual numbers were calculated. The average annual numbers for "2010" were calculated for the 2000-2010 period, with the remaining years calculated for their preceding five-year periods.
### Total Fertility Rate (TFR)

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2010</th>
<th>2044</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Baker County</strong></td>
<td>2.07</td>
<td>2.72</td>
<td>1.90</td>
</tr>
<tr>
<td><strong>Region 2</strong></td>
<td>2.32</td>
<td>2.37</td>
<td>2.24</td>
</tr>
</tbody>
</table>

*Sources: U.S. Census Bureau, 2000 and 2010 Censuses. PRC Estimates. Oregon Health Authority, Center for Health Statistics. Calculations and Forecast by Population Research Center (PRC).*

*Note: 2000 and 2010 are annual, whereas TFR for 2044 is calculated for the 2040 to 2045 forecast period.*
These numbers represent Preliminary Forecast Results.

Wheeler County—Age Specific Fertility Rate (2000, 2010, and 2044)

Total Fertility Rates by Ethnicity, Oregon Residents, 1990 to 2017

Based on Age-Specific Fertility Rates

Sources: PEPASR6H-Geography-OregonYear- July 1, 2017 and July 1, 2010
Hispanic Origin-Hispanic: Annual Estimates of the Resident Population by Sex, Age, Race, and Hispanic Origin for the United States and States: April 1, 2010 to July 1, 2017
Population Research Center (PRC), 2017 Population Estimates
Historical and Forecast Trends

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Wheeler County—Average Annual Deaths

Sources: Oregon Health Authority, Center for Health Statistics. Calculations and Forecast by Population Research Center (PRC).
Note: The years signify the end of the period for which average annual numbers were calculated. The average annual numbers for "2010" were calculated for the 2000-2010 period, with the remaining years calculated for their preceding five-year periods.
Wheeler County – Age Specific Survival Rates

Sources: U.S. Census Bureau, 2000 and 2010 Census; Forecast by Population Research Center (PRC).

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Historical and Forecast Trends

Wheeler County—Average Annual Natural Increase/Decrease

<table>
<thead>
<tr>
<th>Year</th>
<th>Nat. Inc./Dec.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>-9</td>
</tr>
<tr>
<td>2015</td>
<td>-10</td>
</tr>
<tr>
<td>2020</td>
<td>-11</td>
</tr>
<tr>
<td>2025</td>
<td>-11</td>
</tr>
<tr>
<td>2030</td>
<td>-11</td>
</tr>
<tr>
<td>2035</td>
<td>-11</td>
</tr>
<tr>
<td>2040</td>
<td>-10</td>
</tr>
<tr>
<td>2045</td>
<td>-9</td>
</tr>
</tbody>
</table>

Sources: Oregon Health Authority, Center for Health Statistics. Calculations and Forecast by Population Research Center (PRC).
Note: The years signify the end of the period for which average annual numbers were calculated. The average annual numbers for "2010" were calculated for the 2000-2010 period, with the remaining years calculated for their preceding five-year periods.
Wheeler County, Region 2, and Oregon—Ten Year Migration Rates (2000-2010)

Historical and Forecast Trends

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Wheeler County—Average Annual Net In/Out-Migration

Note: The years signify the end of the period for which average annual numbers were calculated. The average annual numbers for “2010” were calculated for the 2000-2010 period, with the remaining years calculated for their preceding five-year periods.
These numbers represent *Preliminary* Forecast Results

**Wheeler County—Average Annual Net In/Out-Migration**

<table>
<thead>
<tr>
<th>Period</th>
<th>Average Annual Net Migrants</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000-2010</td>
<td>-2</td>
</tr>
<tr>
<td>2010-2020</td>
<td>2</td>
</tr>
<tr>
<td>2020-2044</td>
<td>6</td>
</tr>
</tbody>
</table>

Note: The average annual numbers were calculated for the 10 year periods (2000-2010 and 2010-2020) and the 24 year period (2020-2044).
Wheeler County—Age Structure of the Population

Source: Forecast by Population Research Center (PRC)

These numbers represent Preliminary Forecast Results
# Historical and Forecast Trends

These numbers represent *Preliminary* Forecast Results.

## Historical and Forecast Populations for Wheeler County and its Sub-Areas

<table>
<thead>
<tr>
<th></th>
<th>Historical</th>
<th></th>
<th>Forecast</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheeler County</td>
<td>1,547</td>
<td>1,441</td>
<td>-0.7%</td>
<td>1,363</td>
<td>1,238</td>
<td>1,161</td>
</tr>
<tr>
<td>Fossil</td>
<td>469</td>
<td>473</td>
<td>0.1%</td>
<td>462</td>
<td>461</td>
<td>468</td>
</tr>
<tr>
<td>Mitchell</td>
<td>163</td>
<td>130</td>
<td>-2.2%</td>
<td>124</td>
<td>104</td>
<td>89</td>
</tr>
<tr>
<td>Spray</td>
<td>142</td>
<td>167</td>
<td>1.6%</td>
<td>161</td>
<td>163</td>
<td>168</td>
</tr>
<tr>
<td>Outside UGBs</td>
<td>773</td>
<td>671</td>
<td>-1.4%</td>
<td>615</td>
<td>510</td>
<td>436</td>
</tr>
</tbody>
</table>

Sources: U.S. Census Bureau, 2000 and 2010 Censuses; Forecast by Population Research Center (PRC).

Note: For simplicity each UGB is referred to by its primary city’s name.
Assumptions for Smaller Sub-Area Forecasts

1. For UGBs experiencing population growth, we assume future housing construction will follow historic patterns. For sub-areas where population growth has been flat or declined, and there is no planned housing construction, we tend to temper losses over the forecast period.

2. If planned housing units were reported in the surveys, then we account for them being constructed over the next 5-10 years.

3. With fewer children on the horizon, we expect Persons per Household (PPH) rates to decline steadily over time.
## Preliminary Forecast Results

These numbers represent **Preliminary** Forecast Results for the years 2019, 2044, and 2069. The table below shows the population and average annual growth rate (AAGR) for various sub-areas within Wheeler County. The AAGR for the period 2019-2044 and 2044-2069 is also provided, along with the share of the population as a percentage of the county's total population for each year.

### County and Sub-Areas—Population and Average Annual Growth Rate (AAGR) (2019, 2044, and 2069)

<table>
<thead>
<tr>
<th>Location</th>
<th>2019</th>
<th>2044</th>
<th>2069</th>
<th>AAGR (2019-2044)</th>
<th>AAGR (2044-2069)</th>
<th>Share of County 2019</th>
<th>Share of County 2044</th>
<th>Share of County 2069</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheeler County</td>
<td>1,363</td>
<td>1,238</td>
<td>1,161</td>
<td>-0.4%</td>
<td>-0.3%</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Fossil</td>
<td>462</td>
<td>461</td>
<td>468</td>
<td>0.0%</td>
<td>0.1%</td>
<td>33.9%</td>
<td>37.2%</td>
<td>40.3%</td>
</tr>
<tr>
<td>Mitchell</td>
<td>124</td>
<td>104</td>
<td>89</td>
<td>-0.7%</td>
<td>-0.6%</td>
<td>9.1%</td>
<td>8.4%</td>
<td>7.6%</td>
</tr>
<tr>
<td>Spray</td>
<td>161</td>
<td>163</td>
<td>168</td>
<td>0.0%</td>
<td>0.1%</td>
<td>11.8%</td>
<td>13.2%</td>
<td>14.4%</td>
</tr>
<tr>
<td>Outside UGBs</td>
<td>615</td>
<td>510</td>
<td>436</td>
<td>-0.7%</td>
<td>-0.6%</td>
<td>45.1%</td>
<td>41.2%</td>
<td>37.6%</td>
</tr>
</tbody>
</table>

*Source: Forecast by Population Research Center (PRC)*

*Note: For simplicity each UGB is referred to by its primary city’s name.*
Preliminary Forecast Results

2020 Census

www.census2020now.org

Census Project Manager: Aldo Solano (Aldo.SOLANO@oregon.gov)
Oregon Partnership Specialist: Nick Brown (nicholas.a.brown@2020census.gov)
Umatilla Partnership Specialist: Sarah Bushore (sarah.m.bushore@2020census.gov)

TOOLS & RESOURCES

Best Practices to Get Out the Count

The Tools page shares information and best practices to foster community preparedness and inspire individual action for a fair and accurate count in the 2020 census.

Get ready to count everyone. Now.

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2020 Census Jobs

The U.S. Census Bureau is recruiting thousands of people across the country to assist with the 2020 Census count.

https://2020census.gov/jobs.html

1-855-JOB-2020 (1-855-562-2020)

- select option 1 for technical assistance or option 3 to speak with someone at your area census office.
Local Input and Additional Information

- Questions?
- Discussion time