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Webinar Details
► The MAP Talk will be recorded
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► Conference mode
► Everyone muted except presenter
► How to ask a question
► Use Zoom Chat or Email anytime to jkanipe@arizona.edu

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Arizona Daily Star
Key Topics Today

- Uncertainty dominates the outlook
  - Will there be a resurgence of the outbreak?
  - How fast will the state recover?
- Arizona was hit hard, but has outperformed many states, so far
  - CARES Act has boosted the recovery
- The short-run outlook depends on the outbreak
  - If the recent surge is contained and no resurgence in the fall/winter, then look for continued recovery
- The long-run outlook depends on demographics, innovation, education, infrastructure, tax/regulatory policy, water
  - Arizona is well positioned to outpace the U.S., but growth will be slower than in the past
A Huge Shock to the System

Arizona and U.S. Unemployment Rates, Seasonally Adjusted

<table>
<thead>
<tr>
<th>Month</th>
<th>U.S. (U3)</th>
<th>Arizona (U3)</th>
<th>U.S. (U6)</th>
<th>Arizona (U6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>June</td>
<td>11.1</td>
<td>10.0</td>
<td>18.0</td>
<td>16.5</td>
</tr>
<tr>
<td>July</td>
<td>10.2</td>
<td>10.6</td>
<td>16.5</td>
<td>14.2</td>
</tr>
<tr>
<td>August</td>
<td>8.4</td>
<td>na</td>
<td>14.2</td>
<td></td>
</tr>
</tbody>
</table>

Percent Change From February To July


Household Employment Hit Harder

Arizona Jobs And Employed Residents Seasonally Adjusted

<table>
<thead>
<tr>
<th>Month</th>
<th>Arizona Household</th>
<th>U.S. Household</th>
<th>Establishment</th>
</tr>
</thead>
<tbody>
<tr>
<td>February-July</td>
<td>-26.7, -7.7%</td>
<td>-12.7, -8.4%</td>
<td>-13.0, -4.4%</td>
</tr>
</tbody>
</table>

Diverse Industry Performance

Arizona Net Job Change By Industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>Percent Change From February To July</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flagstaff</td>
<td>-20.1</td>
</tr>
<tr>
<td>Lake Havasu City-Kingman</td>
<td>-14.7</td>
</tr>
<tr>
<td>Phoenix</td>
<td>-9.8</td>
</tr>
<tr>
<td>Prescott</td>
<td>-7.3</td>
</tr>
<tr>
<td>Sierra Vista-Douglas</td>
<td>-6.6</td>
</tr>
<tr>
<td>Tucson</td>
<td>-8.7</td>
</tr>
<tr>
<td>Yuma</td>
<td>-10.4</td>
</tr>
<tr>
<td>Arizona</td>
<td>-9.9</td>
</tr>
<tr>
<td>U.S.</td>
<td>-14.5</td>
</tr>
<tr>
<td>Other Services</td>
<td>+1.6</td>
</tr>
<tr>
<td>Natural Resources and Mining</td>
<td>-0.7</td>
</tr>
<tr>
<td>Trade, Transportation and Utilities</td>
<td>-3.3</td>
</tr>
<tr>
<td>Financial Activities</td>
<td>-3.6</td>
</tr>
<tr>
<td>Information</td>
<td>-3.7</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>-6.1</td>
</tr>
<tr>
<td>Construction</td>
<td>-9.2</td>
</tr>
<tr>
<td>Government</td>
<td>-11.0</td>
</tr>
<tr>
<td>Education and Health Services</td>
<td>-13.7</td>
</tr>
<tr>
<td>Professional and Business Services</td>
<td>-30.1</td>
</tr>
<tr>
<td>Leisure and Hospitality</td>
<td>-69.3</td>
</tr>
</tbody>
</table>
Diverse Industry Performance

Tucson MSA Net Job Change By Industry
February To July, Thousands, Seasonally Adjusted

<table>
<thead>
<tr>
<th>Industry</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade, Transportation and Utilities</td>
<td>-0.2</td>
</tr>
<tr>
<td>Natural Resources and Mining</td>
<td>-0.2</td>
</tr>
<tr>
<td>Other Services</td>
<td>-0.2</td>
</tr>
<tr>
<td>Construction</td>
<td>-0.3</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>-1.1</td>
</tr>
<tr>
<td>Financial Activities</td>
<td>-1.2</td>
</tr>
<tr>
<td>Information</td>
<td>-1.4</td>
</tr>
<tr>
<td>Government</td>
<td>-2.2</td>
</tr>
<tr>
<td>Education and Health Services</td>
<td>-2.5</td>
</tr>
<tr>
<td>Professional and Business Services</td>
<td>-3.7</td>
</tr>
<tr>
<td>Leisure and Hospitality</td>
<td>-4.0</td>
</tr>
</tbody>
</table>

Consumer Spending

Card-Based Transactions, Relative To January

These data probably miss pre-loaded debit cards with UI benefits

Google Maps Mobility

Travel to Retail and Recreation Places, Relative To January

Arizona Taxable Retail Sales

Relative To January 2020, Seasonally Adjusted, Accrual

Percent Change from January 2020

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Consumer Spending
Restaurants and Hotels, Card-Based Transactions Relative To January

Seated Diners
Over-The-Year Percent Change, Weekly

U.S. Hotel Occupancy
Weekly

Consumer Spending
Transportation, Card-Based Transactions Relative To January
U.S. TSA Checkpoint Traffic

Weekly

Arizona Gasoline Sales

Taxable Sales Relative To January, Seasonally Adjusted, Accrual

Percent Change from January 2020

Air Passengers

Phoenix Sky Harbor And Tucson International

Arizona, Phoenix, and Tucson Outlook

► A solid recovery continues, with gradual improvement
  ► Assuming the latest virus surge is contained and no resurgence in the fall/winter
  ► Arizona jobs return to pre-pandemic levels in mid-2021
  ► Personal income growth is modest this year and next
    ► Driven by the federal fiscal policy injection and withdrawal
  ► Population growth slows modestly this year and accelerates modestly next year

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**Long-Run Outlook**

- No assumptions on long-term impacts of COVID-19
- Demographic change means slower growth in the major aggregates
  - Compared to prior 30 years
  - Population, jobs, personal income, sales
- Innovation remains key, which makes education an important factor

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**Components of Population Change**

**Arizona Net Migration And Natural Increase**

- Population: 1977-2007: 1.1%PY
- 1989-2019: 0.9%PY
- 2020-2050: 0.5%PY

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**Share Of Workers Age 65+**

In Percent For 2019

- Arizona
- U.S.
Tucson MSA And U.S. Job Growth

Annual Growth Rates

Percent

-16
-12
-8
-4
0
4
8
12
16

Tucson
U.S.

60 70 80 90 100 110 120 130 140 150

60 70 80 90 100 110 120 130 140 150

COVID-19 Long-Term Impacts?

- The longer the pandemic lasts, the more lasting will be the impact
- Migration flows
  - Movement out of high-cost metropolitan areas in the west?
    - Arizona might benefit from relatively low cost of living
    - Will firms scale pay to cost of living for remote workers?
    - Will this boost innovation in Arizona?
- Commercial real estate
  - Remote work impacts office market?
  - Online sales reduce demand for retail space and increase warehouse activity
- Residential real estate
  - Shift further from city center?
  - Shift in mix of single family versus multi family?
- Automation

Key Takeaways

- Uncertainty dominates the outlook
  - The pandemic will impact the outlook, particularly in the near term
- The Arizona economy has recovered (so far) faster than the U.S. and many states
  - In part because the initial decline was less severe
- The outlook calls for the state to reach pre-pandemic levels in mid-2021
- The long-run outlook remains positive
  - Arizona is likely to outpace growth for the nation and most states
- Investments in education will be key to driving innovation
  - Innovation is the main driver of long-run improvement in the state’s standard of living

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