The State of the Region
HAMPTON ROADS 2021
DRAGAS CENTER FOR ECONOMIC ANALYSIS AND POLICY | STROME COLLEGE OF BUSINESS | OLD DOMINION UNIVERSITY
I will cover the impact of the pandemic on Hampton Roads, the prospects for a continued recovery, and how changes in the defense environment may affect growth in the coming decade.

Vinod Agarwal will examine the performance of the hotel sector, the surge in real estate prices, and how the Port is faring in 2021.

I will conclude with a discussion of the potential economic impact of the new casinos in Norfolk and Portsmouth on the regional economy.

All our presentation materials can be found at our website: www.ceapodu.com
The Strome College of Business and Old Dominion University continue to provide important support for the State of the Region report. However, the report would not appear without the vital backing of these donors, who believe in the power of rational discourse to improve our circumstances.

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7-Day Moving Average of Daily COVID-19 Infections
Hampton Roads and Virginia, April 1, 2020 - October 13, 2021

Source: Virginia Department of Health and Dragas Center for Economic Analysis and Policy.
COVID-19 Hospitalizations in Virginia
April 14, 2020 - October 12, 2021

Source: Virginia Department of Health. Data are current as of October 12, 2021.
COVID-19 Infections by Vaccination Status, Eastern Health Region, Virginia
January 23, 2021 - October 2, 2021

Weekly Infections

Source: Virginia Department of Health.
COVID-19 Infections by Vaccination Status, Health Regions, Virginia
Rate per 100,000 Per Vaccination Group, Week of October 2, 2021

Rate Per 100,000

Central Region  Eastern Region  Northern Region  Northwest Region  Southwest Region

- **Fully Vaccinated**
- **Partially Vaccinated**
- **Unvaccinated**

Sources: Virginia Department of Health, Centers for Disease Control and Prevention, and Dragas Center for Economic Analysis and Policy. 2019 NCHS population estimates.
Hampton Roads and Virginia, COVID-19 Vaccinations
Data as of October 13, 2021

Percent Fully Vaccinated

Norfolk: 40.5%
Portsmouth: 42.8%
Newport News: 47.0%
Hampton: 47.6%
Suffolk: 49.4%
Chesapeake: 50.1%
Virginia Beach: 52.3%
Virginia: 53.8%

Sources: Virginia Department of Health, Centers for Disease Control and Prevention.
Estimates do not include federal doses or out-of-state doses. Ratio of fully vaccinated individuals to 2019 NCHS population estimates.
Recovery or Relapse?
Civilian Labor Force and Employment
Hampton Roads, January 2007 - February 2020

Source: Bureau of Labor Statistics, seasonally adjusted data.
Nonfarm Payrolls in Hampton Roads
January 2007 - February 2020

Source: Bureau of Labor Statistics, seasonally adjusted data.
Nonfarm Payrolls in Hampton Roads, Virginia, and the United States
February 2010 - February 2020

Index (Feb. 2010 = 100)

Source: Bureau of Labor Statistics, seasonally adjusted data.
February 2010 was the trough of nonfarm payrolls for the United States, Virginia, and Hampton Roads.
Initial Claims for Unemployment Insurance
Hampton Roads, March 14, 2020 - September 25, 2021

Source: Virginia Employment Commission, non-seasonally adjusted data. Virginia cities and counties in MSA.
Continued Claims for Unemployment Insurance
Hampton Roads, March 14, 2020 - September 25, 2021

Source: Virginia Employment Commission, non-seasonally adjusted data. Virginia cities and counties in MSA.
Civilian Labor Force and Employment
Hampton Roads, January 2020 - August 2021

Source: Bureau of Labor Statistics, seasonally adjusted data.
Headline Unemployment Rate (U3)
Hampton Roads, January 2020 - August 2021

Unemployment Rate

Source: Bureau of Labor Statistics, seasonally adjusted data.
Unemployment Rate and Alternative Unemployment Rate
Hampton Roads, January 2020 - August 2021

Source: Bureau of Labor Statistics, seasonally adjusted data.
Adjusted unemployment rate includes departures from the labor force and unemployed.
Change in Nonfarm Payrolls (Jobs) in Hampton Roads
February 2010 - August 2021

Source: Bureau of Labor Statistics, seasonally adjusted data.
Change in Nonfarm Payrolls (Jobs) in Hampton Roads
August 2019 to August 2021

<table>
<thead>
<tr>
<th>Category</th>
<th>Change in Payrolls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Nonfarm</td>
<td>-37,000</td>
</tr>
<tr>
<td>Leisure and Hospitality</td>
<td>-14,100</td>
</tr>
<tr>
<td>Education and Health Services</td>
<td>-11,600</td>
</tr>
<tr>
<td>Local Government</td>
<td>-3,700</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>-3,500</td>
</tr>
<tr>
<td>Other Services</td>
<td>-2,500</td>
</tr>
<tr>
<td>State Government</td>
<td>-2,100</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>-1,900</td>
</tr>
<tr>
<td>Information</td>
<td>-1,400</td>
</tr>
<tr>
<td>Financial Activities</td>
<td>-1,400</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>-300</td>
</tr>
<tr>
<td>Prof. and Business Services</td>
<td>700</td>
</tr>
<tr>
<td>Federal Government</td>
<td>1,400</td>
</tr>
<tr>
<td>Mining, Logging, and Construction</td>
<td>3,400</td>
</tr>
<tr>
<td>Transport, Warehouse, Utilities</td>
<td></td>
</tr>
</tbody>
</table>

Source: U.S. Department of Labor, non-seasonally adjusted data.
Nonfarm Payrolls in Hampton Roads, Virginia, and the United States
February 2020 - August 2021

Index (Feb. 2020 = 100)

Source: Bureau of Labor Statistics, seasonally adjusted data.
Rising Budgets, Increasing Threats
Department of Defense Base Budget
Fiscal Years 2010 - 2026

FY 2021 is an estimate. FY 2022 - FY 2026 are forecasts.
Department of Defense Direct Spending in Hampton Roads
2010 - 2026

Sources: Dragas Center for Economic Analysis and Policy; 2021 is an estimate. 2022 - 2026 are forecasts.
Cumulative U.S. Federal Government Deficit by Month
October 2015 - August 2021

Billions of Dollars

Source: Congressional Budget Office, U.S. Treasury.
Increasing Budgets and Rising Uncertainty

- Defense spending in Hampton Roads will rise through 2025, barring an unexpected economic or financial shock.

- Weapons and personnel costs are growing faster than budgets.

- Each service has proposed reducing current capabilities to fund modernization efforts.

- Fewer ships and aircraft today, and fewer ships and aircraft tomorrow.

- The rise of unmanned aerial vehicles, cyberattacks, and disinformation represents an inflection point.

- Will carriers go the way of the battleship?

- A rapid shift towards smaller, cheaper, and unmanned systems would not bode well for Hampton Roads.
The Port Weathers the Storm
Total Loaded Twenty-Foot Equivalent Container Units (TEUs): Port of Virginia
January 2019 - August 2021

Source: Virginia Port Authority and Dragas Center for Economic Analysis and Policy.
Shares of Total Loaded TEUs for Selected East Coast Ports
2010 - 2021*

Percent of TEUs

- **Charleston**
- **New York/NJ**
- **Savannah**
- **Virginia**

Housing Values Surge and Rents Rise
Number of Existing Residential Homes Sold: Hampton Roads
January 2019 - September 2021

Sources: Real Estate Information Network Inc. and Dragas Center for Economic Analysis and Policy.
Median Price of Existing Residential Homes in Hampton Roads
January 2019 - September 2021

 Thousands of Dollars

Jan  $209
Feb  $225
Mar  $255
Apr  $283
May  $283
Jun  $283
Jul  $283
Aug  $283
Sep  $283
Oct  $283
Nov  $283
Dec  $283

2019  2020  2021

Sources: Real Estate Information Network Inc. and Dragas Center for Economic Analysis and Policy.
Inventory of Existing Residential Homes in Hampton Roads
January 2019 - September 2021

Number of Homes

Jan 6,719
Feb 5,268
Mar 2,599
Apr 5,325
May 3,759
Jun 2,841

Sources: Real Estate Information Network Inc. and Dragas Center for Economic Analysis and Policy.
Estimated Months of Supply of Existing Homes: Hampton Roads
January 2010 - September 2021

Average = 5.55 months

Sources: Real Estate Information Network Inc. and Dragas Center for Economic Analysis and Policy.
Months of supply is based on average sales in the last 12 months.
### Median Sale Price of Existing Residential Homes for Selected Cities: Hampton Roads, YTD September 2020 and YTD September 2021

<table>
<thead>
<tr>
<th>City</th>
<th>2020</th>
<th>2021</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chesapeake</td>
<td>$279,900</td>
<td>$316,555</td>
<td>13.1%</td>
</tr>
<tr>
<td>Norfolk</td>
<td>$224,900</td>
<td>$255,000</td>
<td>13.4%</td>
</tr>
<tr>
<td>Portsmouth</td>
<td>$178,500</td>
<td>$207,000</td>
<td>16.0%</td>
</tr>
<tr>
<td>Suffolk</td>
<td>$274,900</td>
<td>$310,000</td>
<td>12.8%</td>
</tr>
<tr>
<td>Virginia Beach</td>
<td>$285,000</td>
<td>$310,000</td>
<td>8.8%</td>
</tr>
<tr>
<td>Hampton</td>
<td>$187,900</td>
<td>$225,000</td>
<td>19.7%</td>
</tr>
<tr>
<td>Newport News</td>
<td>$206,000</td>
<td>$229,000</td>
<td>11.2%</td>
</tr>
<tr>
<td>Williamsburg*</td>
<td>$315,000</td>
<td>$349,900</td>
<td>11.1%</td>
</tr>
<tr>
<td>Hampton Roads</td>
<td>$250,000</td>
<td>$278,000</td>
<td>11.2%</td>
</tr>
</tbody>
</table>

* Williamsburg represents Poquoson, Williamsburg, James City County, York County and Gloucester County. Source: Real Estate Information Network and Dragas Center for Economic Analysis and Policy.
Weekly 30-Year Fixed Mortgage Rate
January 3, 2019 - October 7, 2021

Annual Mortgage Rates
3.85% for 2015; 3.65% for 2016
4.00% for 2017; 4.54% for 2018
3.93% for 2019; 3.11% for 2020

Sources: Freddie Mac and Federal Reserve Bank of St. Louis. Weekly rate ending Thursday of each week.
Zillow Observed Rent Index (ZORI): Hampton Roads and United States
January 2014 - August 2021

Source: Zillow Research Data All Homes plus Multifamily Time series, smoothed seasonally adjusted data.
Hotels Rebound but Challenges Remain
Nominal and Real (Inflation-Adjusted) Hotel Revenue: Hampton Roads 2000-2020

Sources: STR Trend Reports January 2017 and January 2021, Bureau of Labor Statistics (base year is chained; 1982-84=100), and Dragas Center for Economic Analysis and Policy.
Year-Over-Year Percent Change in Monthly Hotel Revenue
Top 25 Markets, All Other Markets, and Hampton Roads, January 2020 to February 2021

Sources: STR Monthly Trend Reports and Dragas Center for Economic Analysis and Policy.
## Percent Change in Selected Key Performance Indicators of Hotels in USA, Virginia, and Hampton Roads: 2019 to 2020

<table>
<thead>
<tr>
<th>Region</th>
<th>Hotel Revenue</th>
<th>RevPAR</th>
<th>Hotel Rooms Sold</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>-49.4%</td>
<td>-47.5%</td>
<td>-35.7%</td>
</tr>
<tr>
<td>Virginia</td>
<td>-47.9%</td>
<td>-46.7%</td>
<td>-34.2%</td>
</tr>
<tr>
<td>Hampton Roads</td>
<td>-35.2%</td>
<td>-34.7%</td>
<td>-23.3%</td>
</tr>
<tr>
<td>Chesapeake/Suffolk</td>
<td>-21.5%</td>
<td>-21.4%</td>
<td>-11.5%</td>
</tr>
<tr>
<td>Newport News/Hampton</td>
<td>-29.0%</td>
<td>-29.2%</td>
<td>-15.9%</td>
</tr>
<tr>
<td>Norfolk/Portsmouth</td>
<td>-32.7%</td>
<td>-34.2%</td>
<td>-20.7%</td>
</tr>
<tr>
<td>Virginia Beach</td>
<td>-28.9%</td>
<td>-30.2%</td>
<td>-20.4%</td>
</tr>
<tr>
<td>Williamsburg*</td>
<td>-64.0%</td>
<td>-60.6%</td>
<td>-53.3%</td>
</tr>
</tbody>
</table>

*Williamsburg market includes City of Williamsburg and James City County. Sources: STR Trend Report January 2021, and Dragas Center for Economic Analysis and Policy.
Percent Change in Monthly Hotel Revenue
Top 25 Markets, All Other Markets, and Hampton Roads: 2019 to 2021

Sources: STR Monthly Trend Reports and Dragas Center for Economic Analysis and Policy.
## Percent Change in Selected Key Performance Indicators of Hotels in USA, Virginia, and Hampton Roads: YTD August 2019 to YTD August 2021

<table>
<thead>
<tr>
<th></th>
<th>Hotel Revenue</th>
<th>RevPAR</th>
<th>Hotel Rooms Sold</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>USA</strong></td>
<td>-22.4%</td>
<td>-22.8%</td>
<td>-14.9%</td>
</tr>
<tr>
<td><strong>Virginia</strong></td>
<td>-22.9%</td>
<td>-23.1%</td>
<td>-14.4%</td>
</tr>
<tr>
<td><strong>Hampton Roads</strong></td>
<td>7.0%</td>
<td>5.3%</td>
<td>-2.4%</td>
</tr>
<tr>
<td><strong>Chesapeake/Suffolk</strong></td>
<td>8.7%</td>
<td>8.7%</td>
<td>4.8%</td>
</tr>
<tr>
<td><strong>Newport News/Hampton</strong></td>
<td>-4.5%</td>
<td>-4.8%</td>
<td>-5.6%</td>
</tr>
<tr>
<td><strong>Norfolk/Portsmouth</strong></td>
<td>3.7%</td>
<td>-2.4%</td>
<td>3.0%</td>
</tr>
<tr>
<td><strong>Virginia Beach</strong></td>
<td>20.2%</td>
<td>13.2%</td>
<td>1.9%</td>
</tr>
<tr>
<td><strong>Williamsburg</strong>*</td>
<td>-11.7%</td>
<td>-6.7%</td>
<td>-19.5%</td>
</tr>
</tbody>
</table>

*Williamsburg market includes City of Williamsburg and James City County. Sources: STR Trend Report August 2021, and Dragas Center for Economic Analysis and Policy.
Airbnb’s Revenue as a Percent of Hotel Revenue: Hampton Roads
January 2015 - May 2021

Sources: STR Trend Report January 2021, STR Monthly Reports, and AirDNA data received in June 2021.
AirDNA data exclude shared rooms.
Estimated Shares of Airbnb and Hotel Revenue by Sub-Market
Hampton Roads, 2019

Airbnb Revenue
- Virginia Beach: 66%
- Chesapeake/Suffolk: 15%
- Norfolk/Portsmouth: 15%
- Newport News/Hampton: 5%
- Williamsburg: 2%

Hotel Revenue
- Virginia Beach: 38%
- Chesapeake/Suffolk: 15%
- Norfolk/Portsmouth: 15%
- Newport News/Hampton: 19%
- Williamsburg: 13%

Sources: STR Trend Report 2021, AirDNA (June 2021), and Dragas Center for Economic Analysis and Policy.
Annual Revenue of Airbnb Properties: Private Rooms and Entire Place Rentals
Hampton Roads, 2016 - 2020

Millions of Dollars

<table>
<thead>
<tr>
<th>Year</th>
<th>Private Rooms</th>
<th>Entire Place</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>$2</td>
<td>$10</td>
<td>$12</td>
</tr>
<tr>
<td>2017</td>
<td>$7</td>
<td>$12</td>
<td>$19</td>
</tr>
<tr>
<td>2018</td>
<td>$10</td>
<td>$10</td>
<td>$20</td>
</tr>
<tr>
<td>2019</td>
<td>$10</td>
<td>$91</td>
<td>$101</td>
</tr>
<tr>
<td>2020</td>
<td>$7</td>
<td>$86</td>
<td>$93</td>
</tr>
</tbody>
</table>

Source: AirDNA data received in June 2021; excludes shared rooms.
Good News and the Need for Regionalism

• Traffic through the Port of Virginia continues to increase. Continued investments in the Port are necessary to accelerate growth and increase market share.

• Single-family housing prices and median rents have grown rapidly over the last eighteen months. A regional approach to building more housing (especially multifamily housing) is needed for a sustained recovery.

• While the leisure and hospitality sector struggles to fill jobs, hotel revenues set a record during the summer season in 2021. The challenge for 2022: attracting and retaining workers.

• Short-term rentals continue to grow as do regulatory burdens. A regional approach would lower coordination costs by sharing administrative burdens. Short-term rentals are here to stay; the question is whether they will be legal or not.
The Death of Local Journalism

The staffs of The Virginian-Pilot and Daily Press have shrunk, merged, and shrunk again. Other papers have shut down.

Many experienced journalists who understood Hampton Roads have retired or moved on.

The decline of local journalism and the rise of social media have not improved public discourse.

Many now consume 'news' for affirmation instead of information.

Successful local papers are hyperlocal (and not owned by hedge funds).
Old Dominion University was recently ranked 132nd out of nearly 1,500 higher education institutions by U.S. News & World Report (8th in Virginia).

Increasing income and wealth inequality have brought the question of mobility to the fore of higher education rankings.

Many of the highest-ranking institutions in the U.S. News rankings perform poorly in terms of social mobility.

ODU was recently ranked 4th in the nation and 49th in the world for social mobility.

Will ODU get the respect it deserves for this accomplishment as it prepares for the challenges of the coming decade?
The Apprentice School

For over 100 years, the Apprentice School has taught students trade skills.

The Apprentice School is a national model of combining practical experience with academic knowledge.

The curriculum is not static, a key lesson for policy makers and practitioners.

The Apprentice School is local proof that apprentice programs work well, especially when paired with an employer.

Leveraging this experience should be a key part of Hampton Roads' recovery.
Cash Bail

In 2019, there were an average of 3,154 pre-trial inmates on a given day in Hampton Roads.

Most unsecured bond defendants were released the same day.

Most secured bond defendants were released within 48 hours, though 1 in 4 remained in jail for 6 or more days.

About 25% of defendants released on any type of bond or supervision were rearrested for a new felony.

Cash bail reform must balance benefits to defendants and costs to society.
A Winning Bet?

Casinos in Hampton Roads
Virginia Goes All-In

- Lotteries helped fund the construction of the College of William & Mary and the provisioning of colonial soldiers during the Revolutionary War.

- By the 1900s, Virginia had outlawed most forms of gambling.

- In 1987, voters approved the formation of the Virginia Lottery. In 2021, residents of Hampton Roads can buy lottery tickets online, place sports bets on their phones, play historical horse racing machines, and look forward to the construction of two new casinos.

- We take public pronouncements of employment, expected revenue, and visitors at face value. More, not less, information is needed to inform the public on investments, jobs, and spending.

- Our effort aims to project the economic impact of the casinos in Norfolk and Portsmouth on the regional economy.
Percentage of Net Gaming Revenue from Out-of-State Customers Planned and Proposed Casinos in Virginia

Source: 2019 JLARC casinos report and Dragas Center for Economic Analysis and Policy.
Estimated Annual Economic Impact of Casinos on Real GDP in Hampton Roads

<table>
<thead>
<tr>
<th>Displacement Level</th>
<th>Estimated Impact 2019 Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Displacement</td>
<td>$462.2</td>
</tr>
<tr>
<td>50% Displacement</td>
<td>$231.1</td>
</tr>
<tr>
<td>75% Displacement</td>
<td>$115.6</td>
</tr>
<tr>
<td>90% Displacement</td>
<td>$46.2</td>
</tr>
</tbody>
</table>

Source: Dragas Center for Economic Analysis and Policy and IMPLAN Group.
Estimated Annual Economic Impact of Casinos on Employment in Hampton Roads

- **No Displacement:** 7,290 jobs
- **50% Displacement:** 3,645 jobs
- **75% Displacement:** 1,822 jobs
- **90% Displacement:** 729 jobs

Source: Dragas Center for Economic Analysis and Policy and IMPLAN Group.
A Winning Bet for Some Cities

- The final impact of casinos depends on where one stands.
- Norfolk and Portsmouth will see tax revenues rise as casinos open.
- The larger the displacement, the smaller the net economic impact on the region.
- If Richmond passes its casino proposal, the casino market will be even more geographically constrained.
- As online gambling rises in popularity, will people travel frequently to casinos?
- The social costs of gambling will rise, increasing demand for public services.
- We would be happy to be proven wrong, but the impact of the casinos on regional economic activity will likely range between 0.3% and 0.5% of GDP.
Upcoming Publications and Events

-- State of the Commonwealth Report (December 2021)

-- Annual Economic Forecast (January 2022)

-- Mid-Year Economic Forecast (May - June 2022)

-- State of the Region Report (October 2022)

-- State of the Commonwealth Report (December 2022)

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-- Follow DragasCenterODU on Facebook, LinkedIn, and Twitter.

-- All our presentation materials can be found at our website: www.ceapodu.com