State of the Commonwealth

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I will discuss the COVID-19 pandemic in Virginia, the prospects for a continued recovery, and how geopolitical uncertainty may affect economic growth in the Commonwealth in the coming years.

I will also examine the potential impact of the planned casinos in Norfolk, Portsmouth, Danville, and Bristol.

James V. Koch will conclude with an examination of higher education and its role in providing upward economic mobility.

All our presentation materials can be found at our website: www.ceapodu.com
Our forecasts and commentary do not constitute official viewpoints of Old Dominion University, its President, Brian O. Hemphill, Ph.D., the Board of Visitors, the Strome College of Business, or the generous donors who support the activities of the Dragas Center for Economic Analysis and Policy.
COVID-19 and the Virginia Recovery
7-Day Moving Average of Daily COVID-19 Infections
Virginia, April 1, 2020 - March 7, 2022

Sources: Virginia Department of Health and Dragas Center for Economic Analysis and Policy.
COVID-19 Infections by Vaccination Status, Virginia Health Regions
Rate Per 100,000 Per Vaccination Group, Week of February 26, 2022

Rate Per 100,000

<table>
<thead>
<tr>
<th>Region</th>
<th>Fully Vaccinated</th>
<th>Unvaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Region</td>
<td>30</td>
<td>173</td>
</tr>
<tr>
<td>Eastern Region</td>
<td>20</td>
<td>91</td>
</tr>
<tr>
<td>Northern Region</td>
<td>19</td>
<td>222</td>
</tr>
<tr>
<td>Northwest Region</td>
<td>40</td>
<td>211</td>
</tr>
<tr>
<td>Southwest Region</td>
<td>63</td>
<td>344</td>
</tr>
</tbody>
</table>

Sources: Virginia Department of Health, Centers for Disease Control and Prevention, and Dragas Center for Economic Analysis and Policy. 2019 NCHS population estimates.
Civilian Labor Force and Individual Employment
Virginia, January 2019 - December 2021

Source: Bureau of Labor Statistics, seasonally adjusted data.
Nonfarm Payrolls (Jobs)
Virginia, January 2019 - December 2021

Source: Bureau of Labor Statistics, seasonally adjusted data.
Change in Nonfarm Payrolls (Jobs)
Virginia, December 2019 - December 2021

Leisure and Hospitality: -46,700
Local Government: -14,800
Other Services: -14,300
Education and Health Services: -12,400
Financial Activities: -9,900
State Government: -6,500
Retail Trade: -6,300
Manufacturing: -4,700
Wholesale Trade: -3,300
Mining, Logging, and Construction: -1,500
Information: -1,000
Federal Government: 3,900
Prof. and Business Services: 13,800
Transport, Warehouse, Utilities: 14,800

The Recovery in Virginia's Metropolitan Areas
Net Domestic Migration, Net International Migration, and Net Migration
Virginia, 2010 - 2020

Percent Change in the Civilian Labor Force
January 2010 - February 2020

- Kingsport-Bristol: -4.9%
- Lynchburg: -0.3%
- Roanoke: 1.5%
- Staunton-Waynesboro: 3.9%
- Blacksburg-Christiansburg-Radford: 4.6%
- Virginia Beach-Norfolk-Newport News: 5.6%
- United States: 7.2%
- Virginia: 8.0%
- Harrisonburg: 8.4%
- Richmond: 11.6%
- Charlottesville: 12.1%
- Washington-Arlington-Alexandria: 13.5%
- Winchester: 17.6%

Percent Change in the Civilian Labor Force
February 2020 - December 2021

<table>
<thead>
<tr>
<th>Location</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charlottesville</td>
<td>-9.9%</td>
</tr>
<tr>
<td>Richmond</td>
<td>-6.9%</td>
</tr>
<tr>
<td>Virginia Beach-Norfolk-Newport News</td>
<td>-6.0%</td>
</tr>
<tr>
<td>Lynchburg</td>
<td>-5.9%</td>
</tr>
<tr>
<td>Roanoke</td>
<td>-5.3%</td>
</tr>
<tr>
<td>Virginia</td>
<td>-4.7%</td>
</tr>
<tr>
<td>Washington-Arlington-Alexandria</td>
<td>-4.5%</td>
</tr>
<tr>
<td>Harrisonburg</td>
<td>-4.0%</td>
</tr>
<tr>
<td>Kingsport-Bristol</td>
<td>-2.8%</td>
</tr>
<tr>
<td>Blacksburg-Christiansburg-Radford</td>
<td>-2.1%</td>
</tr>
<tr>
<td>Staunton-Waynesboro</td>
<td>-1.7%</td>
</tr>
<tr>
<td>United States</td>
<td>-1.4%</td>
</tr>
<tr>
<td>Winchester</td>
<td>-0.6%</td>
</tr>
</tbody>
</table>

Percent Change in Individual Employment
January 2010 - February 2020

- Kingsport-Bristol: 1.4%
- Lynchburg: 5.6%
- Roanoke: 7.8%
- Staunton-Waynesboro: 10.8%
- Virginia Beach-Norfolk-Newport News: 11.7%
- Blacksburg-Christiansburg-Radford: 11.8%
- Virginia: 13.8%
- United States: 14.8%
- Harrisonburg: 15.1%
- Charlottesville: 17.7%
- Washington-Arlington-Alexandria: 18.6%
- Richmond: 19.1%
- Winchester: 25.4%

Percent Change in Individual Employment
February 2020 - December 2021

- Charlottesville: -9.9%
- Richmond: -6.9%
- Virginia Beach-Norfolk-Newport News: -6.0%
- Lynchburg: -5.9%
- Roanoke: -5.3%
- Virginia: -4.7%
- Washington-Arlington-Alexandria: -4.5%
- Harrisonburg: -4.0%
- Kingsport-Bristol: -2.8%
- Blacksburg-Christiansburg-Radford: -2.1%
- Staunton-Waynesboro: -1.7%
- United States: -1.4%
- Winchester: -0.6%

Unemployment Rate
Virginia's Metropolitan Areas, December 2021

- Winchester: 2.6%
- Staunton-Waynesboro: 2.8%
- Roanoke: 2.9%
- Harrisonburg: 2.9%
- Blacksburg-Christiansburg-Radford: 2.9%
- Charlottesville: 3.0%
- Lynchburg: 3.5%
- Richmond: 3.6%
- Kingsport-Bristol: 3.6%
- Virginia Beach-Norfolk-Newport News: 3.8%
- Washington-Arlington-Alexandria: 4.0%

Percent Change in Nonfarm Payrolls (Jobs)
January 2010 - February 2020

- Lynchburg: 3.5%
- Kingsport-Bristol: 4.3%
- Roanoke: 6.6%
- Staunton: 9.3%
- Virginia Beach-Norfolk-Newport News: 9.3%
- Blacksburg-Christiansburg-Radford: 10.9%
- Virginia: 13.1%
- Washington-Arlington-Alexandria: 14.4%
- Harrisonburg: 14.6%
- United States: 17.5%
- Richmond: 17.7%
- Charlottesville: 20.2%
- Winchester: 25.2%

Percent Change in Nonfarm Payrolls (Jobs)
February 2020 - December 2021

Charlottesville -7.0%
Richmond -5.7%
Virginia Beach-Norfolk-Newport News -3.9%
Washington-Arlington-Alexandria -3.2%
Kingsport-Bristol -3.1%
Lynchburg -2.9%
Roanoke -2.9%
Virginia -2.5%
United States -2.1%
Harrisonburg -0.9%
Staunton 0.8%
Blacksburg-Christiansburg-Radford 0.9%
Winchester 2.4%

Looking Ahead

- COVID-19 policy 'fatigue' leads to a lapse in many mitigation policies. Vaccines remains broadly effective at preventing serious disease.

- The 'Great Resignation' transitions to the 'Great Renegotiation' as workers seek higher wages in the face of higher inflation.

- The Federal Reserve continues to lag inflationary expectations and inflation will likely exceed 5% in 2022.

- Russia's invasion of Ukraine lifts defense spending in the short-term, however, drone warfare, cyber warfare, and cost asymmetry pose threats to the defense industrial base in Virginia.

- Uncertainty and market volatility will continue. National and state real GDP growth prospects may dim as energy price shocks roil markets.
A Winning Bet?
Casinos in Virginia
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. Since 2015, Virginians can buy lottery tickets online, place sports bets on their phones, and play historical horse racing machines.

In the coming years, residents will be able to visit casinos in Bristol, Danville, Norfolk, and Portsmouth.

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.
Percentage of Net Gaming Revenue from Out-of-State Customers Planned and Proposed Casinos in Virginia

- Norfolk: 9%
- Portsmouth: 9%
- Bristol: 74%
- Danville: 76%

Sources: 2019 JLARC casinos report and Dragas Center for Economic Analysis and Policy.
Estimated Annual Economic Impact of Casinos on Local Gross Domestic Product
Planned and Proposed Casinos in Virginia

Source: Dragas Center for Economic Analysis and Policy.
Estimated Annual Economic Impact of Casinos on Employment
Planned and Proposed Casinos in Virginia

Source: Draga Center for Economic Analysis and Policy.
A Winning Bet for Some Cities

- The final impact of casinos depends on where one stands.
- The cities of Bristol, Danville, Norfolk, and Portsmouth will see tax revenues rise as casinos open.
- The larger the displacement, the smaller the net economic impact on the region.
- 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.
Looking at Higher Education Through a Different Lens
UCLA #1 PUBLIC UNIVERSITY
UMSL remains on the rise in latest US News ‘Best Colleges’ rankings

USF Shines in New College Rankings

BY ZOE BINDER ’23, USF NEWS • POSTED MON, 09/13/2021 - 07:14

SEPTEMBER 13, 2021

Goucher College Recognized in 2022 U.S. News & World Report Best Colleges
• But *U.S. News and World Report* does not care very much whether a campus provides its students with upward economic mobility, serves lower income students, or serves minority students.

• These things receive little attention in its rankings--- e.g., social mobility receives a 5% weight and the other factors zero.

• What if we developed a ranking that recognized an institution’s ability to move people upward and paid attention to whom it is serving?
A Different Way To Rank: *Third Way’s* Upward Economic Mobility

(1) **Compute the speed of the economic payoff**

\[ \text{Number of Years It Takes to Recoup Net Cost of Attendance} \]

(2) **Weight This Measure by the Percentage of Pell Grant Students on Campus**

E.g., Old Dominion University. 2.61 years to pay down net cost (lower is better); 39.2% Pell Grant Students (higher is better). This ranked ODU 128th nationally out of 1,500 but was the best ranking in Virginia.
The Mobility Rankings

1) Old Dominion U  
2) George Mason U  
3) Southern Virginia U  
4) Radford U  
5) UVA Wise  
6) VCU  
7) Norfolk State U  
8) Emory & Henry C  
9) U Richmond  
10) Marymount U  
11) Mary Baldwin U  
12) Roanoke C  
13) Longwood U  
14) Virginia State U  
15) U Mary Washington  
16) Regent U  
17) Virginia Tech  
18) U Virginia  
19) James Madison U  
20) William & Mary  
21) Hampton U  
22) Christopher Newport U  
23) Virginia Wesleyan U
• How much publicity and media coverage did this ranking receive when it came out about two months ago?

• Close to zero.
Why Should You Care?

• Because the workforce of the future will be composed predominantly of individuals who graduate from the institutions that have scored well on the mobility list.

• A majority of the individuals who will constitute the new additions to the national labor force are being served only sparingly by the institutions that are at the top of the *U.S. News* rankings. This is especially true in Virginia.

• Let’s look at the evidence.
Percent Non-White Members of the U.S. Labor Force

- 2015: 36.3%
- 2020: 38.5%
- 2030: 42.9%
- 2040: 48.9%
- 2050: 50.5%
- 2060: 53.8%
Percent Black and Hispanic Students: Virginia Institutions, 2020
The Ladder to Success Simile

• A single flagship state university, the University of California Berkeley, includes on its list of alumni individuals such as Steve Wozniak, Earl Warren, Gregory Peck, Jerry Brown, Daniel Kahneman, Robert McNamara, Jack London, Betty Friedan and Michio Kaku. Impressively, 29 Berkeley graduates have earned a Nobel Prize.

• Graduates of our nation’s Historically Black Colleges and Universities (HBCUs) include Martin Luther King, Thurgood Marshall, Oprah Winfrey, Spike Lee, Toni Morrison, Alice Walker, Samuel L. Jackson, Marion Wright Edelman, Langston Hughes, Ralph Ellison and Booker T. Washington.
But intergenerational income mobility has fallen

• For cohorts of individuals born between 1940 and 1980, the probability that children will earn incomes higher than their parents declined **18 percent** (Raj Chetty and the Opportunity Insights group at Harvard) from beginning to end.

• A more recent Federal Reserve Bank of Chicago study found similar results when it looked at parents and daughters.
Percent of Students Coming from Lowest Income Quintile Household

Source: Opportunity Insights
Percent Freshmen Pell Grant Students, 2020

- NSU: 76%
- VSU: 67%
- ODU: 45%
- Radford: 43%

Hampton: 35%
VCU: 31%
Liberty: 30%
GMU: 29%
Hamp-Syd: 21%
Mary Wa: 18%
U Rich: 17%
Va Tech: 14%
JMU: 14%
CNU: 13%
UVA: 13%
W&M: 10%
There is not a single cause for what we are seeing, but instead multiple causes. Not one reason, but many different reasons. Among the most important:

1) Declining state financial support
2) Brand Name institutions have acquired substantial price-making power
3) Bowen’s Law (raise all the money you can; spend all you raise)
4) Baumol’s Cost Disease
5) Amenities competition (intercollegiate athletics, lazy rivers, USNWR ratings, etc.)
6) Federal financial aid policies
7) Administrative bloat
8) Co-opting of governing boards
9) Failure to price valuable inputs
10) Weak or no statewide governing boards
THE IMPOVERISHMENT OF THE AMERICAN COLLEGE STUDENT
JAMES V. KOCH

HOW COLLEGE GOVERNING BOARDS FAIL TO PROTECT THEIR STUDENTS
RUNAWAY COLLEGE COSTS
JAMES V. KOCH & RICHARD J. CEBULA

Source: SHEEOs, FY 2020.
Percent Increase in In-State Tuition and Fees Above Growth of the CPI, 1998-99 to 2018-19

Sources: IPEDS, the Bureau of Labor Statistics and the Chronicle of Higher Education.
Students and Families Have Been Put in a Bind

Costs have been growing but need-based financial aid has been declining.
The Inflation-Adjusted Average Value of a Pell Grant Has Declined

Real Pell Grant Expenditures Per Student

FY 2005: $1,042
FY 2006: $944
FY 2007: $944
FY 2008: $1,082
FY 2009: $2,082
FY 2010: $2,082
FY 2011: $2,082
FY 2012: $2,082
FY 2013: $2,082
FY 2014: $2,082
FY 2015: $2,082
FY 2016: $2,082
FY 2017: $2,082
FY 2018: $2,082
FY 2019: $2,082
FY 2020: $1,466
Total Federal Government Student Debt
(trillions of dollars)

$0.76

$1.55
Student Loan Debt Makes a Difference

Average Student Loan Debt Per Borrower: $37,172
Total Federal Student Loan Debt in the U.S.: $1.59 Trillion
Total Student Debt in the U.S.: $1.73 trillion

- Less likely to buy a home (New York Fed, 2013)
- Less likely to start a new business (Philadelphia Fed, 2015)
- More likely to live with their parents (Fed’s Board of Governors, 2015)
- Less likely to save for their retirements (Brookings, 2014)
- More likely to have negative household wealth (Armantier, 2016)
Growth of Student Debt Versus Credit Card Debt:
United States, 2003-2021 (trillions of $)

Source: Federal Reserve Bank of New York, Center for Microeconomic Data
Declining Total Headcount Enrollment in U.S. Higher Education, 2011-2021

15.45% decline between 2011 and 2021

Headcount Enrollment

20,556,272
20,195,924
19,885,203
19,619,772
19,280,472
19,010,459
18,811,279
18,482,391
18,239,874
17,778,484
17,379,884

Source: National Student Clearinghouse
Perhaps *U.S. News and World Report’s* rankings, which reward campuses that spend more, are leading us down the wrong path.
• Higher education gradually has become an agent that reinforces economic differences rather than diminishing them.

• The “ladder of success” is missing a few rungs.

• We should recognize this and take steps to restore what always has been an important function of American higher education --- to provide citizens with the opportunity to improve themselves and to serve society.

• If we choose not to do so, then we may risk disruption and upheaval.
• If you would like to receive economic updates from the Dragas Center for Economic Analysis and Policy and to have immediate access to our reports, please send us an email: dragascenter@odu.edu

• You may also text CEAPODU to 66866 to join our email list.

• Follow DragasCenterODU on Facebook, LinkedIn, and Twitter for up-to-date information to help you understand new economic developments.