

***The Construction Economy is
Strong, But What is the Outlook
for the Next Five Years?***

**Presented by
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Overview

Here is what we will cover:

- **What is driving the economy?**
- **What are the risk factors we face?**
- **A look at some industry metrics**
- **What are our REAL infrastructure needs?**



What Are The Drivers?

- In a word, and it's a big one....

Employment Growth!!!

- We have added 8.7 million jobs since the peak of the recession in 2009, and more people are employed today than at any time in our history



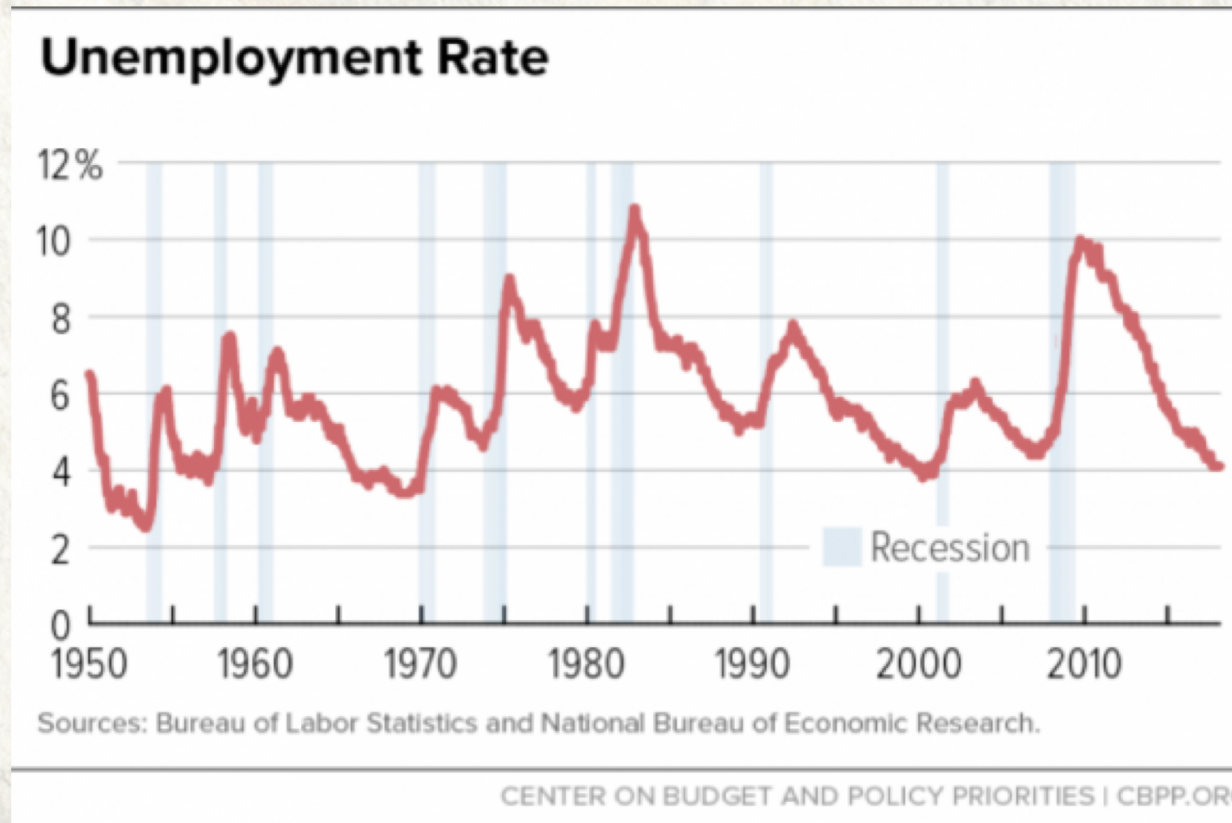
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What Are The Drivers?

- **This speaks to the expansion in all corners of our economy, not just construction**
- **GDP is pushing a growth rate of 3%, which has been touched at least once in 2017**
- **We predict GDP will move into the “4s” in the next 12 months**
- **And despite the lack of an infrastructure bill, construction continues to expand in housing, commercial/industrial, and public work**



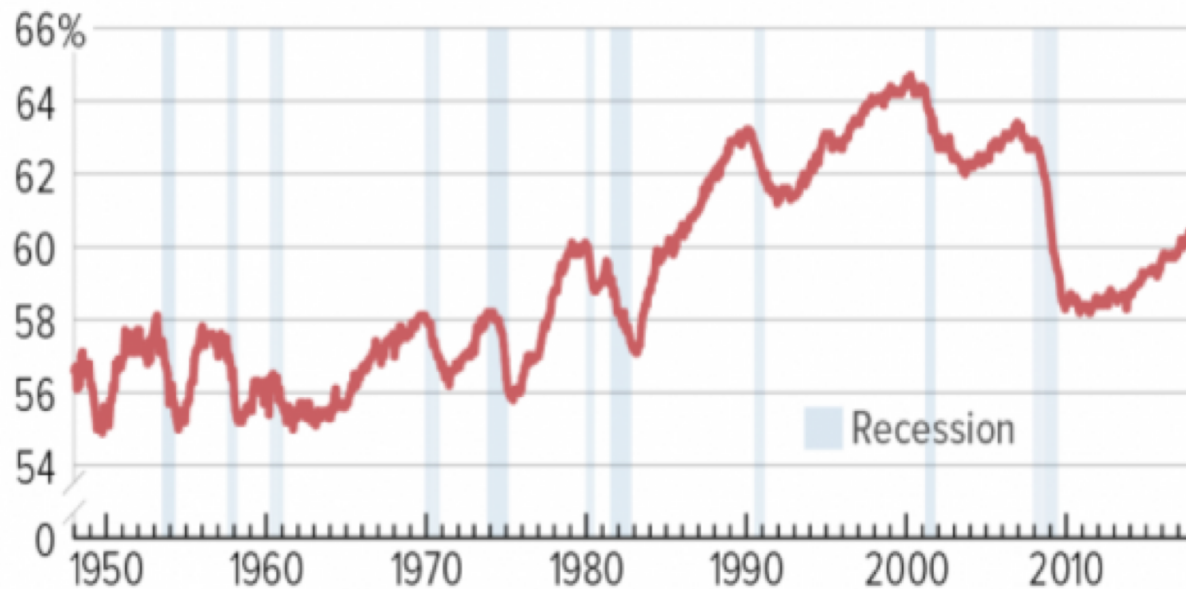
What Are The Drivers?



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What Are The Drivers?

Employment-to-Population Ratio



Sources: Bureau of Labor Statistics and National Bureau of Economic Research.

CENTER ON BUDGET AND POLICY PRIORITIES | CBPP.ORG



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What Are The Drivers?

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2008	5.0	4.9	5.1	5.0	5.4	5.6	5.8	6.1	6.1	6.5	6.8	7.3
2009	7.8	8.3	8.7	9.0	9.4	9.5	9.5	9.6	9.8	10.0	9.9	9.9
2010	9.8	9.8	9.9	9.9	9.6	9.4	9.4	9.5	9.5	9.4	9.8	9.3
2011	9.1	9.0	9.0	9.1	9.0	9.1	9.0	9.0	9.0	8.8	8.6	8.5
2012	8.3	8.3	8.2	8.2	8.2	8.2	8.2	8.1	7.8	7.8	7.7	7.9
2013	8.0	7.7	7.5	7.6	7.5	7.5	7.3	7.2	7.2	7.2	6.9	6.7
2014	6.6	6.7	6.7	6.3	6.3	6.1	6.2	6.2	5.9	5.7	5.8	5.6
2015	5.7	5.5	5.5	5.4	5.5	5.3	5.2	5.1	5.0	5.0	5.0	5.0
2016	4.9	4.9	5.0	5.0	4.7	4.9	4.9	4.9	5.0	4.9	4.6	4.7
2017	4.8	4.7	4.5	4.4	4.3	4.3	4.3	4.4	4.2	4.1	4.1	4.1
2018	4.1	4.1	4.1	3.9								



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What Are The Drivers?

- **On Friday, the unemployment numbers were release, and we have fallen to a 3.9% unemployment rate**
- **The is the lowest level since December 2000, and one of the lowest levels of the post-World War II era**
- **This is the result of a historically long jobs expansion that shows little evidence of slowing**



What Are The Drivers?

➤ What else?

The new tax law

➤ We are *just beginning* to feel the effects of the impact this will have on corporate America



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What Are The Drivers?

- **The largest U.S. companies found a new formula for success in the first quarter: larger pretax profits and smaller tax bills—mostly compliments of the cut in the corporate tax rate to 21% from 35%**
- **More than half of the combined net income reported by 200 large public companies in the first quarter stemmed from a decline in their effective tax rates**



What Are The Drivers?

- **Through this past Wednesday, first-quarter after-tax earnings for S&P 500 index companies were on track to come in 25% higher than a year earlier**
- **That would mark the seventh straight quarter of per-share profit growth and the strongest gains in more than seven years**
- **Capital goods orders have jumped in the first quarter, with more growth expected**



What Are The Drivers?

- **For example, truck orders in the first quarter of 2018 hit the second highest mark in history and mark the best period for orders since 2006**
- **Some economists speculate that the economy is running out of room to grow, but the jump in core durable goods purchases, i.e. machinery that is used in factory production, indicates tax incentives are having a positive impact on the economy**



What Are The Risks?

- In a word, and it's a big one....

Employment Growth!!!

- Full employment has historically forced up wages, the single biggest factor in pushing up the inflation rate



What Are The Risks?

- **The Fed learned in the brutal interest rate environment of the Volcker era (late 70s/early 80s) that adjusting rates slowly when inflation appears is a pre-emptive way to control the economy**
- **Expect a slow tightening by the Fed in the months and years to come – the pace will quicken if wage growth gets out of control**



What Are The Risks?

- **Sudden interest rate increases can quickly cool the economy**
- **The Fed's challenge is to keep inflation within the target range of 2%, without tilting the economy into recession**



What Are The Risks?

What are NOT risks?

➤ We want to clear the air on this one:

The mid-term elections... forget the politics in Washington, the consumer cares about their paychecks and disposable income



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What Are The Risks?

- **The consumer represents 70% of the U.S. economy, and consumer sentiment is self-fulfilling...**

The economy has too much of a tailwind behind it to have sentiment tilt because of Washington



Metrics

Let's take a look at how the ready mixed concrete industry has performed, and the outlook for the next five years, with an in-depth look at Virginia



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Metrics

- **The ready mixed concrete production has continued to grow, but slower than we all thought the pace would be:**
- **2005 – 458.3 million cubic yards**
 - **2006 - 456.8 million cubic yards**
 - **2007 - 414.6 million cubic yards**
 - **2008 - 351.7 million cubic yards**
 - **2009 – 258.6 million cubic yards**
 - **2010 – 257.7 million cubic yards**



Metrics

- **2011 - 265.7 million cubic yards**
- **2012 - 289.5 million cubic yards**
- **2013 - 300.4 million cubic yards**
- **2014 - 324.6 million cubic yards**
- **2015 - 335.9 million cubic yards**
- **2016 - 342.8 million cubic yards**
- **2017 - 351.0 million cubic yards**



Metrics

And while all research data shows strengthening in concrete production over the next few years, we are still

108 million cubic yards

below the 2005-06 production high of 458 million cubic yards



Metrics

➤ **And here are the historical number for Virginia:**

- **2005 – 9.8 million cubic yards**
- **2006 – 9.7 million cubic yards**
- **2007 – 8.7 million cubic yards**
- **2008 – 7.4 million cubic yards**
- **2009 – 5.6 million cubic yards**
- **2010 – 5.0 million cubic yards**



Metrics

- **2011 - 5.3 million cubic yards**
- **2012 - 5.9 million cubic yards**
- **2013 - 5.9 million cubic yards**
- **2014 - 6.0 million cubic yards**
- **2015 - 6.1 million cubic yards**
- **2016 - 6.7 million cubic yards**
- **2017 - 7.0 million cubic yards**



Metrics

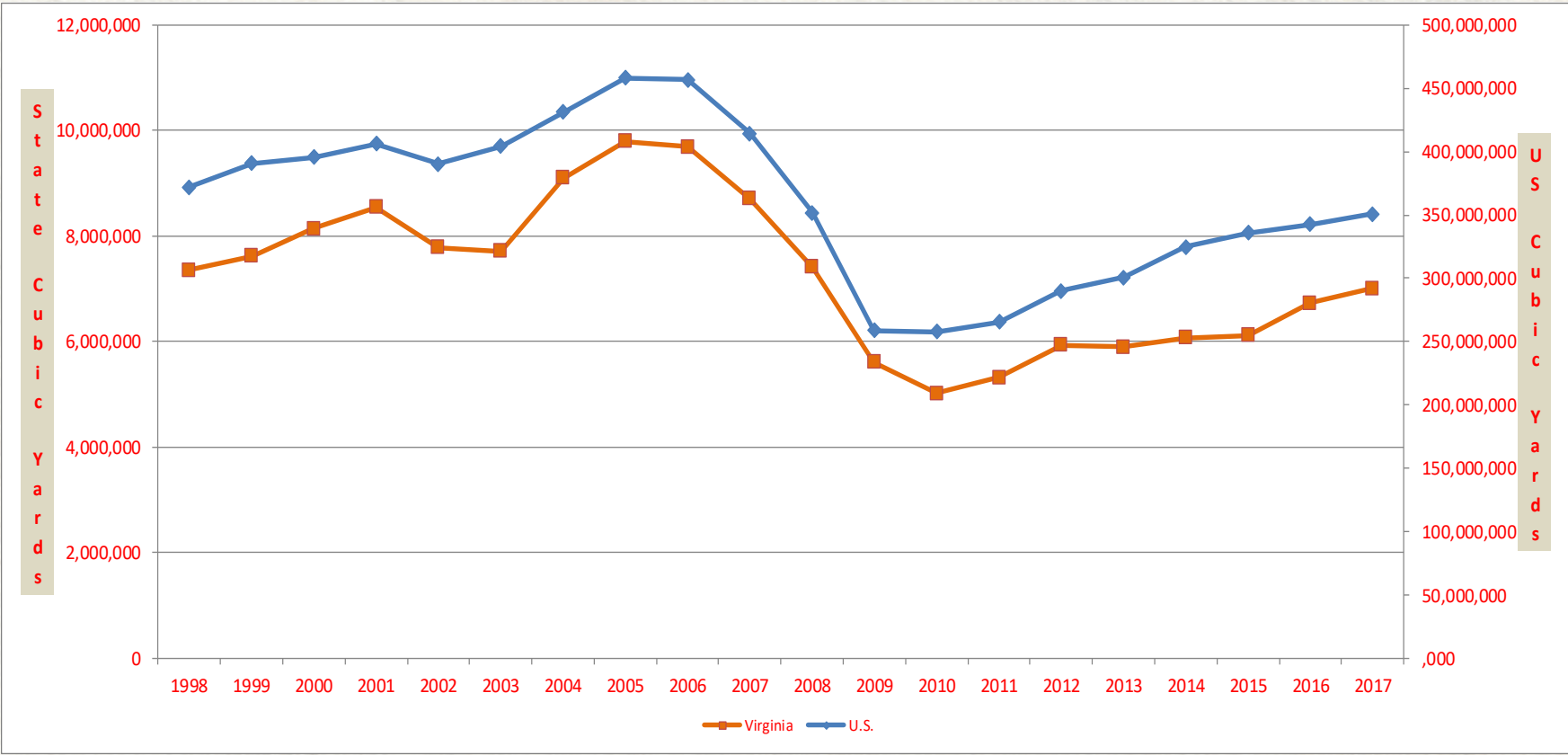
- And while U.S. production is still **23.36%** below its 2005 – 06 high...

*Virginia is **28.57%** below its high*

- Does this mean Virginia has more runway left in its recovery?



Historical U.S. Production Compared to Virginia

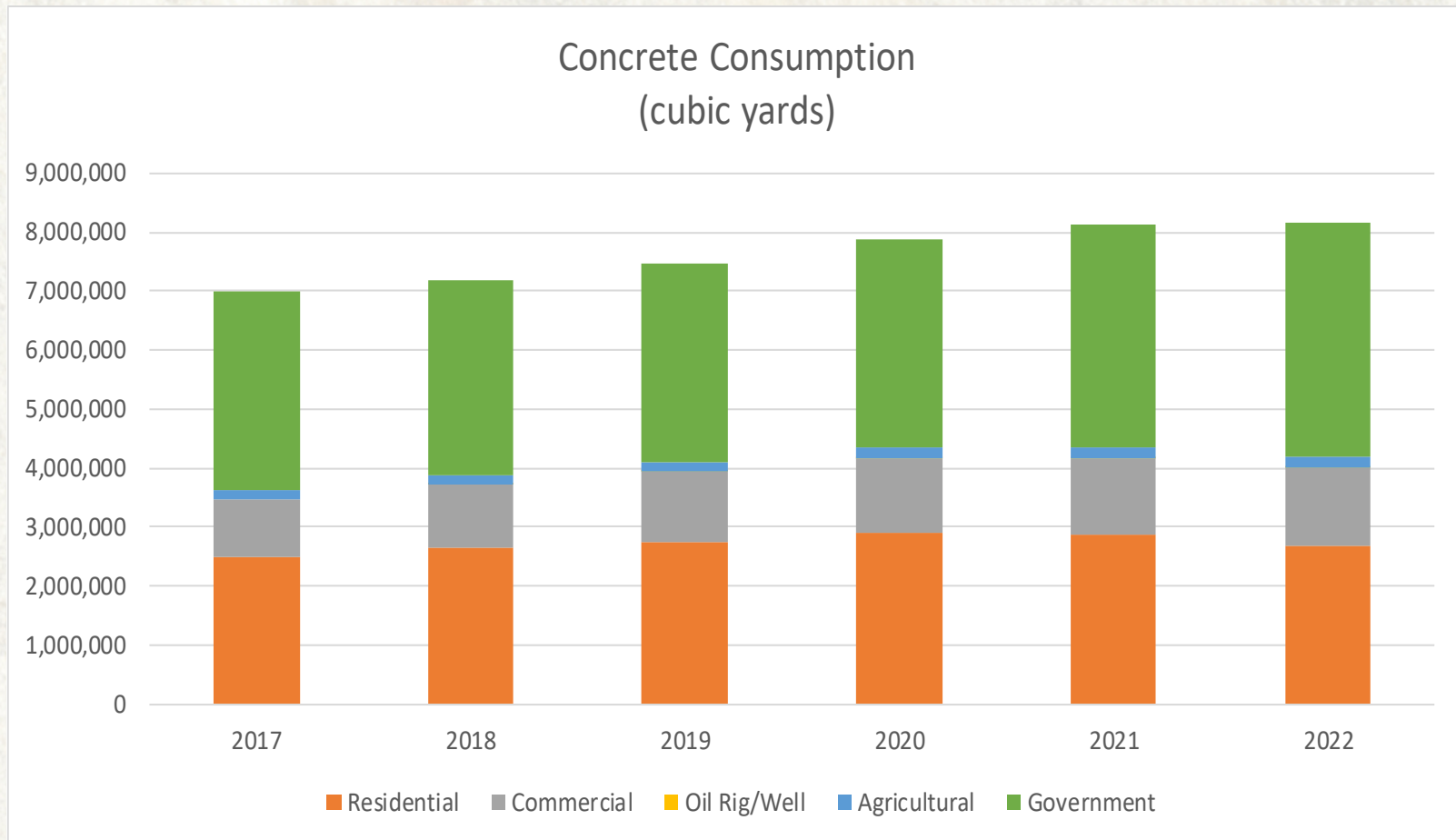


5-Year Projections

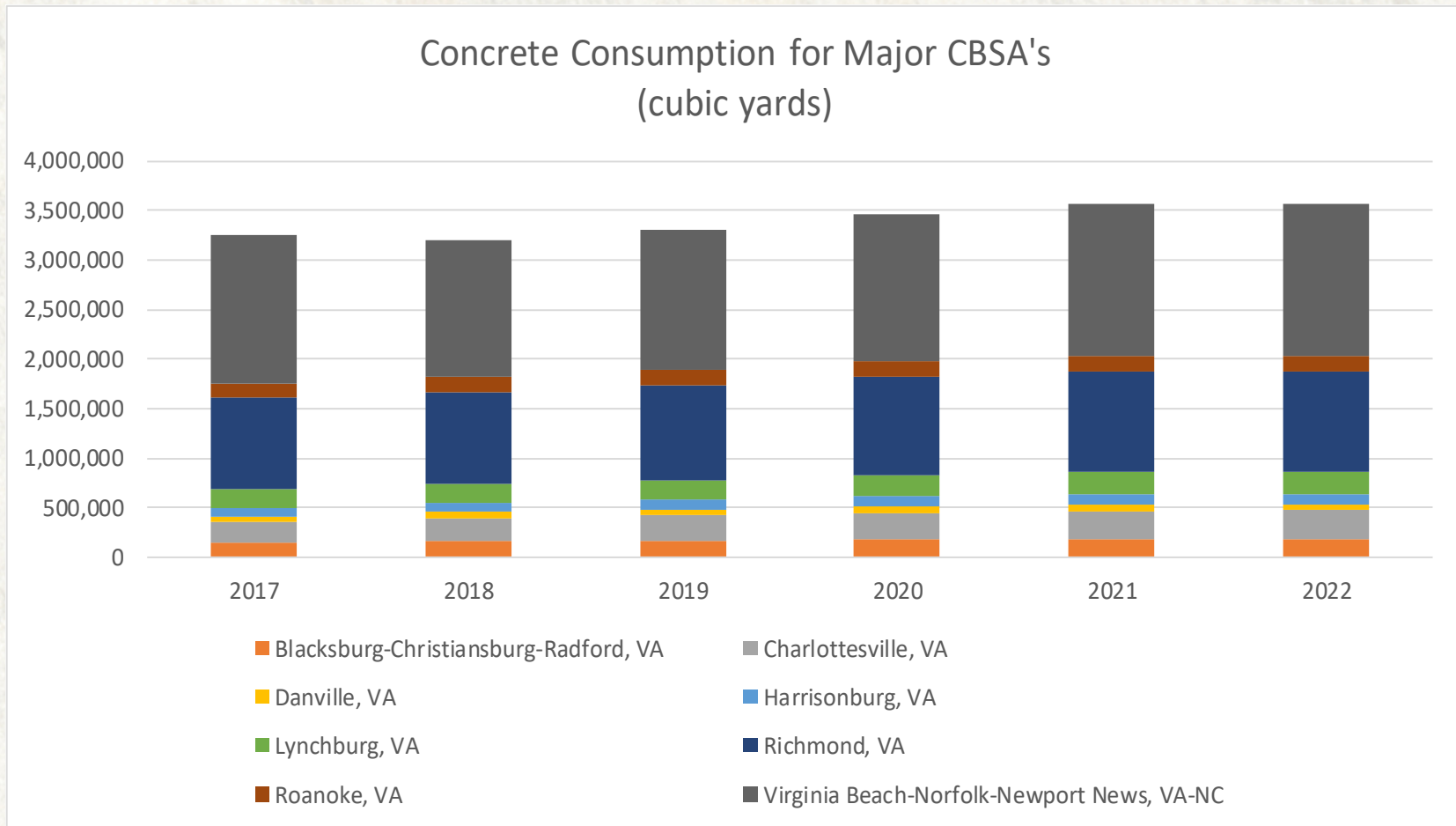
	Concrete Consumption (CY)					
	2017	2018	2019	2020	2021	2022
Residential	2,502,962	2,639,627	2,731,902	2,891,636	2,871,405	2,691,300
Commercial	981,750	1,088,434	1,198,464	1,262,927	1,290,913	1,306,403
Oil Rig/Well	0	2,341	3,460	3,857	4,140	4,384
Agricultural	141,351	151,475	165,426	179,443	186,621	186,348
Government	3,382,677	3,299,939	3,353,044	3,531,797	3,779,960	3,972,189
Total	7,008,740	7,181,816	7,452,296	7,869,661	8,133,040	8,160,623
<i>% change</i>		2.5%	3.8%	5.6%	3.3%	0.3%

	Concrete Consumption for Major CBSA's (CY)					
	2017	2018	2019	2020	2021	2022
Blacksburg-Christiansburg-Radford, VA	138,322	154,395	162,131	172,898	180,395	182,747
Charlottesville, VA	214,849	241,486	254,491	272,177	284,778	289,284
Danville, VA	46,199	55,517	56,452	58,601	59,509	58,667
Harrisonburg, VA	94,279	101,475	103,920	108,534	110,905	110,037
Lynchburg, VA	185,436	192,362	200,629	212,765	220,777	222,453
Richmond, VA	928,725	925,598	950,642	995,283	1,019,570	1,014,161
Roanoke, VA	151,478	155,866	156,987	161,615	162,707	158,966
Virginia Beach-Norfolk-Newport News, VA-NC	1,487,743	1,371,608	1,415,559	1,487,344	1,529,673	1,527,464
Total	3,247,031	3,198,306	3,300,812	3,469,217	3,568,315	3,563,777
<i>% change</i>		-1.5%	3.2%	5.1%	2.9%	-0.1%

5-Year Projections

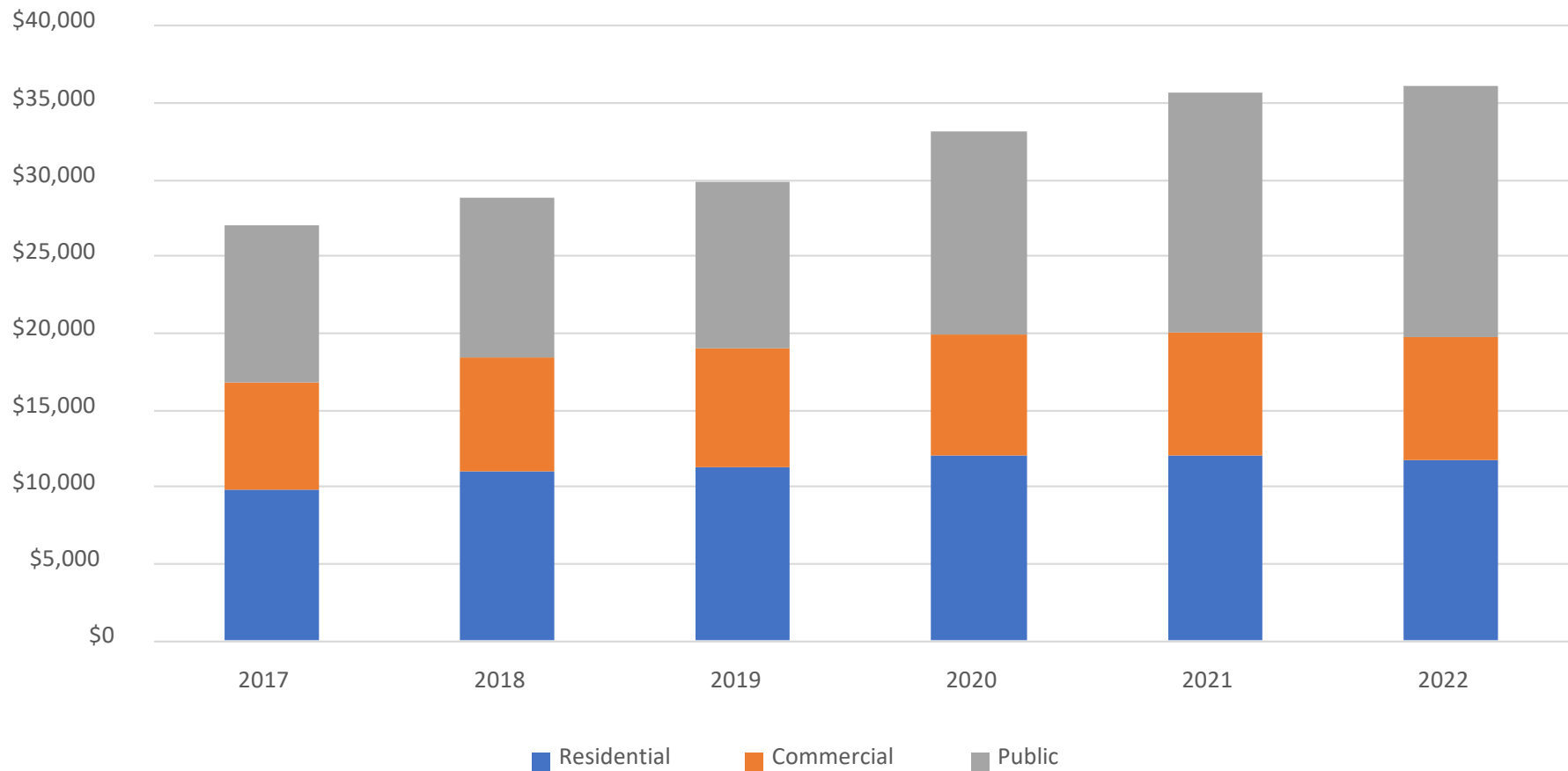


5-Year Projections



5-Year Projections

Put -In -Place Construction Spending (Million \$2009)



5-Year Projections

Put-In-Place Construction Spending (Million \$2009)						
	2017	2018	2019	2020	2021	2022
Residential	\$9,831	\$10,958	\$11,383	\$12,052	\$12,085	\$11,775
Commercial	\$6,945	\$7,471	\$7,618	\$7,864	\$8,055	\$7,981
Public	\$10,212	\$10,444	\$10,884	\$13,156	\$15,489	\$16,358
Total	\$26,988	\$28,873	\$29,885	\$33,072	\$35,630	\$36,115
<i>% change</i>		7.0%	3.5%	10.7%	7.7%	1.4%

Economic Indicators						
	2017	2018	2019	2020	2021	2022
Gross State Product Real <i>(millions \$2009)</i>	\$443,291	\$452,490	\$465,502	\$478,402	\$489,129	\$493,108
<i>% change</i>		2.1%	2.9%	2.8%	2.2%	0.8%
Unemployment Rate	3.8%	3.6%	3.5%	3.6%	3.8%	4.1%
Single Family Permits	23,207	24,603	26,823	29,056	28,605	26,654
Multi Family Permits	8,551	8,581	8,384	8,178	7,932	7,357

What Are Our REAL Infrastructure Needs?

- **The Trump Administration has suggested a plan that contemplates \$1.5 – 1.7 trillion in infrastructure spending over the next 10 years**
- **Of that amount, only \$200 billion will come from the Federal government**
- **The rest is expected to come from the states (????)**



What Are Our REAL Infrastructure Needs?

- **This turns the traditional method of funding upside down (historically, the Federal government has contributed 80 – 90% of project money, with the balance coming from the individual states)**
- **There has been strong pushback from the states on this proposal, and there has been no traction on other fund-raising initiatives like increasing the gas tax**



What Are Our REAL Infrastructure Needs?

- **But none of this matters for 2018, because an infrastructure bill is dead until after the mid-term elections**
- **Congress is unable to muster the political will to advance this much-needed legislation in a tough election year**
- **But even \$1.7 trillion doesn't put a dent into the nations infrastructure needs**



What Are Our REAL Infrastructure Needs?

The American Society of Civil Engineers
estimates it will take

\$4.6 trillion

to raise the quality of our infrastructure to
acceptable levels



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What Are Our REAL Infrastructure Needs?

- **Most Americans think of infrastructure as streets, roads, highways, bridges, and sewer and water**
- **But America's infrastructure goes well beyond that... it encompasses**
 - **Power plants and the electric grid that connects them**
 - **The vast network of oil and gas pipelines**
 - **The railway system**
 - **Airports**
 - **Ports and inland waterways**

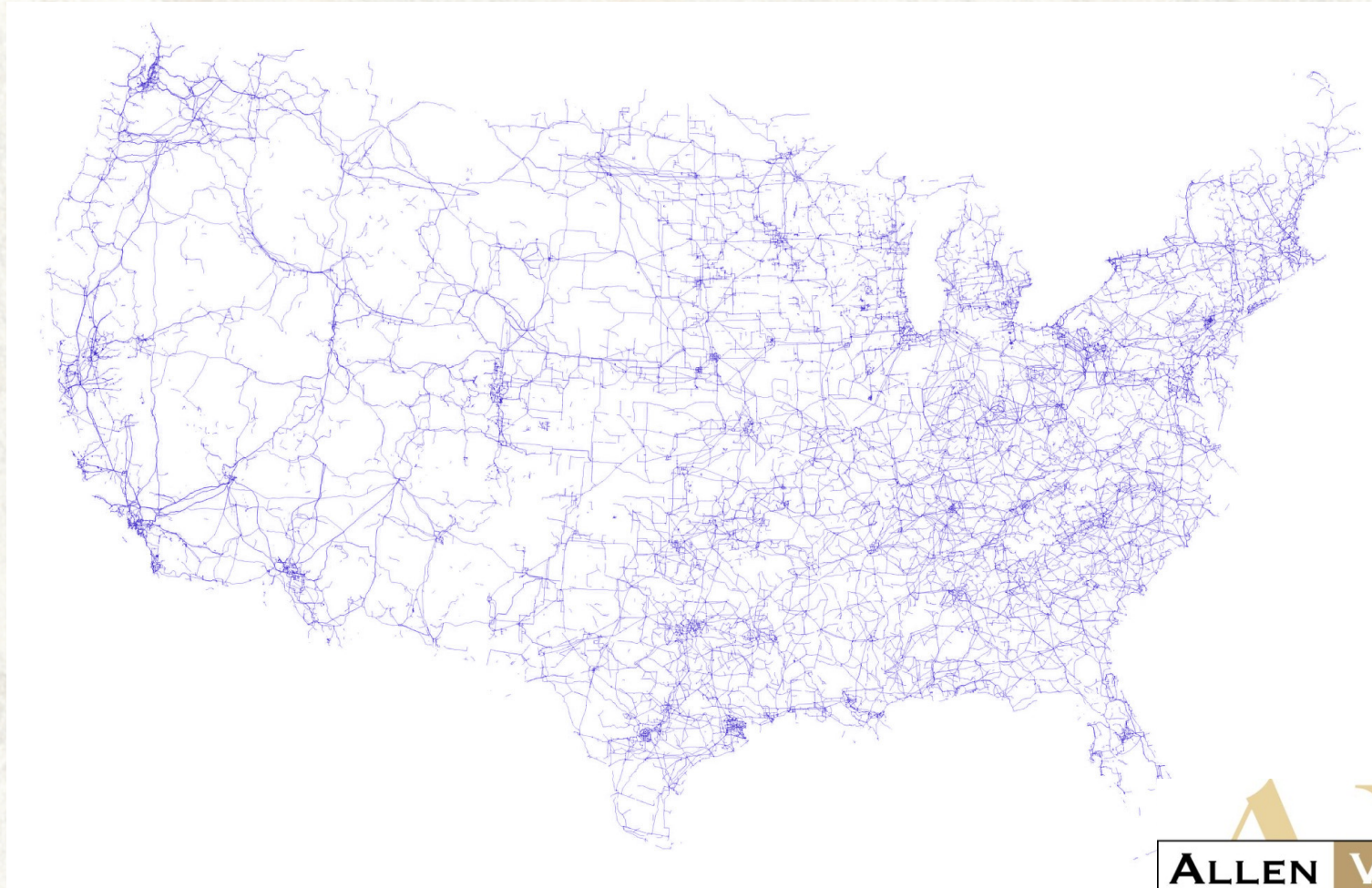


What Are Our REAL Infrastructure Needs?

- **Different kinds of infrastructure have different kinds of needs, and the financial solution will be different for each one**
- **To picture the vastness of these often-overlooked infrastructure systems, just look at the following maps:**



Electric Transmission Lines



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Electric Transmission Lines

- **There are more than 3,300 power utilities and about 7,700 power plants that produce and distribute electricity to homes, businesses and other consumers**
- **That electricity travels through more than 160,000 miles of high-voltage electric transmission lines that reach into every nook and cranny of the country**



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Electric Transmission Lines

- **Experts describe the nation's electrical grid as a patchwork of utilities, with transmission and distribution facilities – some dating to the 1800s – that will ultimately break down unless hundreds of billions of dollars are invested**



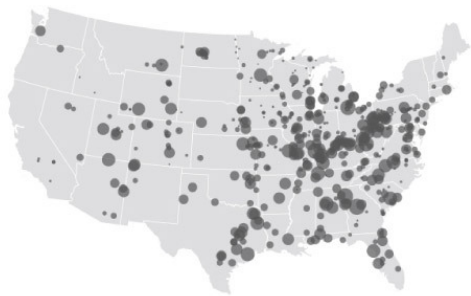
Location of Power Plants

Coal

Natural Gas

Hydropower

Wind



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Electric Transmission Lines

- **When we started building what's known as the electric grid, Thomas Edison didn't sit down and develop a national plan — we built the grid as we went**
- **But decades-old lines are bearing a heavier load than they were designed to carry**
- **Experts say we put more strain on our electric grid than any other country in the world, by far**



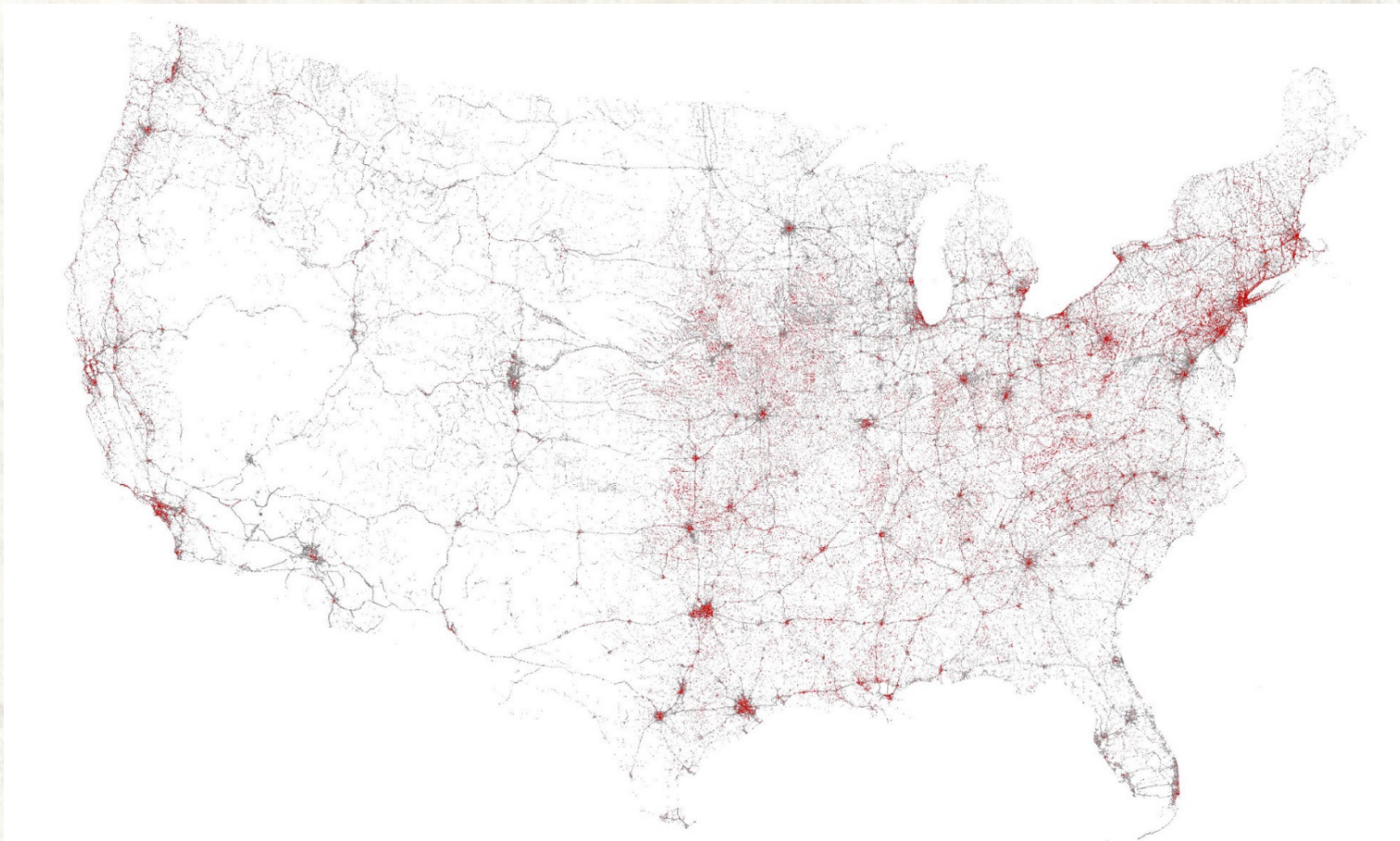
Electric Transmission Lines

- **But private companies and public agencies are already taking care of this kind of infrastructure, so it isn't clear that Trump's plan will apply to the electric system**



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Bridges



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Bridges

- **A recent national study found that nearly 10% of the 600,000 bridges in the United States are structurally deficient**
- **Each state performs its own inspections to determine whether a bridge is deficient**
- **This presents a unique issue with creating a consistent set of standards from state to state**

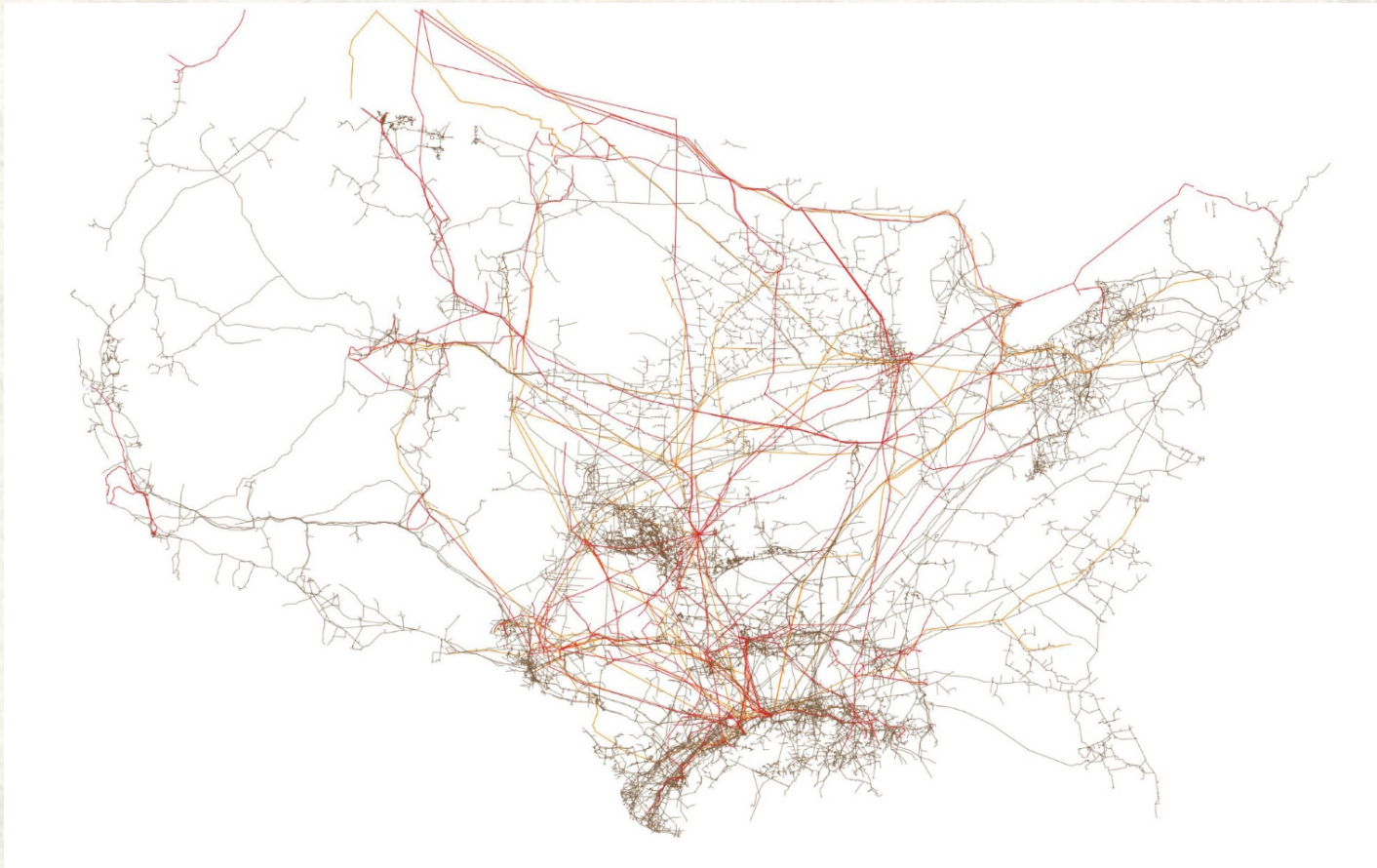


Bridges

- For example, Iowa has the highest number of structurally deficient bridges, with about 20 percent of its bridges, more than 5,000 classified as deficient
- In Nebraska, older spans make up 60 percent of deficient bridges — 1 in 5 bridges were built in the early 1930s



Pipelines



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Pipelines

- **There are about 150,000 miles of oil pipelines and more than 1.5 million miles of natural gas pipelines in the United States**
- **Since 2010, fracking booms in America's oil patch has led to an increased production of natural gas, along with the need to expand pipeline infrastructure**
- **Much of the domestic oil and gas production comes from the Gulf of Mexico, and nearly half of the country's refining capacity lies along the Gulf Coast**

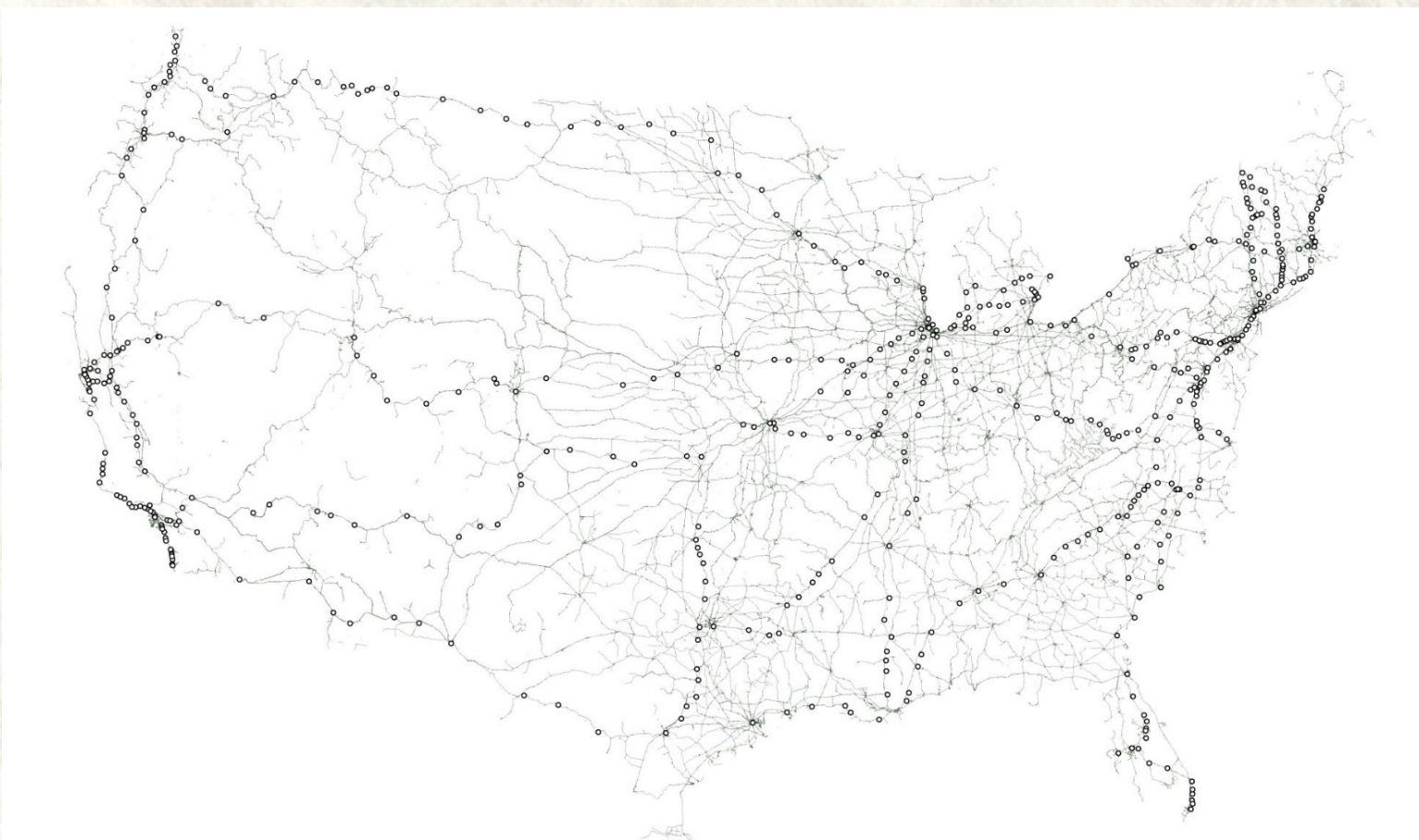


Pipelines

- **But building infrastructure to transport the product from one place to another is not always easy ... or politically expedient**
- **The recent controversy surrounding the Dakota Access Pipeline illustrates the difficulties in threading a pipeline across hundreds of miles**



Railroads



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Railroads

- **More than 160,000 miles of track, 76,000 rail bridges, and 800 tunnels across the nation are shared by hundreds of operators moving freight and passengers**
- **Tens of millions of riders, mostly in the Northeast, rely on Amtrak and other commuter rail services each year**



Airports



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Airports

- **Our airways are the busiest in the world**
- **During a three-day span in early November, 160,000 flights arrived or departed U.S. airports**
- **During his campaign, Trump repeatedly praised the airports of Dubai, Qatar and China, comparing them to U.S. airports such as LaGuardia, Kennedy, and Newark**



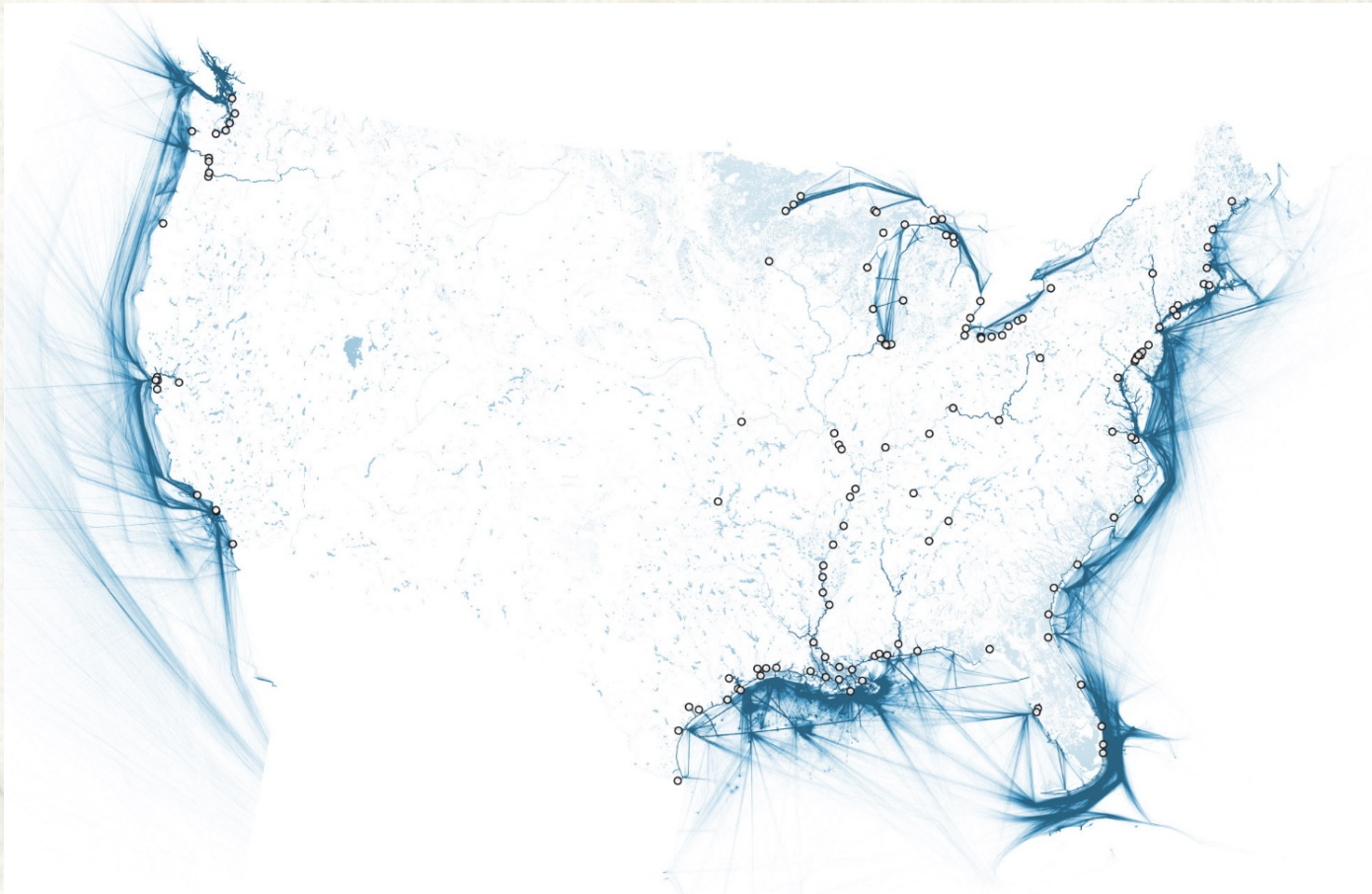
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Airports

- **“Our airports are like from a third-world country,” he said, and he was right**
- **The highest-rated airport in the US last year was Denver International Airport, which came in 28th**
- **Kennedy airport was 59th, and LAX barely cracked the top 100, coming in 91st**
- **Meanwhile, airports in Asia and the Pacific, Europe, and the Middle East ranked consistently higher**



Waterways



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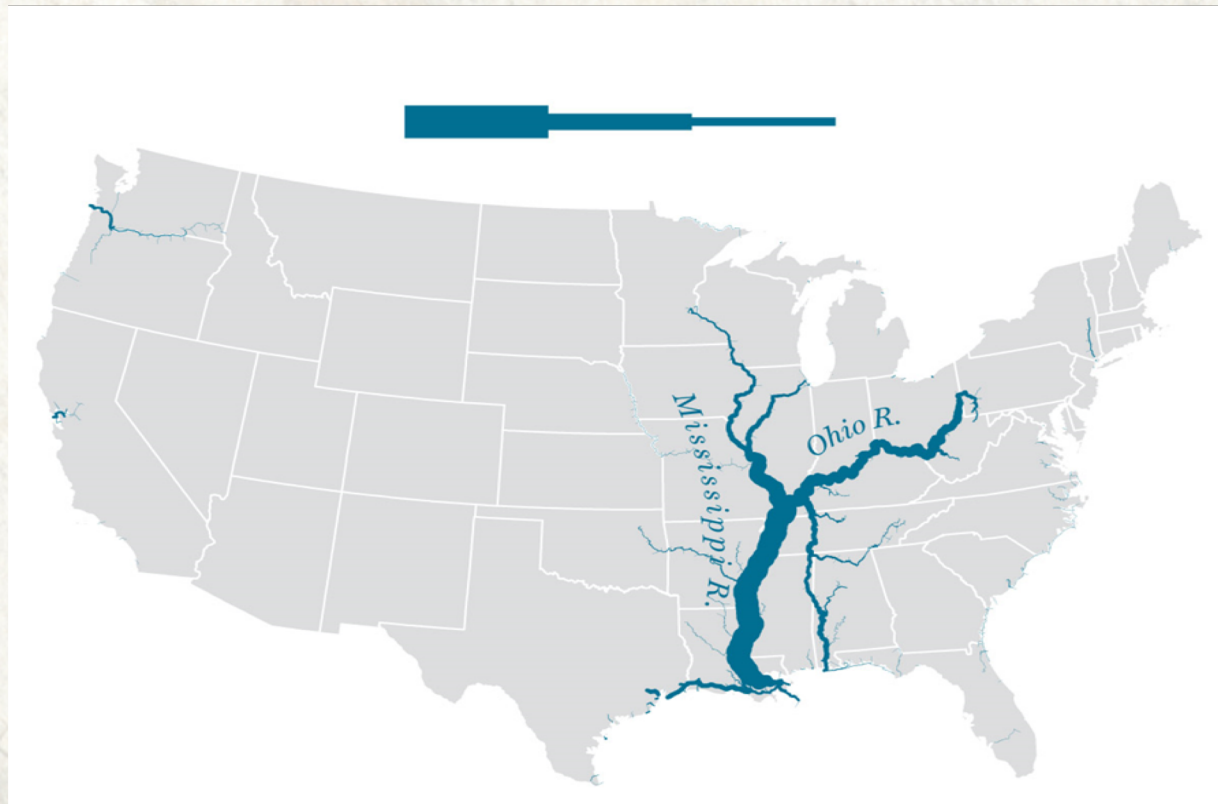
Waterways

- **The U.S. Army Corps of Engineers estimates that more than 95 percent of overseas trade produced or consumed by the United States moves through our ports**
- **The Ports of Los Angeles and Long Beach rank in the top 25 busiest ports in the world**
- **Several ports on the East Coast rank in the top 50**



Inland Waterway Freight Tonnage

(heaviest shading represents 250 million tons per year)



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Waterways

- **Our inland waterways — especially the Mississippi River system — allow for the transport of goods between inland ports to those on the ocean**
- **For example, this infrastructure is critical for the transportation of coal from the hills of Appalachia to power plants upstream and downstream**



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What Are Our REAL Infrastructure Needs?

- **The American Society of Civil Engineers says that Trump's lack of specificity about his plans is a good thing**
- **It allows for the infrastructure community to have more input as the administration develops the plan, allowing for a broader conversation**
- **But 14 months in, little has come from the Administration**
- **And opposition in Congress exists**



What Are Our REAL Infrastructure Needs?

- **When we think of infrastructure as streets, roads, highways, bridges, and sewer and water, then add all the other systems we discussed here that don't readily come to mind, \$1.7 trillion doesn't go very far**
- **The Trump Administration has a long and complex road ahead to prioritize infrastructure spending, and focus on the greatest needs**



Summary

- The next five years looks like ***a robust time*** in our industry, for the U.S. as a whole, and Virginia in particular
- All research and projections point to **significant increases in ready mixed concrete production**
- Labor shortages would not only affect productivity, but could also create pressure on wages, forcing up interest rates



Summary

- **There has never been a more important time for the Fed to try to manage our current “Goldilocks” economy... not too hot, not too cold... just right**
- **Absent a spike in inflation caused by wage growth, expect moderate interest rate increases, and the deferral of the next construction down-cycle for years to come**



Summary

➤ **And finally....**

Thank you!



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