2018 Dr. Ivan Miestchovich
Economic Outlook & Real Estate Forecast
for Metropolitan New Orleans

Hosted by:
Institute for Economic Development
& Real Estate Research
Executive Partner: Latter & Blum, Inc.
# Agenda

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<th>Event</th>
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<tr>
<td>8:00 – 8:30AM</td>
<td>Registration &amp; Networking</td>
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<tr>
<td>8:30 – 8:45AM</td>
<td>Welcome &amp; Opening Remarks</td>
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<td></td>
<td>Dr. John Williams, Dean, College of Business Administration</td>
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<td></td>
<td>Seminar Moderator</td>
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<td></td>
<td>Dr. Robert Penick, Director, UNO Institute for Economic</td>
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<tr>
<td></td>
<td>Development and Real Estate Research &amp; Adjunct Professor,</td>
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<tr>
<td></td>
<td>UNO; Executive Vice President &amp; CFO, Latter &amp; Blum, Inc.</td>
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<tr>
<td>8:45 – 9:45AM</td>
<td>Residential Real Estate Panel</td>
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<tr>
<td></td>
<td>Single Family</td>
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<tr>
<td></td>
<td>Lacey M. Conway, President, Latter &amp; Blum, Inc.</td>
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<tr>
<td></td>
<td>Apartment</td>
</tr>
<tr>
<td></td>
<td>Kevin Hilbert, MAI, Kevin Hilbert &amp; Associates</td>
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<tr>
<td>9:45 – 10:00AM</td>
<td>Break</td>
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<tr>
<td>10:00AM – 11:15AM</td>
<td>Louisiana &amp; New Orleans Metro Area Economy: Overview and</td>
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<td></td>
<td>Forecast</td>
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<td>Dr. Loren C. Scott, President, Loren C. Scott &amp; Associates,</td>
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<td></td>
<td>Inc.</td>
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<tr>
<td>11:15AM – 12:30PM</td>
<td>Commercial Real Estate Panel</td>
</tr>
<tr>
<td>Industrial Market</td>
<td>Daniel Marse, Commercial Sales &amp; Leasing Associate,</td>
</tr>
<tr>
<td></td>
<td>NAI/Latter &amp; Blum</td>
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<tr>
<td>Office Market</td>
<td>Quentin Dastugue, CEO, Property One, Inc.</td>
</tr>
<tr>
<td>Retail Market</td>
<td>Beezie Landry, Senior Investment Sales Advisor, Stirling</td>
</tr>
<tr>
<td></td>
<td>Properties</td>
</tr>
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**Institute for Economic Development & Real Estate Research Partners**  
Back Cover
Dr. John Williams, Dean, College of Business Administration

John A. Williams, Ph.D. is Dean of the College of Business Administration and Veta Professor of Strategy at the University of New Orleans. He holds a Ph.D., Master of Science, and Bachelor of Science from the Pennsylvania State University. Prior to joining the University of New Orleans, Dr. Williams held administration positions at Penn State University, Virginia Tech, and Kansas State University. His oversight of the AACSB accredited College of Business Administration includes undergraduate, graduate and executive programs. Dr. Williams also oversees the AT&T Center, the Institute for Economic Development & Real Estate Research, the Hospitality Research Center, and the Division of Business & Economic Research. He serves as Director of the Hospitality Research Center (HRC) and the Division of Business & Economic Research (DBER). Dr. Williams has published numerous articles on hospitality and tourism and has achieved over $3 million grants and contracts focusing on the tourism industry in New Orleans and the state of Louisiana. He began his position at the University of New Orleans one month prior to Hurricane Katrina and has conducted many studies and collected a volume of longitudinal data on tourism resiliency and the transformational change of tourism in New Orleans. He is an active member on many boards in the greater New Orleans area and is the President of the South Western Business Dean’s Association.

Dr. Robert Penick, Interim Director, Institute for Economic Development & Real Estate Research and Adjunct Professor, UNO; Senior Vice President & CFO, Latter & Blum, Inc.

Dr. Robert Penick has been appointed the Director of the Institute for Economic Development and Real Estate Research. He also serves as an Adjunct Professor of Finance, teaching undergraduate and graduate courses in real estate principles and real estate finance. He currently serves as Senior Vice President and Chief Financial Officer for the Latter & Blum Companies in New Orleans. Dr. Penick holds a B.S. in Finance and an M.B.A. in business administration and management from Loyola University of New Orleans. He also holds a M.Ed. in supervision and administration from Our Lady of Holy Cross College of New Orleans. His UNO education includes a M.S. in Urban Studies and a Ph.D. in Urban Studies with a concentration in real estate and real estate ethics. Dr. Penick also holds an Insurance license in the State of Louisiana. Dr. Penick authored his dissertation on Real Estate Ethics in the State of Louisiana. His writings were referenced in the Real Estate Journal in 2006. He also wrote a Thesis entitled A Qualitative Study of Real Estate Ethics while a student at the University of New Orleans. He is currently on the faculty of the NAR Realtor University which offers master’s degrees in real estate to Realtors across the country. He is active in many civic, business, and professional organizations, including UNO International Alumni Association and the board of the UNO Foundation. He is a veteran of the U.S. Army and the U.S. Army Reserves having served more than 30 years and retiring as a Lt. Colonel, Engineer Branch.

Lacey Conway, President, Latter & Blum, Inc.

Lacey Conway is a native of New Orleans, La. She is a graduate of Isidore Newman high school and received a B.S. from Boston University. Like most locals she returned to the place she calls home and earned an M.B.A. from the University of New Orleans with a concentration in Finance. Licensed as a real estate sales person since 2005 she jumped into the residential Real Estate world as an agent with Latter and Blum. Lacey is currently licensed as a broker in Louisiana, Mississippi and Texas and is the principal broker and president for the Latter and Blum companies.
Dr. Loren C. Scott, President, Loren C. Scott & Associates, Inc.

Dr. Scott is the President of Loren C. Scott & Associates, Inc., a 34-year old economic consulting firm whose clients include such large national firms as BP, Capital One Financial, Entergy, ExxonMobil, J.P. Morgan Chase, Nucor, Sasol, Chesapeake Energy, and a diversity of others. He is one of the 32-member National Business Economic Issues Council, which meets quarterly to discuss issues of state, national, and international interest. This group has experts who cover international trade, Washington economic policy, retail trade, trucking, steel, chemicals, etc.

Dr. Scott is an energy specialist on the NBEIC. He has been appointed to the Economic Advisory Board of the U.S. Council on Competitiveness---a group made up of the CEOs of the Fortune 100, top university presidents and presidents of three major unions. He has been interviewed on CNBC, MSNBC, and Bloomberg TV, in addition to several local TV stations, and his work has been cited in such publications as the Wall Street Journal, the Los Angeles Times, the New York Times, USA Today, and the Financial Times, to name a few. His career started at Louisiana State University in 1969 where he spent the next 33 years, rising through the ranks from assistant professor to the prestigious Freeport McMoran Endowed Chair of Economics and the Director of the Division of Economic Development and Forecasting. Over the thirteen-year period from 1983-96, he was the chairman of the Economics Department at LSU. During that time, the Department’s ranking among the 3,000 economics departments in the U.S. rose from 101st to 38th. He is presently Professor Emeritus at LSU. He received 7 awards at LSU for outstanding classroom teaching. He gives 50-70 speeches a year on the state of the economy.
Daniel Marse, Commercial Sales & Leasing, NAI/Latter & Blum

Daniel is a New Orleans Native and proud alumni of UNO with a strong academic foundation in Finance and Economics. Daniel first joined NAI/Latter & Blum in 2014 and quickly found himself mentored by senior agents. This hands on experience with pivotal players in the New Orleans Metropolitan Area allowed Daniel to transfer his academic knowledge to real world application. Daniel has since devoted his time and energy to specializing in industrial sales, leasing and site selection. He is also a contributing partner in the creation of the Al Davis Industrial list which tracks the quarterly absorption of industrial properties with its origin dating back to 1987. Daniel has experience in developing web applications for marketing, marketing analytics, ESRI Business Analyst, Arc GIS and Argus Valuation software. He is a member of the Commercial Investment Division (CID) and UNO Alumni Association.

Quentin Dastugue, CEO, Property One, Inc.

Quentin Dastugue, one of the founding partners of Property One, Inc., is Chief Executive Officer. His thirty-nine years in commercial real estate have included leasing, investment sales, development, property management, construction project management and consulting.

During this same period, he served four consecutive terms as a Louisiana State Representative and, as Chairman of the House Committee on Transportation, Highways and Public Works, was responsible for the passage of the state Transportation Trust Fund. He was given one of eleven prestigious “Legislator of the Year” national awards in 1994. In 1995, he was the Republican Nominee Candidate for Governor.

Quentin attended the Georgia Institute of Technology and earned a degree in Civil Engineering. Upon graduation in 1977, he returned to his native New Orleans and assumed a position as Commercial Leasing Manager for Medallion Management, Inc. with responsibilities for office buildings and shopping centers. In 1985, he and two partners founded Property One, which is one of the largest commercial firms in Louisiana.

He has represented such clients as Houston’s restaurant, Ruth’s Chris Steakhouse, McGlinchey Stafford law firm, LLOG Exploration, CETCO Oilfield Services, LaPorte CPAs and Business Advisors, Expro, Goodyear, Chicago Bridge & Iron Company (CB&I), and Eskew+Dumez+Ripple architects. Quentin has served on numerous civic organizations and real estate industry committees. Quentin serves on, or has served on, the Board of Directors of The Audubon Institute, the Board of Directors of the Idea Village and as Co-chairman of the “Top 10 by 2010” initiative and Co-chairman of the Chamber’s Intermodal Transportation Committee.

Beezie Landry, Senior Investment Sales Advisor, Stirling Properties

Beezie Landry is a Senior Investment Sales Advisor with Stirling Properties. In this role, Mr. Landry focuses on the acquisition and disposition of investment properties including shopping centers and single-tenant retail properties. He represents a range of client types including private and institutional investors and has completed transactions with REITs such as Weingarten Realty Investors, General Growth, American Realty Capital and Realty Income.

Mr. Landry began his career at Stirling Properties over 16 years ago, working closely with the Stirling Properties Development Committee to coordinate the financing, refinancing, development, redevelopment, and acquisition of retail and office properties. In addition, he has extensive experience in landlord representation in leasing new developments and existing shopping centers.

Beezie is currently a member of the International Council of Shopping Centers (ICSC), the Retail Broker’s Network (RBN), the New Orleans Metropolitan Association of Realtors – Commercial Investment Division, and is a candidate for the designation of Certified Commercial Investment Member (CCIM).

Mr. Landry is a graduate of Southeastern Louisiana University in Hammond, Louisiana, with a Bachelor of Science in Accounting.
Lacey Merrick Conway, CCIM
President/Principal Brokers, Latter & Blum, Inc.

Lacey’s presentation will be made available on the UNO Institute for Economic Development and Real Research website (www.realestate.uno.edu) the week following the seminar.
META NEW ORLEANS
MULTI-FAMILY
MARKET

Multi-Family Inventory

<table>
<thead>
<tr>
<th>Location</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Bank Jefferson</td>
<td>31%</td>
</tr>
<tr>
<td>Algiers</td>
<td>10%</td>
</tr>
<tr>
<td>West Bank Jefferson</td>
<td>17%</td>
</tr>
<tr>
<td>N.O. Historic Center</td>
<td>12%</td>
</tr>
<tr>
<td>New Orleans East</td>
<td>9%</td>
</tr>
<tr>
<td>Kenner</td>
<td>9%</td>
</tr>
<tr>
<td>East St. Tammany</td>
<td>7%</td>
</tr>
<tr>
<td>West St. Tammany</td>
<td>5%</td>
</tr>
</tbody>
</table>
Metro New Orleans Snapshot - 2017

Occupancy – 96.2%

Average Rent - $1,165

Average Rent Per Square Foot - $1.03
2017 Highlights

• Majority of sub-markets still have occupancy rates between 93% and 96%

• Warehouse District/CBD
  • Occupancy 92%, up 4% from last year as new inventory is absorbed
  • Average Rent $2,045 per month is the highest in the Metro area
  • One of the most active areas for new construction
  • Developers are able to take advantage of Historic Tax Credits, TIFS and PILOTS
  • Approximately 1,800 units under construction or in pre-development stage

• St. Tammany
  • Majority of new garden multi-family developments built here
  • Availability of land and income levels make new apartment construction economically feasible.

New Orleans Metro Occupancy 2013 - 2017

Source: UNO Institute for Economic Development & Real Estate Research Survey of Leasing Managers & Owners
Sub-Market Occupancy 2017

<table>
<thead>
<tr>
<th>Sub-Market</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenner</td>
<td>96.4%</td>
</tr>
<tr>
<td>West Metairie</td>
<td>95.5%</td>
</tr>
<tr>
<td>River Ridge</td>
<td>96.3%</td>
</tr>
<tr>
<td>East Metairie</td>
<td>96.7%</td>
</tr>
<tr>
<td>Mid-City/Lakefront</td>
<td>96.4%</td>
</tr>
<tr>
<td>Warehouse District/CBD</td>
<td>92.0%</td>
</tr>
<tr>
<td>Uptown/Garden District</td>
<td>95.2%</td>
</tr>
<tr>
<td>Gentilly/Lake Forest</td>
<td>97.2%</td>
</tr>
<tr>
<td>East New Orleans</td>
<td>95.0%</td>
</tr>
<tr>
<td>St. Bernard Parish</td>
<td>100.0%</td>
</tr>
<tr>
<td>Algiers</td>
<td>97.3%</td>
</tr>
<tr>
<td>Harvey Canal East</td>
<td>97.4%</td>
</tr>
<tr>
<td>Harvey Canal West</td>
<td>99.0%</td>
</tr>
<tr>
<td>West St. Tammany</td>
<td>92.6%</td>
</tr>
<tr>
<td>East St. Tammany</td>
<td>96.4%</td>
</tr>
</tbody>
</table>

New Orleans Metro Average Rents 2013 - 2017

Source: UNO Institute for Economic Development & Real Estate Research Survey of Leasing Managers & Owners
Developments Recently Completed or Under Construction/Development

<table>
<thead>
<tr>
<th>Property</th>
<th>Location</th>
<th>No. of Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reagan Crossing</td>
<td>Covington</td>
<td>288</td>
</tr>
<tr>
<td>The Green at Northpark</td>
<td>Covington</td>
<td>218</td>
</tr>
<tr>
<td>Artesia</td>
<td>Covington</td>
<td>264</td>
</tr>
<tr>
<td>Springs at Riverchase</td>
<td>Covington</td>
<td>296</td>
</tr>
<tr>
<td>Canal 1535</td>
<td>CBD</td>
<td>330</td>
</tr>
<tr>
<td>Odeon</td>
<td>CBD</td>
<td>259</td>
</tr>
<tr>
<td>The Jung Residences</td>
<td>CBD</td>
<td>113</td>
</tr>
<tr>
<td>The Pythian</td>
<td>CBD</td>
<td>69</td>
</tr>
<tr>
<td>Parkway</td>
<td>Orleans</td>
<td>207</td>
</tr>
<tr>
<td>Via Latrobe</td>
<td>Bywater</td>
<td>260</td>
</tr>
<tr>
<td>Lafitte Greenway Site</td>
<td>Mid-City</td>
<td>382</td>
</tr>
</tbody>
</table>

Source: Larry G. Schedler & Associates, Inc.

Canal 1535

- $60 million mixed use development
- 9 story luxury apartment building with 330 units
- Parking garage and ground retail
- Rents as high as $3,000 per month
- Developer: Providence Realty Advisors, Inc.
Parkway Apartments

- $40 million mixed use development near Xavier University
- 207 units: 1 and 2 bedroom market rate units
- Ground floor retail
- Opening Spring 2019
- Developer: Citadel Builders

Lafitte Greenway

- Estimated $65 million development
- 382 units: 1 and 2 bedrooms from 750 to 1,200 square feet
- 2 ground floor restaurants
- Parking garages with a total of 570 spaces
- Developer: Edwards Communities
MARKET OVERVIEW - SALES

The sales market for apartment complexes in metropolitan New Orleans is reviewed as follows.

1) It should be noted that three ownership entities, First Lake Properties, Tonti Management and Apartment Homes by Tonti, control approximately 13,200 of the 16,681, 79.1%, professionally managed apartment units in East Jefferson Parish. All three practice long-term hold strategies and have rarely placed a property on the market For Sale over the last 30 years.

2) For reference, Real Estate Research Corporation (RERC) defines first tier investment properties as new or newer-quality construction in prime to good locations. Second tier investment properties are defined as aging, former first tier properties, in good to average locations. Third tier investment properties are defined as older properties with functional inadequacies and/or marginal locations.

3) There were 16 large unit apartment complex sales in metropolitan New Orleans during 2017. They are summarized in the chart below.

---

<table>
<thead>
<tr>
<th>Location</th>
<th>Sale Date</th>
<th>Sale Price</th>
<th>Bldg. SF / # of Units</th>
<th>Age &amp; Condition/ Quality</th>
<th>Remarks</th>
<th>Unit Prices</th>
<th>OAH</th>
<th>Photo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metairie, 3400 Oak Harbor Blvd, Metairie, LA</td>
<td>8/15/17</td>
<td>$2,030,000</td>
<td>151,706 / 300</td>
<td>15 yrs</td>
<td>Good / 50+</td>
<td></td>
<td>$134,400</td>
<td>$1.68%</td>
</tr>
<tr>
<td>Villa Du Lac, 8220 West End Blvd, Metairie, LA</td>
<td>6/13/17</td>
<td>$2,040,000</td>
<td>190,000 / 314</td>
<td>15 yrs</td>
<td>Good / 50+</td>
<td></td>
<td>$141,111</td>
<td>$1.25%</td>
</tr>
<tr>
<td>Orleans Parish</td>
<td>4/12/17</td>
<td>$1,720,000</td>
<td>285,300 / 300</td>
<td>15 yrs</td>
<td>Average / 50+</td>
<td></td>
<td>$131,500</td>
<td>$1.59%</td>
</tr>
<tr>
<td>East Coast, 1201 Crescent Blvd, New Orleans, LA</td>
<td>8/1/17</td>
<td>$3,135,000</td>
<td>612,196 / 565</td>
<td>15 yrs</td>
<td>Fair / 50+</td>
<td></td>
<td>$199,687</td>
<td>$8.06%</td>
</tr>
<tr>
<td>Carriage House, 10111 Crescent Blvd, New Orleans, LA</td>
<td>10/12/17</td>
<td>$1,750,000</td>
<td>191,780 / 216</td>
<td>15 yrs</td>
<td>Average / 50+</td>
<td></td>
<td>$131,250</td>
<td>$7.57%</td>
</tr>
</tbody>
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Kevin D. Hilbert, MAI
Kevin D. Hilbert & Associates, LLC
Appraisers and Consultants
<table>
<thead>
<tr>
<th>Property Address</th>
<th>Sale Date</th>
<th>Sale Price</th>
<th>SQFT</th>
<th>Average Price</th>
<th>Condition</th>
<th>Amenities</th>
<th>Sale Price Note</th>
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</thead>
<tbody>
<tr>
<td>Magnolia Estates</td>
<td>12/31/17</td>
<td>$1,275,000</td>
<td>5,614</td>
<td>$230.41</td>
<td>Average</td>
<td>Two pools</td>
<td>$230,410</td>
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<tr>
<td>West Lake</td>
<td>12/22/17</td>
<td>$13,000,000</td>
<td>3,200</td>
<td>$412.50</td>
<td>Average</td>
<td>Three pools</td>
<td>$232,500</td>
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<tr>
<td>Lakeland East</td>
<td>12/22/17</td>
<td>$12,000,000</td>
<td>3,990</td>
<td>$302.56</td>
<td>Average</td>
<td>Two pools</td>
<td>$302,560</td>
</tr>
<tr>
<td>Chateau Creek</td>
<td>12/22/17</td>
<td>$25,000,000</td>
<td>6,366</td>
<td>$395.06</td>
<td>Average</td>
<td>Two pools</td>
<td>$395,060</td>
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<tr>
<td>Hidden Lake</td>
<td>12/22/17</td>
<td>$15,750,000</td>
<td>4,000</td>
<td>$393.75</td>
<td>Average</td>
<td>Two pools</td>
<td>$393,750</td>
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<tr>
<td>Cypress Creek</td>
<td>12/20/17</td>
<td>$7,000,000</td>
<td>1,754</td>
<td>$402.86</td>
<td>Average</td>
<td>Two pools</td>
<td>$402,860</td>
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</table>

Kevin D. Hilbert, MAI
Kevin D. Hilbert & Associates, LLC
Appraisers and Consultants
Looking Forward
(provided by Larry Schedler)

• Over the next 12 months...
  • Minor rent increases
  • Modest softness in occupancy as the metro absorbs new inventory
  • Developments:
    • Concentrated on market rate rental units and condos
    • Modest increases in affordable units due to limited availability of subsidies
The National Economy
Wall Street Journal: 7/30/16

**RGDP Forecasts (4/18)**

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Wells F.</th>
<th>Consensus</th>
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<tbody>
<tr>
<td>17-I</td>
<td>1.2%</td>
<td>1.2%</td>
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<tr>
<td>17-II</td>
<td>3.1%</td>
<td>3.1%</td>
</tr>
<tr>
<td>17-III</td>
<td>3.3%</td>
<td>3.3%</td>
</tr>
<tr>
<td>17-IV</td>
<td>2.5%</td>
<td>2.5%</td>
</tr>
<tr>
<td>18-I</td>
<td>1.3%</td>
<td>2.0%</td>
</tr>
<tr>
<td>18-II</td>
<td>2.9%</td>
<td>3.2%</td>
</tr>
<tr>
<td>18-III</td>
<td>2.9%</td>
<td>3.1%</td>
</tr>
<tr>
<td>18-IV</td>
<td>3.1%</td>
<td>2.9%</td>
</tr>
<tr>
<td>19-I</td>
<td>2.6%</td>
<td>2.5%</td>
</tr>
<tr>
<td>19-II</td>
<td>3.1%</td>
<td>2.4%</td>
</tr>
<tr>
<td>19-III</td>
<td>2.9%</td>
<td>2.3%</td>
</tr>
<tr>
<td>19-IV</td>
<td>2.9%</td>
<td>2.1%</td>
</tr>
</tbody>
</table>
Two Key Policy Changes

= More Economic Growth

![Figure 1: Pages in the Federal Registry - 1960-2016](source: www.llisd.org/assets/sourcebook/fed-reg-pages.pdf)

- 1981-88: Avg. = 54,335
- 2009-16: Avg. = 80,420
- 2016: 95,894
- Highest in History

Of 10 All-Time Highest:
- 7 in Obama Administration
- Trump thru 9/17: 45,678
Trump Deregulation

• 10 days after taking office:
  – Departments to scour the books for rules they could rescind or repeal w/o damaging the law
  – Each new regulation issued, two have to be eliminated

Trump Deregulation

• Naomi Rao – Office of Administration & Regulatory Affairs
• Since Fall 2016:
  – 1,500 planned regulatory actions have been withdrawn or delayed
• 67 deregulatory actions
• Only 3 significant regulatory actions
Policy Change #2: Lower Tax Rates

• Increase in tax-home pay = more consumer spending

• Boost in business investment spending
  – Immediate expensing of capital costs until 2023——
   invest now

Policy Change #2: Lower Tax Rates

• Watch movements from Europe to US:
  – Germany & France now have significantly higher corporate tax rates, more onerous labor laws & an ageing population
  – There are a lot of chemical firms in these two countries who may be looking for a new home
It is not all good news:

The Anti-Free Trade Movement

The Law of Comparative Advantage

There are winners and losers
But on the net---gain
Louisiana Nondurable Goods Employment

1995-2009: -31,800 Jobs (32%)

Fig. 2: Total Nonfarm Employment in Louisiana

1990-2000 +330,000 Jobs (+21%)

Per Capita Income:
1900: $15,224
2000: $23,570 (+54.8%)
Import/Export Ratio

- Canada: 1.04
- Mexico: 1.28
- China: 4.00

Add tariffs: Guess what always happens?

Retaliation!
Production & Jobs in Manufacturing Sector

Index, Jan 1979=100

- Manufacturing Production: November @ 202.6
- Manufacturing Employment: November @ 63.2

ExxonMobil: 1979 v 2016

- Refinery: 3,500 employees
  - 1,300 ExxonMobil
  - 2,200 Contractors
- Chemical Plant: 2,500 employees
  - 1,000 ExxonMobil
  - 1,400 Contractors
Impacting the New Orleans Region

Oil Prices
VIP to GOM

IEA Demand Forecasts

- 2012: 90.7 mmb/d
- 2013: 91.9 mmb/d
- 2014: 92.9 mmb/d
- 2015: 95.0 mmb/d
- 2016: 96.3 mmb/d
- 2017: 97.8 mmb/d
- 2018: 99.1 mmb/d
The November/December 2016 Agreements

• OPEC reduced production to 32 mb/d from 33.7 mmb/d; -1.72 mmb/d (2%)
• 11 non-OPEC countries agree to reduce by 558,000 b/d 1st 6 months of 2017
  – Russia: -300,000b/d
• Oil Prices: Watch Saudi total revenues
  – 10/16: $44.73
  – 5/25/17: $51.36 (+14.8%)
  – 4/24/18: $68.64 (+53.5%)

The November/December 2016 Agreements

• Result:
• 9-Month extension approved 5/25/17
• Extension approved 11/17 through 2018
• Saudis and Russia now in talks about continuing cuts
  – Their concern: market share
  – US exports gone from zero in 2014 to 2mmb/d now
Why hasn’t the price risen even more?

U.S. Output: 10/17
9.64 mmb/d

Highest since May 1971
Expected to increase to 10.6 mmb/d in 2018
11.2 mmb/d in 2019
Greater Shale Production at These Prices? How?

How were shale BEs driven down so much?

- Two general ways:
  - Greater efficiencies
  - Price pressure on suppliers
iSteer

1. Sensors behind underground drill report data to office including speed, direction, rock type.
2. Geologist in office crunches numbers, using historic databases and other analysis tools; advises rig of course correction.
3. Rig worker revises course, keeping trajectory in 10-to-15 foot window, which improves well performance and consistency.

COMPLETION OPTIMIZATION PROGRAM

Designing completions to allow more rock to be contacted closer to the wellbore

<table>
<thead>
<tr>
<th>Version 1.0</th>
<th>Version 2.0</th>
<th>Version 3.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Frac Design</td>
<td>Current Frac Design</td>
<td>Testing Underway</td>
</tr>
<tr>
<td>(2013 - 2014)</td>
<td>(Q3 2016 - Today)</td>
<td>(Q1 - Q4 2018)</td>
</tr>
<tr>
<td>1,000 lbs/ft proppant</td>
<td>Up to 1,700 lbs/ft proppant</td>
<td>+$0.3/MM to $1.0/MM per well vs. current frac design</td>
</tr>
<tr>
<td>30 bbls/ft fluid</td>
<td>Up to 90 bbls/ft fluid</td>
<td>100 well program (70 wells online)</td>
</tr>
<tr>
<td>80-ft cluster spacing</td>
<td>Down to 15-ft cluster spacing</td>
<td>-</td>
</tr>
<tr>
<td>240-ft stage spacing</td>
<td>Down to ~100-ft stage spacing</td>
<td>-</td>
</tr>
<tr>
<td>1,400 lbs/ft proppant</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>90 bbls/ft fluid</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>150-ft stage spacing</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>$0.5/MM per well vs. initial frac design</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
How were shale BEs driven down so much?

- Two general ways:
  - Greater efficiencies
  - Price pressure on suppliers
    - Works great when rig count declining
    - Guess what is happening now?
Result?

In easy entry market, oil prices tend to gravitate towards a rising breakeven price.
Oil Price Forecast: What Is the “Market” Saying

- Futures market: contango to backwardation
  - Spot Sept. 24, 2015 = $44.48
  - Future December 2016 = $50.63
  - Spot Feb. 8, 2016 = $29.69
  - Future December 2016 = $39.53
  - Spot Mar. 24, 2018 = $68.64
  - Future December 2018 = $65.69

Looking Ahead
Where investment banks in March’s survey see the price of U.S. crude-oil futures in the next few quarters: $110

Sources: WSJ Market Data Group (oil price); the companies (forecasts)
Figure 6: Oil Price Forecasts

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>$47</td>
<td>$62</td>
<td>$65</td>
</tr>
<tr>
<td>Low Range</td>
<td>$30</td>
<td>$30</td>
<td>$30</td>
</tr>
<tr>
<td>High Range</td>
<td>$90</td>
<td>$90</td>
<td>$90</td>
</tr>
</tbody>
</table>

More Wisdom

How to break a blind date
GOM

• GOM Bad News:
  – Western, Central, & Eastern Lease Sales
    • 2017: 27 companies; 90 tracts; $121mm
    • 2018: 33 companies; 105 tracts; $128mm
      – Only 1% of 77 mm acres received bids

• Good news:
  – Declining BE point
    • 2014: BE = $70-$80
    • Now: BE = $40-$50

GOM

• Good news/Bad News
  – 2018 lease sale
    • Of 105 leases, 85 were immediately contiguous to existing leased acreage; another 17 w/i two miles of existing leases
North Shore: Good News

- **Chevron** – Covington
  - Consolidated leadership of Exploration/New Projects in Houston & operations in Covington to new VP of Gulf of Mexico in Covington (Mark Hatfield)---good for Covington long run
  - Employment @ about 550 in Covington by the end of 2018---a figure higher than before any workforce reductions were made at the site due to lower oil prices.
North Shore: Bad News

- **Hornbeck – Covington (7/17)**
  - 45 of 62 boats stacked
    - About ½ of all boats in the market are stacked
    - Have refinanced maturities and renegotiated with creditors to amend and extend credits
  - Down -1,000 mariners from 2,000; Down to 150 onshore from 300
  - Stock price from $60 to $1.50; significant pay cuts across personnel
  - Need oil price greater than $50---sustained--- to get new projects

The Natural Gas Market

The Remarkable Industrial Boom
On New Orleans’ “edges”
The Good News: Amazing Industrial Boom:

- Past: Good year = $5 billion
- GRIMA Survey: $170.4 Billion! (2/18)
- Highly concentrated by industry:
  - Chemicals = $50.4 billion
  - LNG Exports = $67.1 billion
- Highly concentrated geographically
  - Baton Rouge to New Orleans: $53.2 billion
  - Lake Charles MSA: $114 billion
- 50X better than other SE states!

Fig. 8: Price of Natural Gas

<table>
<thead>
<tr>
<th>Year</th>
<th>Average</th>
<th>Low Range</th>
<th>High Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>$2.91</td>
<td>$2.20</td>
<td>$3.70</td>
</tr>
<tr>
<td>2018</td>
<td>$2.80</td>
<td>$2.20</td>
<td>$3.70</td>
</tr>
<tr>
<td>2019</td>
<td>$2.90</td>
<td>$2.20</td>
<td>$3.70</td>
</tr>
</tbody>
</table>
Monthly Average Prices

Source: IGU, World LNG Report

Of $170.4 Billion Announced

- **Statewide: (2/18)**
  - $85.4 billion underway or completed
  - $85.1 billion @ FEED or permitting stage

- **Remember:** Location of new or expanding plants is a matter of math.

- **State taxes & regulations matter**
  - Solving the $1.5 billion “cliff”?
  - Change in TYITE program?
Imparting wisdom….

When you are dead you don’t know you are dead. Its difficult only for the others.

It’s the same when you are stupid….

It is not wise to get a tattoo

I don’t get tattoos for the same reason you don’t put a bumper sticker on a Ferrari
Worst Things to Hear in Tattoo Parlor

- “There are two Os in Bob, right?”
- “Eagle!? I thought you said Beagle!”
- “Anything else you want to say? You’ve got plenty of room back here.”
- “The flag’s all done and, you know, the folds of fat make a nice waving effect.”

Of $170.4 Billion Announced

- New Orleans MSA: $37.3 billion (2/18)
  - $11.0 billion underway
  - $26.3 billion @ FEED stage
NO MSA Industrial Construction
(Notice size of #s & location)

• **Underway/Completed:**
  – Yuhuang Chem: $1.85 bill
  – Dyno Noble: $850 mm
  – Monsanto: $975 mm
  – Entergy: $869 mm
  – Pin Oaks Terminal: $600 mm
  – Marathon: $340 mm

• **Underway/Completed:**
  – Valero: $325 mm
  – Diamond Green: $190 mm
  – Shell Motiva: $150 mm
  – Zen-Noh Grain: $150 mm
  – Noranda Bauxite: $35 mm
  – TCI Plastics: $36 mm

• **Potential:**
  – Formosa Plastics: $9.4 bill
  – South LA Methanol: $1.7 bill
  – Eurochem: $1.5 bill
  – Wanhua Chemicals: $1.12 bill
  – Syngas Energy: $360 mm
  – Gavilon Commodities: $300 mm
  – **First Bauxite: $200 mm**
  – Venture Global: $8.5 bill
  – IGP Methanol: $3.6 bill
  – Ram Terminals: $150 mm
  – Nola Tanking: $162 mm
Methanol Plants: Potential Good News

- **Under Construction**
  - Yuhuang Chemical: $1.85 bill IGP Methanol: $3.6 bill

- **Potential**
  - South LA Methanol: $1.7 bill
  - Eurochem: $1.5 bill
  - Wanhua Chemicals: $1.12 bill
  - IGP Methanol: $3.6 bill

The Methanol Market

- A building block for many chemicals and a fuel
- **U.S. still importing more methanol;**
  importing about 6.7 mm tons a year
The Methanol Market: China

- On plan to convert all inland water vessels to methanol by 2020;
- Major expansion in methanol-to-olefins plants;
- Discussions on converting all coal-fired boilers to methanol
- Building several methanol import sites on its coast; China methanol consumption will triple from 31 million metric tons (MMT) in 2012 to 97 MMT in 2022.

Of $37.3 Billion Announced in NO

- Venture Global LNG at Port of Plaquemines
- $8.5 billion on 20 trains; +220 jobs; $215 mm a year to operate; average wage $80,000
Announced LNG Projects

• Cheniere: $20 Bill
• Cameron LNG: $12 bill
• Driftwood LNG: $14.5 bill
• G2 LNG: $11 bill
• Live Oaks LNG: $2 bill
• Magnolia LNG: $3.5 bill
• Monkey Island LNG: $9.3 bill
• Trunkline LNG: $10 bill
• Venture Global LNG: $4.25 bill
• Plus Venture Global LNG: $8.5 bill in Plaquemines Parish

Note oil price role in go, no-go decision
Being 1st to Get Contracts

- Foreign suppliers price LNG off of oil price: 14.5%-17% of oil price
  - @15% & $100 oil = $15 mmbtu
- US Suppliers off Henry Hub price:
  - Henry Hub = $3.50 mmbtu
  - Plus 15% for liquefaction = 0.53
  - Plus capital recovery= 3.50
  - Plus transportation to Asia = 2.00
  - Total = $9.53
- Result: LT-20 year contracts!

Hard to Get Contracts

- Foreign suppliers price LNG off of oil price; 14.5%-17% of oil price
  - @15% & $50 oil = $7.50 mmbtu
  - @15% & $60 oil = $9.00 mmbtu
- US Suppliers off Henry Hub price:
  - Henry Hub = $3.00 mmbtu
  - Plus 15% for gas/liquefaction = 0.53
  - Plus capital recovery= 3.50
  - Plus transportation to Asia = 2.00
  - Total = $9.03
- Result: No LT contracts! 5 years now
The Boost: China Trade Deal Will Help:

• 5/11: US-China Economic Cooperation 100-Day Plan
• China now free to negotiate contracts with US LNG exporters
• Potential 75 mm tonnes/year = $26 billion!
More wisdom

NO MSA Good News

- **DXC Technology** – New Orleans (11/17)
  - New digital transformation center; Hire 300 IT & business enterprise professionals in 2018; ramp up to 2,000 over 5 years; $63,000 + benefits

- **Fuji Vegetable Oil** – Avondale site (3/18)
  - $70 mm processing facility; +39 jobs @ $77,000; refine palm oil from Pacific into fats & oils found in desserts, infant formula, frying fats and soaps

- **HRE New Orleans** – New Orleans (3/18)
  - Under contract to purchase old Avondale site; possible breakbulk terminal with warehousing and manufacturing
New Orleans MSA

• iMerit – New Orleans (4/18)
  – Digital data services company putting U.S delivery center in downtown NO; +100 jobs

N.O. Construction: Healthcare

• Provision Healthcare – New Orleans (5/17)
  – $100 mm proton therapy cancer treatment facility in University Medical Center complex; +60 jobs @ $100,000; open 2019

• Ochsner Health Systems – New Orleans (3/18)
  – $360 mm expansion; complete 2020-I; already completed 40 inpatient rooms on 10th floor, 5 operating rooms on 2nd floor, 300 spaces to parking garage, new imaging center, Ochsner Rehabilitation Center, Boh Center for Child Development & 5-story rehabilitation hospital
N.O. Construction: Healthcare

- **Children’s Hospital** – New Orleans (3/18)
  - $300 mm, 3-phase expansion of LCMC Health System’s onto new campus; Started 3/17; open 8/2021;

Construction: Public

- **$370 mm** expansion of WWII Museum (3/18)
- **$993.7 mm** construction of new **Louis Armstrong Airport** (3/18)
- K-12 Public schools in Orleans Parish (3/18)
  - 2017 - $175 mm
  - 2018 - $200 mm
  - 2019 - $120 mm (final year)
- **$317.7 mm** (down from $478.6 mm) in state road lettings over 2018-19
New Orleans: Public Construction

- Army Corps Spending trends on Hurricane and Storm Damage Risk Reduction System (7/17)
  - 2014: $942 million
  - 2015: $970 million
  - 2016: $808 million
  - 2017: $659 million
  - 2018: $458 million
  - 2019: $256 million

Construction: Private

- **The Odeon - South Market District** (3/18)
  - $100mm apartment tower; construction late 2018; 67 jobs

- **Four Seasons – New Orleans** (3/18)
  - $360 mm renovation of 33-story World Trade Center; Known as 2 Canal Street; Start Construction??; Open ??; 336-luxury hotel room floors 7-19; 80 hotel-serviced condominiums floors 21-30; renovation & demolition permits filed 7/17; +450 jobs
Fig. 9: New Orleans MSA Non-Farm Employment 1980-2017

- 2002: -10,300 jobs (-1.7%)
- 2005-06: -133,700 jobs (-21.8%)
- 2009-10: -6,700 jobs (-1.3%)
- 2016-17: -1,400 jobs (-0.2%)

Compared to 2001 Peak:
- 53,600 jobs (-8.5%)

The Net Impact on State

Bouncing along bottom
Forecasts: 2018-19

- **New Orleans:**
  - 2018: +4,600 (+0.8%)
  - 2019: +7,600 (+1.3%)

- **Louisiana:**
  - 2018: +12,000 (0.6%)
  - 2019: +22,300 (1.1%)
Reaction?

Depends on your perspective…
Industrial Market

Daniel Marse
Commercial Sales & Leasing
NAI/Latter & Blum, Inc./Realtors®

Industrial Statistics
2017 YE Total Sq.Ft. Sold

SQ.FT. SOLD

WEST, 278,464
CBD, 226,817
EAST, 53,859
ST CHAR, 76,325
N-MET, 31,695
KEN, 48,264
ELM/SM, 589,064
Notable Transactions
4325 France Road

Transaction Details
• 414,000 Sq.Ft. of Improvements
• 2,110,046 Sq.Ft. of Land

Notable Transactions
5733 Citrus Blvd.

Transaction Details
• 223,442 Sq.Ft. of Improvements
• 16.50 Acres of Land
• Bought as an investment property
• Former PepsiCo Distribution
Notable Transactions
6000 Jefferson Avenue

Transaction Details
• 82,000 Sq.Ft. of Improvements
• 6.67 Acres of Land

Notable Transactions
181 Riverbend Blvd.

Transaction Details
• 53,360 Sq.Ft. of Improvements
• 4.8 Acres of Land
Notable Transactions
3501 Jourdan Road

Transaction Details
• 88,000 Sq.Ft.
• To be used as a brewing facility
Notable Transactions
900 Atlantic Avenue

Transaction Details
• 82,000 Sq.Ft. of Improvements
• 4.20 Acres of Land
• Net Leased Investment (NNN)
• Leased to Vital Records Control of LA, LLC

Greater New Orleans
Demand Generators

- Port of New Orleans
- Petrochemical Industry
- London Metal Exchange
## Project Number  | Facility         | Address 2     | Description | Investment  | Direct Job | Average Salary | % Of Total Jobs Created |
1               | Sasol Ltd.       | Westlake, LA  | LNG to Gas  | $18,500,000,000 | 1253       | $88,000        | 23.16%                  |
2               | Sempra Energy    | Hackberry, LA | LNG         | $6,000,000,000  | 130        | $80,000        | 2.40%                   |
3               | Magnolia LNG     | Lake Charles, LA | LNG      | $2,300,000,000  | 175        | $75,000        | 3.23%                   |
4               | CF Industries    | Donaldsonville, LA | Methanol      | $2,300,000,000  | 93         | $56,500        | 1.72%                   |
5               | GEX Energy       | Lake Charles, LA | Gas to Gas  | $1,300,000,000  | 243        | $66,900        | 4.49%                   |
6               | South Louisiana Methanol | Convent, LA | Methanol     | $5,300,000,000  | 374        | $66,500        | 6.11%                   |
7               | Methanex Corp    | Geismar, LA    | Methanol    | $1,300,000,000  | 165        | $56,290        | 3.05%                   |
8               | Dyno Noble Americas | Waggaman, LA | Ammonia     | $1,025,000,000  | 65         | $55,700        | 1.20%                   |
9               | Dow Chemical     | St. Charles, LA | Ethylene   | $799,000,000    | 100        | $75,000        | 1.41%                   |
10              | The Mosaic Company | Faustina, LA | Ammonia     | $706,000,000    | 53         | $61,000        | 0.98%                   |
11              | Westlake Chemicals | Geismar, LA | Chlor-alkali | $466,000,000  | 100        | N/A            | 1.85%                   |
12              | NuStar Energy    | Convent, LA    | Tank Storage | $385,000,000  | 32         | $98,000        | 0.59%                   |
13              | Avalon Rare Metals | Geismar, LA | Rare Earth Elements | $300,000,000  | 175        | N/A            | 3.23%                   |
14              | Exxon Mobil Corporation | Baton Rouge, LA | Synthetic Oil | $215,000,000  | 45         | $66,300        | 0.83%                   |
15              | Katoen Natie USA | Baton Rouge, LA | Plastics Storage | $156,000,000  | 210        | N/A            | 3.48%                   |
16              | Genesis Energy   | Baton Rouge, LA | Oil       | $1,215,000,000 | 220        | $80,000        | 4.07%                   |
17              | SE Tylose        | Plaquemine, LA | Cellulose  | $1,200,000,000 | 30         | $58,000        | 0.55%                   |
18              | Huntsman Corporation | Geismar, LA | Methylene  | $76,000,000,000 | 17         | $52,000        | 0.11%                   |
19              | International Paper | Bogalusa, LA | Paper Mill  | $44,000,000,000 | 411        | $69,000        | 7.60%                   |
20              | K&B Machine      | Terrebonne Parish, LA | Manufacturing | $45,000,000,000 | 19         | $48,000        | 0.35%                   |
21              | Global Ventures LNS | Belle Chasse, LA | LNG     | $8,500,000,000  | 300        | $70,000        | 5.55%                   |
22              | Formosa          | St. James, LA  | Polymers   | $9,400,000,000  | 1200       | $64,500        | 22.18%                  |
Vanishing Louisiana Coastline
Vanishing N.O. Office Supply

New Orleans CBD 1970

- Hibernia Tower (1921)
- Whitney Tower (1921)
- FNBC (original) bldg. 210 Baronne (1927)
- 225 Baronne (1962)
- International Trade Mart (1965)
- American Bank Building (1929)
- Plaza Tower (1969)
Newbies

- 1010 Common 1971
- One Shell Square 1972
- Lykes Center 1972

The Oil Expansion

- 1978 Canal Place and Amoco Building (Orleans Tower)
- 1980 Pan-American Life Building and Mobil Building (1250)
- 1982 1555 Poydras, Chevron (Exchange) and Entergy (639)
- 1983 Texaco (400 Poydras), 1515 Poydras and 650 Poydras
- 1984 Energy Centre and Freeport McMoRan
- 1985 Place St. Charles (Chase)
- 1987 LL&E (First Bank & Trust) 909 Poydras
- 1989 CNG/Dominion/ENI (Benson Tower)
Suburban Challenge

- Galleria (1986 partial completion)
- Heritage Plaza (1983)
- Northpark I & II (1986 & 1998)
- LLOG (2009)
- Chevron (2008)

CBD Office Space 1970 - 2018
Oil & Gas Mergers/Downsizing

- Chevron Texaco (606,608) 2001
- Exxon Mobil (422,899) 1999
- BP Amoco (378,895) 1998
- O&G over 2.4 million sf vacated

Evolution To Suburbs

St. Tammany Parish

Jefferson Parish
Tourist Based Economy

Banking Consolidation

- Chase
- Bank One
- FNBC
- Capital One
- Hibernia
- Hancock
- Whitney

- Banks over 1.3 million sf vacated
Occupancy 1989 - 2018

- Total square feet leased/occupied (numerator)
- Total square feet available for lease (denominator)

- 2018 leased (num) 10,648,774
- 2018 available (den) 12,087,144

- Occupancy rate 88.1%
### Occupancy

- 2018 (num) 10,648,774
- 1989 (den) 16,462,811
- Occupancy
- 64.7%

---

### Elimination And/Or Reduction Of Space For Office

- 225 Baronne
- 210 Baronne
- Lykes
- Whitney (Poydras)
- World Trade Center
- Tidewater
- ODEC0
- Maritime
Elimination And/Or Reduction Of Space For Office

- American Bank Carondelet
- BNO St Charles
- Queen & Crescent
- Plaza Tower
- Chamber of Commerce
- Planned: Whitney

Predictions for 2018 - 2019

- New technology will continue to reduce the need for office space
- Investor attention will be focused on retail dynamics
- New blood of young professionals will enter N.O. brokerage
- The state's “fiscal cliff” will become the state's “two step”
- Office rental rates will remain stable with little change
- Office investors are monitoring the adaptive use market
UNO Economic Outlook
& Real Estate Forecast Seminar

RETAIL EVOLUTION
RETAIL UNCERTAINTY

Just 8.9 percent of retail sales in the United States last year were made online — including Amazon.

Source – International Council of Shopping Centers
OPPORTUNITY

• Shoppers Value
• Walmart Drive Thru
• Target Pickup

RUMORS

Conn's
Chick-fil-A
SHAKE SHACK
HOTWORX

NOTABLE PROJECTS

• Julia St. / St. Charles Ave
• South Market District
• DXC Technologies