



**MAAO**

Minnesota Association  
of Assessing Officers

# **Silos and Suites**

# “Silos”- Grain Elevators



***CIA Valuations Committee***

# “Silos”- Grain Elevators



***CIA Valuations Committee***

# **“Silos” - Grain Elevators**

**Clay Dodd, MAI, ASA**

**Patchin, Messner,**

**Dodd & Brumm**

***CIA Valuations Committee***



# “Suites”- Hotels



***CIA Valuations Committee***

# “Suites” - Hotels



***CIA Valuations Committee***

# **“Suites” - Hotels**

**Tanya Pierson, MAI  
HVS Consulting and  
Valuation Services**

***CIA Valuations Committee***



# “Silos and Suites”



***CIA Valuations Committee***

# “Silos and Suites”



***CIA Valuations Committee***



# “Silos and Suites”



***CIA Valuations Committee***

# “Silos and Suites”



***CIA Valuations Committee***



# “Silos and Suites”



***CIA Valuations Committee***

# **Tanya Pierson, MAI**

**HVS - Consulting / Valuation**

**Has worked on market studies,  
feasibility analyses, and appraisals  
for over 2,000 hotels and resorts  
in nearly every U.S. State**

***CIA Valuations Committee***

# **Clay Dodd, MAI, ASA**

**Patchin, Messner, Dodd & Brumm**

**Primary focus is the appraisal of specialized industrial facilities, with particular emphasis on agribusiness and food processing plants**

***CIA Valuations Committee***



# FOOD BUSINESS NEWS

NEWS, MARKETS AND ANALYSIS FOR THE FOOD PROCESSING INDUSTRY

www.foodbusinessnews.net

## Single serve central to Kellogg's strategy

BATTLE CREEK, MICH. — The Kellogg Co. has identified a "small" weakness in its product portfolio that it plans to address during the next few years.

"We under index relative to our competitors in terms of the amount of food we sell, in snacks in particular, in single-serve sizes," said Paul Norman, president of Kellogg North America, during a presentation Nov. 20 at the company's annual investor's day. "That's an opportunity gap that we think we can go after big time in the next three, four years."

Deanie Elsner, president of U.S. Snacks, said Kellogg has been successful at growing its brands in big-box stores, but there is room for improvement in

*Continued on Page 10*

## DAIRY BUSINESS NEWS

## Dairy's role in a satiating diet

A complaint expressed by many in the nutrition community is consumers don't eat food groups; they eat burgers, pizza, lasagna and sandwiches. Something as simple as a bowl of chicken noodle soup contains partial servings of meat, grains and vegetables, while many innovative dairy foods have become so much more than a dairy serving, most notably the high-protein yogurts enhanced with whole grains and loaded with fruit.

Using the government's MyPlate program to craft a healthy meal is not realistic;

*Continued on Page 50*



# Bringing more barbecue to the masses

*Story on Page 41*

## F.D.A. stands its ground on the labeling of G.E. foods

The U.S. Food and Drug Administration on Nov. 19 denied a citizen petition submitted by the Center for Food Safety and several other consumer and

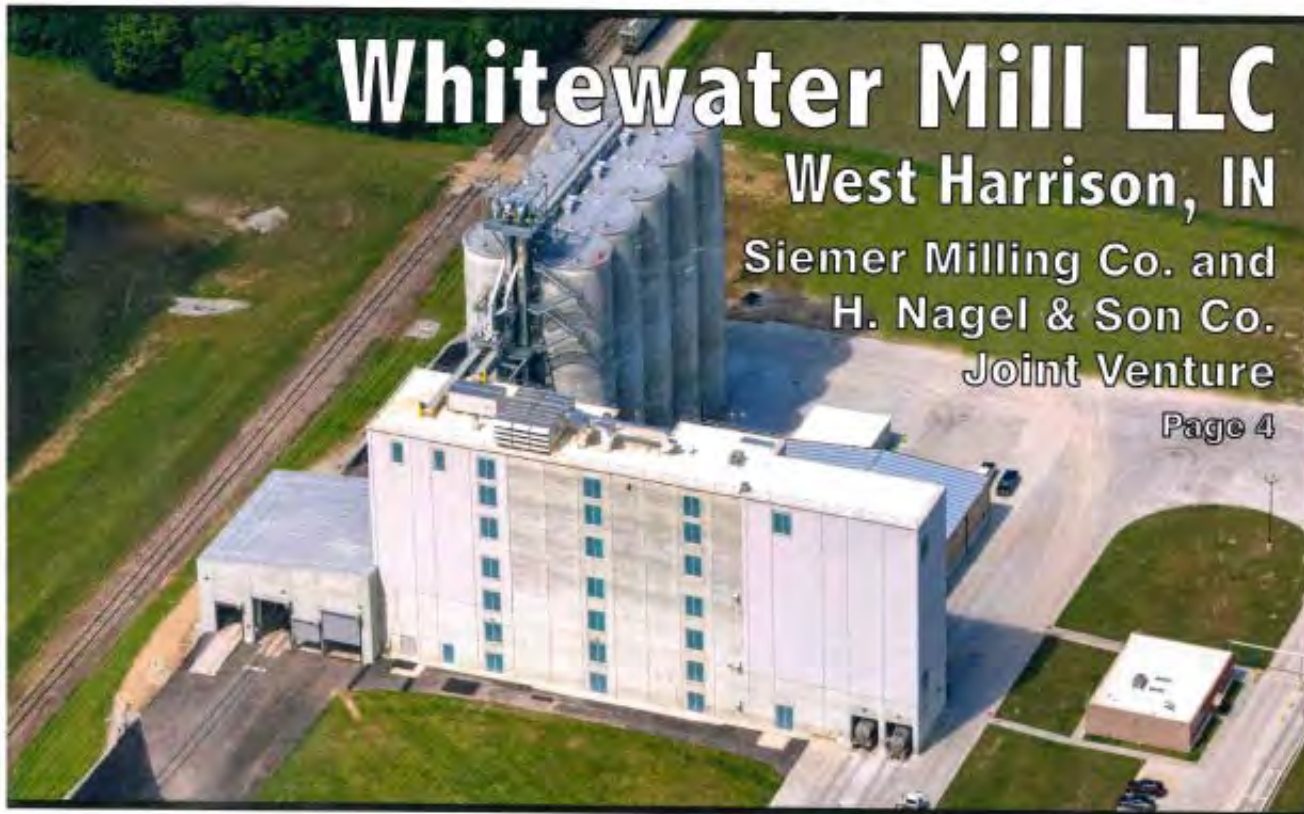
organic food industry associations that held the F.D.A. should require the mandatory labeling of genetically engineered foods. The rejection was contained in a 31-page letter

# CIA Valuations Committee

Technical Magazine for the Milling Industry <sup>Done</sup>

# MILLING

J o u r n a l



***CIA Valuations Committee***



Online Safety Contest ... See p. 44

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# GRAIN JOURNAL

THE VOICE OF  
THE GRAIN AND  
FEED INDUSTRY

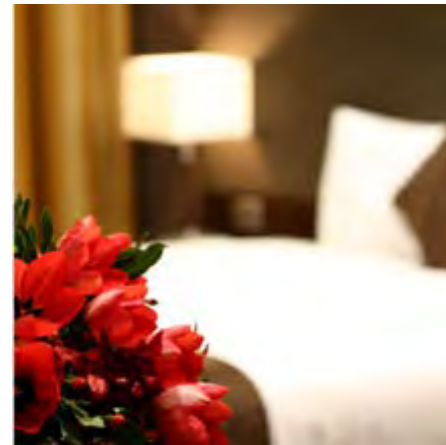
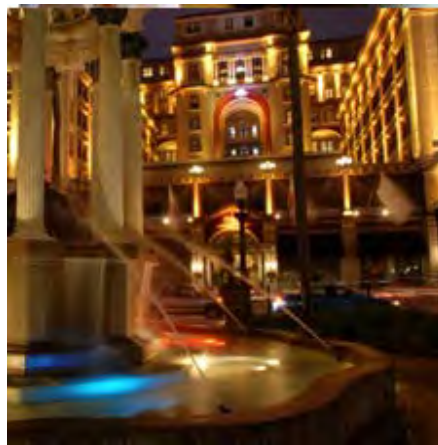
September/October 2015  
Volume 43, No. 5

- Interview with NGFA's Jess McCluer
- Safety Training, Equipment Ideas
- Safety Improvements in Texas
- Handling Compressed Air
- Contractor Safety

*Dave*  
**SAFETY**  
I S S U E



***CIA Valuations Committee***



# Hotel Valuation

*Tanya Pierson, MAI    Managing Director*

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THE NUMBERS SAY IT ALL

NETWORK | BENEFIT | RELY

ESTABLISHED

**1980**

**35+**

OFFICES  
WORLDWIDE



**350+**



PROFESSIONALS

**8+**

CONFERENCES  
& EVENTS

**4,500+**

ASSIGNMENTS  
EACH YEAR  
GLOBALLY

**35**

CELEBRATING  
YEARS



**SUPERIOR RESULTS THROUGH UNRIVALED  
HOSPITALITY INTELLIGENCE. *EVERYWHERE***

HVS



# Agenda

- Review of Different Hotel Types
- Key Considerations in Hotel Valuation
- Cap Rates/Discount Rates/RRM
- Recent Trends in Hotel Transactions
- Allocation of Value Components
- Minneapolis-St. Paul Trends/Outlook

# Who Stays in Hotels?

## Three Principal Sources of Lodging Demand

Corporate

Leisure

Meeting and Group

Subgroups: Extended-Stay, Contract, Wholesale,  
Government



# REVIEW OF HOTEL TYPES



# Typical Full-Service Hotels

- Rooms
- Restaurant(s)
- Bar(s)
- Ballroom
- Junior Ballroom
- Small Meeting Rooms

- Fitness Center and Pool
- Other amenities:
  - Business Center
  - Gift Shop
  - Spa

# Typical Full-Service Hotels

## Luxury Brands:



FOUR SEASONS



THE RITZ-CARLTON



ST REGIS



WALDORF  
ASTORIA  
HOTELS & RESORTS

## Upper-Upscale Brands:



Marriott



Hilton

WESTIN<sup>®</sup>  
HOTELS & RESORTS

HYATT<sup>®</sup>

## Upscale Brands:



DOUBLETREE  
BY HILTON™

Radisson<sup>®</sup>

WYNDHAM  
HOTEL GROUP



CROWNE PLAZA<sup>®</sup>  
HOTELS & RESORTS



# Typical Limited-Service Hotels

- Rooms
- Lobby
- Breakfast area

- Pool
- Small fitness center

# Typical Limited-Service Hotels

*Examples*



# Typical Select-Service Hotels

- Rooms
- Lobby
- Combined food and beverage outlet

- One or two Meeting Rooms
- Fitness Center and Pool
- Other amenities:
  - Market Pantry
  - Business Center



# Typical Select-Service Hotels



# Typical Extended-Stay Hotels

- Rooms
  - Suite Layout
  - Kitchenettes
- Lobby
- Breakfast area
- Pool

- Small fitness center
- Outdoor Amenities
  - BBQ, Sport Court, etc.

# Typical Extended-Stay Hotels





# Other Types of Hotels

*Other*



**Boutique Hotels**



**Pod Hotels**



**Lifestyle Hotels**



**Affiliation Hotels**

# Chain Scales (as defined by STR Global)

- **Luxury**

- Four Seasons, InterContinental, JW Marriott, Ritz-Carlton, W Hotel

- **Upper-Upscale**

- Hilton, Hyatt, Marriott, Westin, Sheraton, Renaissance

- **Upscale**

- DoubleTree, Hilton Garden Inn, Courtyard by Marriott, Crowne Plaza, Aloft

- **Upper Midscale**

- Fairfield Inn, Hampton Inn, Holiday Inn, Country Inn

- **Midscale**

- Best Western, La Quinta, Quality Inn, AmericInn

- **Economy**

- Days Inn, Econo Lodge, America's Best Value Inn, Motel 6





# KEY CONSIDERATIONS IN HOTEL VALUATION



# Key Considerations in Hotel Valuations

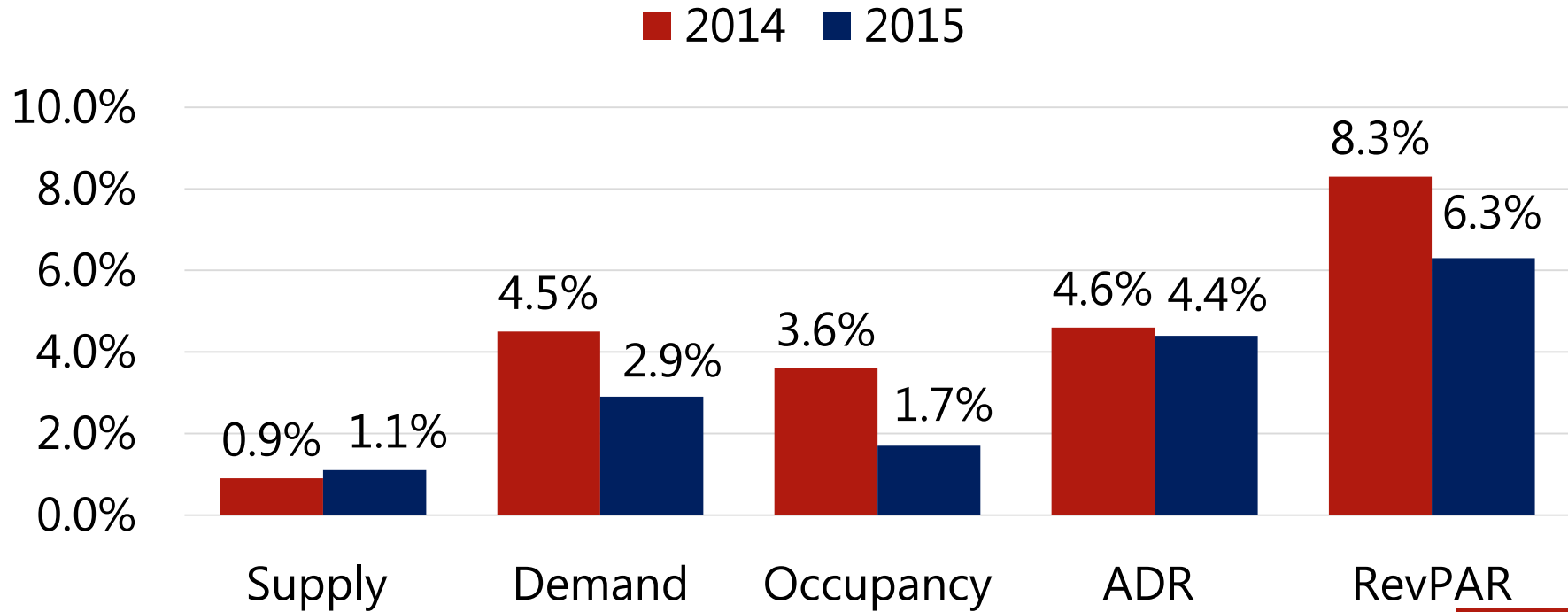
- Supply and Demand Trends
- Franchise Agreements
- Capital Improvement Needs
- Management Company
- Operating Ratios and Value Parameters
- Sales Comparables

# New Supply

- 2010 – 2012 – Not as Big of an Issue
- 2013 – 2014 – New Supply Accelerating
- 2015 – 2018 – Large Amount of New Supply in Many Markets

# Total U.S. Operating Stats

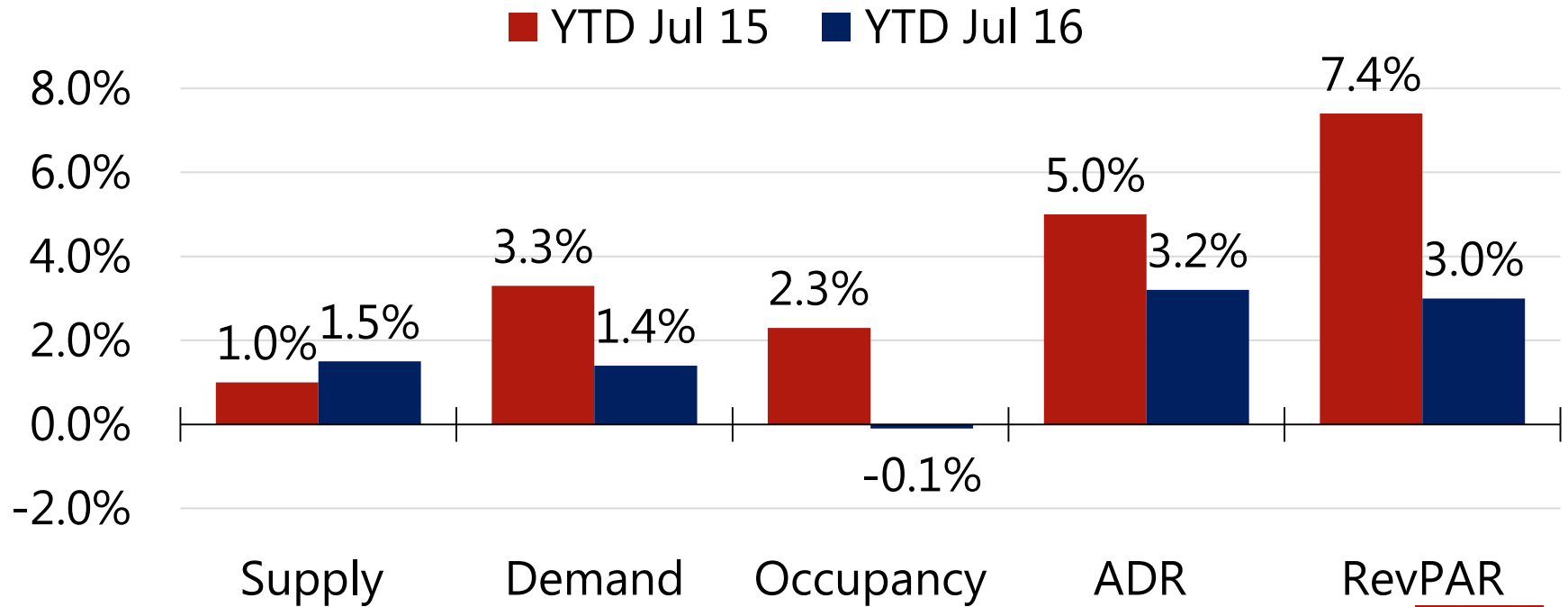
## Demand Slowing, Supply Increasing





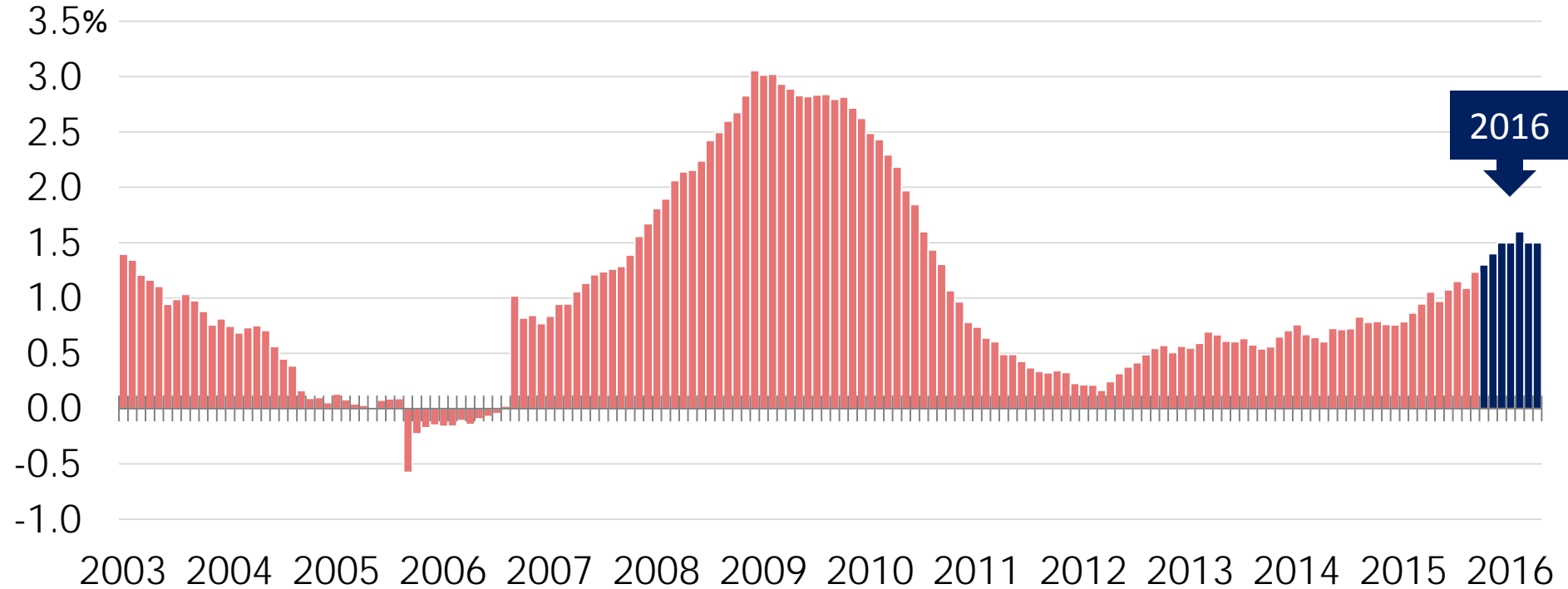
# Total U.S. Operating Stats

## Occupancy Declining, Supply Increasing

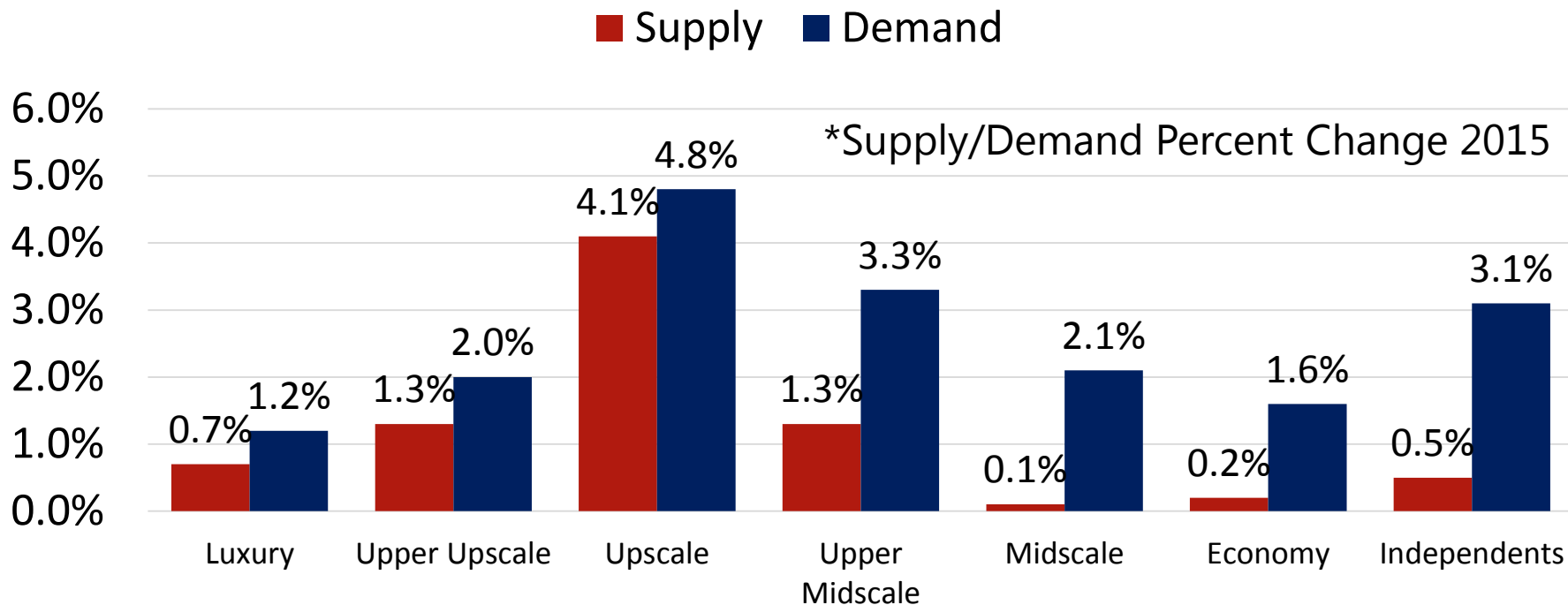


# Total U.S. – Supply on Upward Trend

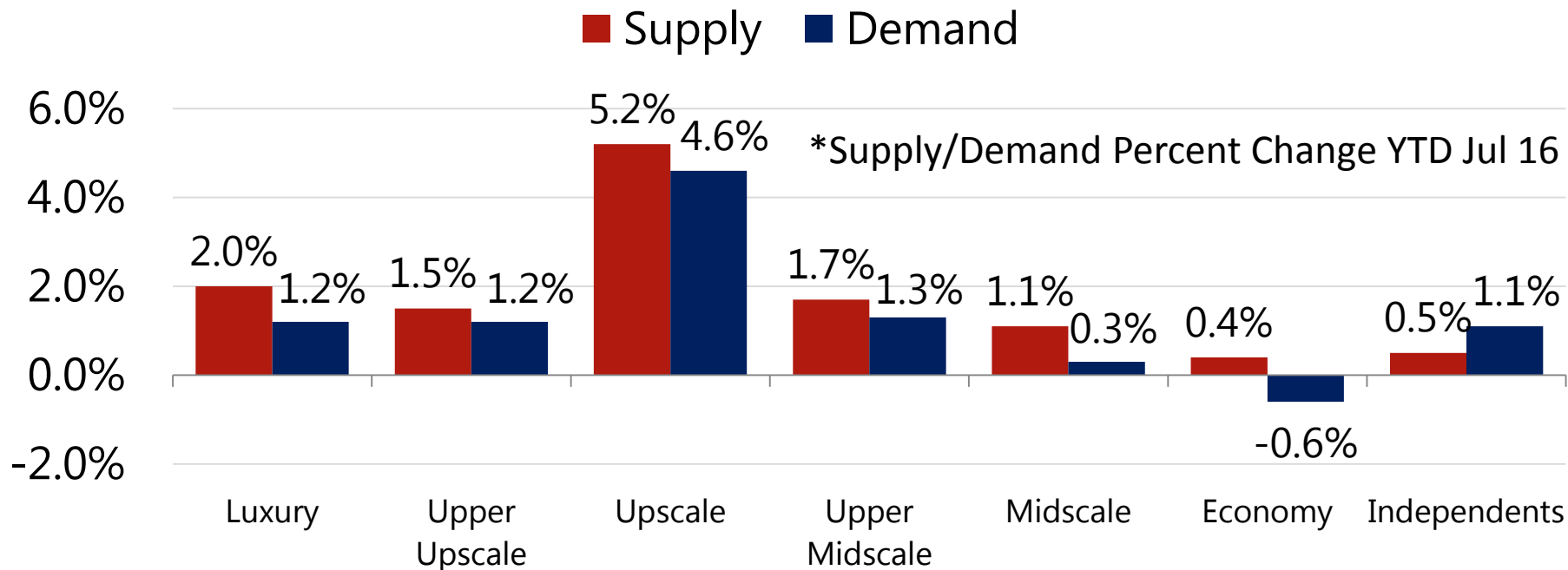
Room Supply Percent Change | January 2003 – July 2016



# Highest Supply Growth in Upscale Select Service / Extended Stay Hotels\*



# Highest Supply Growth in Upscale Select Service / Extended Stay Hotels\*





# Illustration of Energy Market Hit by New Supply and Demand Contraction

Year	Average Daily Room Count	Available Room Nights	Change	Occupied Room Nights	Change	Occupancy	Average Rate	Change	RevPAR	Change
2012	671	244,901	—	199,096	—	81.3 %	\$155.24	—	\$126.20	—
2013	988	360,558	47.2 %	266,184	33.7 %	73.8	156.05	0.5 %	115.21	(8.7) %
2014	1,055	385,016	6.8	276,697	3.9	71.9	151.28	(3.1)	108.72	(5.6)
2015	1,152	420,422	9.2	228,735	(17.3)	54.4	135.99	(10.1)	73.99	(31.9)
<b>Year-to-Date Through January</b>										
2015	2,097	65,018	—	39,119	—	60.2 %	\$148.03	—	\$89.06	—
2016	2,409	74,694	14.9 %	23,227	(40.6) %	31.1	109.43	(26.1) %	34.03	(61.8) %

# Illustration of Energy Market Hit by New Supply and Demand Contraction

Hotels Included in Sample	Competitive Status	Number of Rooms	Year Affiliated	Year Opened
Super 8 Williston	Secondary	82	Jan 1978	Jan 1978
Grand Williston Hotel & Conference Center	Secondary	147	Jun 1980	Jun 1980
Candlewood Suites Williston	Secondary	79	Feb 2010	Feb 2010
Microtel Inn & Suites by Wyndham Williston	Secondary	77	May 2011	May 2011
Holiday Inn Express & Suites Williston	Secondary	88	Mar 2012	Mar 2012
Best Western Golden Prairie Inn & Suites	Primary	72	Apr 2012	Apr 2012
Microtel Inn & Suites by Wyndham Sidney	Primary	76	Apr 2012	Apr 2012
Holiday Inn Express & Suites Sidney	Primary	75	Jul 2012	Jul 2012
Hampton Inn Suites Williston	Secondary	98	Aug 2012	Aug 2012
MainStay Suites Williston	Secondary	89	Nov 2012	Nov 2012
Best Western Plus Williston Hotel & Suites	Secondary	105	Dec 2012	Dec 2012
Candlewood Suites Sidney	Primary	114	Jun 2014	Jun 2014
MainStay Suites Sidney	Primary	89	Aug 2015	Aug 2015
Wingate by Wyndham Sidney	Primary	75	Nov 2015	Nov 2015
<b>Total</b>		<b>1,266</b>		

# Way to Minimize Risk: Thorough Evaluation of Key Factors Impacting Hospitality Assets

- Addressed New Supply/Economic Factors

## **Next:**

- Management & Management Agreements
- Franchise Agreements & Branding Issues
- Capital Improvements/PIPs & Obsolescence

# Key Considerations: Management

- **Management agreement** can significantly **impact value** and may be a major risk factor
  - Term of agreement and termination provisions upon sale and default should be analyzed
  - Non-brand management agreements vary greatly and offer greater flexibility than brand management agreements
- Is Hotel Brand Managed? (Ritz-Carlton/Westin/Hilton)
  - Typically no franchise fees, but incentive management fees are generally charged and must be factored into value
  - Brand managed hotels typically require payment of a termination fee and renewal is at the option of the management company; some cannot be terminated.
- Management encumbrance can impact value, for better and for worse



# Management Agreements

- Is agreement Terminable Upon Sale?
  - Not as much an issue with Limited-Service hotels
  - More prevalent in Full-Service hotels
- Is Hotel Brand Managed?
- What kind of fees?
  - Base Management Fee
  - Incentive Management Fee

# Franchise Agreements

Major driver of revenue and value



Customer



Hotel

# Franchise Agreements

## Operating Costs

- Royalty Fee: 3.0% to 7.0% of Rooms Revenues
- Program Fees: 1.5% to 4.0% of Rooms Revenues  
(includes marketing, advertising and reservations)
- Food and Beverage Fees: 2.0% to 7.0% of F&B Revenues
- Frequent Guest Program costs: \$2.00 to \$5.00 per room per member

# Franchise Agreements

## Construction Costs

- Brand mandated facilities
- Brand mandated materials and quality standards

## Renovation Costs

- Replace soft goods every 6 to 7 years: \$6,000 to \$8,000/room
- Replace case goods every 12 to 14 years: \$6,000 to \$8,000/room
- Fully renovate bathrooms after 18 years: \$8,000 to \$20,000/room



# Franchise Agreements

## Brand Standards:

- Services or Amenities
  - 36 inch flat panel televisions
  - Wireless internet with a minimum bandwidth
  - Life-safety systems
  - Interior-corridors
  - Sliding barn door in rooms

# Franchise Agreements

- Initial term of typical franchise agreement for a new hotel is 20 years; 10 to 15 years on a renewal
- Brand will require periodic PIPs (Product Improvement Plans) whether they are economically justified or not
- Franchise does not automatically transfer upon sale – must be newly negotiated with buyer, at which point franchisor has opportunity to require significant improvements to current brand standards.
- **Capital upgrades** for an **existing franchisee** are **not** as **extensive** as for a new buyer, which represents a **significant risk** that is typically not recognized when a hotel is **refinanced**.

# Hotel Franchise and Management Companies Own, Invest in and Earn Profit on their Management Business and Brand

Franchise Profit  
50%+



Management  
Company Profit  
40 - 50%



# Capital Improvements

- Age of Overall Improvements
  - Increasing number of aging hotels
  - Defensive Capital vs. Repositioning
- Existing Improvements Could Limit Branding & Redevelopment
  - Exterior Corridor
  - Life Safety Systems
  - Parking Requirements
- Brand Mandated Upgrades



# Room Design – 1950s





# Room Design – 1970s



# Room Design – 1980s



# Room Design – 1990s





# Room Design – 2000s



# Bathroom Design – 1950s



# Bathroom Design – 1960s





# Bathroom Design – 1990s





# Bathroom Design – 2000s



# Heavenly Bed



# Heavenly Shower





# Building Design – 1970s





# Building Design – Important Factor to Consider

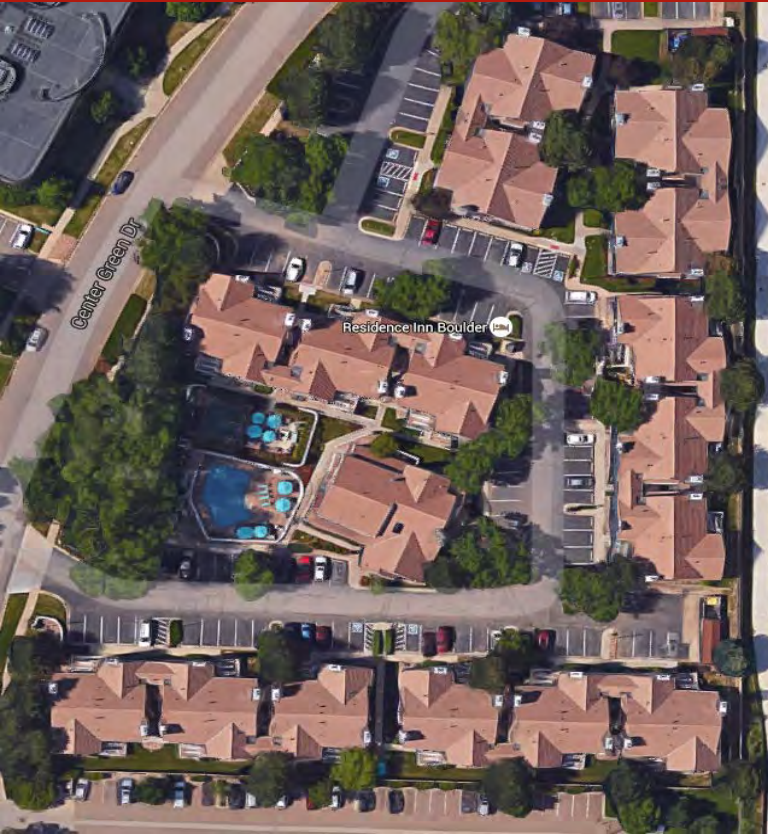


# Building Design – Important Factor to Consider





# Building Design – Important Factor to Consider



# Building Design – Important Factor to Consider





# New Hampton Inn – Tempe, AZ



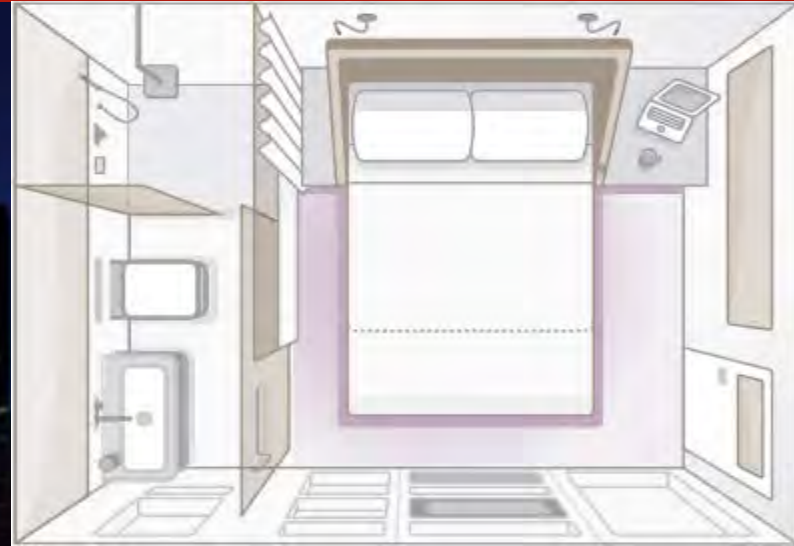


# New Design – Important Factor to Consider

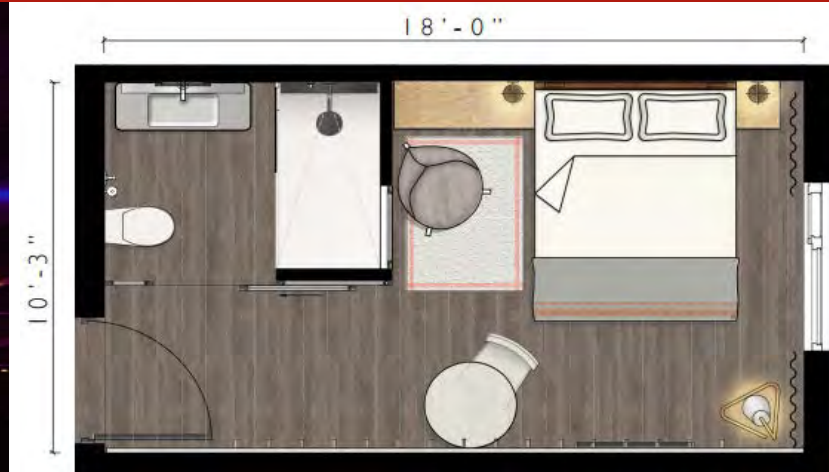
What Happens to  
This Roofline Upon a  
Brand Change?



# New Design – Important Factor to Consider

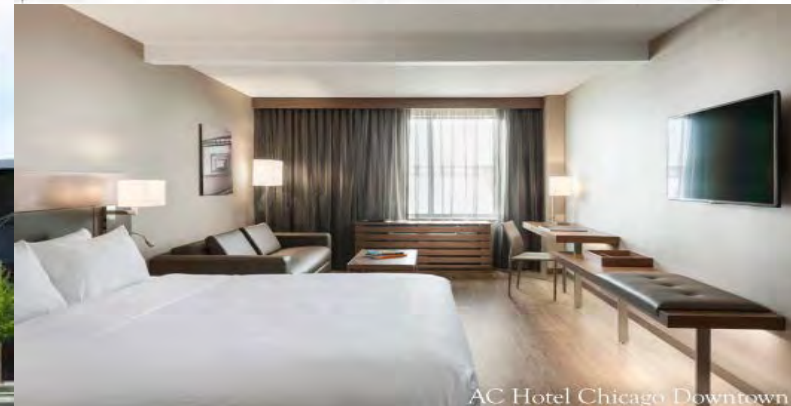
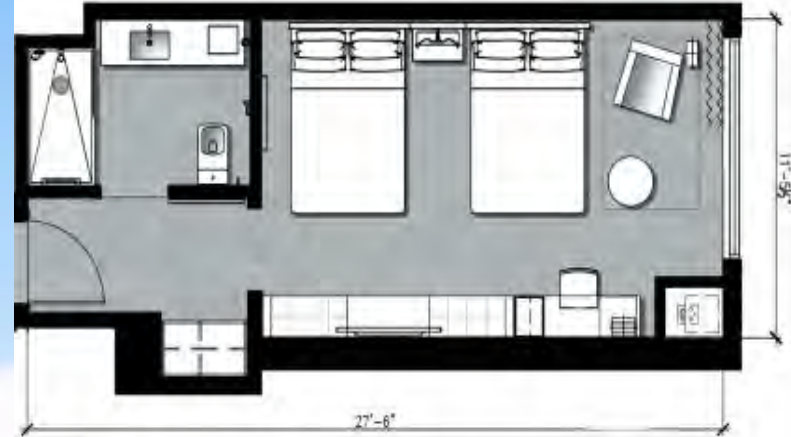


# New Design – Important Factor to Consider





# New Design – Important Factor to Consider



AC Hotel Chicago Downtown



# New Design – Important Factor to Consider



# Key Considerations: Franchise

- Examples of Strong Limited- and Select-Service “New Build” Brands:



- Examples of “Conversion” Brands:



# Value Impact: Hampton Rebranding to Conversion Brand



2011 Operating Stats:  
Occupancy: 64%  
ADR: \$106  
NOI: \$1,036,000  
2007 Value: \$7.5 million;  
\$65,000/Room



2013 Operating Stats:  
Occupancy 49%  
ADR: \$63  
NOI: \$2,000  
2013 Value: \$2.8 million;  
\$24,000/ Room

# Cap Ex: Property Condition Reports Generally Do Not Tell the True Story

Generalist building inspectors do not have expertise regarding hotel brand standards

Renovation Costs: Light to Full Refurb/Reno Range: \$8,000 to \$50,000+/Room

Replace soft goods every 5 to 7 years

\$6,000 to \$10,000+/room

Replace case goods every 12 to 14 years

\$6,000 to \$10,000+/room

Fully renovate bathrooms after 18 years

\$8,000 to \$20,000+/room

Lobby Renovation – Communal Seating

\$1,000,000+



# Example of Pending Brand Conversion



# Impact of PIP Costs on Value – Forever Young

Upscale	Low	High	Average	Selected	Unit Type	Unit	Total
<b>Guestrooms</b>							
Rooms (Full Renovation)	\$14,360	\$18,542	\$16,324	\$17,000	Per Guestroom	349	\$5,933,000
Bathrooms (Partial Renovation)	\$1,416	\$2,402	\$1,895	\$2,000	Per Guestroom	349	\$698,000
Corridors (Full Renovation)	\$1,156	\$1,520	\$1,329	\$1,300	Per Guestroom	349	\$453,700
<b>Guestrooms Total</b>							<b>\$7,084,700</b>
<b>Per Room</b>							<b>\$20,300</b>
Public Spaces (Modest Updates)	\$432,905	\$586,310	\$500,312	\$500,000	Total	1	\$500,000
Exterior Signage	\$58,855	\$69,556	\$63,537	\$65,000	Total	1	\$65,000
<b>Public Space &amp; Exterior Total</b>							<b>\$565,000</b>
<b>Contingency @ 10%</b>							<b>\$764,970</b>
					<b>Total:</b>		<b>\$8,414,670</b>
					<b>Per Room</b>		<b>\$24,111</b>

## Future Capital Assumption

	Total	Per Room
CapEx Assumed by HVS	\$8,414,670	\$24,111
Less: Year 1 Allocation Reserve for Replacement of 75%	\$402,864	\$1,154
Less: Year 2 Allocation Reserve for Replacement of 50%	\$294,139	\$843
Indicated Capital Deduction:	\$7,717,667	\$22,114
<b>Capital Deduction Rounded to:</b>	<b>\$7,700,000</b>	<b>\$22,100</b>



# "Superior" Unsustainable Management

	Subject	Subject
	2014/15	Stabilized \$ 2014/15
<b>Year:</b>	2014/15	2014/15
<b>Number of Rooms:</b>	349	349
<b>Days Open:</b>	365	365
<b>Occupancy:</b>	69.4%	70%
<b>Average Rate:</b>	\$120.05	\$126
<b>RevPAR:</b>	\$83.35	\$88
<b>REVENUE</b>		
Rooms	76.2 %	75.3 %
Food & Beverage	22.2	23.2
Other Operated Departments	0.0	0.0
Rentals & Other Income	1.6	1.5
Total	100.0	100.0
<b>DEPARTMENTAL EXPENSES*</b>		
Rooms	26.5	25.3
Food & Beverage	51.8	60.3
Other Operated Departments	3,631.1	7,522.8
Total	32.3	34.1
<b>DEPARTMENTAL INCOME</b>		
	67.7	65.9
<b>OPERATING EXPENSES</b>		
Administrative & General	9.8	9.3
Marketing	2.6	5.3
Franchise Fee	4.9	6.0
Property Operations & Maintenance	5.3	5.0
Utilities	5.9	5.6
Total	28.5	31.2
<b>HOUSE PROFIT</b>		
	39.2	34.7
Management Fee	3.0	3.0
<b>INCOME BEFORE FIXED CHARGES</b>		
	36.2	31.7

# Stabilized NOI After Cap Ex Projected to Be Lower Than Historical NOI

	Subject	Subject
	2014/15	Stabilized \$ 2014/15
<b>Year:</b>	<b>2014/15</b>	<b>2014/15</b>
<b>Number of Rooms:</b>	<b>349</b>	<b>349</b>
<b>Days Open:</b>	<b>365</b>	<b>365</b>
<b>Occupancy:</b>	<b>69.4%</b>	<b>70%</b>
<b>Average Rate:</b>	<b>\$120.05</b>	<b>\$126</b>
<b>RevPAR:</b>	<b>\$83.35</b>	<b>\$88</b>
<b>REVENUE</b>		
Rooms	\$30,423	\$32,170
Food & Beverage	8,850	9,895
Other Operated Departments	6	6
Rentals & Other Income	654	658
Total	39,934	42,729
<b>DEPARTMENTAL EXPENSES</b>		
Rooms	8,068	8,128
Food & Beverage	4,587	5,969
Other Operated Departments	230	480
Total	12,885	14,577
<b>DEPARTMENTAL INCOME</b>		
	27,048	28,152
<b>OPERATING EXPENSES</b>		
Administrative & General	3,933	3,990
Marketing	1,028	2,260
Franchise Fee	1,976	2,574
Property Operations & Maintenance	2,097	2,127
Utilities	2,359	2,392
Total	11,393	13,343
<b>HOUSE PROFIT</b>		
	15,655	14,809
Management Fee	1,206	1,282
<b>INCOME BEFORE FIXED CHARGES</b>		
	14,449	13,527



# Hotel Required to Undergo PIP With Branding Downgrade – No Upside in NOI

Year	Net Operating Income	Market Value "As Is"	Derived Capitalization Rate	Market Value With Capital Deduction (Total Investment)	Capitalization Rate On Total Investment
2014/15 Historical*	\$3,230,000	\$26,200,000	12.3 %	\$33,900,000	9.5 %
Forecast 2016/17	1,952,000	\$26,200,000	7.5	\$33,900,000	5.8
Deflated Stabilized (2016/17) Dollars	3,104,000	\$26,200,000	11.8 %	\$33,900,000	9.2

\*2014/15 historical net operating income has been adjusted to reflect a 3.0% management fee and a 4.0% reserve for replacement

# Hotel Valued at less than 35% of Replacement Cost New

*Continued*



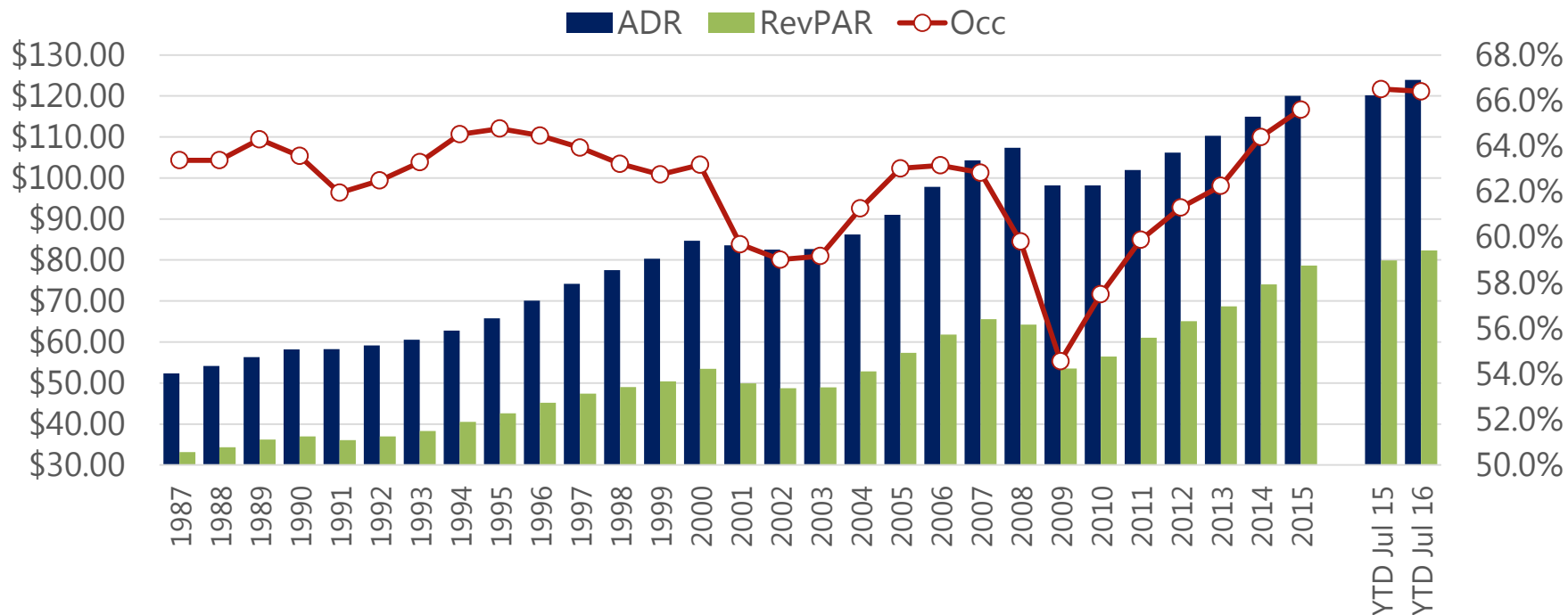
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\*2014/15 historical net operating income has been adjusted to reflect a 3.0% management fee and a 4.0% reserve for replacement

A photograph of a modern office reception area. In the foreground, a man in a maroon polo shirt and a woman with blonde hair are looking at a man in a dark suit who is standing behind a dark counter. To the right, a woman in a dark blazer is also behind the counter, looking towards the man in the suit. The background features a white wall with a doorway, a green rectangular light fixture, and a large vase of yellow orchids. The overall atmosphere is professional and collaborative.

# NATIONAL OPERATION TRENDS

# National Occupancy, Average Rate and RevPAR Exceeds Prior Peak



Source: STR





# Impact of Great Recession – Full Service Hotels

<u>Full Service Hotels</u>	<u>2007</u>	<u>2009</u>
<b>Occupancy</b>	70.0%	62.5%
<b>Avg. No. Rooms</b>	306	292
<b>Average Rate</b>	\$166.7	\$146.74
<b>RevPAR</b>	\$116.7	\$91.7
<b>% Change</b>		<b>-21%</b>
Revenue PAR	\$67,301	52,650
Expenses PAR	\$50,298	43,143
<b>NOI PAR</b>	<b>\$17,003</b>	<b>9,507</b>
<b>% change</b>		<b>-44%</b>
NOI %	25.3%	18.1%
<b>Multiple of NOI Change to RevPAR Change:</b>		<b>2.06 X</b>

# Full-Service Hotels Have Fully Recovered\*

## Illustration of Operating Leverage – Revenue and NOI Relationship

<b>Full Service Hotels</b>	<b>2007</b>	<b>2009</b>	<b>2014</b>
<b>Occupancy</b>	70.0%	62.5%	73.9%
<b>Avg. No. Rooms</b>	306	292	299
<b>Average Rate</b>	\$166.7	\$146.74	\$180.94
<b>RevPAR</b>	\$116.7	\$91.7	\$133.7
<b>% Change</b>		<b>-21%</b>	<b>46%</b>
Revenue PAR	\$67,301	52,650	74,975
Expenses PAR	\$50,298	43,143	55,911
NOI PAR	\$17,003	9,507	19,064
<b>% change</b>		<b>-44%</b>	<b>101%</b>
NOI %	25.3%	18.1%	25.4%
<b>Multiple of NOI Change to RevPAR Change:</b>		<b>2.06 X</b>	<b>2.19 X</b>

\*Source: STR Annual HOST Reports – Composite US Performance

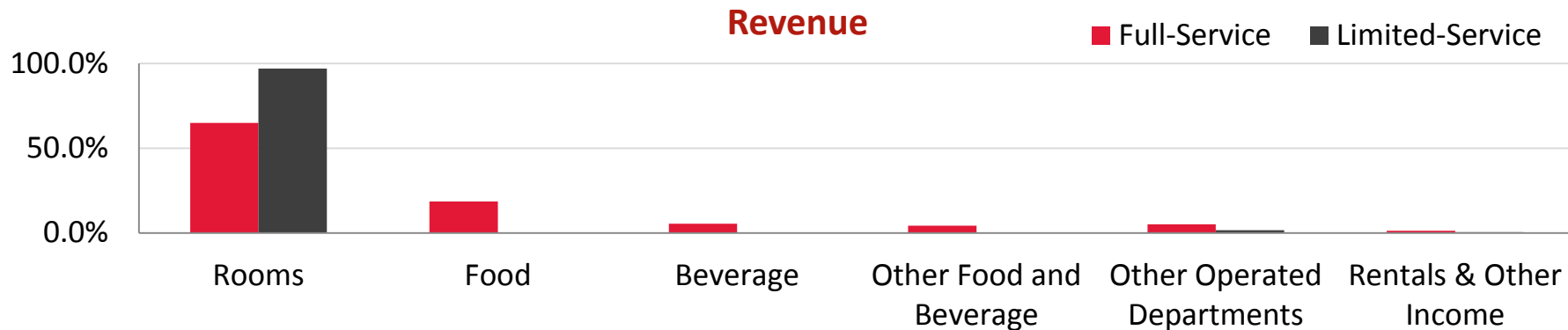
# Limited-Service Hotels Have Fully Recovered\*

## Illustration of Operating Leverage – Revenue and NOI Relationship

<u>Limited Service Hotels</u>	<u>2007</u>	<u>2009</u>	<u>2014</u>
<b>Occupancy</b>	69.2%	63.3%	74.2%
<b>Avg. No. Rooms</b>	117	113	116
<b>Average Rate</b>	\$94.94	\$85.26	\$102.45
<b>RevPAR</b>	\$65.70	\$53.97	\$76.01
<b>% Change</b>		<b>-18%</b>	<b>41%</b>
Revenue PAR	\$24,349	\$20,128	28,516
Expenses PAR	\$14,606	\$13,583	17,710
NOI PAR	\$9,743	\$6,545	10,806
<b>% Change</b>		<b>-33%</b>	<b>65%</b>
NOI %	40.0%	32.5%	37.9%
<b>Multiple of NOI Change to RevPAR Change:</b>		<b>1.84 X</b>	<b>1.59 X</b>

\*Source: STR Annual HOST Reports – Composite US Performance

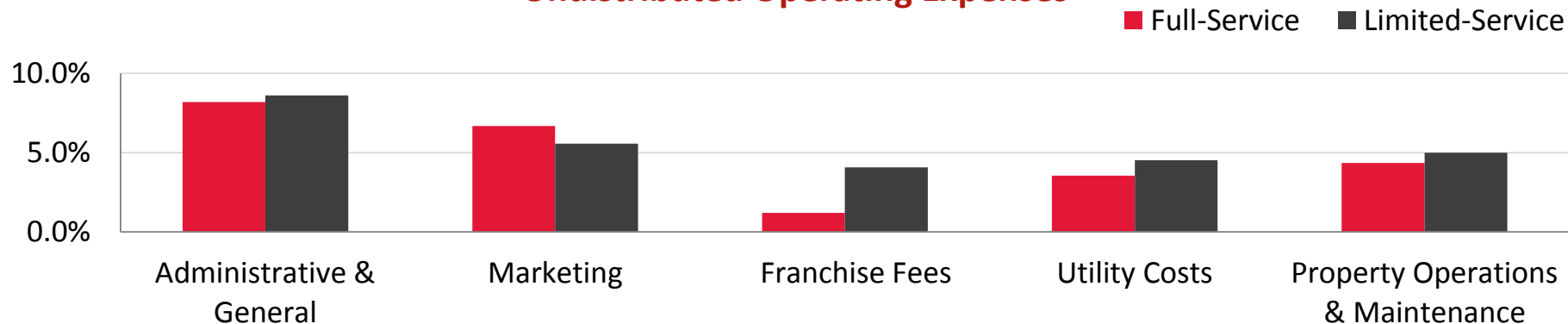
# Full-Service vs. Limited-Service Operating Ratios





# Full-Service vs. Limited-Service Operating Ratios

## Undistributed Operating Expenses

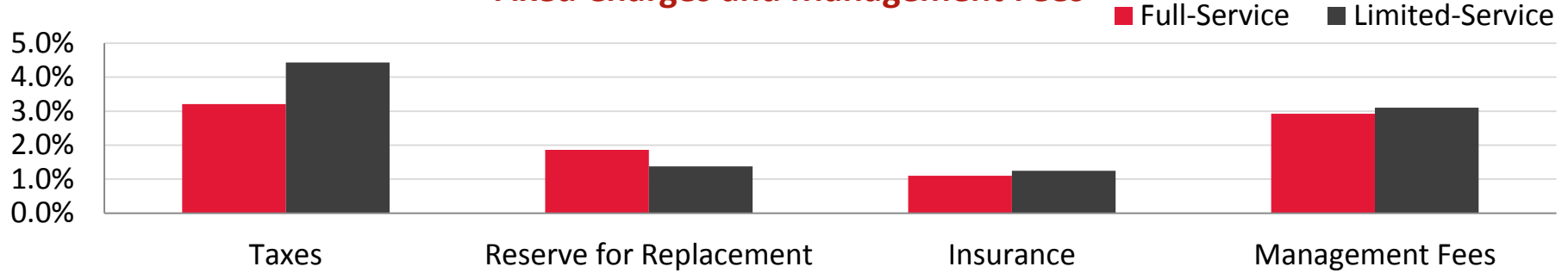


## Income Before Fixed Charges

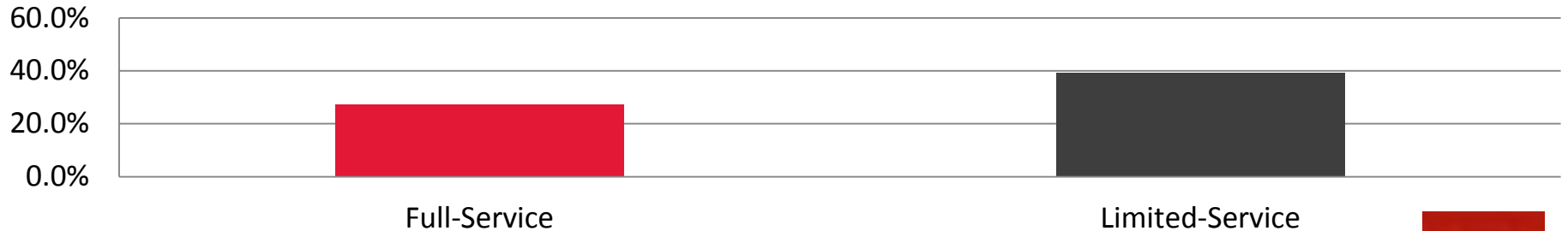


# Full-Service vs. Limited-Service Operating Ratios

## Fixed Charges and Management Fees

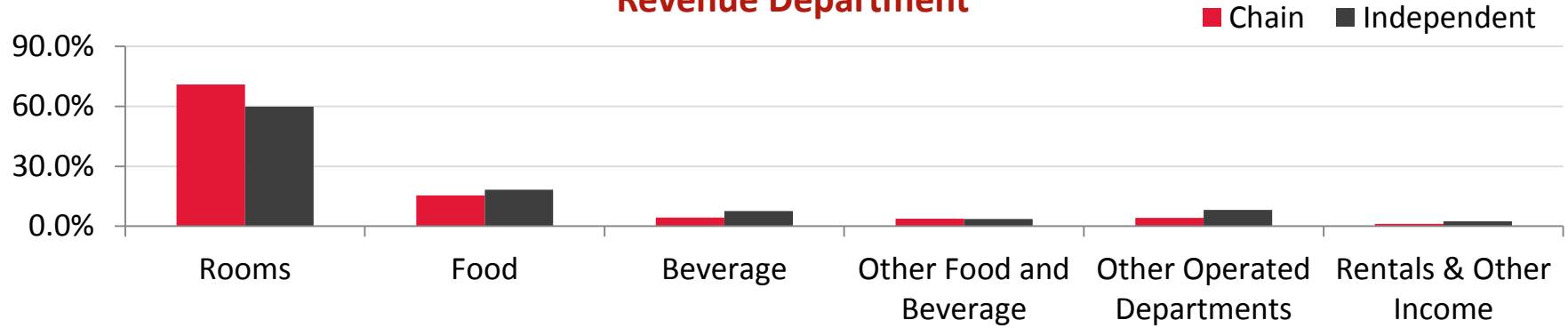


## Amount Available for Debt Service & Other Fixed Charges



# Chain-Affiliated vs. Independent Operating Ratios

## Revenue Department

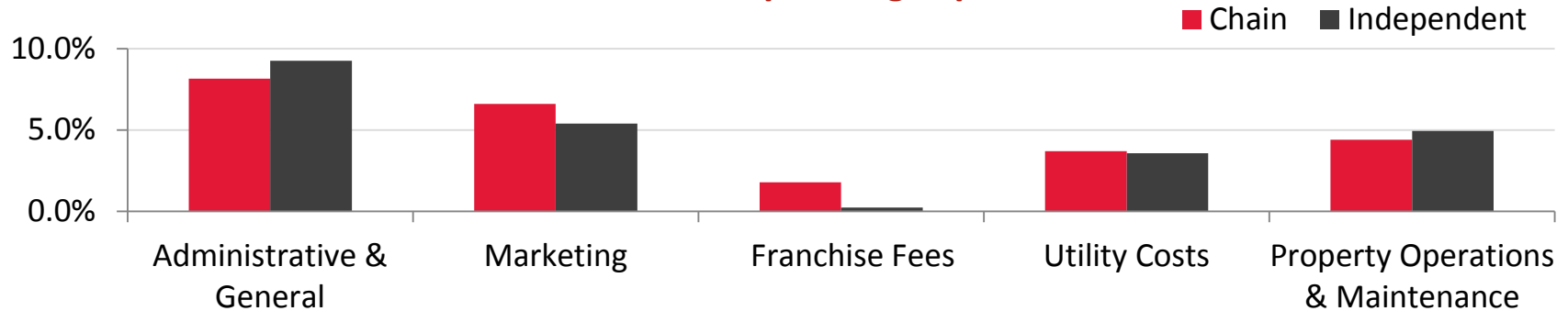


## Departmental Expenses



# Chain-Affiliated vs. Independent Operating Ratios

## Undistributed Operating Expenses



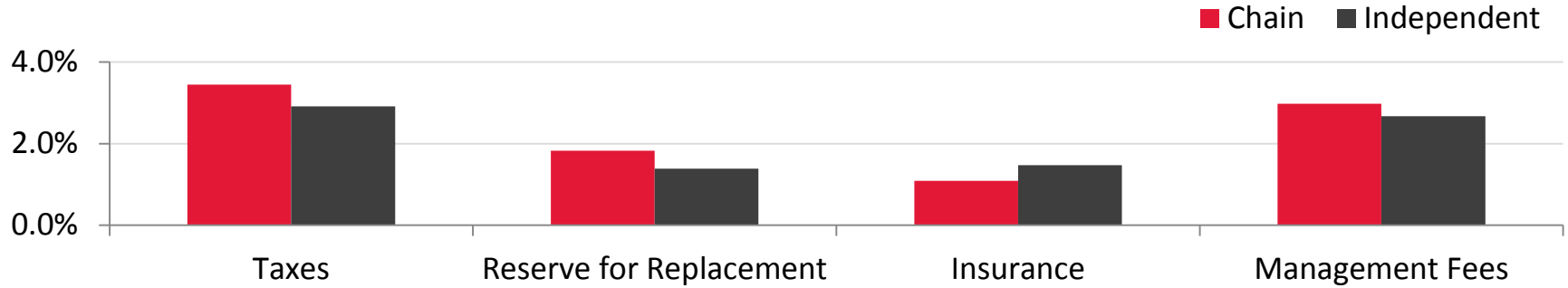
## Income Before Fixed Charges





# Chain-Affiliated vs. Independent Operating Ratios

## Fixed Charges and Management Fees



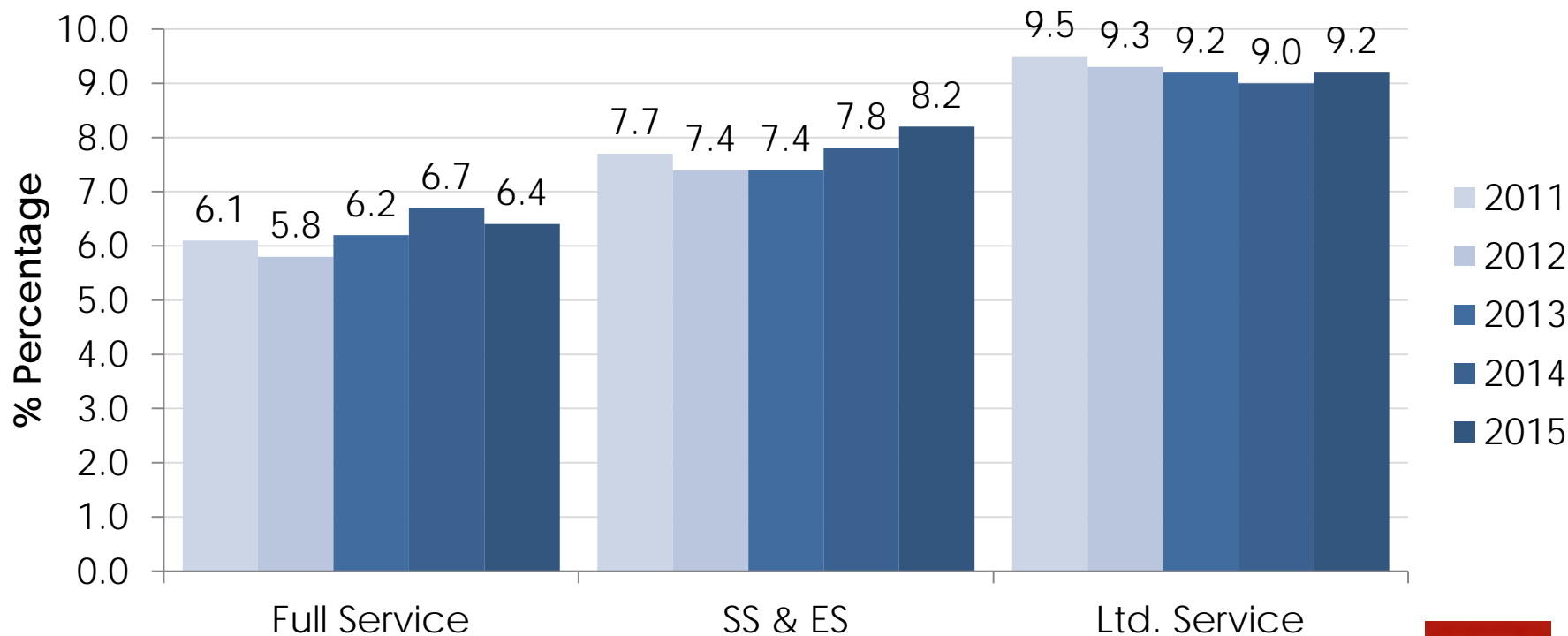
## Amount Available for Debt Service & Other Fixed Charges





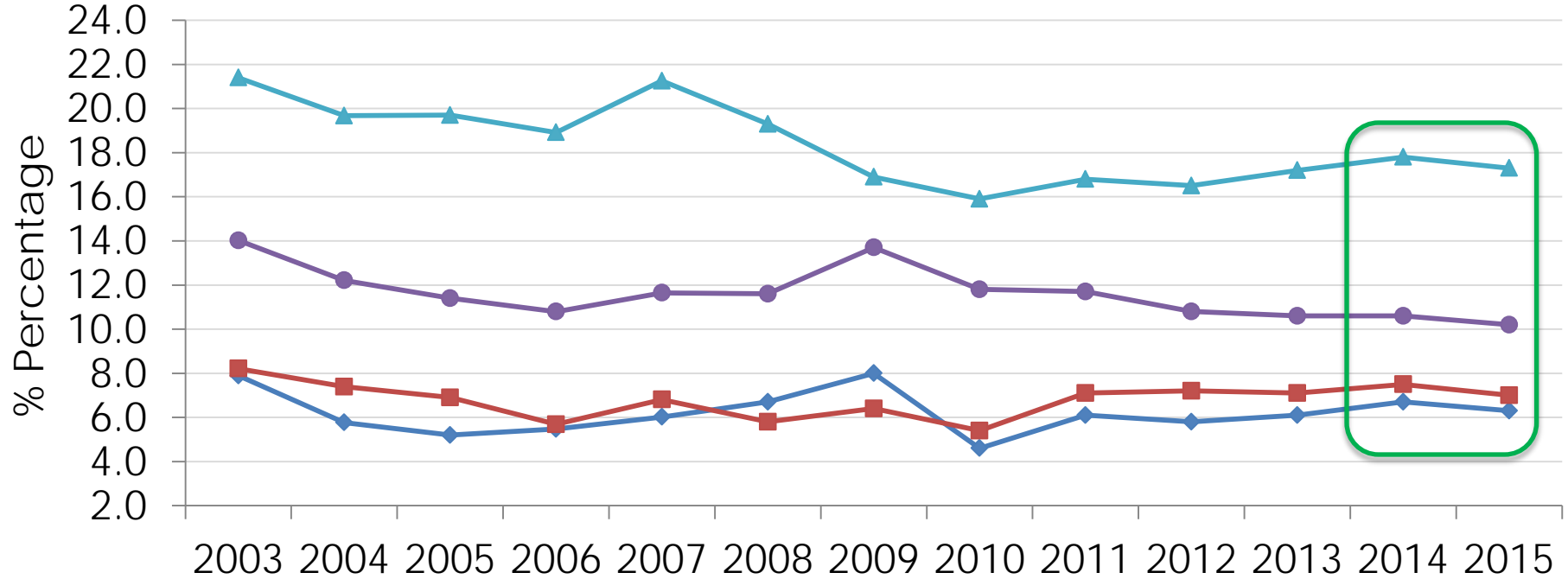
# CAPITALIZATION RATES

# Derived Cap Rates Steady (based on historical NOI)



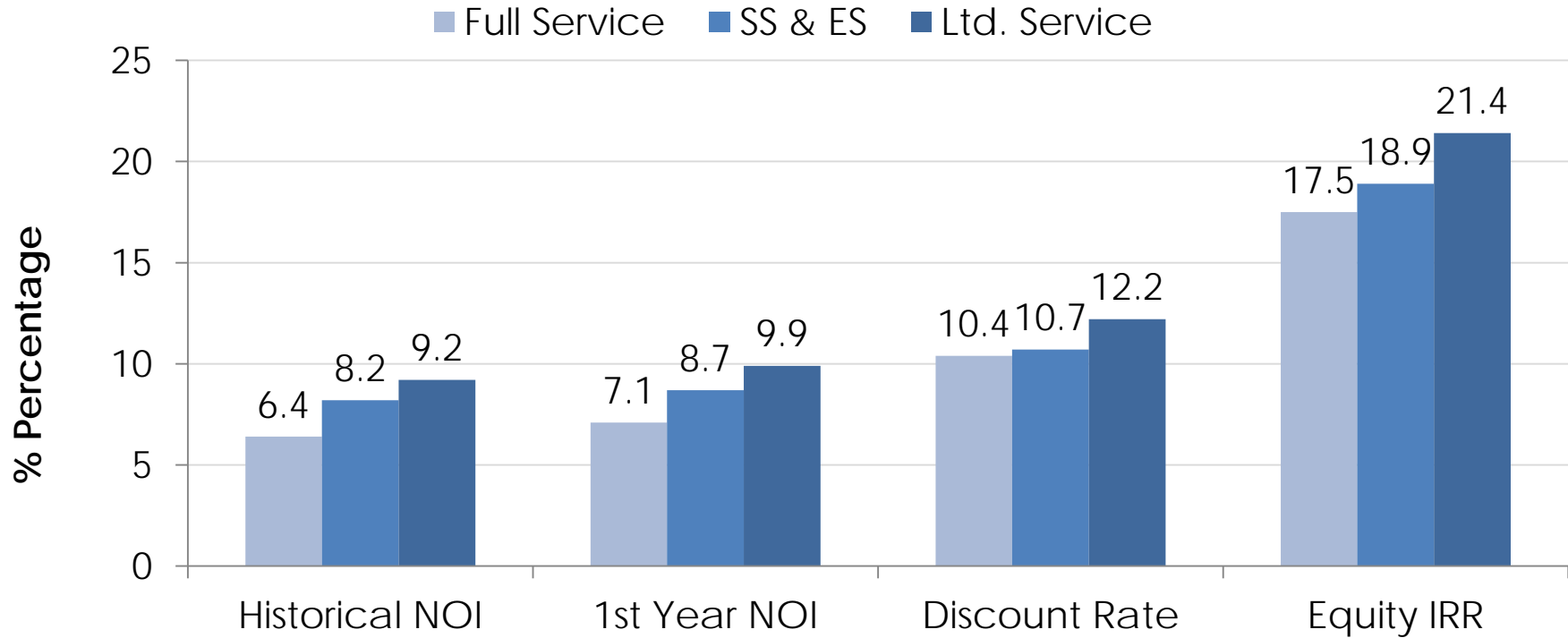
# Cap and Discount Rates – Derived from Sales

- ◆ Cap Rate based on Historical NOI
- Cap Rate based on 1st Yr. Projected NOI
- Unlevered Discount Rate
- ▲ Equity Yield





# 2015 Comparative Rates of Return



The two most seductive words  
in real estate vocabulary:

"MY HOTEL"

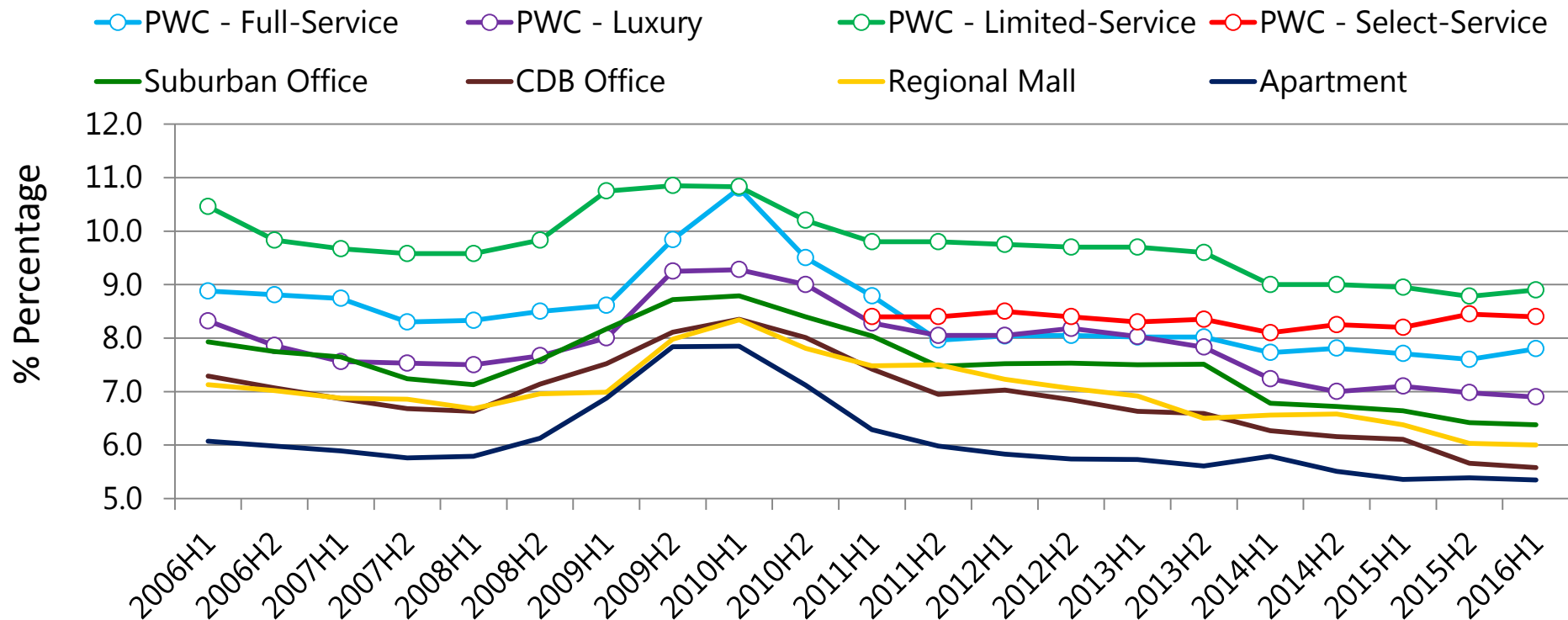


# Effects of the Oil Boom on Cap Rates

Property	Location	Sale Date	Price	Rooms	Price/Rm	Overall Cap	Year Opened
Holiday Inn Express Kenedy	Kenedy, TX	Jan-15	\$8,700,000	68	\$127,941	33.6%	2013
Comfort Inn Midland	Midland, TX	Nov-14	6,575,000	61	107,787	—	2014
La Quinta Inn & Suites Jourdanton	Jourdanton, TX	Oct-14	6,995,000	79	88,544	—	2013
Hampton Inn Cotulla	Cotulla, TX	Aug-14	9,990,000	73	136,849	23.1%	2013
Hampton Inn Pleasanton	Pleasanton, TX	Aug-14	8,900,000	63	141,270	25.1%	2012
La Quinta Inn & Suites Pearsall	Pearsall, TX	Aug-14	9,300,000	66	140,909	8.5%	2012
Great Val-U Inn Odessa	Odessa, TX	Jun-14	1,725,000	50	34,500	—	1994
Oakwood Suites Andrews	Andrews, TX	Jun-14	6,500,000	62	104,839	—	2013
Best Western Park Heights Inn & Suites	Cuero, TX	Apr-14	9,100,000	79	115,190	—	2010
Country Inn & Suites Midland	Midland, TX	Apr-14	6,650,000	66	100,758	—	2009
Holiday Inn Express Hotel & Suites Pearsall	Pearsall, TX	Apr-14	8,000,000	74	108,108	—	2012
Comfort Suites Pecos	Pecos, TX	Apr-14	6,375,000	58	109,914	—	2010
La Quinta Inn & Suites Port Arthur	Port Arthur, TX	Apr-14	4,627,500	63	73,452	—	2009
La Quinta Inn & Suites Hobbs	Hobbs, NM	Apr-14	6,750,000	68	99,265	—	2008
Hampton Inn Beeville	Beeville, TX	Dec-13	7,300,000	70	104,286	11.8%	2012
Baymont Inn & Suites Cotulla	Cotulla, TX	Oct-13	4,850,000	62	78,226	—	2012
La Quinta Inn & Suites Alice	Alice, TX	Oct-13	6,000,000	65	92,308	—	2008
Sleep Inn & Suites Hobbs	Hobbs, NM	Sep-13	6,500,000	67	97,015	—	2008
Baymont Inn & Suites Victoria	Victoria, TX	Sep-13	5,200,000	61	85,246	—	2011
Ramada Odessa	Odessa, TX	Aug-13	12,000,000	118	101,695	35.4%	1973
Best Western Park Heights Inn & Suites	Cuero, TX	Jun-13	8,750,000	79	110,759	—	2010
Country Inn & Suites Midland	Midland, TX	Apr-13	6,500,000	66	98,485	16.0%	2009
Candlewood Suites Victoria	Victoria, TX	Feb-13	9,500,000	82	115,854	25.0%	2009
Brentwood Inn & Suites Hobbs	Hobbs, NM	Jan-13	2,750,000	55	50,000	15.6%	1996
Country Inn & Suites Hobbs	Hobbs, NM	Jan-13	5,500,000	64	85,938	—	2008
Hilton Garden Inn Odessa	Odessa, TX	Aug-12	11,750,000	100	117,500	—	2010
Hampton Inn & Suites Center	Center, TX	Jul-12	6,335,000	66	95,985	—	2011
Comfort Inn Midland	Midland, TX	Jan-12	5,300,000	68	77,941	—	1997

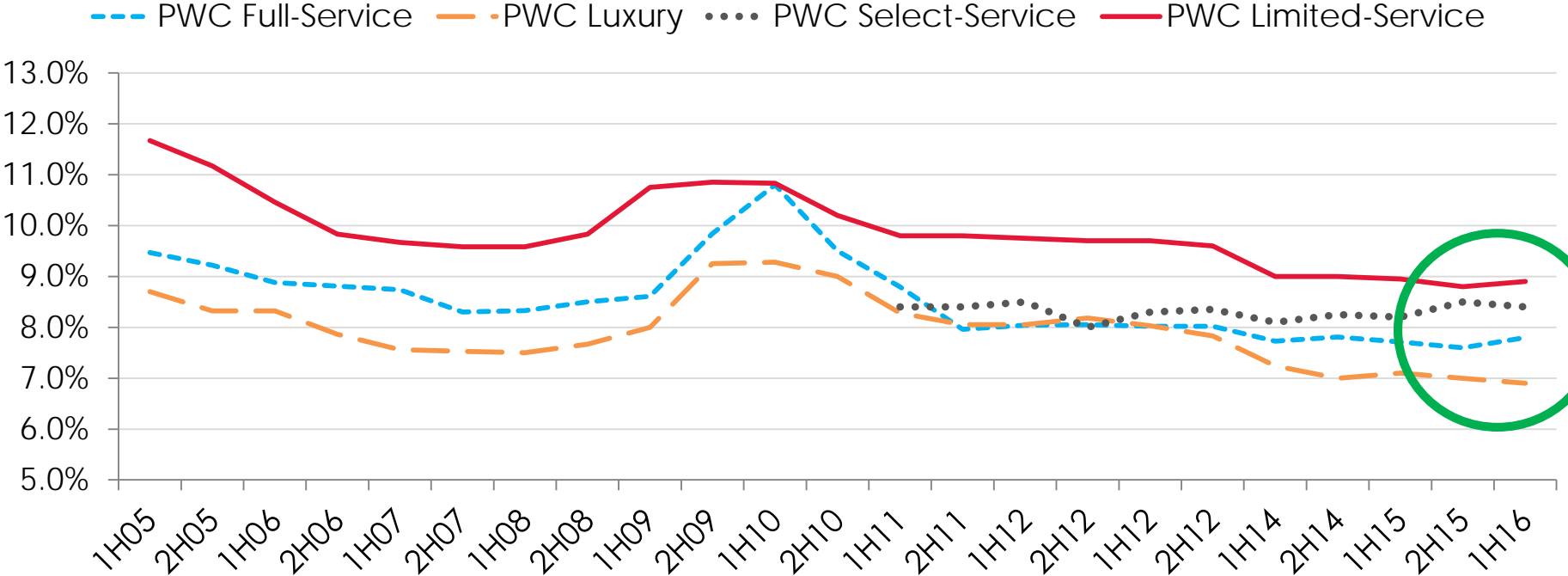
# Hotels Maintain Cap Rate Premium

## PWC Real Estate Investor Survey Cap Rates





# Cap Rates Extracted from Sales Relatively Stable



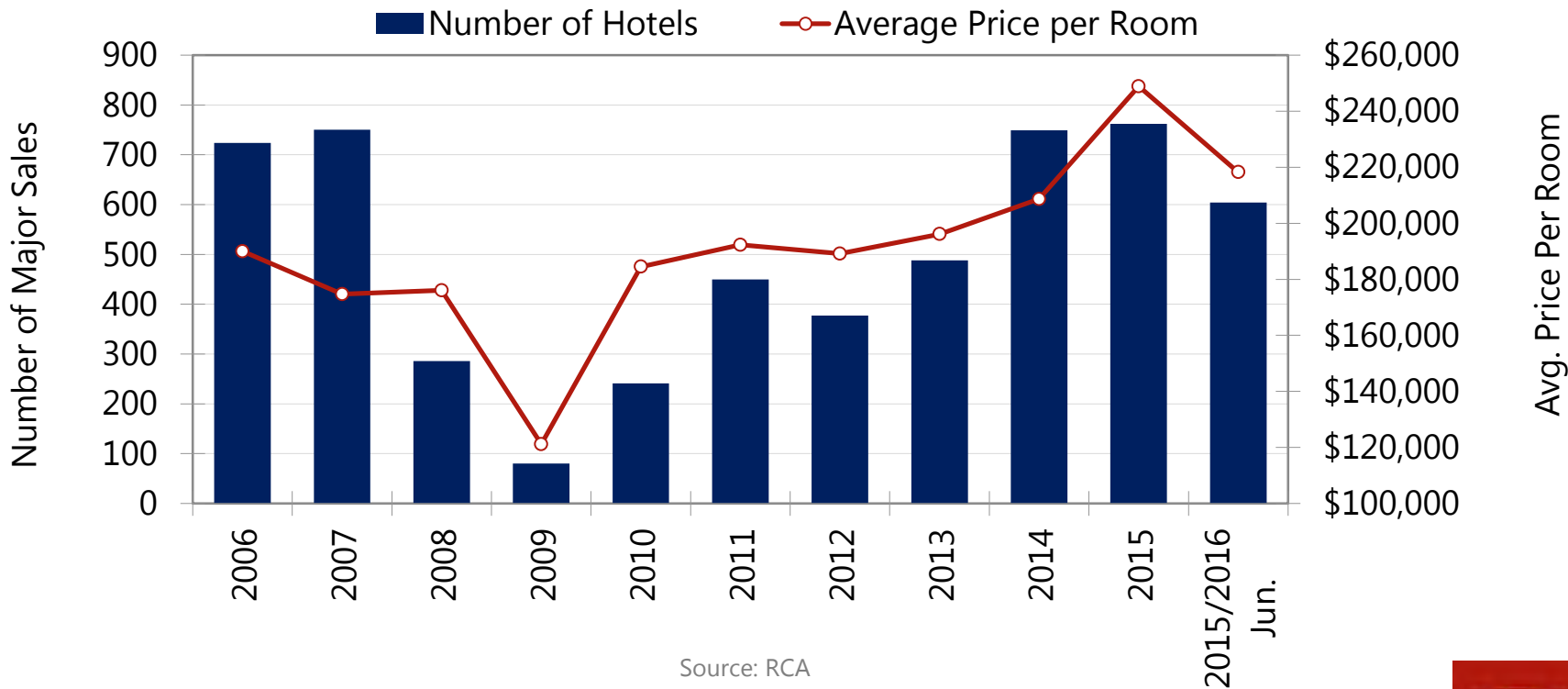
Source: PriceWaterhouseCoopers Real Estate Investor Survey





# NATIONAL TRANSACTIONS

# US Hotel Sales Transactions (Price > \$10 Million)



Source: RCA

# Sales Comparison Approach

## Sales of Older Full Service Hotels Can Provide Guidance

Elements of Comparison	Subject Property	Sale #1	Sale #2	Sale #3	Sale #4
		Hyatt Regency Fairfax, Fairfax, VA	Hilton Albany, Albany, NY	Hilton Woodcliff Lake, Woodcliff Lake, NJ	DoubleTree by Hilton Rochester, Rochester, NY
Sale Price		\$23,000,000	\$34,000,000	\$28,250,000	\$21,000,000
Number of Rooms	349	316	385	338	249
Price per Room		\$72,785	\$88,312	\$83,580	\$84,337
Year Open	1991	1989	1981	1980	1985
Date of Sale		October-15	March-15	September-14	June-14
<b>Adjustments for Transaction Characteristics (Per Room)</b>					
Property Rights Conveyed	Fee Simple	Fee Simple	Fee Simple, Leasehold	Fee Simple	Fee Simple
Adjustment		0.0 %	15.0 %	0.0 %	0.0 %
Adjusted Sales Price		72,785	101,558	83,580	84,337
Financing Terms		Cash Equivalent	Cash Equivalent	Cash Equivalent	Cash Equivalent
Adjustment		0.0 %	0.0 %	0.0 %	0.0 %
Adjusted Sales Price		72,785	101,558	83,580	84,337
Conditions of Sale		Normal	Normal	Normal	Normal
Adjustment		0.0 %	0.0 %	0.0 %	0.0 %
Adjusted Sales Price		72,785	101,558	83,580	84,337
Market Conditions		Similar	Similar	Inferior	Inferior
Adjustment		0.0 %	0.0 %	5.0 %	5.0 %
Adjusted Sales Price		72,785	101,558	87,759	88,554
Adjusted Price		\$72,785	\$101,558	\$87,759	\$88,554
<b>Adjustments for Property Characteristics</b>					
Location/Market		Similar	Similar	Similar	Similar
Adjustment		0.0 %	0.0 %	0.0 %	0.0 %
Physical Condition/Facilities		Similar	Superior	Inferior	Similar
Age and Building Configuration		0.0 %	10.0 %	10.0 %	0.0 %
Renovation Needs		0.0	(25.0)	0.0	0.0
Total Adjustment		0.0 %	(15.0) %	10.0 %	0.0 %
Other Revenue Sources		Similar	Similar	Superior	Similar
Adjustment		0.0 %	0.0 %	(10.0) %	0.0 %
Market Orientation (RevP/)	\$83.35	\$69.86	\$96.81	\$94.19	\$69.00
Adjustment		19.3 %	(13.9) %	(11.5) %	20.8 %
Cumulative Percentage Adjustment		19.3 %	(28.9) %	(11.5) %	20.8 %
Net Adjust. for Property Characteristics		14,058	(29,357)	(10,097)	18,420
Adjusted Price Per Room		\$86,843	\$72,202	\$77,662	\$106,974





# DEVELOPMENT COSTS

# Hotel Development Cost Survey – 2015/16

*Overview*

	Land	Building and Site Improvements	Soft Costs	FF&E	Pre-Opening and Working Capital	Total
<b>Budget/Economy Hotels</b>						
Average	\$10,900	\$57,100	\$7,800	\$10,200	\$1,600	\$91,200
% of Total*	12%	70%	8%	11%	2%	
<b>Midscale Hotels w/o F&amp;B</b>						
Average	\$31,000	\$77,000	\$20,200	\$14,800	\$3,500	\$152,900
% of Total*	12%	67%	10%	11%	3%	
<b>Extended-Stay Hotels</b>						
Average	\$20,200	\$83,600	\$17,100	\$15,900	\$3,200	\$147,800
% of Total*	11%	66%	10%	12%	2%	
<b>Midscale Hotels w/ F&amp;B</b>						
Average	\$39,700	\$117,600	\$29,400	\$17,000	\$6,600	\$201,300
% of Total*	15%	62%	13%	10%	3%	
<b>Full-Service Hotels</b>						
Average	\$45,700	\$154,900	\$13,000	\$28,300	\$13,600	\$330,900
% of Total*	11%	64%	12%	11%	3%	
<b>Luxury Hotels and Resorts</b>						
Average	\$116,600	\$294,500	\$85,900	\$51,000	\$22,900	\$633,400
% of Total*	18%	60%	14%	9%	4%	

Source: HVS

\*The percentage of total is calculated based on the total sample of all budgets.



# GOING CONCERN VALUE



# Going Concern - BEV

- BEV – Intangible Value
- Court decisions – Market Practice
- HVS – Rushmore Approach



# Going Concern

## Department of the Treasury

**Federal Register** / Vol. 75, No. 237 / Friday, December 10, 2010 / Notices

### **VIII. Minimum Appraisal Standards**

- *Be based upon the definition of market value set forth in the appraisal regulation.*

Each appraisal must contain an estimate of market value, as defined by the Agencies' appraisal regulations. The definition of market value assumes that the price is not affected by undue stimulus, which would allow the value of the real property to be increased by favorable financing or seller concessions. **Value opinions such as "going concern value," "value in use," or a special value to a specific property user may not be used as market value for federally related transactions.** An appraisal may contain separate opinions of such values so long as they are clearly identified and disclosed.

**Going Concern Value**—The value of a business entity rather than the value of the real property. The valuation is based on the existing operations of the business and its current operating record, with the assumption that the business will continue to operate.

# Widely Accepted Approach to Extracting Value of Intangibles

- Hotel valuation experts agree that the **value** of the **real property** can be readily **isolated** in the same manner employed by buyers and sellers, by **deducting**:
  - A **management fee** and **franchise fee** (business value)
  - The **value** of the **personal property** and a **reserve for replacement** of FF&E (return on and of)
- When surveyed, **hotel acquisition** professionals will tell you they are **buying real** and **personal property**
- Lodging REITS – 19 publicly traded
- The theory that **additional deductions** are necessary for starting up the going concern, **returns** on **operating expenses**, and **residual intangible value** due to concept of **CEP** is being **promulgated**

# GGP-Maine Mall LLC et al vs. City of South Portland (Maine)

N.Y. Sup. Ct. (Westchester Cty.), Docket No. 14267/98 (Mar. 15, 2004) (“BEV...is not persuasive because it places profits ahead of expenses in a normal sequence of business expenses”)); *In re Wolfchase Galleria Ltd. Partnership*, Tenn. State Bd. of Eq. (Shelby Cty. Mar. 16, 2005) (rejecting prior tax assessment decision on the grounds that Mr. Lennhoff’s BEV theory of subtracting intangible business assets is not endorsed by the Appraisal Institute, that BEV and TAB are “contrived academic constructs which have been developed to reduce hotel property taxes,” and that “buyers and sellers of regional malls do not acknowledge the existence of business enterprise value, but rather proponents of BEV are a very small, but highly vocal, minority of appraisers who are regularly involved in tax appeal cases and ...are papering academic journals with articles on the subject to create the impression that theirs is a widely held belief when it is not...”); *In re Appeal of Winston-Salem Joint Venture*, 551 S.E.2d 450 (N.C. Ct. App.

# GGP-Maine Mall LLC et al vs. City of South Portland (Maine)

40. The Board notes that other courts and tax authorities across the country have the same misgivings about the BEV and TAB valuation theories. See *RRI Acquisition Co., Inc. v. Supervisor of Assessments of Howard County*, 2006 WL 925212 (Md. Tax Ct. Feb. 10, 2006) (rejection of Mr. Lennhoff's BEV theory as to a hotel property as an "academic construct unsupported by the market"); *Chesapeake Hotel, LP v. Saddle Brook Township*, 22 N.J. Tax 525 (2005) (rejection of Mr. Lennhoff's BEV theory as to a hotel as "not persuasive either for theoretical or empirical reasons."); *Spring Hill, L.P. v Tennessee State Bd. of Equalization*, 2003 WL 23099679 (Tenn. Ct. App. Dec. 31, 2003)



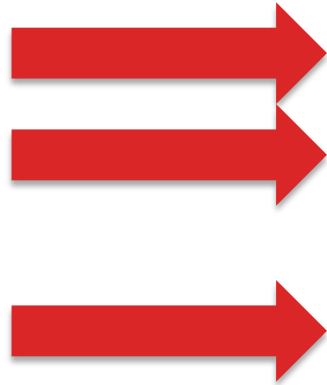
# Intangible Dispute – Rushmore Presentation Does Not Reflect True Brand and Management Expenses

	<b>Business Enterprise Approach</b>		<b>Rushmore Approach</b>	
Number of Rooms	221		221	
Occupancy	81%		81%	
Average Room Rate	\$128.10		\$128.10	
<b>Revenue</b>				
Rooms	\$8,369,881	68.5%	\$8,369,881	68.5%
Food and Beverage	\$3,347,952	27.4%	\$3,347,952	27.4%
Telecommunications	\$259,466	2.1%	\$259,466	2.1%
Other	<u>\$234,357</u>	<u>1.9%</u>	<u>\$234,357</u>	<u>1.9%</u>
Total Revenue	\$12,211,656	100.0%	\$12,211,656	100.0%
<b>Departmental Expenses</b>				
Rooms	\$2,176,169	26.0%	\$2,176,169	26.0%
Food and Beverage	\$2,678,362	80.0%	\$2,678,362	80.0%
Telecommunications	\$168,653	65.0%	\$168,653	65.0%
Other	<u>\$199,203</u>	<u>85.0%</u>	<u>\$199,203</u>	<u>85.0%</u>
Total Departmental Expenses	\$5,222,387	42.8%	\$5,222,387	42.8%
Departmental Profit	\$6,989,269	57.2%	\$6,989,269	57.2%

	<b>Business Enterprise Approach</b>		<b>Rushmore Approach</b>	
<b>Undistributed Expenses</b>				
General and Administrative	\$1,221,166	10.0%	\$1,221,166	10.0%
Operations & Maintenance	\$793,758	6.5%	\$793,758	6.5%
Utilities	\$488,466	4.0%	\$488,466	4.0%
Marketing	<u>\$781,546</u>	<u>6.4%</u>	<u>\$781,546</u>	<u>6.4%</u>
Total Undistributed Expenses	\$3,284,936	26.9%	\$3,284,936	26.9%
<b>Gross House Profit</b>	\$3,704,333	30.3%	\$3,704,333	30.3%
<b>Fixed Expenses</b>				
Insurance	\$175,000	1.4%	\$175,000	1.4%
Equipment Rental	<u>\$65,000</u>	<u>0.5%</u>	<u>\$65,000</u>	<u>0.5%</u>
Total Fixed Expenses	\$240,000	2.0%	\$240,000	2.0%
<b>Net Income Before Business and Personal Property Deductions</b>	\$3,464,333	28.4%	\$3,464,333	28.4%

# Hotel Financial Statements Reflect Deduction of “Intangible” Income/Value

**28% of Available  
Cash Flow to Brand  
and Management**



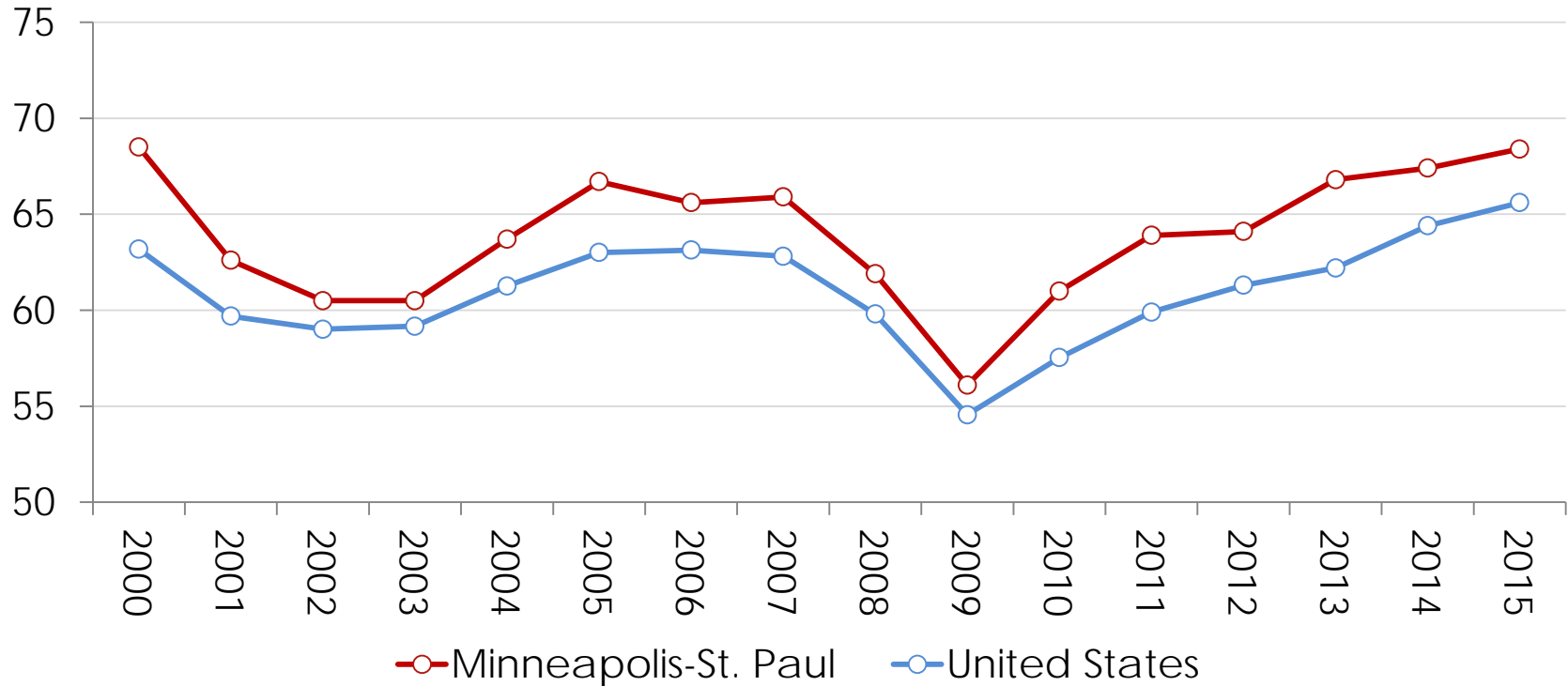
	2015		Calendar Year	
Number of Rooms:	119			
Paid Occupied Rooms:	28,310			
Days Open:	365			
Paid Occupancy:	65.2%			
Average Rate:	\$141.61	Percentage	Available	Amount
RevPAR:	\$92.30	of Revenue	Room	Occupied
				Room
<b>OPERATING REVENUE</b>				
Rooms	\$4,009	99.4 %	\$33,688	\$141.61
Other Operated Departments	14	0.3	114	0.48
Miscellaneous Income	9	0.2	74	0.31
Total Operating Revenue	4,031	100.0	33,877	142.40
<b>DEPARTMENTAL EXPENSES*</b>				
Rooms	783	19.5	6,576	27.64
Other Operated Departments	42	307.7	351	1.48
Total	824	20.4	6,927	29.12
<b>DEPARTMENTAL INCOME</b>				
	3,207	79.6	26,950	113.28
<b>UNDISTRIBUTED OPERATING EXPENSES</b>				
Administrative & General	437	10.8	3,675	15.45
Marketing	232	5.7	1,947	8.19
Franchise Fee	361	9.0	3,032	12.75
Prop. Operations & Maint.	238	5.9	1,997	8.39
Utilities	162	4.0	1,362	5.72
Total	1,430	35.5	12,013	50.50
<b>GROSS HOUSE PROFIT</b>				
	1,777	44.1	14,937	62.79
Management Fee	121	3.0	1,016	4.27
<b>INCOME BEFORE NON-OPER. INC. &amp; EXP.</b>				
	1,657	41.1	13,921	58.51
<b>NON-OPERATING INCOME AND EXPENSE</b>				
Property Taxes	219	5.4	1,838	7.73
Insurance	43	1.1	360	1.51
Total	262	6.5	2,197	9.24
<b>EBITDA LESS RESERVE</b>				
	\$1,395	34.6 %	\$11,724	\$49.27
<b>NOI adjusted to reflect a 3.0% mgmt fee and a 4.0% reserve</b>				
	\$1,234	30.6 %		

\*Departmental expenses are expressed as a percentage of departmental revenues.



# TWIN CITIES LODGING MARKET

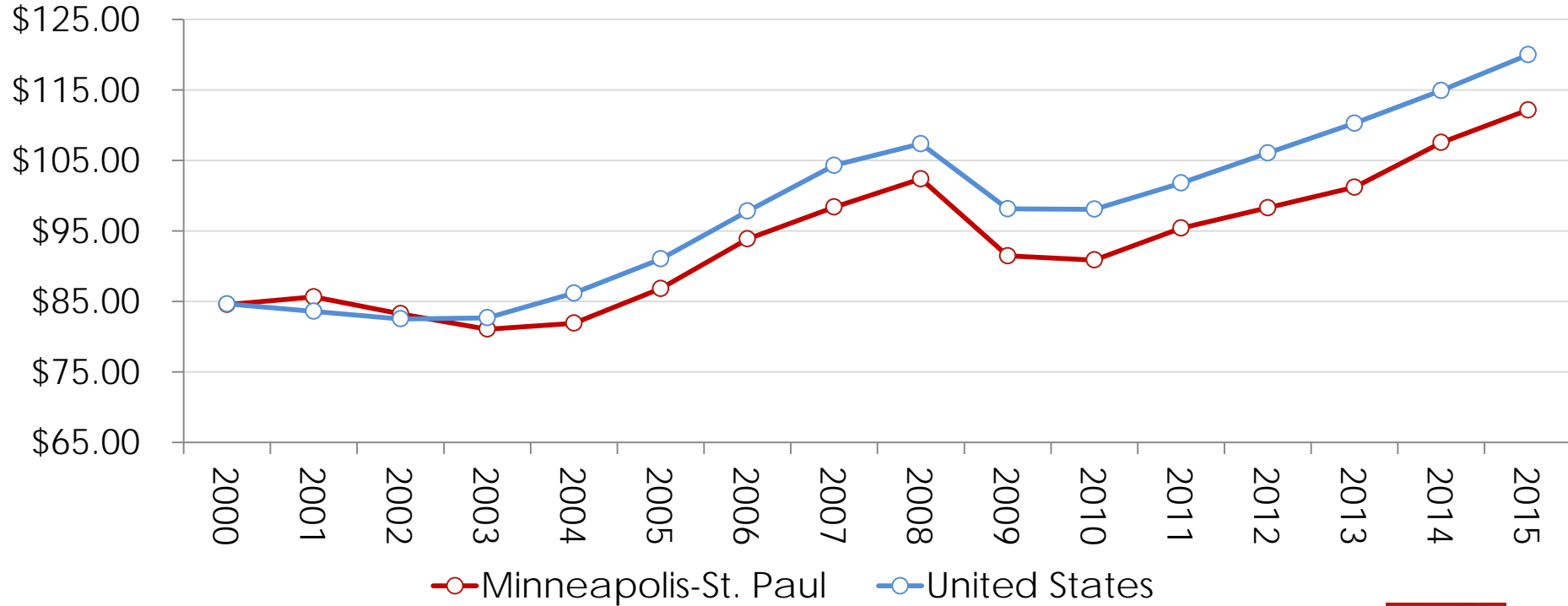
# Greater Minneapolis-St. Paul Market vs. United States Occupancy



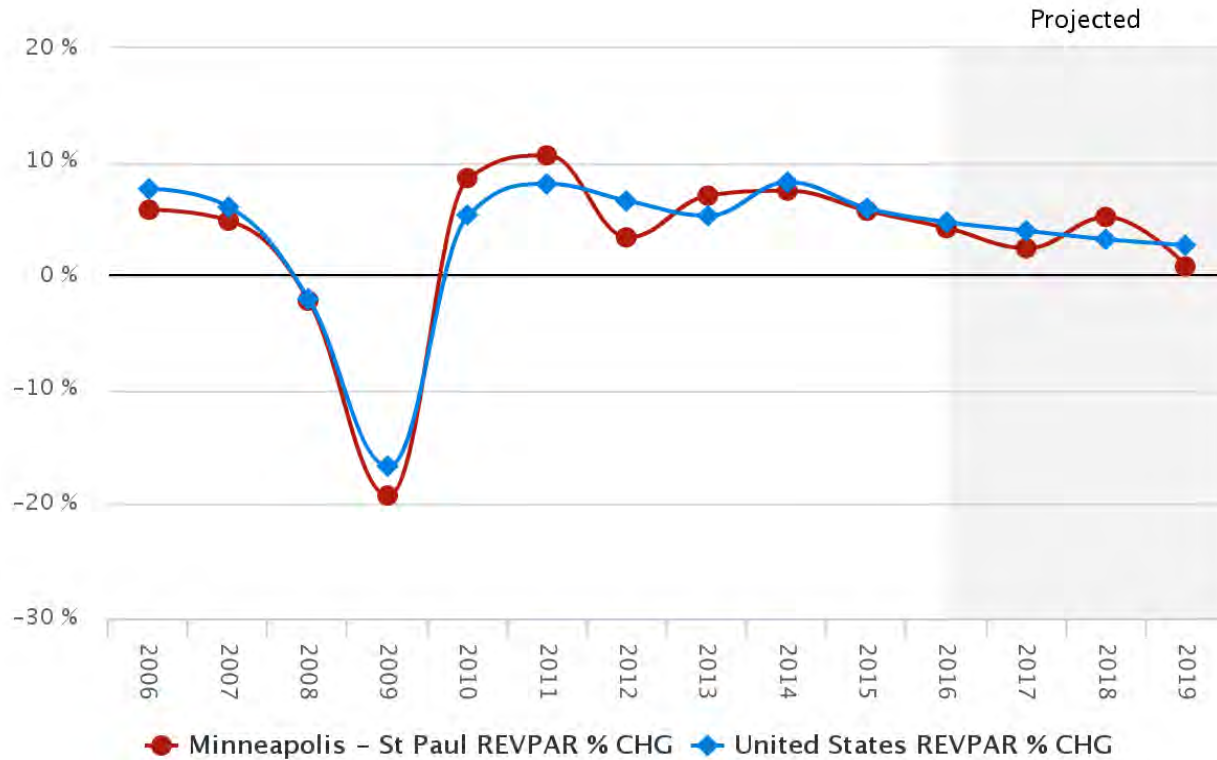
Source: STR



# Greater Minneapolis-St. Paul Market vs. United States – Average Rate



# Greater Minneapolis-St. Paul Metro Market vs. United States RevPAR Annual Change



# Minneapolis-St. Paul MSA 2015 & 2016 Transactions

*Overnight*

Property Name	City	Rm. Count	Date of Sale	Price Paid	Price Per Room
DoubleTree by Hilton Suites by Hilton Minneapolis	Minneapolis	228	Aug-16	\$38,400,000	\$168,421
Country Inn & Suites Coon Rapids	Coon Rapids	107	Aug-16	\$4,962,500	\$46,379
Hilton Minneapolis	Minneapolis	821	Jul-16	\$141,500,000	\$172,351
Holiday Inn Bloomington Airport Mall of America	Bloomington	171	Jul-16	\$14,250,000	\$83,333
Ramada Mall of America Airport	Bloomington	255	May-16	\$18,500,000	\$72,549
Best Western Plus Shakopee Inn	Shakopee	65	May-16	\$3,500,001	\$53,846
TownePlace Suites by Marriott Egan	Egan	94	Feb-16	\$7,777,942	\$82,744
Marquette Hotel Minneapolis	Minneapolis	281	Feb-16	\$74,500,000	\$265,125
Home2 Suites by Hilton Minneapolis Bloomington	Bloomington	107	Jan-16	\$12,671,966	\$118,430
AmericInn Hotel & Suites Apple Valley	Apple Valley	63	Dec-15	\$2,790,000	\$44,286
W Minneapolis The Foshay	Minneapolis	229	Nov-15	\$86,000,000	\$375,546
DoubleTree by Hilton Park Place Minneapolis	Saint Louis Park	297	Oct-15	\$37,325,500	\$125,675
Holiday Inn Express Roseville Saint Paul	Roseville	119	Sep-15	\$8,300,000	\$70,339
Country Inn & Suites Egan	Egan	77	Jul-15	\$3,750,000	\$48,701
Residence Inn Minneapolis Saint Paul Airport	Egan	120	Jul-15	\$11,500,000	\$95,833
Le Meridien Chambers Hotel Minneapolis	Minneapolis	60	Jul-15	\$15,000,000	\$250,000
Holiday Inn Bloomington Airport Mall of America	Bloomington	171	Jun-15	\$10,000,000	\$58,480
Holiday Inn Express & Suites Egan	Egan	120	May-15	\$3,900,000	\$32,500
Four Points Minneapolis Airport	Richfield	146	May-15	\$12,500,000	\$85,616
Holiday Inn Express Woodbury	Woodbury	100	May-15	\$8,500,000	\$83,333
Hampton Inn & Suites Minneapolis Downtown	Minneapolis	211	Apr-15	\$39,000,000	\$184,834
Comfort Inn Airport Bloomington	Bloomington	273	Mar-15	\$8,000,000	\$29,304
Westin Minneapolis	Minneapolis	214	Feb-15	\$67,379,667	\$314,858
Country Inn & Suites Saint Paul East	Woodbury	99	Jan-15	\$5,250,000	\$33,228
Crowne Plaza Minneapolis Airport Mall of America	Bloomington	430	Jan-15	\$30,000,000	\$69,767
<b>Total/Average</b>		<b>4,858</b>		<b>\$665,257,576</b>	<b>\$136,941</b>

Source: RCA, 2016

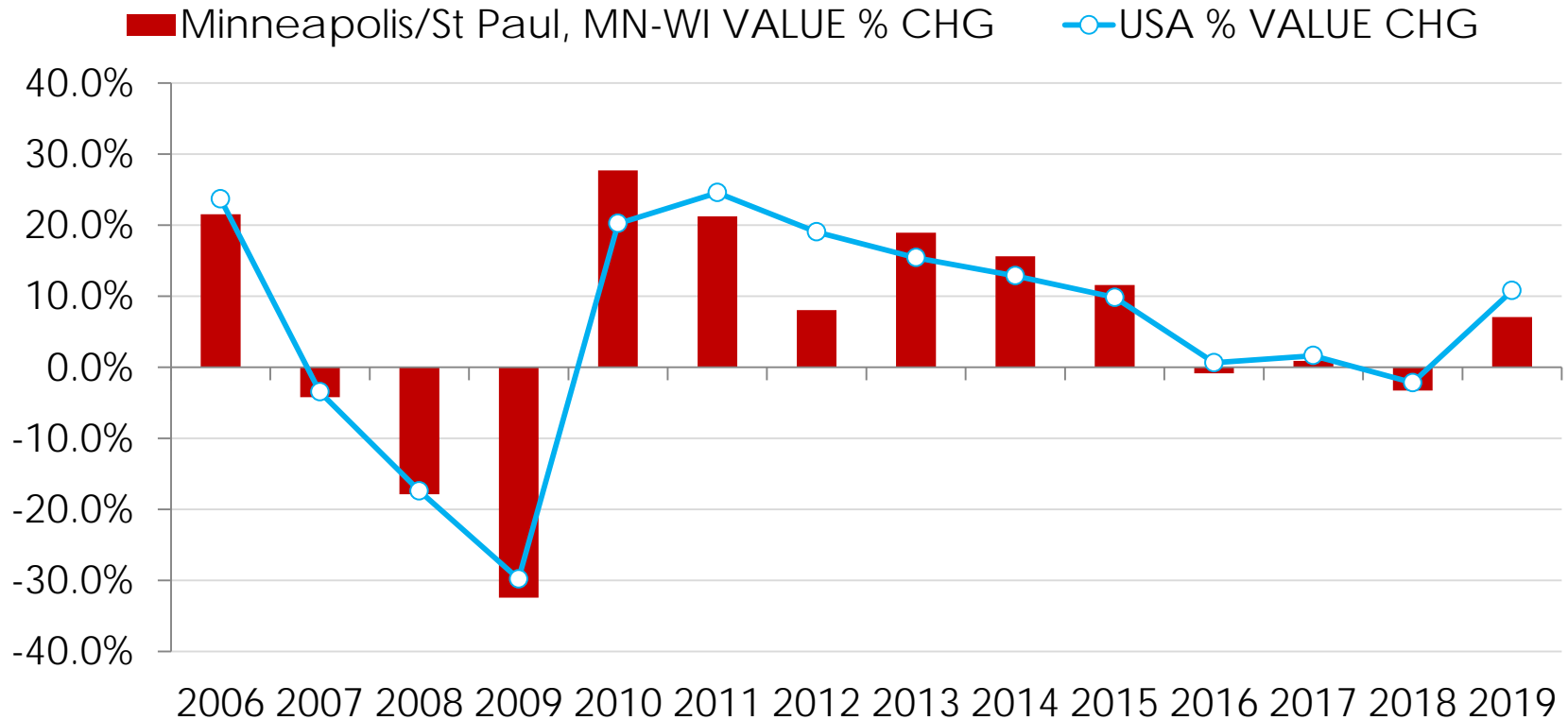
A yellow diamond-shaped warning sign with a black border, featuring the text "CHANGE AHEAD" in bold, black, sans-serif capital letters. The sign is set against a blue background.

**CHANGE  
AHEAD**

HOTEL VALUE EXPECTATIONS

# Minneapolis-St. Paul's Values Expected to Decline

*Overview*





**ANY QUESTIONS?**





# Thank you!

Tanya Pierson, MAI  
Managing Director

HVS Consulting & Valuation  
tpierson@hvs.com | (303) 588-6558

**Superior results through unrivalled hospitality intelligence. *Everywhere***

2500 AVE

Country Ln

# APPRAISING GRAIN ELEVATORS

Clay M. Dodd, MAI, ASA

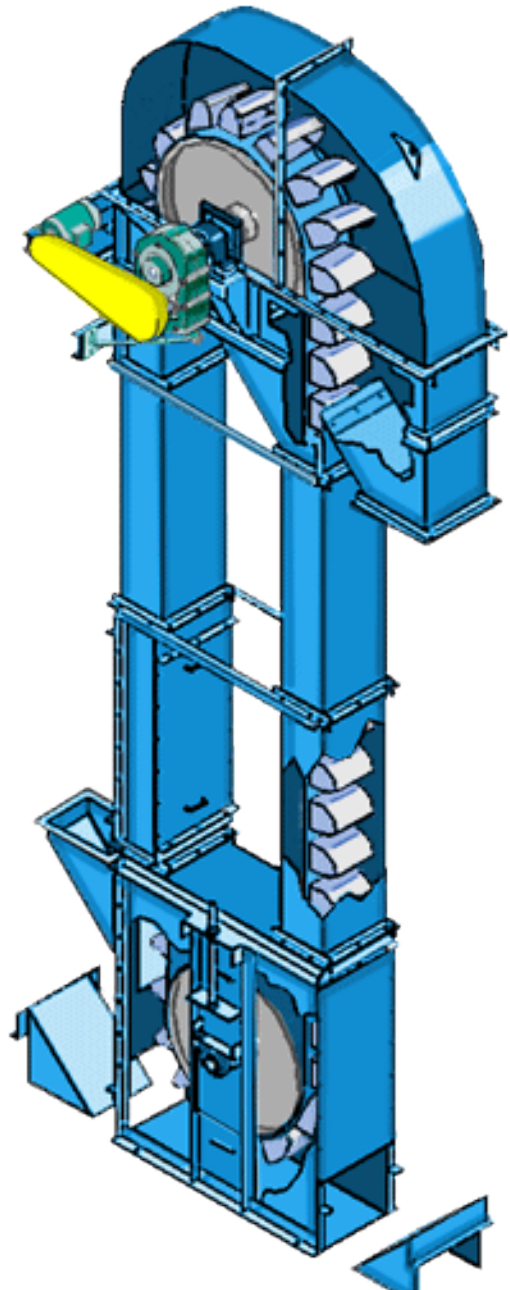
September 27, 2016



# Grain Elevators

Why do we call these facilities “Elevators”

- Comes from the term “to elevate”
- Grain is elevated to the top of a bin or silo
- A type of vertical conveyor is used
  - Commonly known as a “bucket elevator”
  - Often referred to as an “elevator leg”
  - Or simply as a “leg”



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**Elevator  
Head**

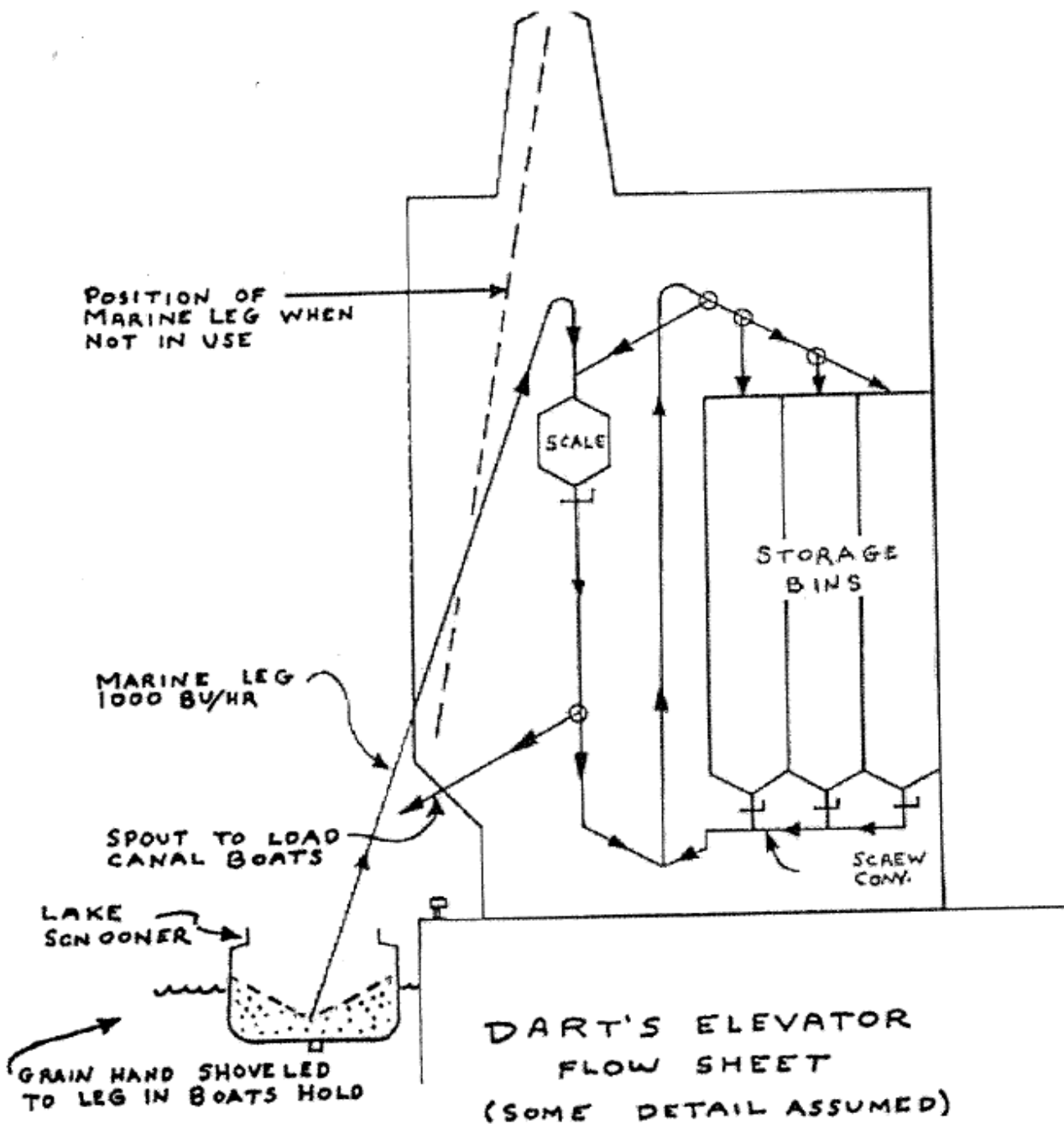


**Elevator  
Boot**



# Bucket Elevator

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**DART'S ELEVATOR  
FLOW SHEET  
(SOME DETAIL ASSUMED)**

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# ... more Ancient History

- Dart did not completely retire the sack.
- Elevator invented in Buffalo, NY – perfected in Chicago, IL
- CBOT created grain grading system in 1857.
  - Grains of same grade became fungible.
  - Grain could be co-mingled in bulk.

# Broad Categories of Elevators

- Commercial Elevators
  - Merchandizing Elevators
- Processing Elevators
  - Integrated part of a processing plant
  - Captive Elevator
- On-Farm Elevators





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# Purpose of An Elevator

- Facilitate movement from farm to end use
- Store grain until it's needed



## US Grain stats (average of last three years):

- 14.00 ± billion bushels of corn
  - 3.75 ± billion bushels of soybean
  - 2.07 ± billion bushels of wheat
  - 20.75 ± billion bushels of all grain
- 
- 5.0 ± billion bushels of corn for ethanol
  - 5.0 ± billion bushels of corn for feed
  - 4.1 ± billion bushels of grain exports
  - 950 million bushels of wheat to flour

# Purpose of An Elevator

- Facilitate movement from farm to end use
- Store grain until it's needed
- Provide a market for grain
- Segregate grain by physical characteristics
- Keep grain in condition

# Types of Elevators

## *A LOOK BACK*

Elevators of the earlier era

- Heavily regulated surface transportation
  - Railroads - ICC Act of 1887
  - Trucking - Motor Carriers Act of 1935
- Deregulation of Transportation Industries
  - Staggers Rail Act of 1980
  - Motor Carrier Act of 1980

# Types of Elevators

## *A LOOK BACK*

- Urban Terminals
- Country Elevators
  - Origin Elevators
- Subterminals
- Export Elevators
- River Elevators

*Also a Local Market*

# Types of Elevators

## *TODAY*

- Country Elevators
  - Truck only
  - Generally smaller rail sidings
- Rail Terminals
  - Unit train
  - Shuttle loaders
  - Tend to be origin elevators





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# Types of Elevators

## *TODAY*

- Country Elevators
  - Truck only
  - Rail – generally smaller sidings
- Rail Terminals
  - Unit train
  - Shuttle loaders
- River Elevators

# The Inland Waterway System

224 Mileage Between Cities  
 3 Number of Locks





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# Types of Elevators

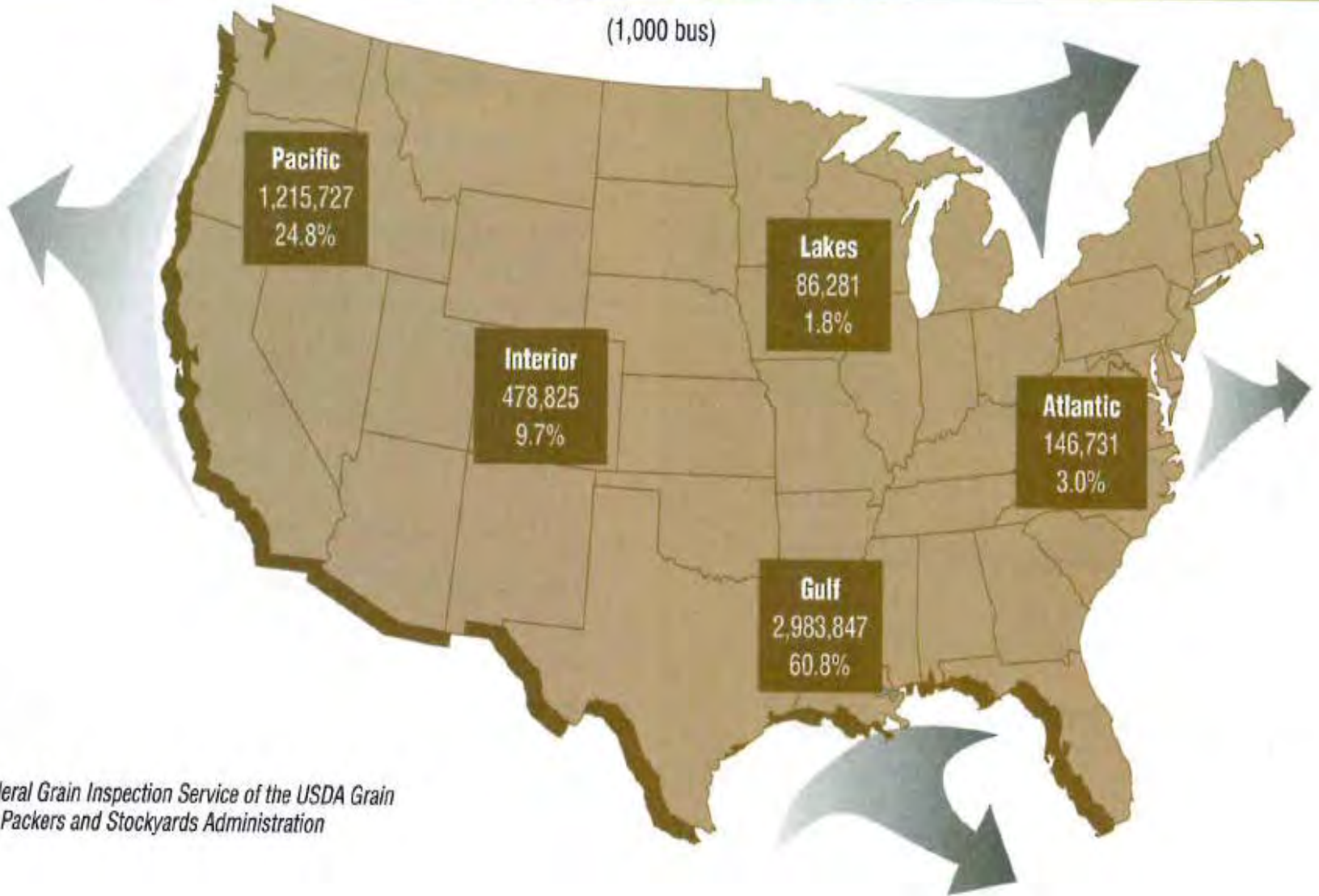
## *TODAY*

- Country Elevators
  - Truck only
  - Rail – generally smaller sidings
- Rail Terminals
  - Unit train
  - Shuttle loaders
- River Elevators
- Port Elevators



## U.S. Grain exports by port areas, 2014

(1,000 bus)



Source: Federal Grain Inspection Service of the USDA Grain Inspection, Packers and Stockyards Administration

# Types of Elevators

## *TODAY*

- Country Elevators
  - Truck only
  - Rail – generally smaller sidings
- Rail Terminals
  - Unit train
  - Shuttle loaders
- River Elevators
- Port Elevators
- **Urban Terminals**

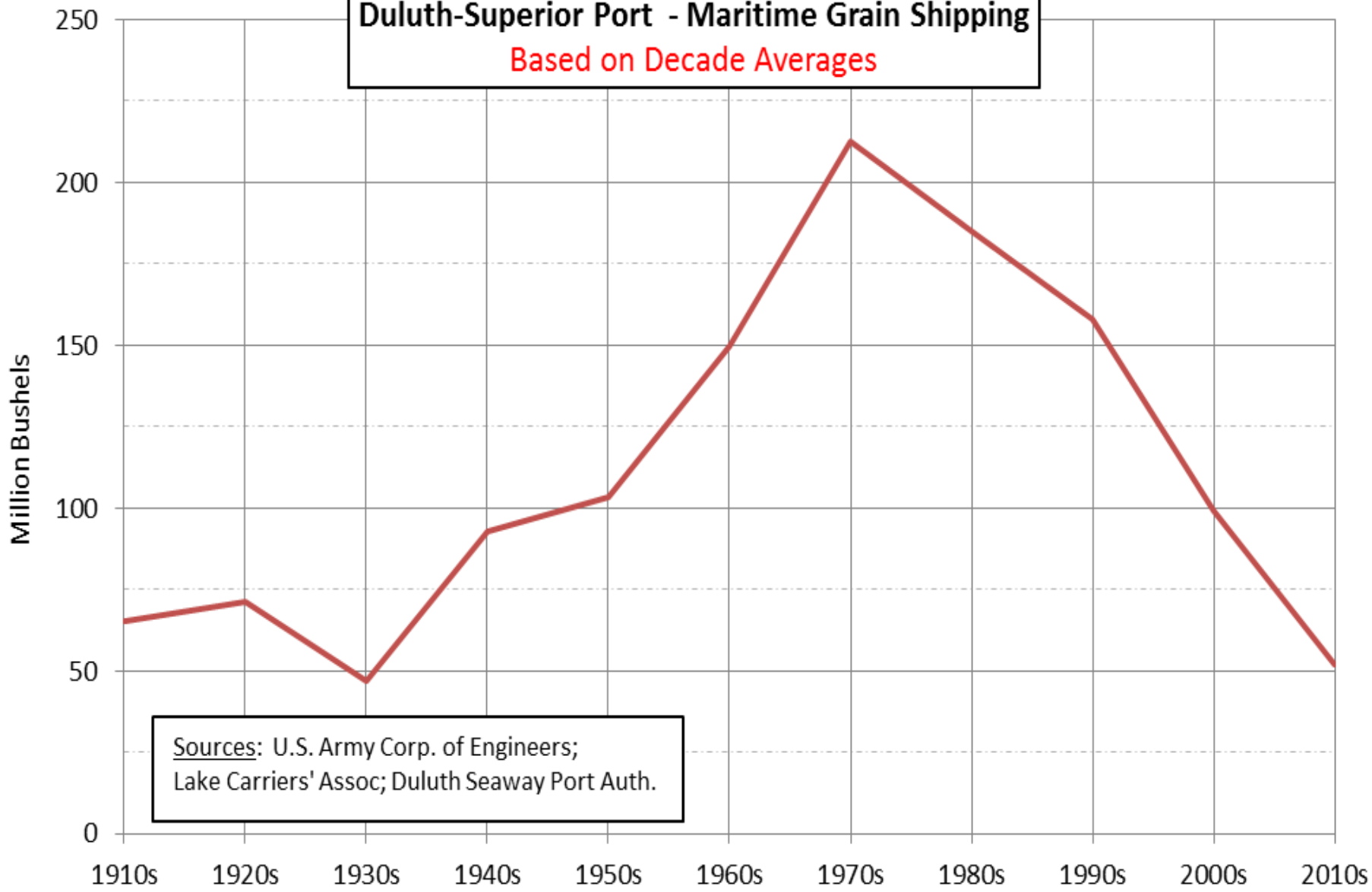
# Minneapolis / St. Paul

- **1922**  
65 Elevators                      55,195,000 bushels
- **1955**  
69 Elevators                      115,881,500 bushels
- **1985**  
26 Elevators                      78,833,000 bushels
- **1999**  
13 Elevators                      39,293,000 bushels
- **2015**  
10 Elevators                      22,458,000 bushels
- **2016**  
8 Elevators                      16,680,000 bushels  
-14.4% of 1955

# TRANSPORTATION CASE STUDY

- Great Lake Port Elevators
  - Among the earliest export facilities
- St. Lawrence Seaway – completed 1959
- 26-foot draft (depth)
  - No longer Competitive

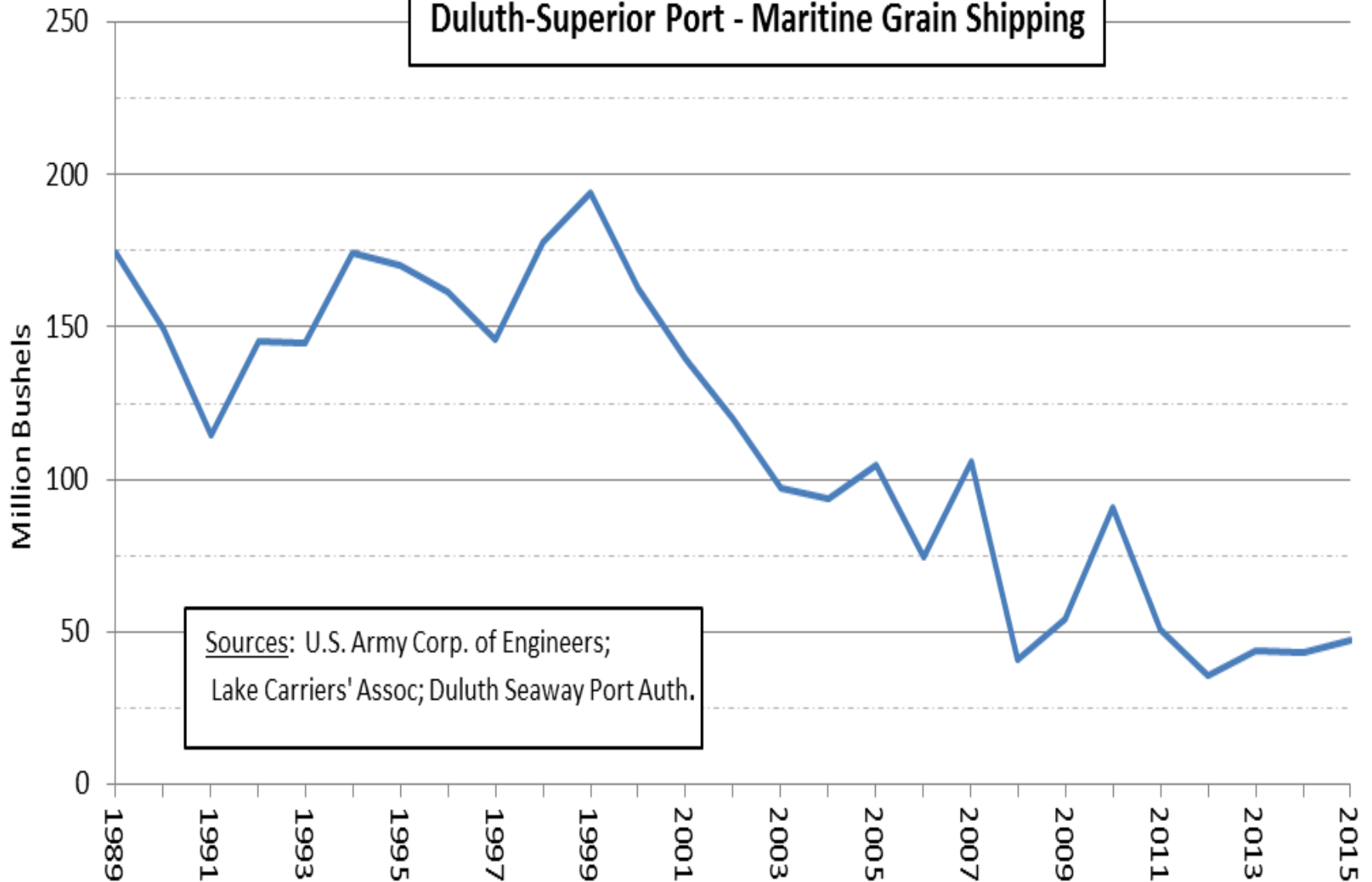
**Duluth-Superior Port - Maritime Grain Shipping**  
Based on Decade Averages



Sources: U.S. Army Corp. of Engineers;  
Lake Carriers' Assoc; Duluth Seaway Port Auth.



# Duluth-Superior Port - Maritime Grain Shipping

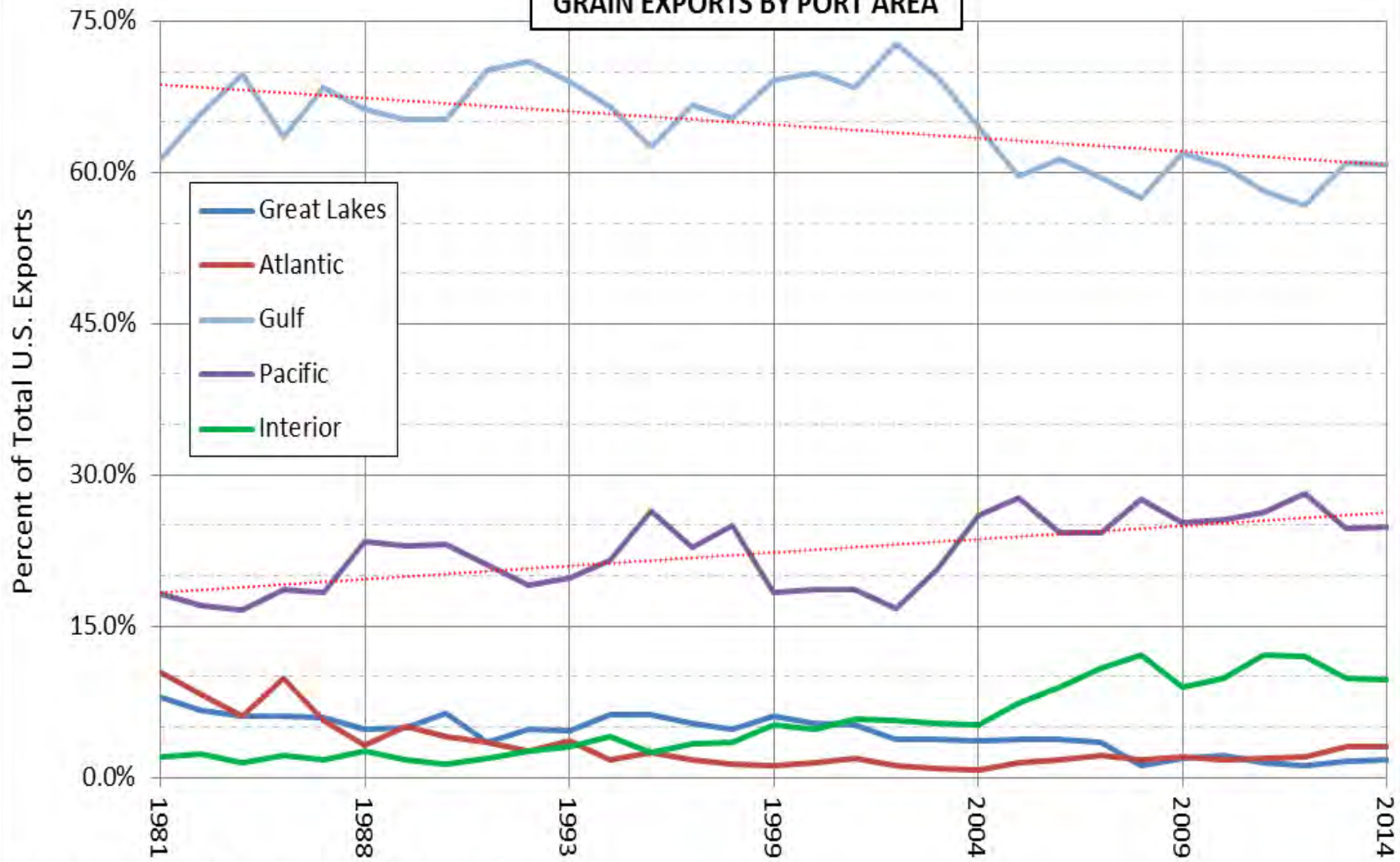


Sources: U.S. Army Corp. of Engineers;  
Lake Carriers' Assoc; Duluth Seaway Port Auth.

# Changing Export Patterns

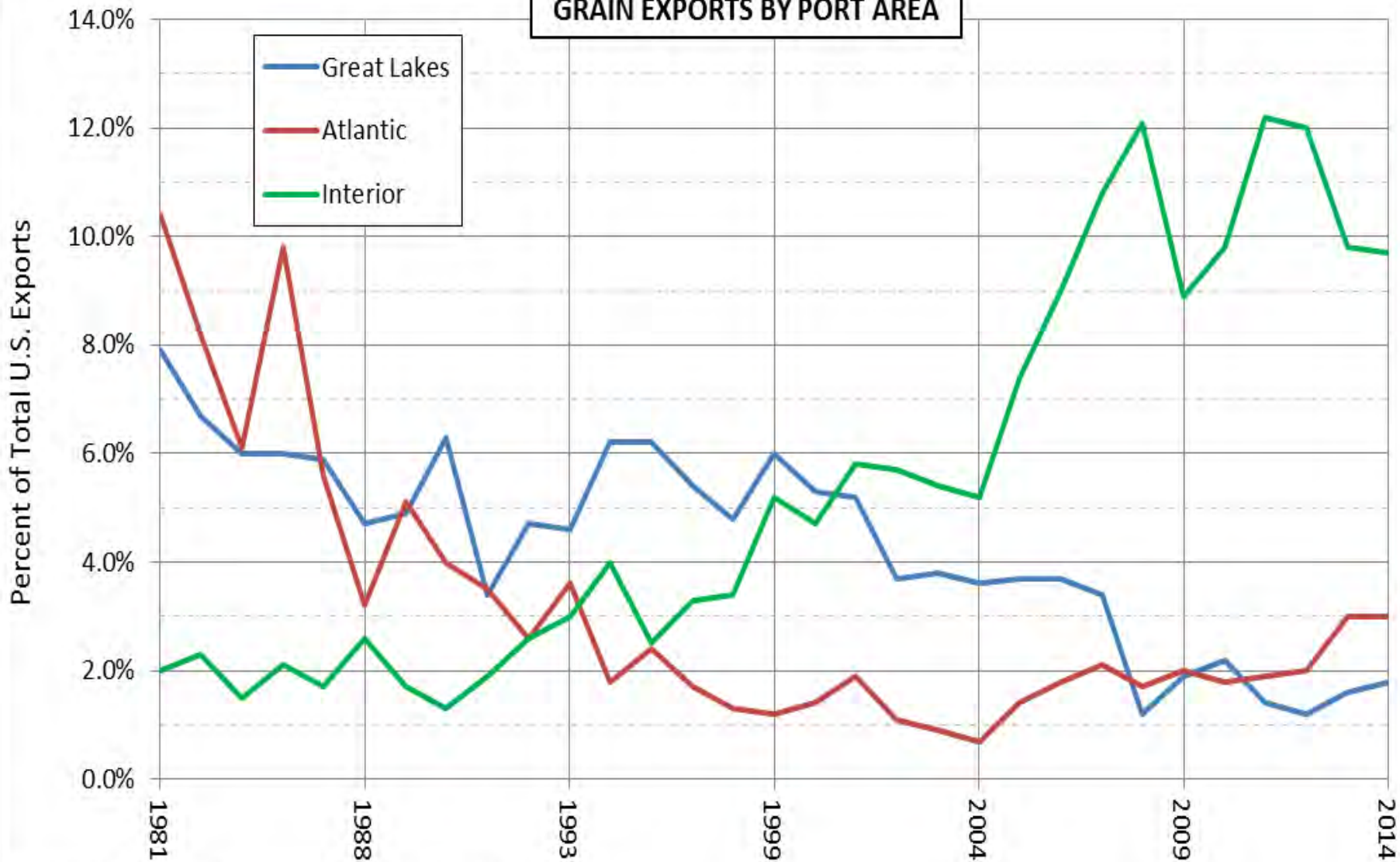
- Driven by Global Grain Trade
- Asian Markets
- Transportation

# GRAIN EXPORTS BY PORT AREA



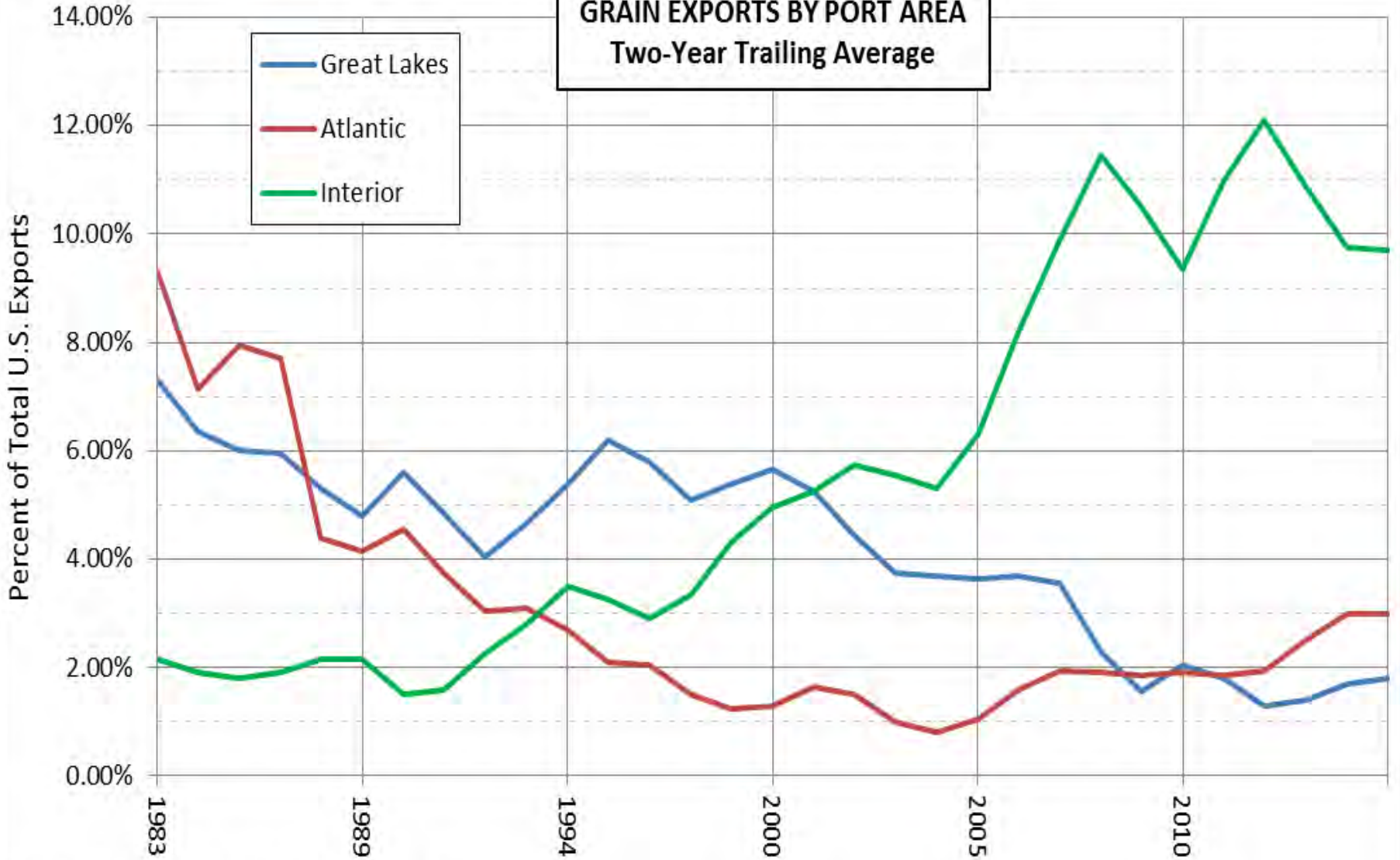
Source: Federal Grain Inspection Service of USDA

### GRAIN EXPORTS BY PORT AREA



Source: Federal Grain Inspection Service of USDA

### GRAIN EXPORTS BY PORT AREA Two-Year Trailing Average



Source: Federal Grain Inspection Service of USDA



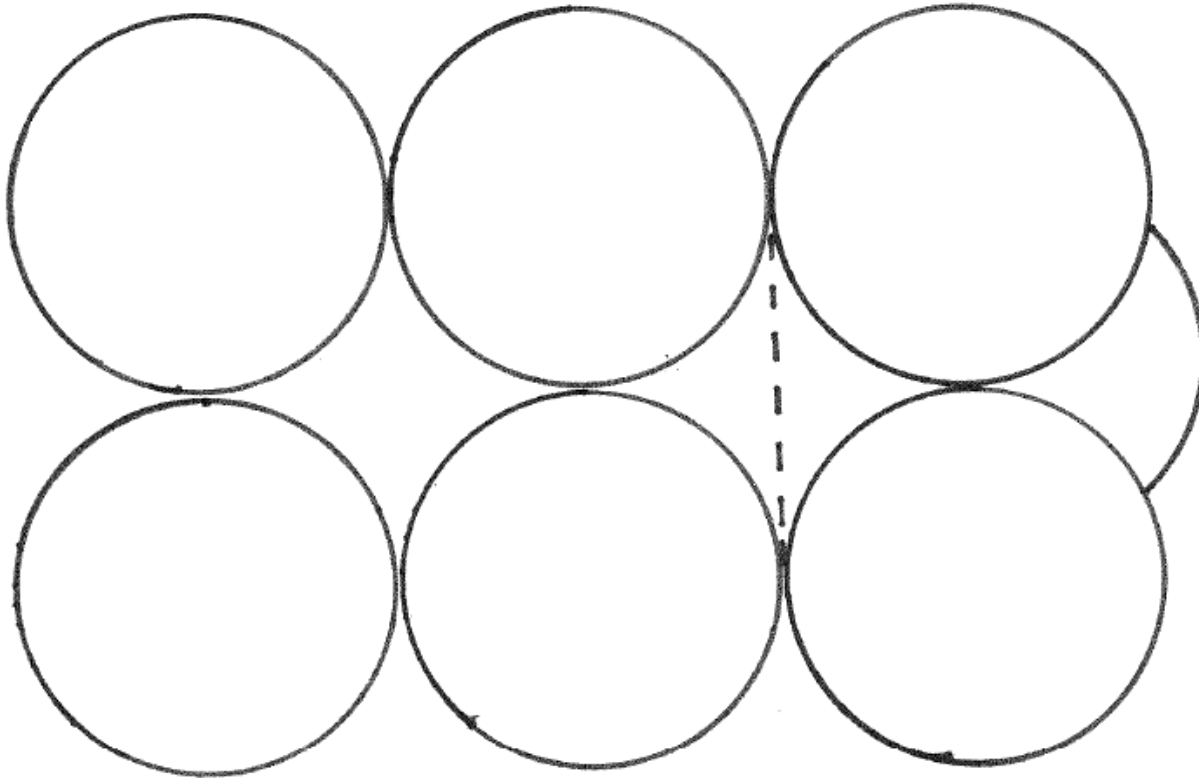
# Grain Industry Vocabulary

- Bushel
  - Volumetric unit of measure – 1.244 CF
- Through Put
  - Also call put through
  - $(\text{bushel received} + \text{bushels shipped}) \div 2$
  - Typically expressed on an annual basis
- Turning Ratio
  - $\text{Annual through put} \div \text{storage capacity}$

# Grain Industry Vocabulary

- Reclaim
  - Associated with unloading grain from a storage unit
- Head House
  - Multi story structure
  - Houses equipment
- House
  - Might mean the head house
  - Usually a commercial granary type structure
  - Sometimes the whole elevator
- Interstice
  - Diamond shaped space between 3 or 4 round silos

# Interstice



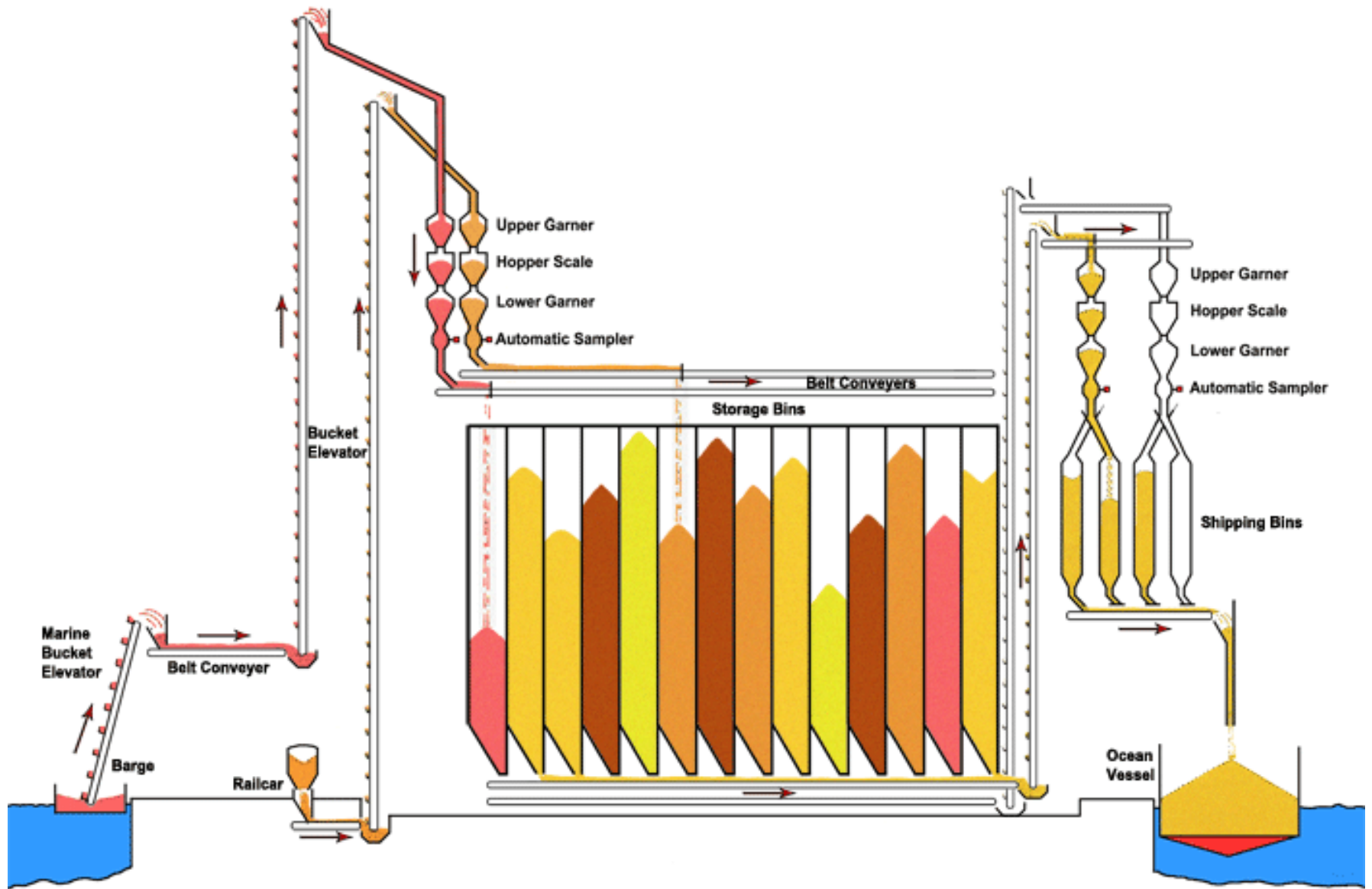
# Grain Industry Vocabulary

- Aeration
  - Moving air through grain mass
- Dump Pit
  - In-ground grain receiving
- Licensed storage capacity
  - Federal or state
- Effective storage capacity
- Basis

# Types of Construction

- **Wood Crib**
  - Not a current construction method
- **Upright Concrete**
  - Slipform
  - Jumpform
- **Upright Steel**
  - Bolted (corrugated / pre-manufactured)
  - Smooth Wall (riveted / welded seam)
- **Flat**
  - Buildings
  - Bunkers / Piles (outside)







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Milford, IN – opened in August of 2016

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## Marian, OH

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# **Equipment Identification**





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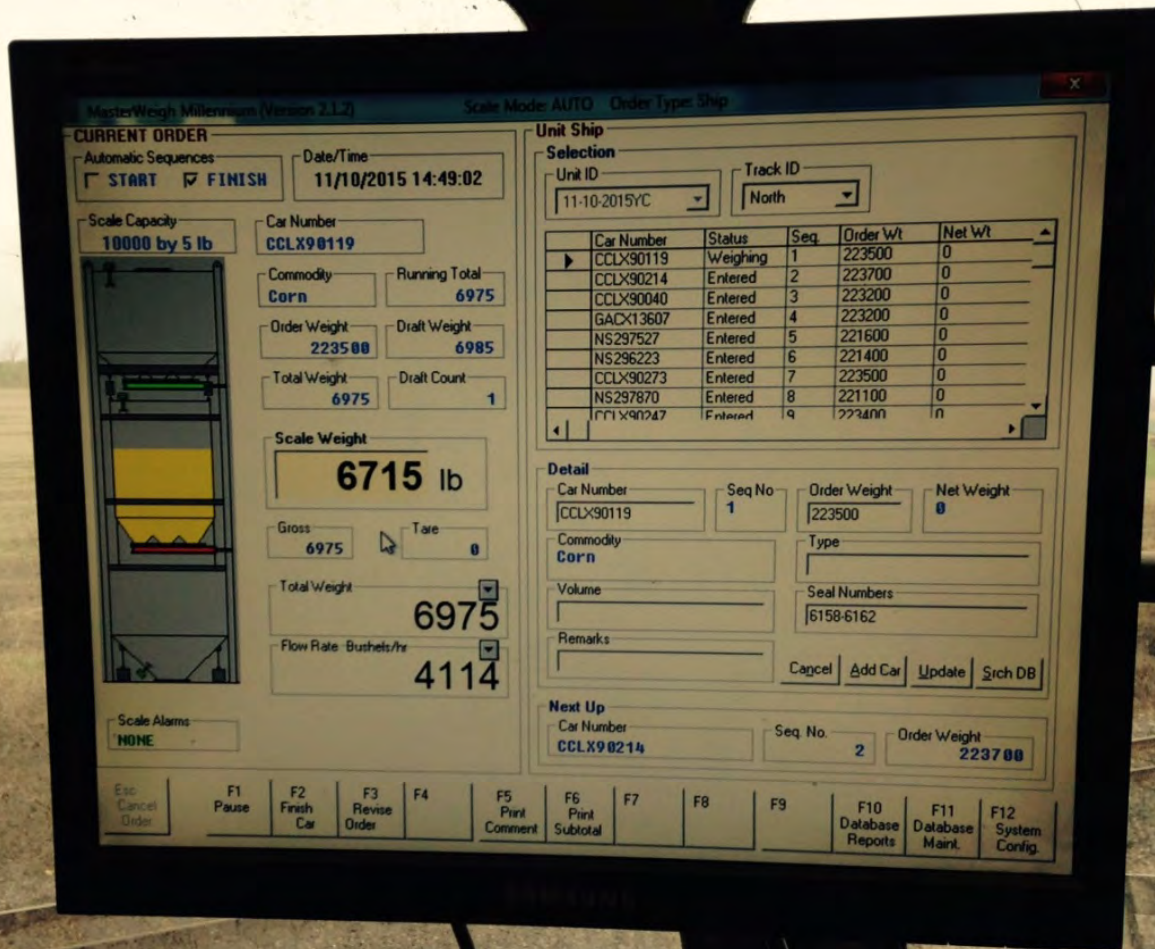
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# DELUX

DPXSL - 4T - 8T - 12T SERIES



CONTROL PANEL  
UL US  
LISTED

BRIDGE OF





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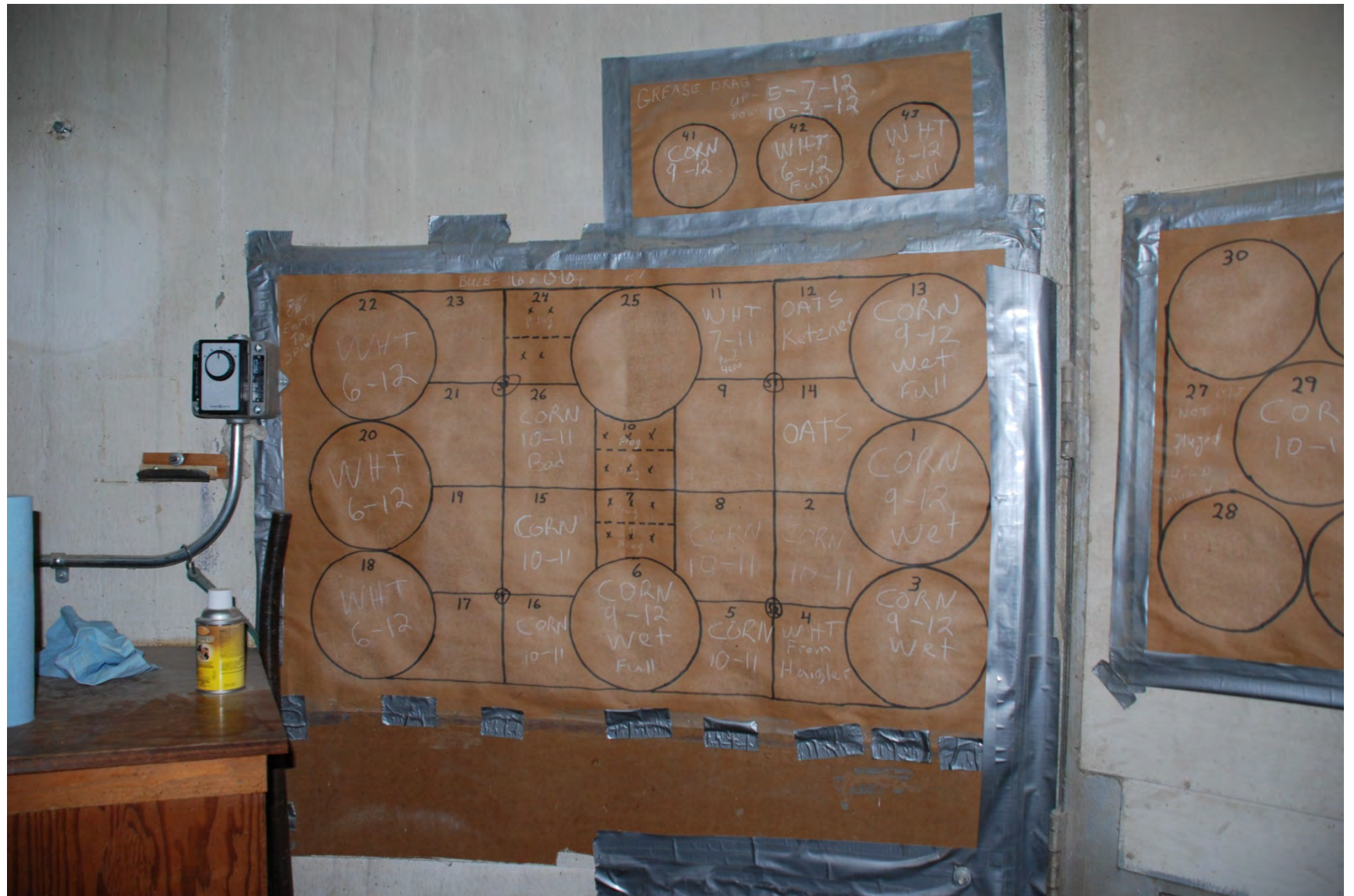


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# Minnesota Grain Industry

- Average Production (3 years)
  - 1.3 billion bushels of corn
  - 320 million bushels of soybeans
  - 74 million bushels of wheat
  - 5.8 million bushels of barley
  - 9 million bushels of oats
- Grain Storage
  - 585 Commercial Facilities
  - 750 million bushels of off-farm storage
  - 1.5 billion bushels of on-farm storage

# Minnesota Grain Industry

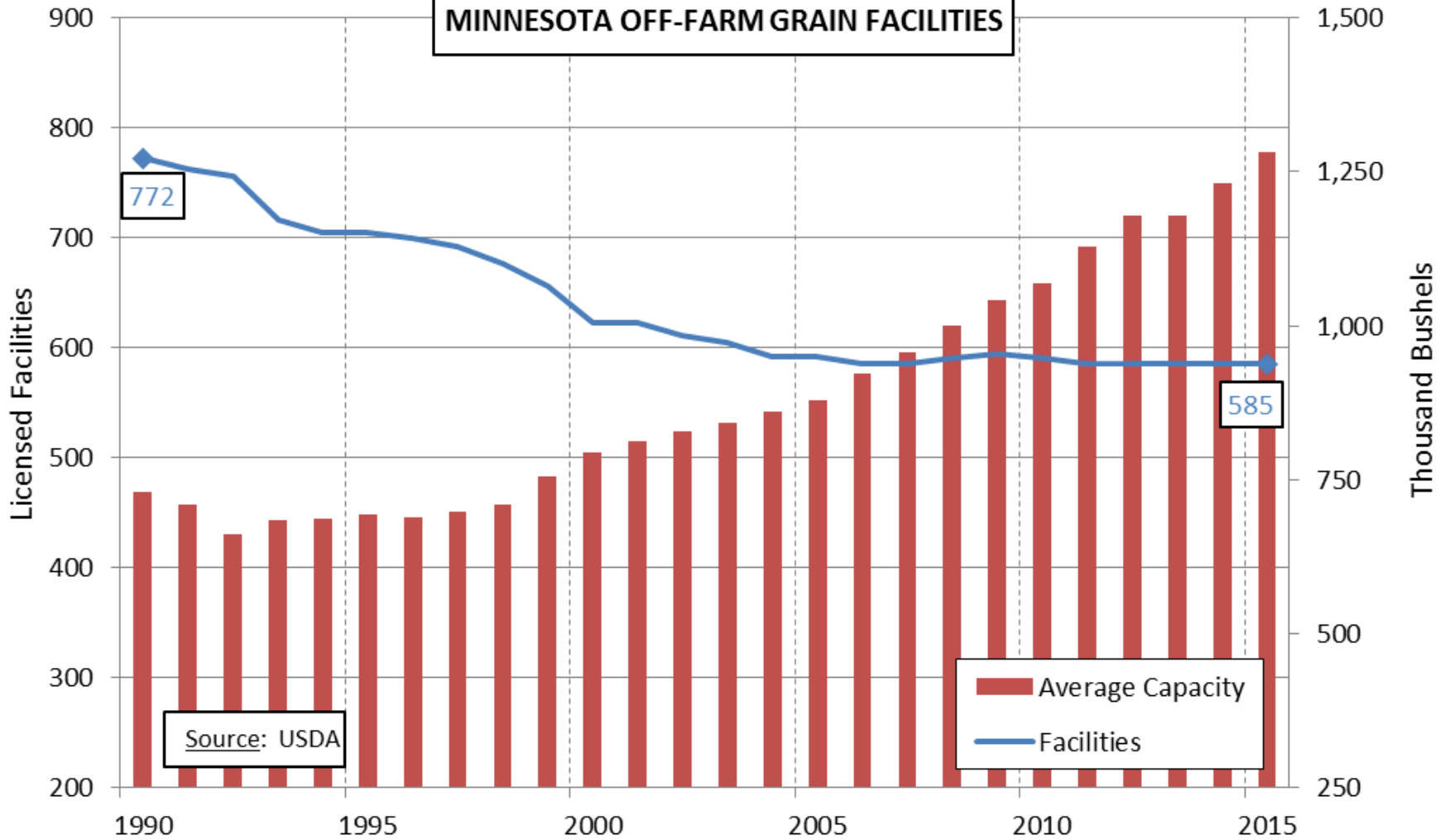
- Grain Processing Facilities
  - 21 Ethanol Plants (~420 million bu per year of corn)
  - 9 Flour Mills (70-80 million bu per year of wheat)
  - 8 Soybean Crushing Plants
  - 2 Canola Crushing Plants
  - 3 Barley / Malting Plants
  - 2 Oat Mills

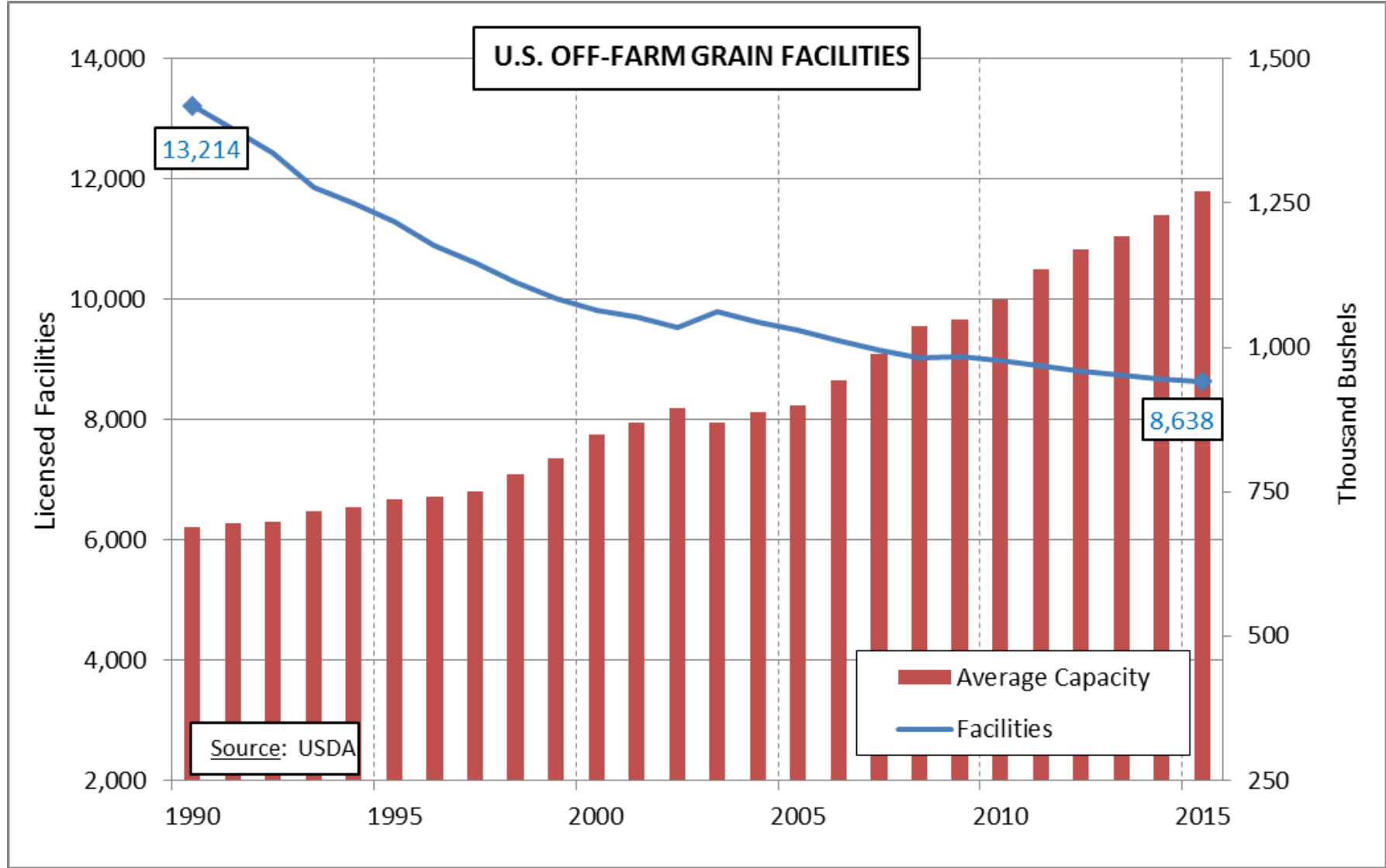
# Minnesota Grain Industry

- Livestock (Feed)
  - Pig crop = 12+ million head
  - 460,000 dairy cows
  - 400,00 head of cattle on feed
  - 3.5 million pullets
  - 10 million layers
  - Over 40 million head of turkeys

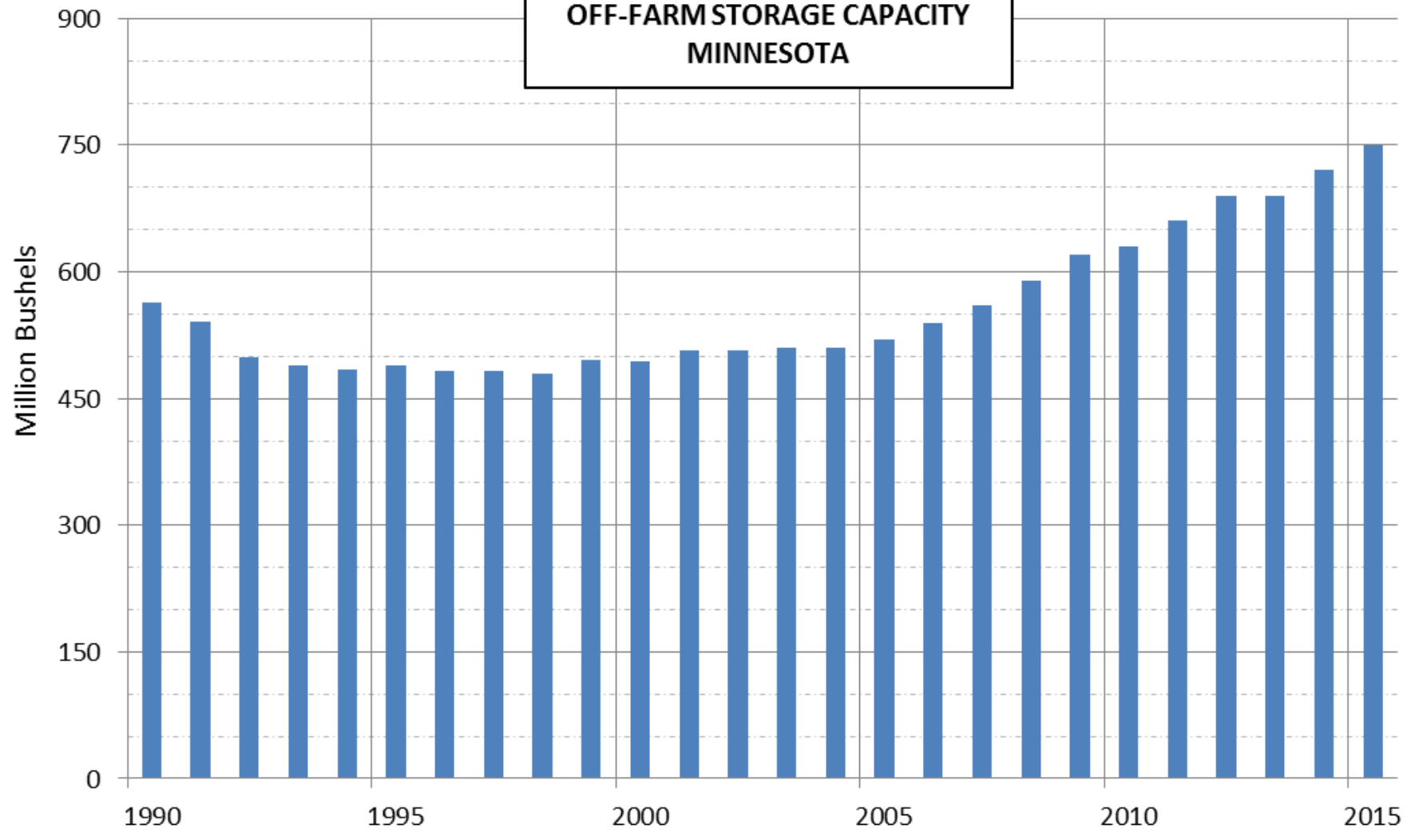


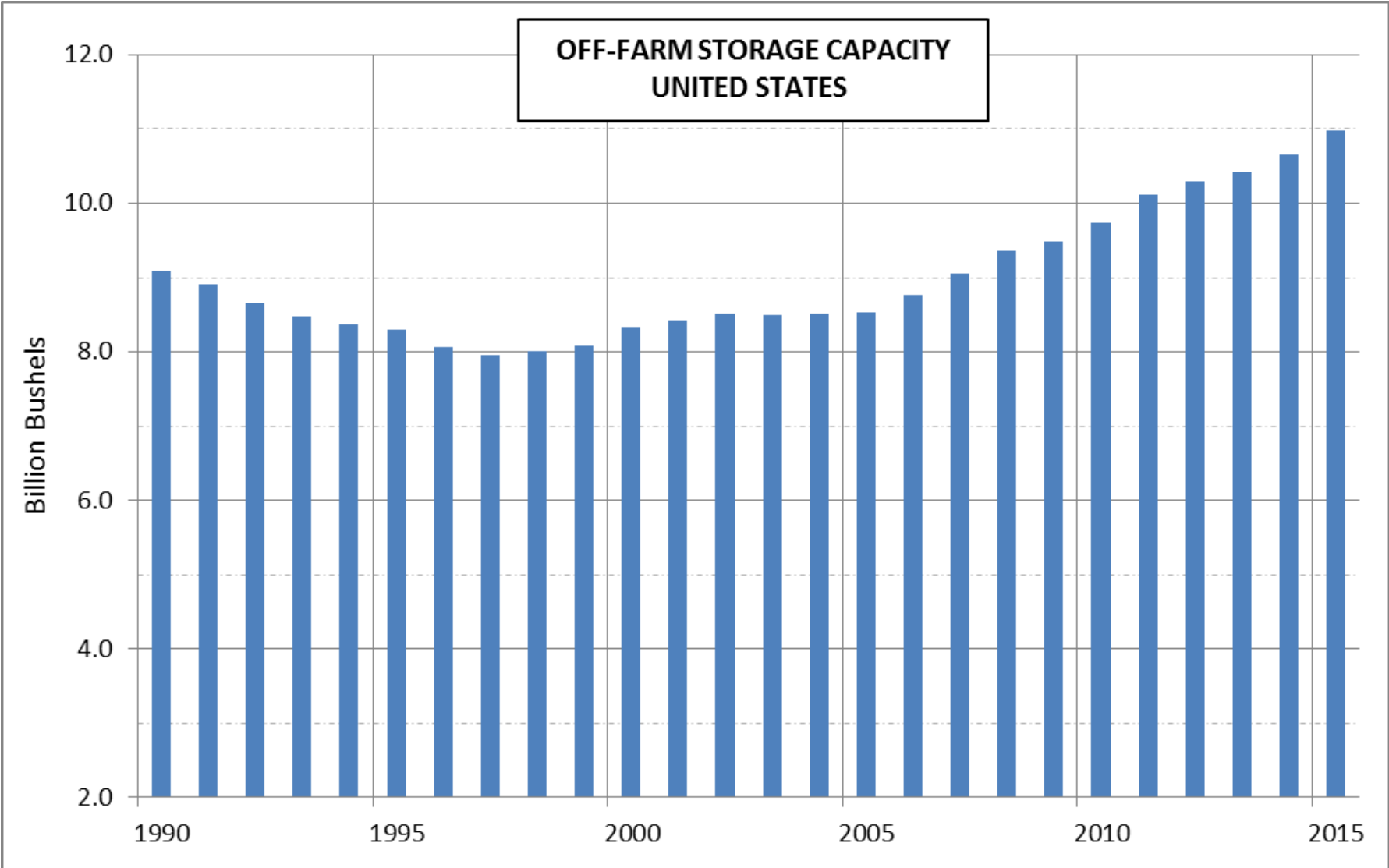
# MINNESOTA OFF-FARM GRAIN FACILITIES





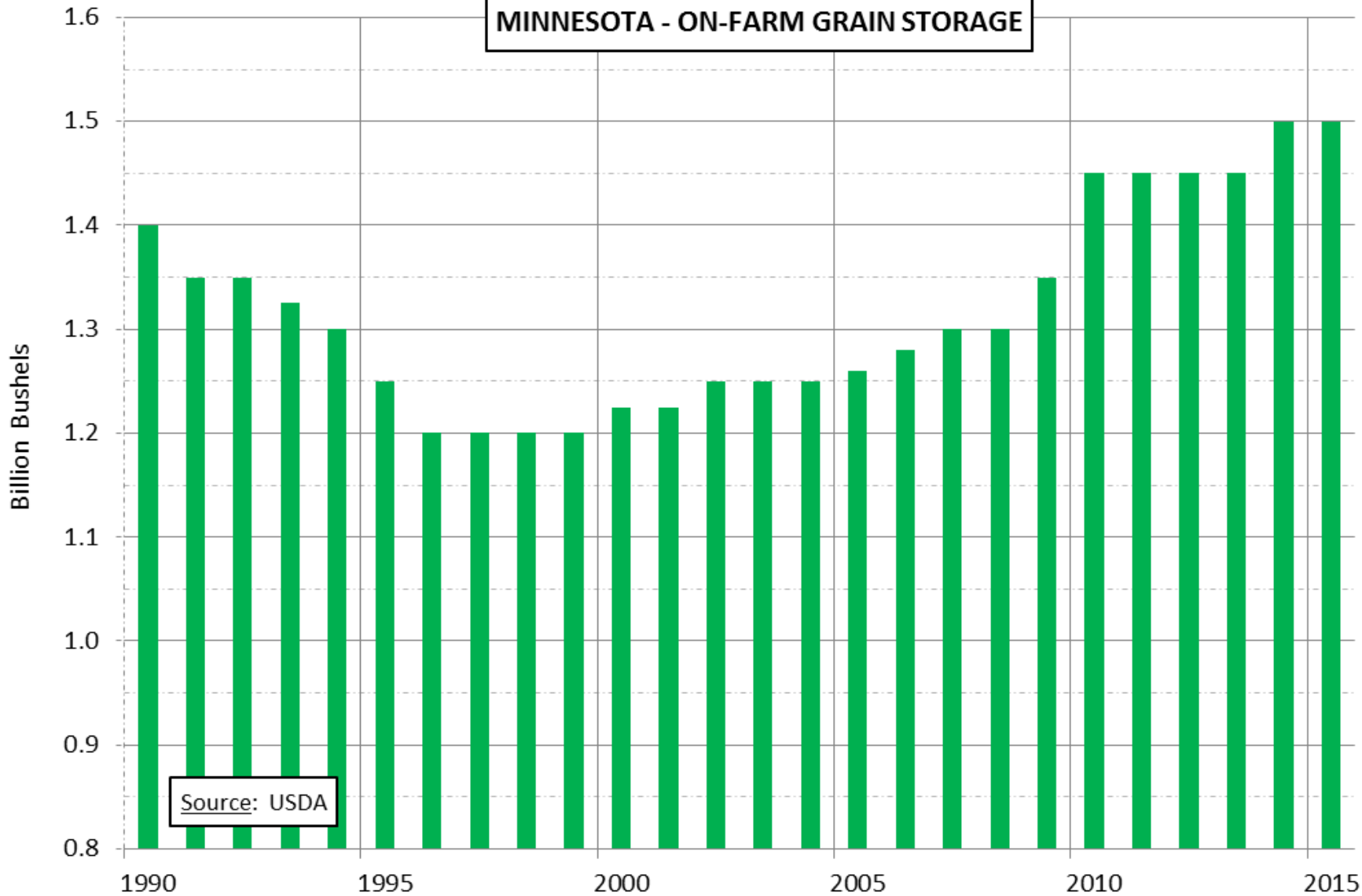
**OFF-FARM STORAGE CAPACITY  
MINNESOTA**



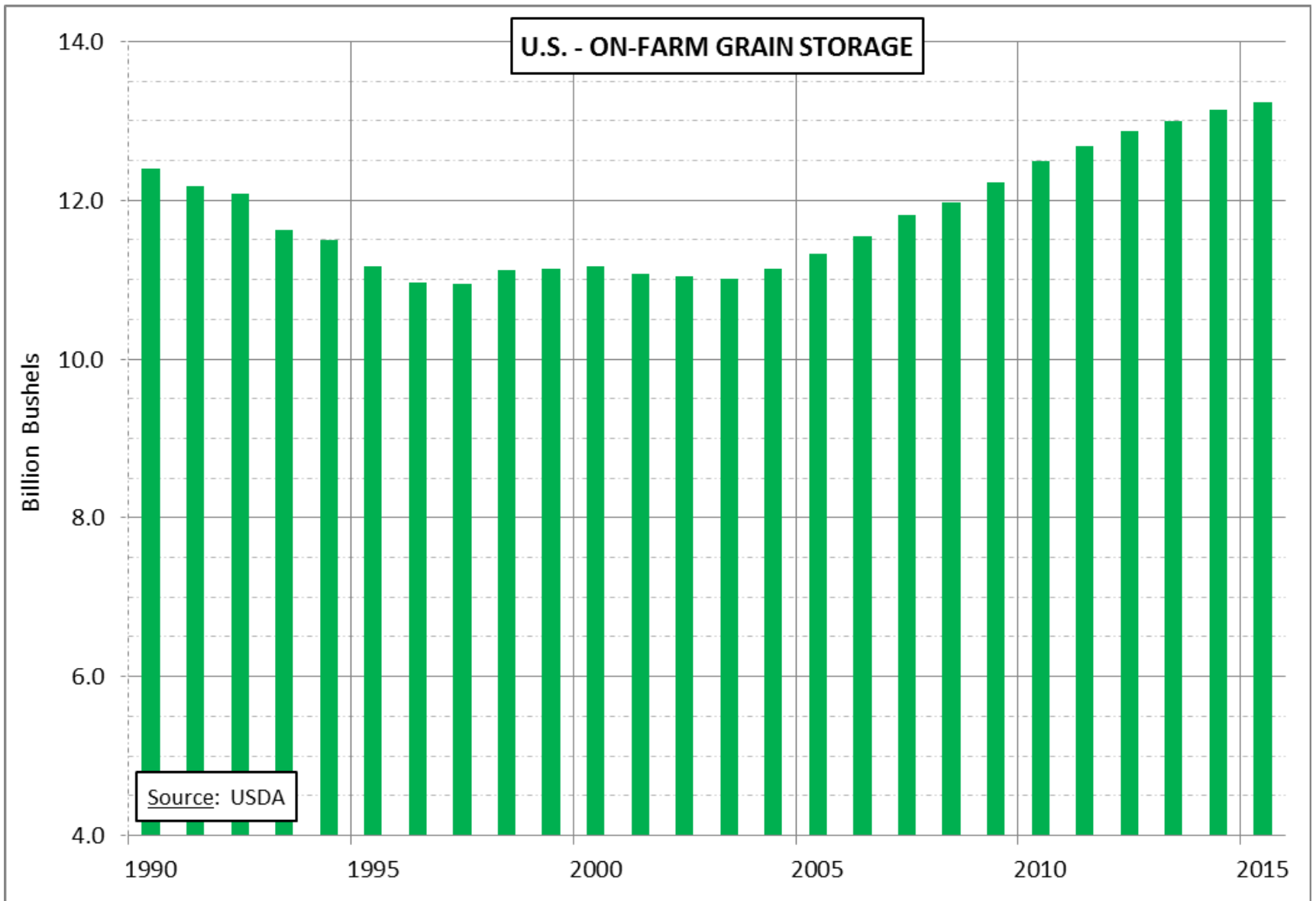




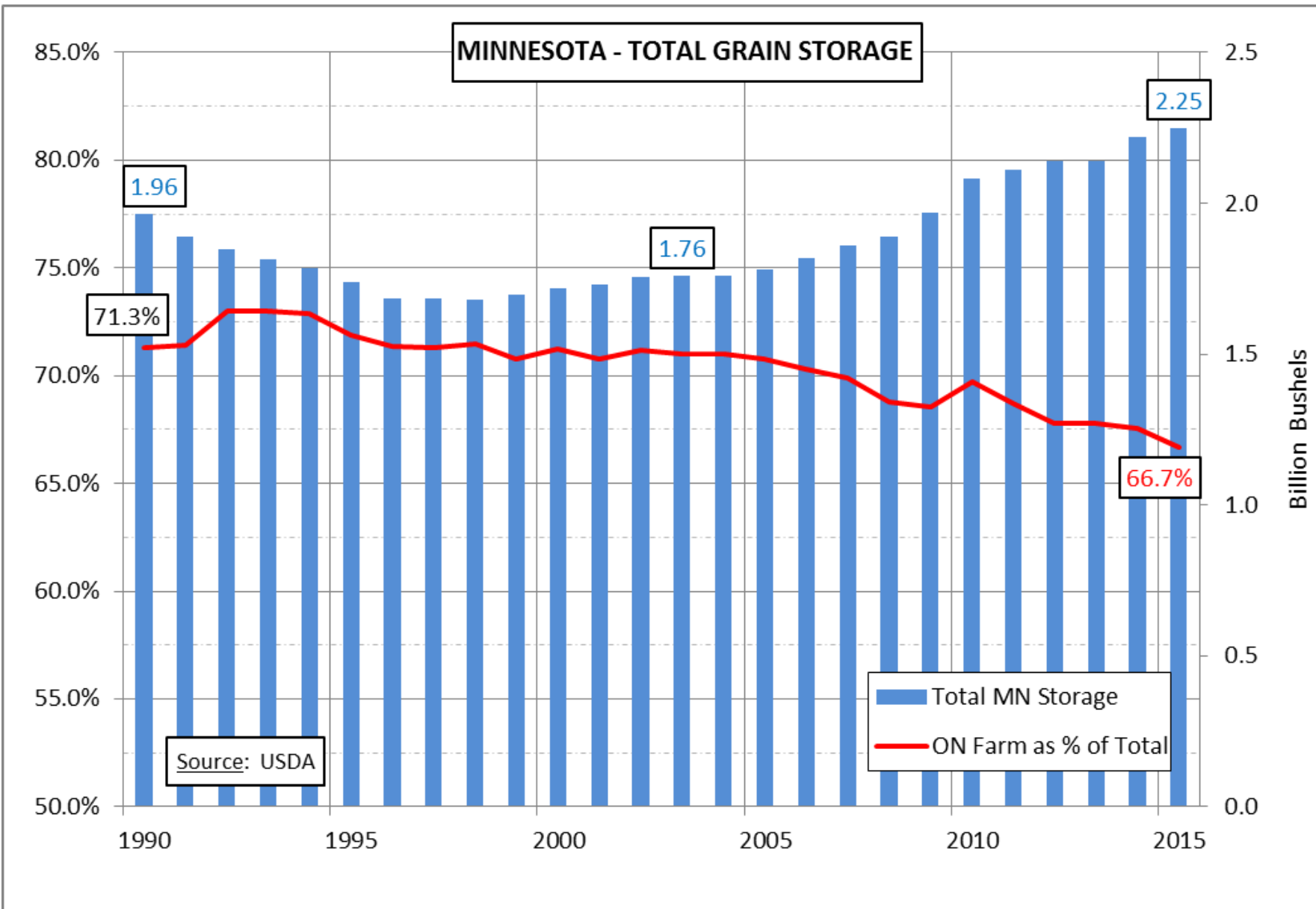
# MINNESOTA - ON-FARM GRAIN STORAGE

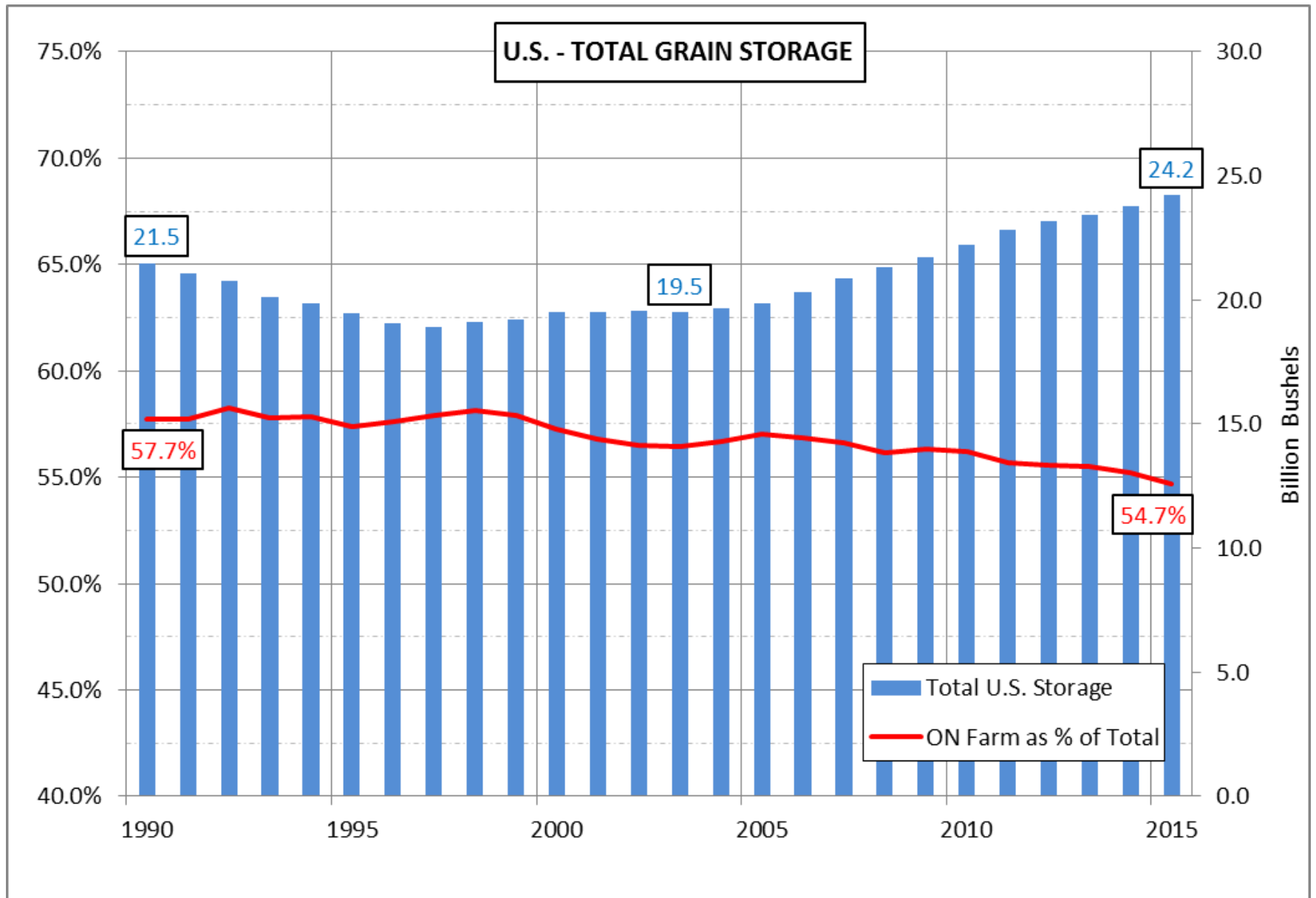


Source: USDA

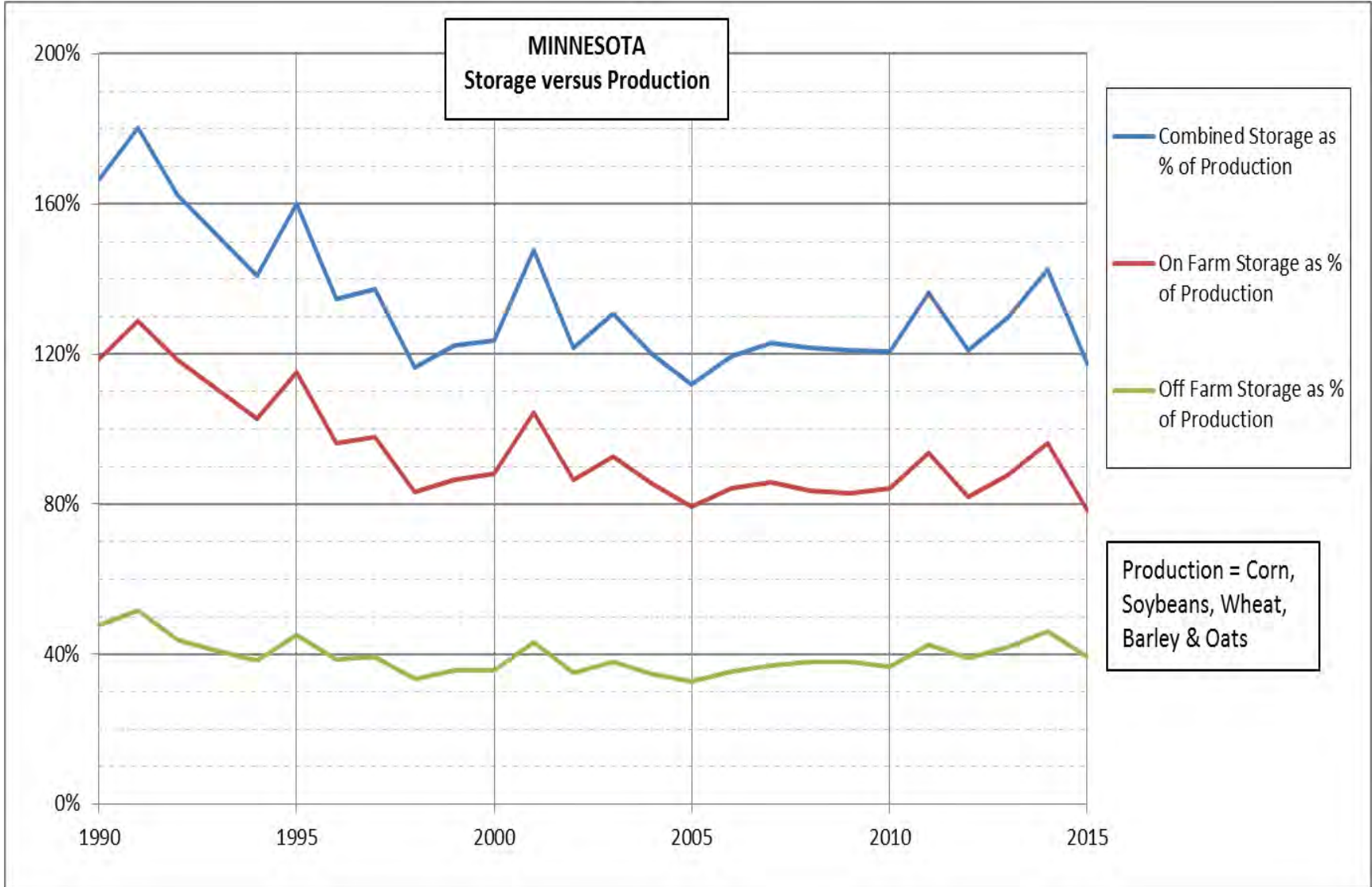


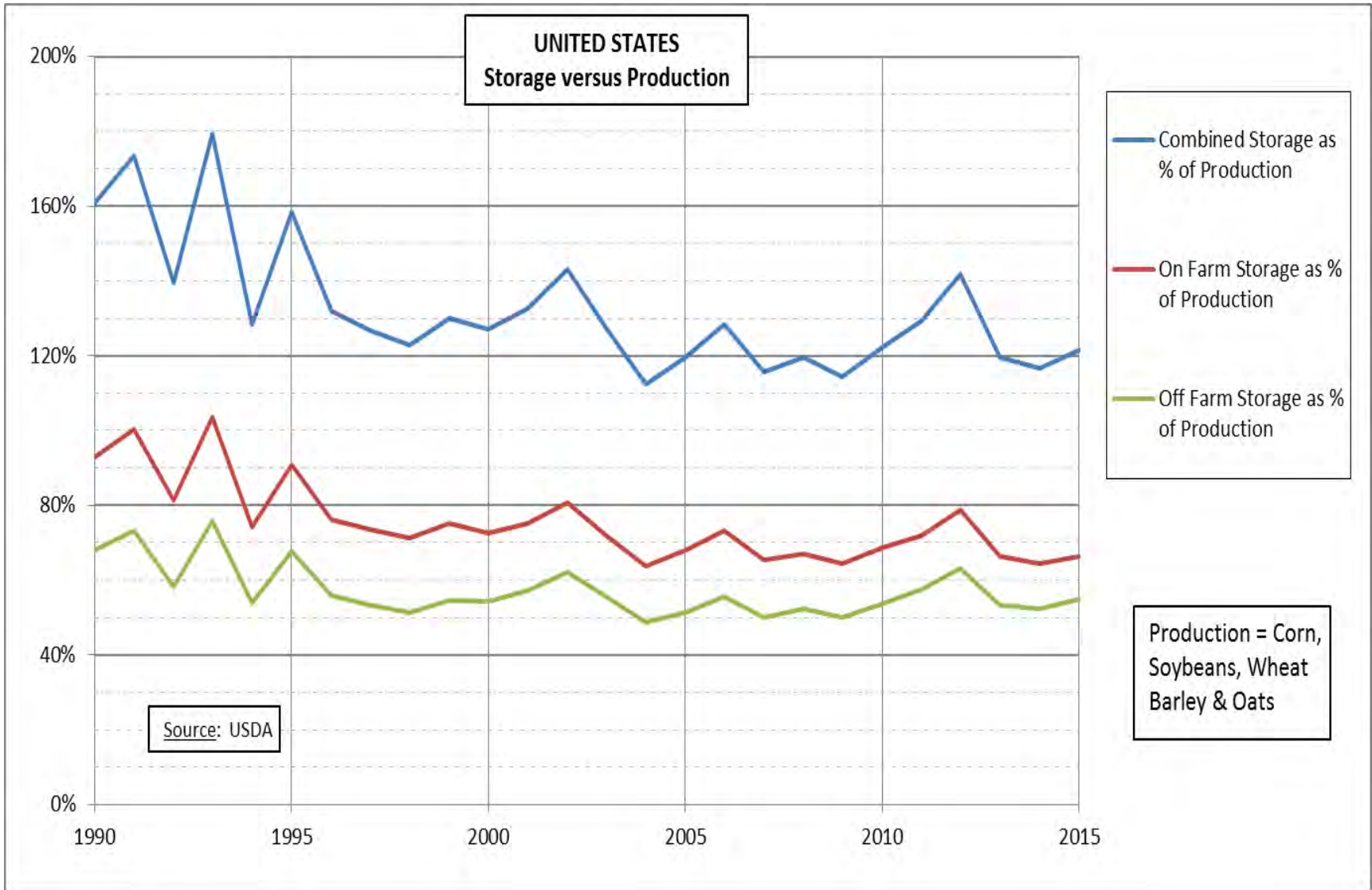
# MINNESOTA - TOTAL GRAIN STORAGE





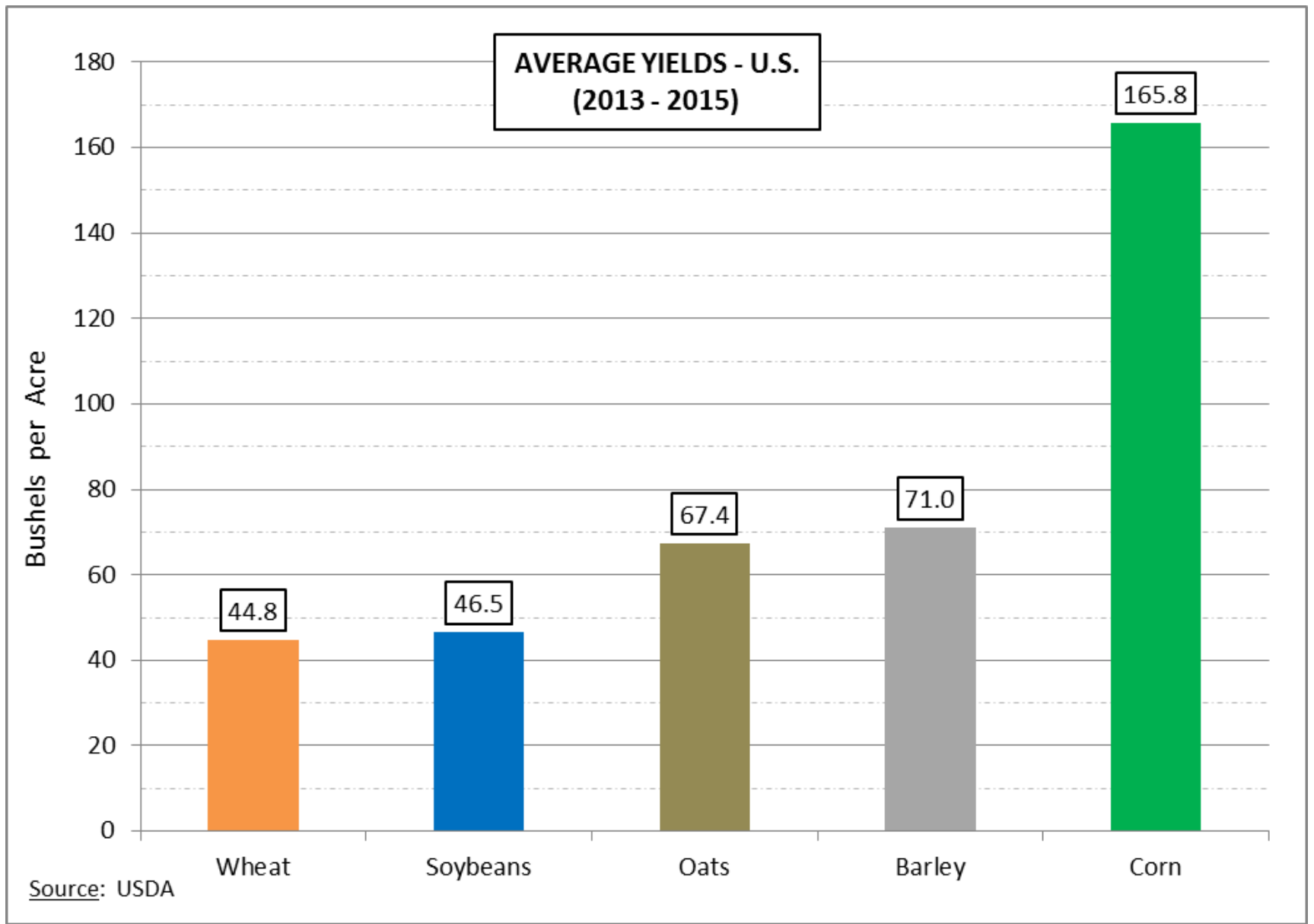






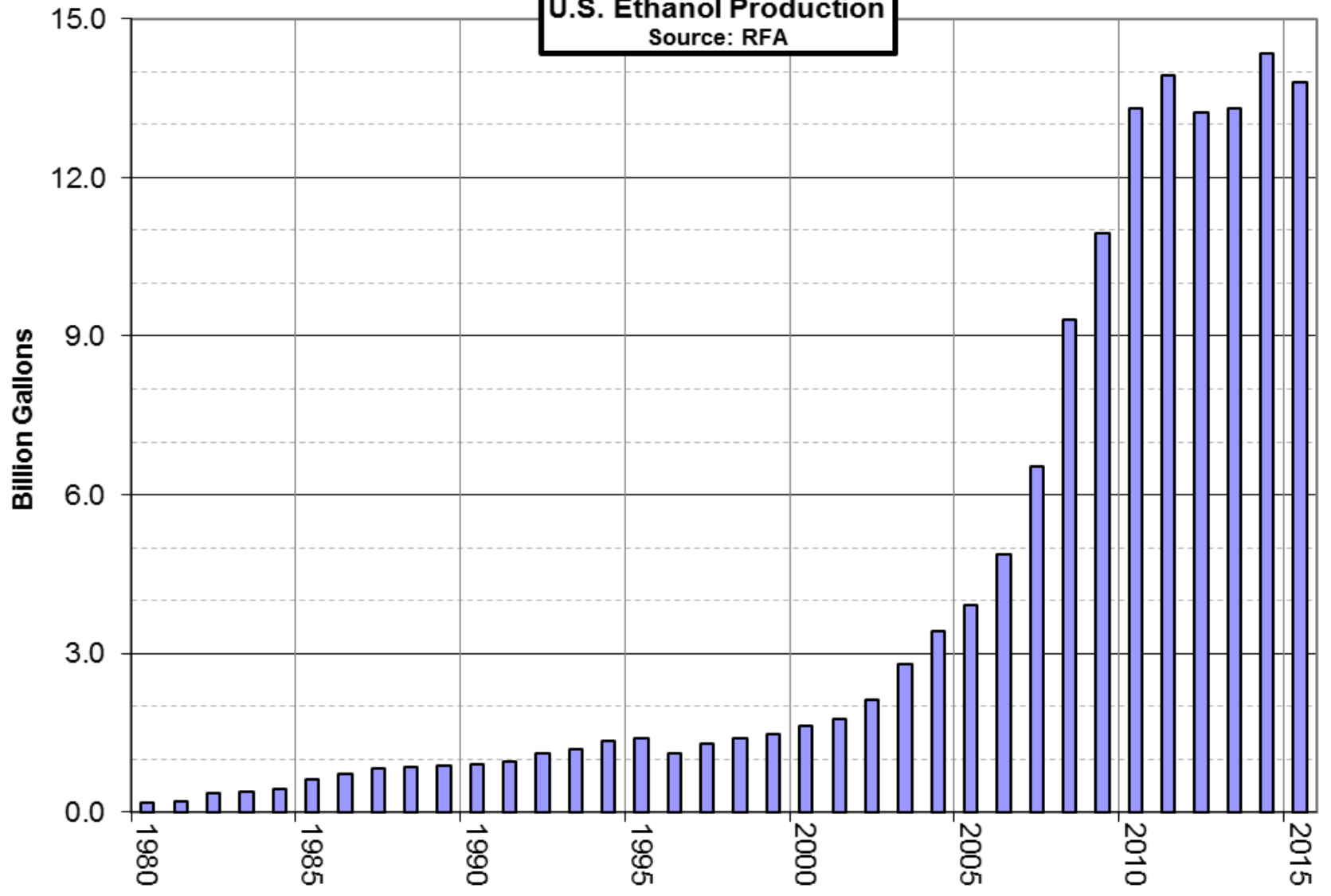
# On Going Trends

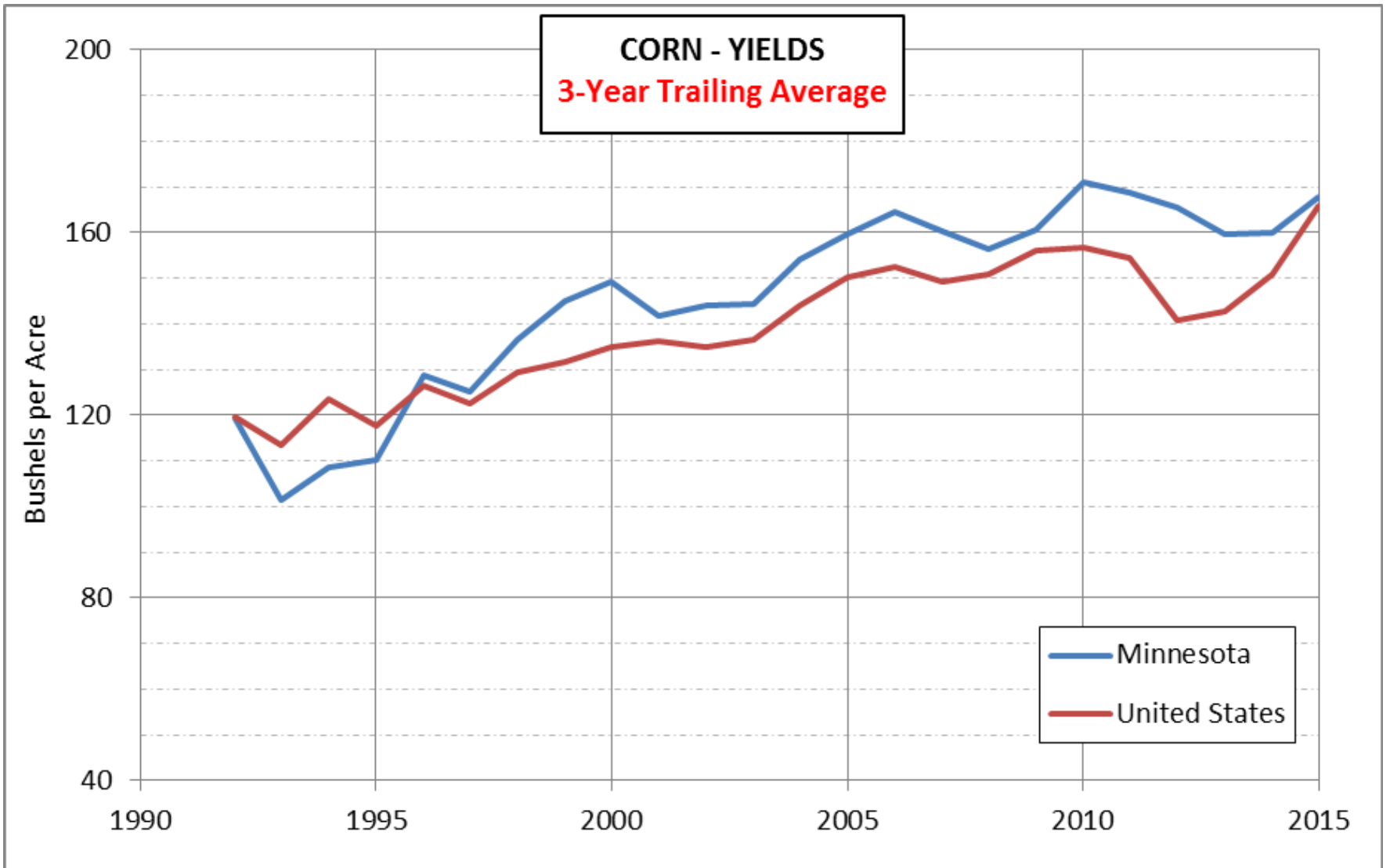
- Expansion of Corn Production
  - Corn yields much higher than other Crops

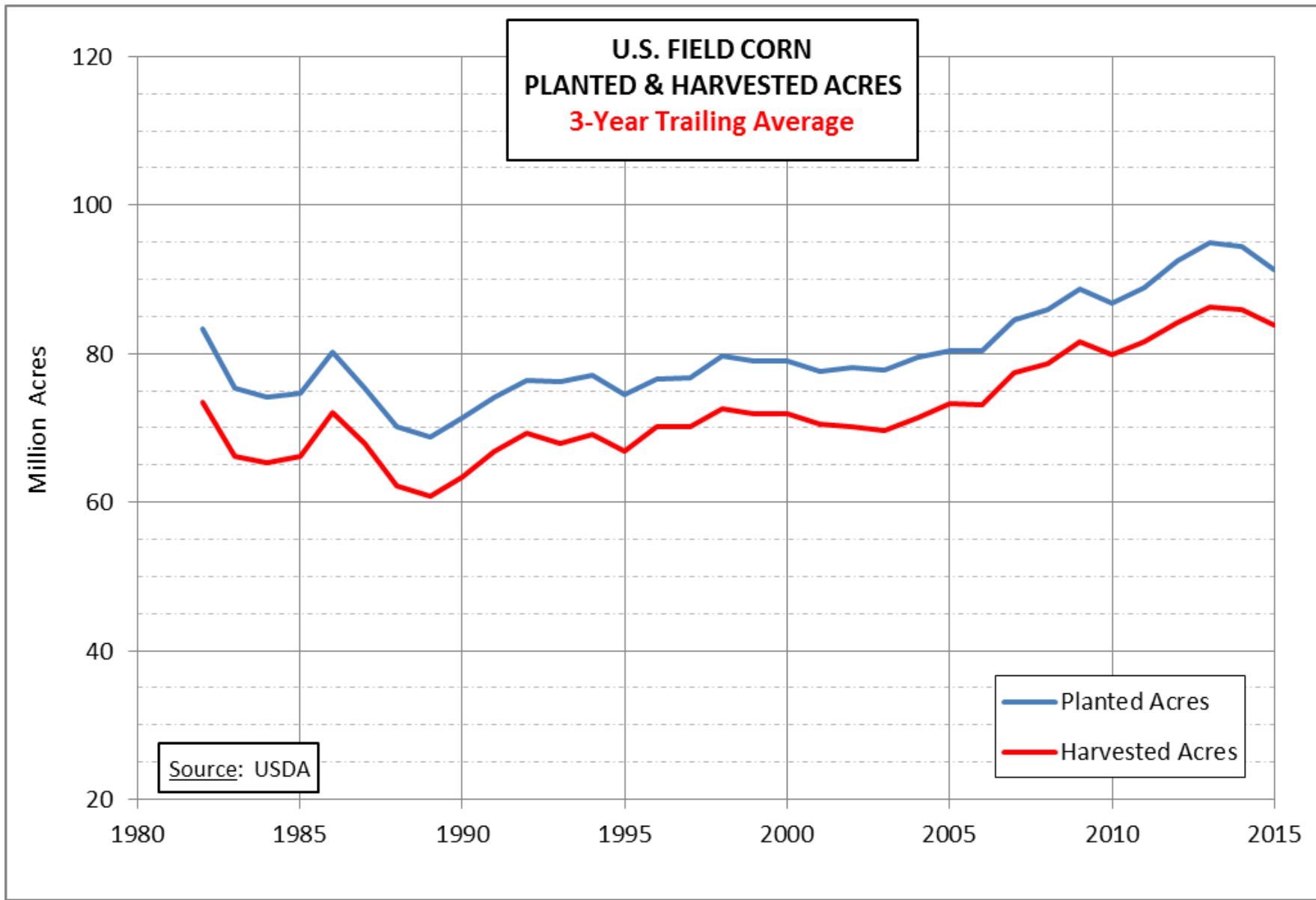


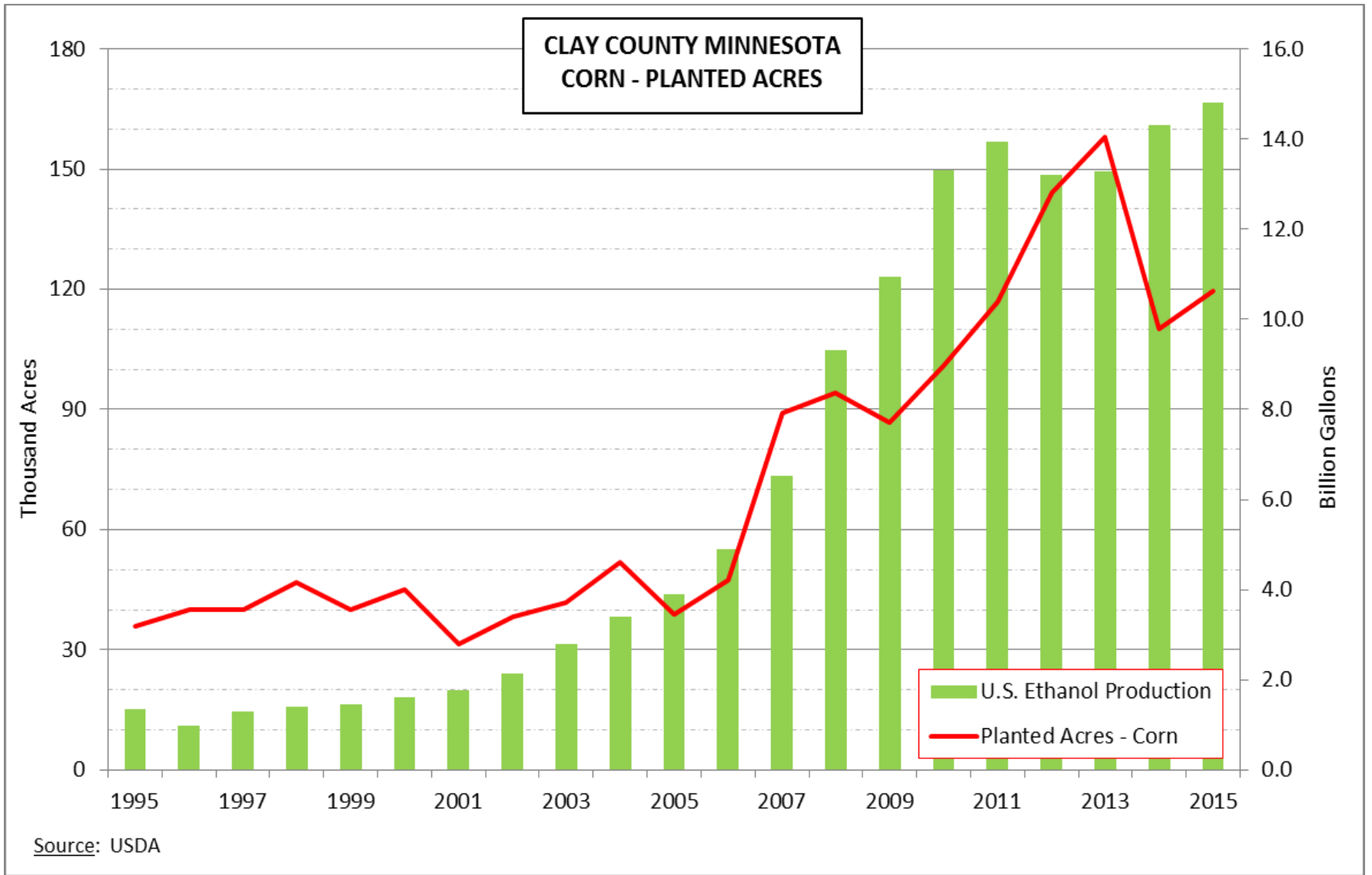


**U.S. Ethanol Production**  
Source: RFA

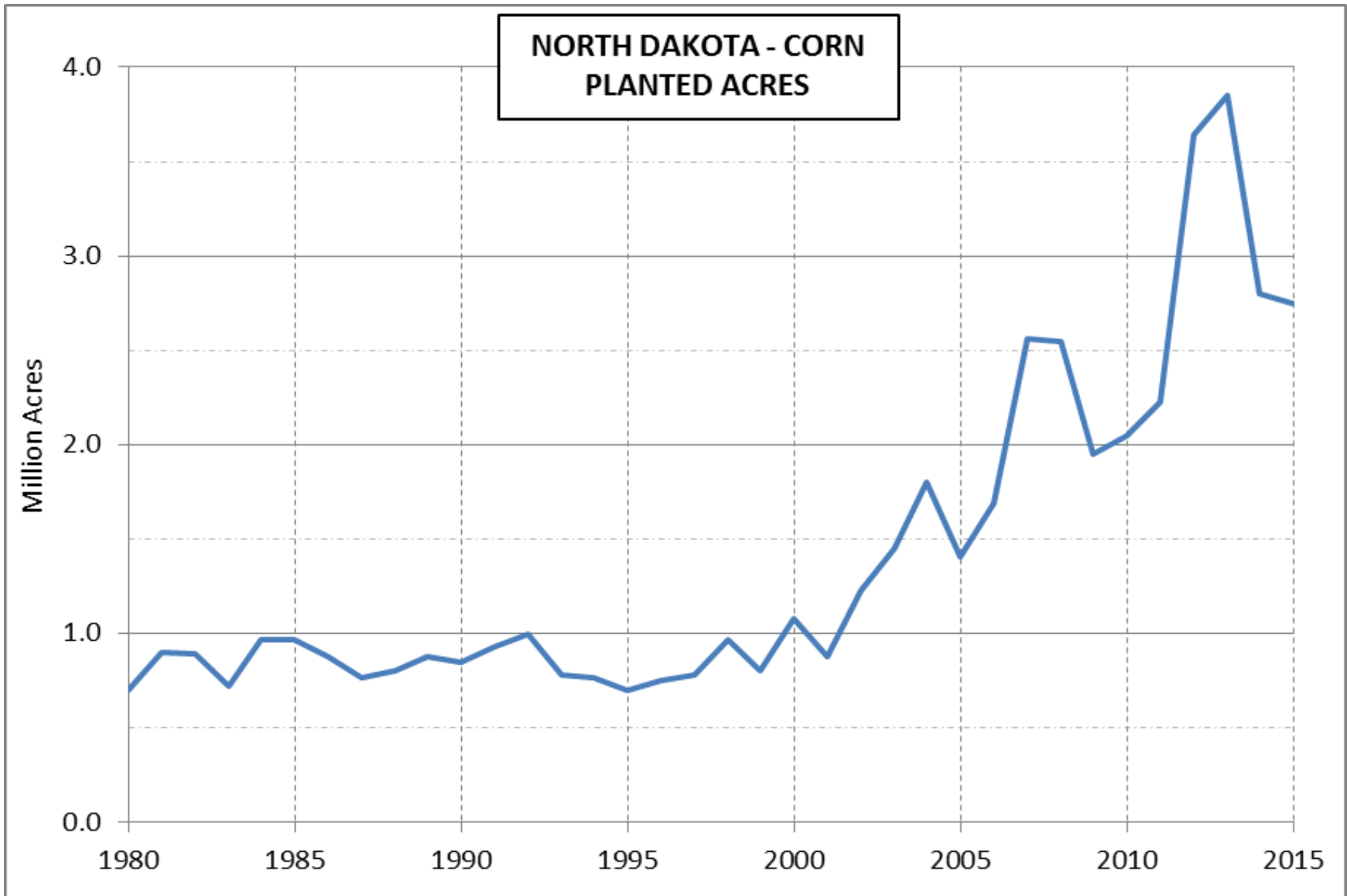








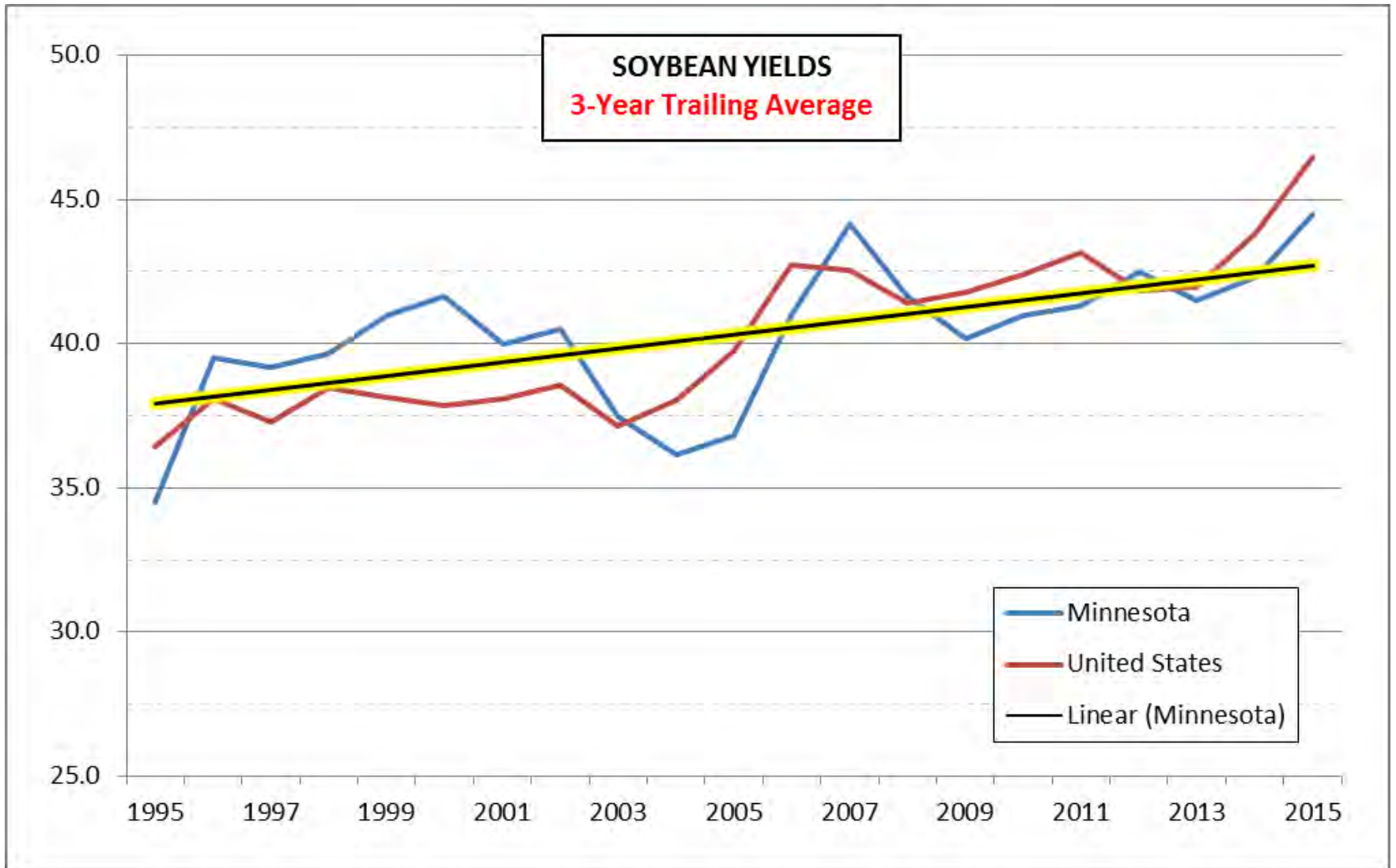






# On Going Trends

- Expansion of Corn Production
  - Corn yields much higher
- Yields of other crops increasing too





# On Going Trends

- Expansion of Corn Production
  - Corn yields much higher
- Yields of Other Crops Increasing too
- Changing Export Patterns
- Increasingly Competitive Global Market
- Capital Investment Across Grain Network
  - Rail
  - River
  - Port

# On Going Trends

- Consolidation of Grain Industry
- Unit Train / Shuttle Loaders
  - Very high speed and efficient
- Safety Concerns (OSHA)
  - Regulation CF 1910272
- Farmer Harvesting & Transport Equipment
  - Producer can bypass country elevator
  - Need for increased receiving speeds



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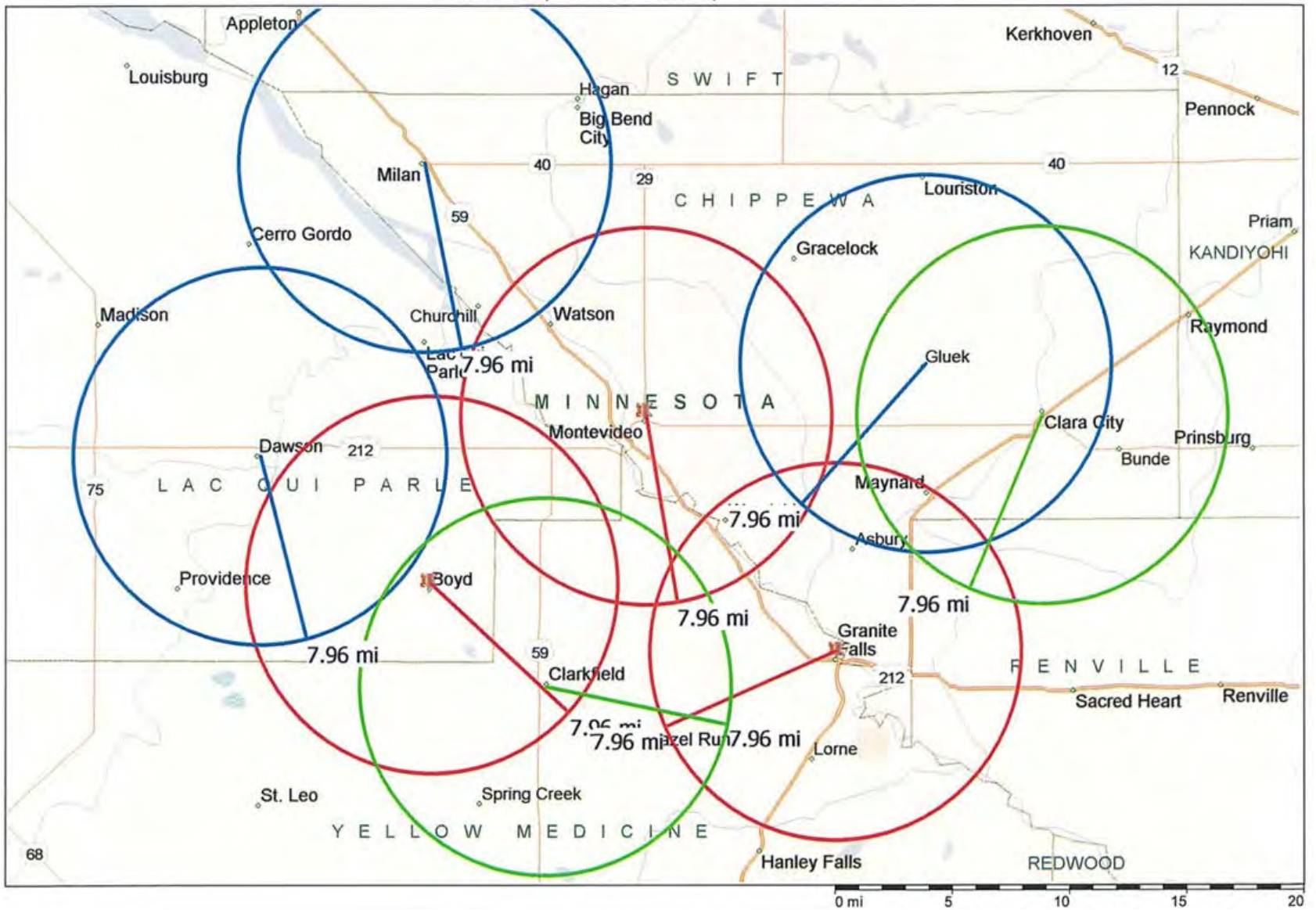


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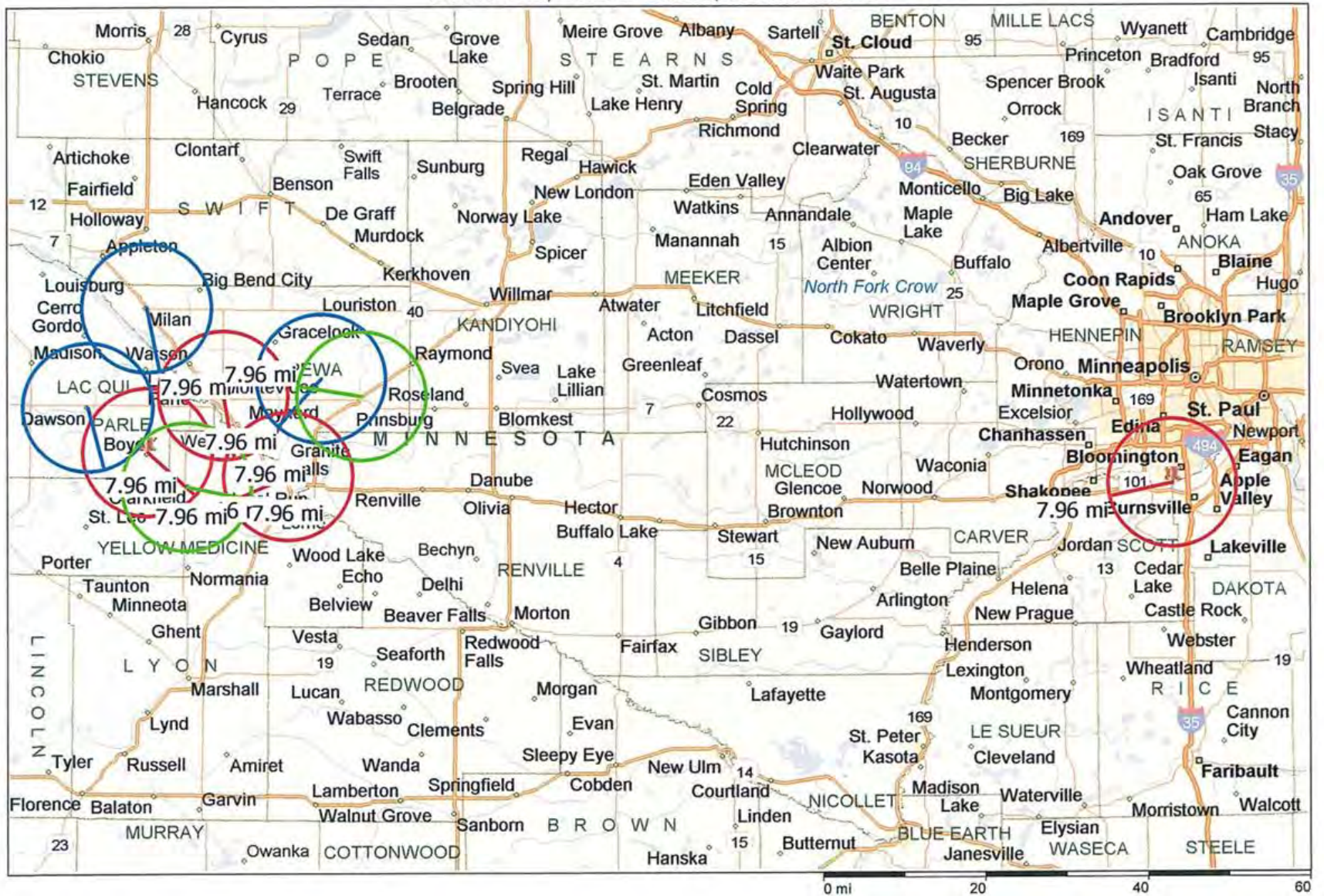
# On Going Trends

- Size and sophistication of On Farm Storage
- Marketing Sophistication of Producers
- Separation of Crop and Livestock Farming
- Increasingly Competitive to Originate









# Impact of Trends on Physical / Functional Attributes

- Faster Receiving Speeds for Origin Elevators
  - Multiple receiving pits
  - Faster leg speeds
  - Two-scale systems
- Faster handling and loadout speeds
  - Rail, River and Export Elevators
  - Built for high speed and efficiency
- Results in much larger equipment



Patchin, Messner, Dodd & Brumm





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verterValve14

03162665014536 4" 73157650023027304



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# Impact of Trends on Physical / Functional Attributes

- Larger Equipment – Impacts Structures
  - Bigger reclaim tunnels & boot pits
  - Accommodate much bigger legs
  - Some equipment moving outdoors
- Site Improvements
  - Rail Sidings
  - Traffic patterns for trucks
- Equipment & RE Improvements more costly



# Impact of Trends on Physical / Functional Attributes

- Highly Automated
  - PLC (Programmable Logic Control) systems
  - Truck management
  - Smart tag readers
- Major Improvements in Steel Bins
  - Better engineered
  - Reclaim no longer labor intensive
  - Much bigger (up to 1.5+ bushels)

# Impact of Trends on Physical / Functional Attributes

- Better Options with Flat Storage
  - Buildings – up to 1.0 million bushels or more
  - Bunkers
  - More automated load-in
  - Some may have reclaim systems
  - Better aeration
  - Not so much the dirty word it used to be

# **Impact of Trends on Physical / Functional Attributes**

- Safety
  - Hot Bearing Sensors
  - Alignment Sensors
  - Slippage Sensors
  - Now Standard Equipment
  - Confined Spaces – Zero Entry
  - Explosion Proof

# VALUATION ANALYSIS

- Properly Categorize the Elevator
  - An elevator is an elevator is an elevator – not!
- All Three Approaches can be Performed
  - Cost Approach
  - Sales Comparison Approach
  - Income Approach



# VALUATION ANALYSIS

- A Few Questions to Ask Yourself
  - What has changed since this elevator was built?
  - What is its Draw Area?
  - What are its Markets?
  - Is it a likely Survivor – Or Not? (note to self wc)
  - Shuttle Loaders & Processing Plants – Customer or Competitor for Country Elevator?
- Operating results are a Big Equalizer

# VALUATION ANALYSIS

- Get Familiar with Local Production Trends
  - USDA NASS (website)
- Map out the Facility's Direct Competitors
  - Concentric Circles
- Inspect Physical Condition
- Go over Functional Attributes with Manager
  - Handling Speeds
  - Choke Points

# VALUATION ANALYSIS

- Ask for Bin Diagram and Bin Chart
  - State or Federal
- Is all licensed capacity usable?
- Highest & Best Use Issue:
  - Elevators can be costly to tear down

# Cost Approach

- May or May Not be Applicable
- Replacement Cost New
  - Marshall Valuation Service
  - Cost Studies – Reported Costs
  - Contractor Estimates
  - Grain Elevator Cost Schedule (MAAO and Dept. of Revenue)



# Cost Approach

- Functional Replacement Cost New
  - Might not be built the same way – even if modern design and materials
  - Wood Crib

# Cost Approach

- Depreciation
  - Market Extracted – All Sources
  - Breakdown Method
- Elevators can have long Useful Lives
- Advantage for Assessing
  - No need to allocate between RE and M&E

# Sales Comparison Approach

- Comp Selection is Critical
  - Comps should be from same Category
  - Geographical Search Area – can be multiple states
- Units of Comparison
  - Price per Bushel of Annual Throughput
  - Price per Bushel of Licensed Storage Capacity
  - Price per Bushel of Effective Storage Capacity
  - Price per Bushel of Upright Storage (Lic. or Eff.)

# Sales Comparison Approach

- Typical Initial Adjustments
  - Conditions of Sale
  - Property Rights (uncommon but possible)
  - Financing
  - Market Conditions (related to the grain industry)
- Physical / Functional Attributes
  - Location (production trends & competitors)
  - Age & Condition
  - Upright versus Flat (if total storage is unit of comp.)



# Sales Comparison Approach

- Physical / Functional Attributes (cont.)
  - Type of Construction
  - Handling Speeds
  - Automation
  - Modes of Transportation
- Try to Keep it Simple
- Requires an Allocation at the End
  - Usually best handled as a percentage
  - Breakdown along cost *may* work

# Income Approach

- Typical Rental type of Analysis
  - There are leases of elevators
  - Infrequent and Difficult to get good information
- Operational Earnings Method
  - Estimate EBITDA
  - Ask about merchandising and hedging strategies
  - Pay return to other Assets (non-PP&E tangibles & intangible)
  - Allowance for Short-Lived Items (RE Impr. and M&E)
  - Net Operating Income to PP&E
  - Capitalize into Value
  - Allocate between Taxable Real Estate and M&E

**Income Approach to Value**

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>4-Year Average</u>
Total Sales:	\$ 18,787,535	\$ 21,578,935	\$ 14,974,043	\$ 11,002,184	\$ 16,585,674
Material Costs:	\$ (16,736,493)	\$ (20,011,229)	\$ (13,497,660)	\$ (9,693,427)	\$ (14,984,702)
Freight Out:	\$ (869,913)	\$ (739,862)	\$ (680,949)	\$ (585,100)	\$ (718,956)
Material Gain:	\$ 1,181,129	\$ 827,844	\$ 795,434	\$ 723,657	\$ 882,016
Production Costs - Direct:	\$ 277,545	\$ 339,956	\$ 205,773	\$ 259,325	\$ 270,650
Production Costs - Period:	\$ 249,190	\$ 229,084	\$ 189,713	\$ 128,736	\$ 199,181
Less Depreciation:	\$ (62,308)	\$ (51,208)	\$ (42,273)	\$ (40,075)	\$ (48,966)
Total Production Costs (ex. Depr.):	\$ 464,427	\$ 517,832	\$ 353,213	\$ 347,986	\$ 420,865
Production Gain + Depreciation:	\$ 716,702	\$ 310,012	\$ 442,221	\$ 375,671	\$ 461,152
Sales & Admin Costs:	\$ 35,963	\$ 42,582	\$ 41,581	\$ 37,301	\$ 39,357
Management Fee:	\$ 100,093	\$ 95,942	\$ 101,602	\$ 105,769	\$ 100,852
Total SG&A:	\$ 136,056	\$ 138,524	\$ 143,183	\$ 143,070	\$ 140,208
Operating Profit:	\$ 580,646	\$ 171,488	\$ 299,038	\$ 232,601	\$ 320,943
Interest on Wheat:	\$ 15,254	\$ 14,137	\$ 2,986	\$ 5,519	\$ 9,474
Interest on Corn:	\$ 15,547	\$ 11,648	\$ 6,508	\$ 3,046	\$ 9,187
Interest on Soybeans:	\$ 37,044	\$ 17,429	\$ 5,300	\$ 1,702	\$ 15,369
EBITDA:	\$ 648,491	\$ 214,702	\$ 313,832	\$ 242,868	\$ 354,973

**Income Approach to Value - \$ per Bushel Throughput**

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>4-Year Average</u>
Total Sales:	\$ 8.832	\$ 10.600	\$ 7.491	\$ 5.802	\$ 8.181
Material Costs:	\$ (7.868)	\$ (9.830)	\$ (6.753)	\$ (5.112)	\$ (7.391)
Freight Out:	\$ (0.409)	\$ (0.363)	\$ (0.341)	\$ (0.309)	\$ (0.355)
Material Gain:	\$ 0.555	\$ 0.407	\$ 0.398	\$ 0.382	\$ 0.435
Production Costs - Direct:	\$ 0.130	\$ 0.167	\$ 0.103	\$ 0.137	\$ 0.134
Production Costs - Period:	\$ 0.117	\$ 0.113	\$ 0.095	\$ 0.068	\$ 0.098
Less Depreciation:	\$ (0.029)	\$ (0.025)	\$ (0.021)	\$ (0.021)	\$ (0.024)
Total Production Costs (ex. Depr.):	\$ 0.218	\$ 0.254	\$ 0.177	\$ 0.184	\$ 0.208
Production Gain + Depreciation:	\$ 0.337	\$ 0.152	\$ 0.221	\$ 0.198	\$ 0.227
Sales & Admin Costs:	\$ 0.017	\$ 0.021	\$ 0.021	\$ 0.020	\$ 0.020
Management Fee:	\$ 0.047	\$ 0.047	\$ 0.051	\$ 0.056	\$ 0.050
Total SG&A:	\$ 0.064	\$ 0.068	\$ 0.072	\$ 0.075	\$ 0.070
Operating Profit:	\$ 0.273	\$ 0.084	\$ 0.150	\$ 0.123	\$ 0.157
Interest on Wheat:	\$ 0.007	\$ 0.007	\$ 0.001	\$ 0.003	\$ 0.005
Interest on Corn:	\$ 0.007	\$ 0.006	\$ 0.003	\$ 0.002	\$ 0.004
Interest on Soybeans:	\$ 0.017	\$ 0.009	\$ 0.003	\$ 0.001	\$ 0.007
EBITDA:	\$ 0.305	\$ 0.105	\$ 0.157	\$ 0.128	\$ 0.174
Throughput (Bushels):	2,127,260	2,035,699	1,998,868	1,896,170	2,014,500



**Income Approach to Value**

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Four-Year Average</u>	
Total Sales:	\$ 18,787,535	\$ 21,578,935	\$ 14,974,043	\$ 11,002,184	\$ 16,585,674	
Material Costs:	\$ (16,736,493)	\$ (20,011,229)	\$ (13,497,660)	\$ (9,693,427)	\$ (14,984,702)	
Freight Out:	\$ (869,913)	\$ (739,862)	\$ (680,949)	\$ (585,100)	\$ (718,956)	
Material Gain:	\$ 1,181,129	\$ 827,844	\$ 795,434	\$ 723,657	\$ 882,016	
Production Costs - Direct:	\$ 277,545	\$ 339,956	\$ 205,773	\$ 259,325	\$ 270,650	
Production Costs - Period:	\$ 249,190	\$ 229,084	\$ 189,713	\$ 128,736	\$ 199,181	
Less Depreciation:	\$ (62,308)	\$ (51,208)	\$ (42,273)	\$ (40,075)	\$ (48,966)	
Total Production Costs (ex. Depr.):	\$ 464,427	\$ 517,832	\$ 353,213	\$ 347,986	\$ 420,865	
Production Gain + Depreciation:	\$ 716,702	\$ 310,012	\$ 442,221	\$ 375,671	\$ 461,152	
Sales & Admin Costs:	\$ 35,963	\$ 42,582	\$ 41,581	\$ 37,301	\$ 39,357	
Management Fee:	\$ 100,093	\$ 95,942	\$ 101,602	\$ 105,769	\$ 100,852	
Total SG&A:	\$ 136,056	\$ 138,524	\$ 143,183	\$ 143,070	\$ 140,208	
Operating Profit:	\$ 580,646	\$ 171,488	\$ 299,038	\$ 232,601	\$ 320,943	
Interest on Wheat:	\$ 15,254	\$ 14,137	\$ 2,986	\$ 5,519	\$ 9,474	
Interest on Corn:	\$ 15,547	\$ 11,648	\$ 6,508	\$ 3,046	\$ 9,187	
Interest on Soybeans:	\$ 37,044	\$ 17,429	\$ 5,300	\$ 1,702	\$ 15,369	
EBITDA:	\$ 648,491	\$ 214,702	\$ 313,832	\$ 242,868	\$ 354,973	
					Less: Return to Working Capital:	\$ (108,167)
					Less: Interest on Operations:	\$ (51,508)
					Less: Return to Movable Personal Property:	\$ (26,300)
					Less: Allowance for Replacement of Short-Lived Items:	\$ (22,000)
					Sub-Total:	\$ 146,998
					Less: Return to Intangible Assets:	\$ (14,700)
					Net Income to Subject Property:	\$ 132,298
					By: Capitalization Rate:	13.50%
					Indicated Market Value:	\$ 979,983
					Say:	\$ <b>980,000</b>

**Income Approach to Value**

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Adjusted</u>
Total Sales:	\$ 18,787,535	\$ 21,578,935	\$ 14,974,043	\$ 11,002,184	
Material Costs:	\$ (16,736,493)	\$ (20,011,229)	\$ (13,497,660)	\$ (9,693,427)	
Freight Out:	\$ (869,913)	\$ (739,862)	\$ (680,949)	\$ (585,100)	
Material Gain:	\$ 1,181,129	\$ 827,844	\$ 795,434	\$ 723,657	\$ 800,000
Production Costs - Direct:	\$ 277,545	\$ 339,956	\$ 205,773	\$ 259,325	
Production Costs - Period:	\$ 249,190	\$ 229,084	\$ 189,713	\$ 128,736	
Less Depreciation:	\$ (62,308)	\$ (51,208)	\$ (42,273)	\$ (40,075)	
Total Production Costs (ex. Depr.):	\$ 464,427	\$ 517,832	\$ 353,213	\$ 347,986	\$ 375,000
Production Gain + Depreciation:	\$ 716,702	\$ 310,012	\$ 442,221	\$ 375,671	\$ 425,000
Sales & Admin Costs:	\$ 35,963	\$ 42,582	\$ 41,581	\$ 37,301	
Management Fee:	\$ 100,093	\$ 95,942	\$ 101,602	\$ 105,769	
Total SG&A:	\$ 136,056	\$ 138,524	\$ 143,183	\$ 143,070	\$ 144,000
Operating Profit:	\$ 580,646	\$ 171,488	\$ 299,038	\$ 232,601	\$ 281,000
Interest on Wheat:	\$ 15,254	\$ 14,137	\$ 2,986	\$ 5,519	\$ 9,474
Interest on Corn:	\$ 15,547	\$ 11,648	\$ 6,508	\$ 3,046	\$ 9,187
Interest on Soybeans:	\$ 37,044	\$ 17,429	\$ 5,300	\$ 1,702	\$ 15,369
EBITDA:	\$ 648,491	\$ 214,702	\$ 313,832	\$ 242,868	\$ 315,030
			Less: Return to Working Capital:		\$ (108,167)
			Less: Interest on Operations:		\$ (51,508)
			Less: Return to Movable Personal Property:		\$ (26,300)
			Less: Allowance for Replacement of Short-Lived Items:		\$ (22,000)
			Sub-Total:		\$ 107,055
			Less: Return to Intangible Assets:		\$ (10,706)
			Net Income to Subject Property:		\$ 96,350
			By: Capitalization Rate:		12.00%
			Indicated Market Value:		\$ 802,913
			Say:		\$ 805,000

# Income Approach

- EBITDA Multiplier
  - Often referenced by grain industry participants
  - With or Without Working Capital Adjustment?
  - Again – past results not necessarily a predictor of future results
  - Need to understand merchandising and hedging strategies
  - You ultimately need to allocated total value and PP&E and then the PP&E between Taxable Real Estate and
- Licensed Grain Warehouse Technique
  - Considers the elevator as a public warehouse
  - Strictly handles and stores third-party grain
  - Not as real world as it used to be
  - Government storage programs largely phased out in the 1980s

<b>INCOME APPROACH - GRAIN WAREHOUSE TECHNIQUE</b>									
<b>I Income</b>									
			Bushels		Charge			Income	
<u>Through-Put Income</u>									
1	Corn:	\$0.09 in-charge + \$0.09 out-charge:	3,570,315	x	\$ 0.18	=	\$	642,657	
2	Soybeans:	\$0.125 in-charge + \$0.125 out-charge:	1,374,212	x	\$ 0.25	=	\$	343,553	
3	Wheat:	\$0.09 in-charge + \$0.09 out-charge:	909,949	x	\$ 0.18	=	\$	163,791	
4	Barley:	\$0.09 in-charge + \$0.09 out-charge:	294,949	x	\$ 0.18	=	\$	53,091	
<b>Total Through-put Income</b>			6,150,000						\$ 1,203,091
<u>Storage Income (60% overall occupancy)</u>									
5	Corn & Soybeans:	(84.5% of grain in storage @ \$0.04 /month)	1,444,528	x	\$ 0.48	=	\$	693,373	
6	Wheat:	(15.5% of grain in storage @ \$0.05 /month)	264,973	x	\$ 0.60	=	\$	158,984	
<b>Total Storage Income</b>									\$ 852,357
<u>Drying Income</u>									
6	Corn:	65% of Corn Bushels @ \$0.125	2,320,705	x	\$0.125	=	\$	290,088	
7	Soybeans:	20% of Soybean Bushels @ \$0.15	274,842	x	\$0.150	=	\$	41,226	
8	Wheat:	20% of Wheat Bushels @ \$0.125	181,990	x	\$0.125	=	\$	22,749	
<b>Total Drying Income</b>									\$ 354,063
<b>Income from Other Sources (Screening, Turning, Fumigating):</b>									\$ 49,000
<b>Total Income from all sources</b>									\$ 2,458,511
<b>II Production Costs</b>									
<b>ii a) Production Costs - Direct</b>									
		Direct Labor:	\$	235,000					
		Repairs:	\$	350,000					
		Supplies:	\$	95,000					
		Power:	\$	65,000					
		Grain Drying Fuel:	\$	225,000					
		Payroll Taxes:	\$	21,500					
		Industrial Insurance:	\$	16,500					
		<b>Total Direct Production Costs:</b>		\$1,008,000					\$ (1,008,000)
<b>ii b) Production Costs - Period</b>									
		Hourly - Vacaton & Holiday:	\$	15,000					
		Insurance - General:	\$	68,500					
		Property Taxes:	\$	59,000					
		Pension Expense - Production:	\$	2,250					
		Group Insurance:	\$	35,000					
		Period Costs Other:	\$	52,500					
		<b>Total Period Production Costs:</b>	\$	232,250					\$ (232,250)
<b>III Sales, General &amp; Administrative (SG&amp;A)</b>									
		Sales & Administrative:	\$	350,000					
		Management Fee:	\$	135,000					
		<b>Total SG&amp;A Expense:</b>	\$	485,000					\$ (485,000)
<b>IV Allowance For the Replacement of Short-Lived Items:</b>									\$ (92,050)
<b>V Net Operating Income</b>									\$ 641,211



# Questions

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