

44<sup>th</sup> meeting of the  
**IOWA FREIGHT ADVISORY COUNCIL**

March 8, 2024  
10:00 AM to 2:00 PM  
Gateway Hotel & Conference Center  
2100 Green Hills Drive, Ames, IA 50014

**Meeting input objectives**

1. Provide questions and comments related to the state legislative session and IJJA implementation.
2. Provide questions and comments on recent Iowa State University research.
3. Discuss the conditions of the Panama Canal and the state of global trade.
4. Give input to DOT on the development of the State Rail Plan.

**10:00 AM Safety Briefing**

**Amanda Martin**  
**Iowa DOT**

**Welcome & Introductions**

*Ice breaker: Provide any comments, updates, notable items, etc.*

**Mike Steenhoek, Chair**  
**Soy Transportation**  
**Coalition**

**10:15 AM Iowa DOT Update**

General update from the Department, including the 2024 legislative session and continued implementation of the Infrastructure Investment and Jobs Act (IIJA).

**Stu Anderson**  
**Iowa DOT**

**CN-IANR Acquisition**

Presentation on how FAC members can provide comment to the STB on CN's Acquisition of Iowa Northern Railroad.

**Maria Hobbs**  
**Iowa DOT**

**10:45 AM Important issues in the US trucking labor market**

**Dr. Jonathan Phares**  
**Ivy College of Business**

**11:15 AM Panama Canal: Enough to Make You Dangerous**

Overview of the history of the Panama Canal, as well as the current conditions of the waterway and global trade.

**Mike Steenhoek, Chair**  
**Soy Transportation**  
**Coalition**

**12:00 PM Break**

Take a break, grab your boxed lunch, and return for a working lunch.

**12:15 PM Rail Plan Engagement Exercise**

**Maria Hobbs**  
**Caleb Whitehouse**

**1:00 PM "Urban Logistics: Incorporating citizens into logistics strategy and operations"**

**Dr. William Rose**  
**Ivy College of Business**

**1:30 PM Adjourn**

**Future meetings:**

- June 14, 2024 – Ankeny
- September 20, 2024 - TBD
- December 13, 2024 - Ankeny



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**IOWA FREIGHT ADVISORY COUNCIL**

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 2100 Green Hills Drive, Ames, IA 50014

**Members**

X	Mike Steenhoek (Chair), Soy Transportation Coalition		Jillian Walsh (Vice Chair), Travero
X	Gabe Claypool, Des Moines Industrial	X	Greg Dickinson, Ten D, Inc. Companies
X	Jackson Doud, Iowa Farm Bureau	X	Amy Homan, Iowa Northern Railroad
	Matthew Leyser, John Deere Des Moines Works	X	Larry Lloyd, CPKC Railroad
	Doug Martin, Amazon DSM5	X	Joe McConnell, Perishable Distributors of Iowa
	Allison Meiners, Iowa Motor Truck Association		Delia Moon-Meier, Truckstops of Iowa
	James Niffenegger, Landus Cooperative	X	Kelli O'Brien, Union Pacific Railroad
	Joe Parsons, Iowa Interstate Railroad	X	Ty Rosburg, Rosburg Livestock
X	Peter Skosey, BNSF Railway	X	Jessica Sprung, Sukup Manufacturing
X	Marty Wadle, Ruan Transportation		Mark White, Smith Fertilizer and Grain
X	Ron White, Artco Fleeting Service		

**Ex-Officio Members**

	Tom Bruun, Iowa DPS, Iowa State Patrol	X	Zhi Chen, DMAMPO
	Colonel Jesse Curry, USACE, Rock Island District	X	Jennifer Wright for Amie Davidson, Iowa DNR, Land Quality Bureau
	Andrew Goodall, USACE, Rock Island District	X	Mike Hadley, Keokuk County Board of Supervisors
X	Mike Harrington, IDALS	X	Nicole Oneyear for Sean Litteral, FHWA, Iowa Division
	Scott Marler, Iowa Department of Transportation		Shirley McGuire, FMCSA
	Tim Marshall, FHWA, Iowa Division		Mike Norris, SEIRPC
	Joseph Rude, Iowa Economic Development Authority	X	Sadi Reimann for Louis Vander Streek, Iowa Utilities Board

**Iowa Department of Transportation**

X	Zahrah Alghalibi	X	Stu Anderson
	Jeff von Brown		Mikel Derby
	Brenda Freshour-Johnston		Melissa Gillett
X	Jim Glaspie	X	Sam Hiscocks
X	Maria Hobbs	X	Alex Jansen
	Renee Jerman		Troy Jerman
	David Lorenzen	X	Amanda Martin
X	Tammy Nicholson	X	Garrett Pedersen
X	Charlie Purcell	X	Spencer Thompson
	Andrea White	X	Caleb Whitehouse
	Lee Wilkinson		

**Guests**

X	Dr. William Rose, Iowa State University	X	Dr. Jonathan Phares, Iowa State University
X	Jeffrey Price, Canadian National Railway	X	Kevin Beichley, Iowa DOT

## Meeting input objectives

1. Provide questions and comments related to the state legislative session and IJA implementation.
2. Provide questions and comments on recent Iowa State University research.
3. Discuss the conditions of the Panama Canal and the state of global trade.
4. Give input to DOT on the development of the State Rail Plan.

### 10:00 AM Safety Briefing

**Amanda Martin**  
Iowa DOT

Martin designates Whitehouse to call 911 in case of emergency and Hobbs as his backup. Martin also points out the emergency exits, fire alarms, fire extinguishers, severe weather shelter, evacuation routes, meeting place, and tripping hazards.

#### Welcome & Introductions

*Ice breaker: Provide any comments, updates, notable items, etc.*

**Mike Steenhoek, Chair**  
Soy Transportation  
Coalition

Steenhoek prompts Ron White to update the group on the status of the Mississippi River. White says that the conditions are pretty good thanks to rainfall in the Ohio River valley. Steenhoek says while the bulk of inland waterway traffic occurs in the fall, there are movements of fertilizer that occur in the spring.

Nicholson says that because of construction, the Iowa 9 Bridge in Lansing is closed. The Iowa DOT is looking into providing vanpool services as well as water taxi services between Wisconsin and Iowa for travelers that would've used the bridge. Steenhoek asks how the issue was detected. Nicholson says it was detected during the construction of the new bridge. It will likely be at least two months before the bridge is back opened.

### 10:15 AM Iowa DOT Update

**Stu Anderson**  
Iowa DOT

General update from the Department, including the 2024 legislative session and continued implementation of the Infrastructure Investment and Jobs Act (IIJA).

Anderson begins his presentation by showing the new Iowa DOT logo. This rebranding was done in conjunction with other state agencies.

Iowa DOT has submitted four bills to the Iowa legislature. All four are relatively minor and uncontroversial. All have passed through the house and are waiting on action by the senate. These include:

- Minimum Value Threshold for Vehicles Requiring a Bond
- Remove Sensitive Information from Printed Vehicle Title
- Right of Way Streamlining – Appraisal Waivers for Small Areas of Land for Disposal
- Streamlining of Road Use Tax Fund Reporting Requirements

The Iowa DOT is also requesting funding for modal programs including an additional \$1.5 million of Railroad Revolving Loan and Grant program funding.

The Governor has appointed Bill Anderson and Mary Groenan to the Iowa Transportation Commission to replace two other commissioners whose terms have expired.

Fiscal year 2024 Road Use Tax Fund revenues are \$33.1 million above forecasts. This shows that inflation has moderated relative to last year. The federal government is operating under their fourth continuing resolution to fund the government, and it is funded through today (March 8<sup>th</sup>), but congress will likely extend that to September 2024.

The 2025-2029 Highway Program is under development and will be approved in June by the Transportation Commission. It will include no new sources of revenue, but existing sources are adequate. Three of the five years included in the program are beyond the life of the current infrastructure bill, and the program forecasts flat federal funding.

Steenhoek says that because there are no assurances that the infrastructure bill will continue beyond five years (after its passage), states must make assumptions on what the federal government will provide. If it's not extended, funding will revert to pre-IIJA (pre-2021) levels.

Steenhoek asks what the main source of increased revenue is. Anderson says it is new vehicle purchases. Because RUTF revenue is based on the price, it is effectively indexed with inflation. The Iowa DOT is surprised at the consistent demand despite high prices. The RUTF is also funded by fuel taxes and per kilowatt-hour electric vehicle charging fees for out-of-home electric vehicle charging.

Alex Jansen adds that electric commercial vehicles would also be subject to the per kilowatt-hour tax, but he's unsure if such a charging location exists.

Ty Rosburg asks if the Secondary Road Fund Distribution Committee will be dissolved as part of the Governor's effort to reduce boards and commissions. Anderson says that the role of that group might be incorporated into the duties and responsibilities of the Transportation Commission. If that were to happen, the distribution would likely still exist and make recommendations to the commission.

#### **CN-IANR Acquisition**

Presentation on how FAC members can provide comment to the STB on CN's Acquisition of Iowa Northern Railroad.

**Maria Hobbs**  
**Iowa DOT**

On December 6<sup>th</sup>, 2023, CN announced its plans to acquire Iowa Northern Railway. The decision to approve the acquisition will be made by the Surface Transportation Board. STB has filed this acquisition as a minor acquisition and approved the proposed timeline.

A website was created to provide information on the merger, and the filing can be found on the STB website under docket code FD-36744.

No changes in service are expected because of the merger. Rail traffic will not increase more than one train per day on each segment. Public comment is open through April 1<sup>st</sup> and a formal decision is anticipated in July.

Dr. Phares asks if this acquisition will have any impact on rail service in the state. Price says that the aim of the acquisition is to grow rail service.

Steenhoek asks how the merger will impact jobs at IANR. Homan says that current employees are guaranteed a position for the next 18 months. CN has also committed to offer IANR employees a position at CN, but the exact position might be different.

Steenhoek asks what made the acquisition attractive for CN. Homan says that the services that IANR provides to the agricultural industry in their region, and specifically their locations near Manly, IA.

Steenhoek turns to the railroad representatives in the room to share their biggest sources of heartache and heartbreak. Lloyd says CPKC has completed several projects that they committed to as part of their merger. He hasn't done the math, but he would guess that those projects have been over \$100 million of total investment in the state. Steenhoek asks Lloyd what he is most nervous about. Lloyd says they are nervous about a global recession of freight traffic.

O'Brien says that UP has been working with Iowa DOT and the City of Boone on closing crossings and other investments in Boone. These investments are intended to move freight more fluidly and keep trains from blocking crossings. There have been some other items in their intermodal service to St. Paul. O'Brien also says that accidents involving distracted drivers and freight trains have been a source of heartbreak.

Skosey says that mainline traffic accidents have declined 42 percent and hazmat accidents have declined 75 percent. However, crossing accidents haven't budged.

Price says that CN has seen similar things as the other railroads. He says that many incidents are in urban areas and involve drivers not respecting crossing gates.

**10:45 AM Important issues in the US trucking labor market**

**Dr. Jonathan Phares  
Ivy College of Business**

Dr. Phares introduces himself to the group as a faculty member at the Iowa State University Ivy College of Business' Supply Chain Department. Phares says that he worked at Walmart before becoming a professor and has experienced issues surrounding labor. His research focuses on four main labor issues.

Phares says that wages have always been a top issue for drivers influencing turnover. He says that one of the big challenges facing the driver labor market is that the "class" of employees drawn to trucking can also flex between other industries such as manufacturing, construction, and retail. Therefore, employers must also compete for labor across industries, and driver wages must grow alongside those other industries. Truck drivers tend to be the most responsive to wage changes in other industries and can more quickly move to other jobs in search of higher wages.

Phares has also found that a fixed amount of truck driver employment is not ever created or destroyed, it just moves between carriers as they expand or contract. He found that a lot of new job creation and destruction occurs in very young (less than 4 years) carriers. New carrier fleets have also been declining in size since 2000.

Phares also studies trucking employment tied to demand-generating industries, meaning that the supply of truck drivers will follow demand for truck drivers. His research has found that trucking declines steepest in states with steepest post-COVID manufacturing declines. Phares also found that when freight rates were high, larger carriers delayed hiring drivers (and thus adding shipping capacity) to capitalize on the higher rates. Trucking rebounded the strongest in states with strong port activity and manufacturing that recovered to pre-pandemic levels.

Despite some states legalizing marijuana, the FMCSA still bars drivers from using. Over one year, 60,596 drivers were reported to the Drug and Alcohol Clearinghouse, and thus disqualifying them from driving. The tests detect marijuana usage over the last 2-4 weeks upon using and is not an indication of whether a driver is currently high. So, the FMCSA is incapable of distinguishing between someone operating a CMV while high and someone using marijuana on their downtime. There are some tests in development that would be able to tell if a driver is actively high versus a recreational user who is not under the influence of marijuana.

Additionally, marijuana use and operation of CMVs do not correlate behaviorally (marijuana use usually occurs at home and thus users are not likely to be behind the wheel), and when users drive, they tend to be safer (they are likely more alert out of paranoia). States that legalized marijuana use saw no increase or a slight decline in heavy vehicle crashes after the drug was made legal.

Wadle says that because driving is a secondary career and drivers can't travel across state lines until they are 21, it influences the elasticity of drivers because they may have better opportunities in other sectors until they are 21. Phares says that in addition to the lag between young people requiring employment at 18 and being able to drive interstate at 21, the trucking market also faces stigmatic issues.

Rosburg expands on Wadle's comments and says that the pool of truck drivers moving livestock has decreased as well. He also says that there isn't a good education system that does more than teach a driver how to pass their CDL test.

White asks where Phares thinks the trend of positive drug tests for marijuana would go if tests would be able to show if a driver is under the influence upon taking the test. Phares says that the trend will likely go down, but there are regulatory hurdles that prevent saliva tests from being adopted by the clearinghouse.

Whitehouse asks if in Phares research of truck driver elasticity showed any overlap in labor pools between trucking and agriculture. Phares said that because the research was conducted at a nationwide level, he didn't see anything in their research, but that might be the case in states with a larger agricultural base.

**11:15 AM Panama Canal: Enough to Make You Dangerous**

Overview of the history of the Panama Canal, as well as the current conditions of the waterway and global trade.

**Mike Steenhoek, Chair  
Soy Transportation  
Coalition**

Steenhoek begins his presentation by giving an overview of the nation of Panama. The first discussion of building a passageway was in 1534. Panama was a territory of Columbia until 1903. Serious discussion of creating a canal didn't begin until 1849 during the California gold rush. The easiest path to California from the east coast was to sail to Panama and cross overland and sail to the west coast.

The Panama Canal railway was created in 1855 and became (technically) the first continental railway by the United States. The United States originally preferred a canal through Nicaragua, where the political climate was less volatile and the amount of construction was relatively similar.

Desire to build a canal by America began when Teddy Roosevelt was pushing to increase the size of the US Navy. After the Spanish-American war, the US needed to provide naval security for its

new Pacific territories. Roosevelt backed Panamanian separatists to break Panama away from Colombia.

US purchased French assets, concessions, and the railroad for \$40 million. The Panama Canal Zone was then established, which was a 10-mile wide, 40-mile-long territory of sovereign US land.

The Panama Canal was completed the August 15, 1914, the same day World War 1 started. After protests, the Panama Canal was returned to the people of Panama in 1999. This was after years of transition beginning in 1977. The Canal was then expanded to accommodate the new-Panamax size of ship.

Currently, drought conditions in Panama are inhibiting the access to freshwater, which is used to operate the locks. Every transit through the canal expels freshwater into the oceans equivalent to the daily usage of water by the city of Minneapolis. To preserve water, they are limiting transits per day from 36 to 24. Additionally, the types of freight who are choosing to divert depend on their reliability and the value of the freight.

Because of this bottleneck, American freight moving to Asia must travel either around the Cape of Good Hope (15,637 miles) or through the Suez Canal and the Bab el-Mandeb Strait on the Arabian Peninsula. Attacks from the Houthi terrorist brigades have made traversing the straight much riskier, if not impossible.

Because of these issues, the usage of the inland waterways in the United States is likely to be diminished purely because of the railroads' ability to access Asian market via the west coast.

Rosburg asks if there is any concern with the use of the Cape of Good Hope because of South Africa's alignment with BRICS countries. Steenhoek says that is probably not likely because shipping traffic is not as constrained.

**12:00 PM Break**

Take a break, grab your boxed lunch, and return for a working lunch.

**12:15 PM Rail Plan Engagement Exercise**

**Maria Hobbs  
Caleb Whitehouse**

FAC members were asked to provide input for the State Rail Plan by placing dots on a map of Iowa according to prompts given by facilitators. Results of this exercise will be in the Appendix of the State Rail Plan.

**1:00 PM "Urban Logistics: Incorporating citizens into logistics strategy and operations."**

**Dr. William Rose  
Ivy College of Business**

Dr. Rose begins with an overview of urban logistics and consumer expectations. Delivery vehicles add to congestion and have their own needs for operations and infrastructure. Cities have tried to segregate freight movements to minimize disruptions to no avail. Rose has done research into crowdsourcing deliveries, light electric delivery vehicles, and parcel lockers.



There are a lot of benefits to parcel lockers. A driver can make many deliveries simultaneously instead of going door to door. Parcel lockers are more secure and less prone to theft or damage by weather. Concentrating the delivery point also reduces congestion.

Two big questions: who to target and where to put the lockers? How do you model a parcel locker network around what the consumer cares about? Some have tried adding a note to the checkout page informing the consumer about the benefits of parcel lockers (to the environment, congestion, etc.).

Rose found that focusing on environmental benefits was effective. People in rural areas were more likely to use parcel lockers if the item was related to work. Urban customers were more likely to use parcel lockers out of enjoyment. Suburban consumers were more likely to use parcel lockers than rural or urban.

Rose asks the group to comment on the interface between product delivery and consumers. PDI says that Hy-Vee has explored parcel lockers and they were most successful when working with businesses such as hospitals.

Wright asks how the CO2 emissions reduction figures are calculated. Wright also says that in their experience, people will tell you what they care about but might not be willing to change their behavior based on it. Rose says that the placement of the parcel lockers might help people change their behavior. If it is in a place that someone is already going, they are more likely to use it.

Nicholson asks if a \$1.00 or \$2.00 discount will help encourage use. Rose said that it isn't enough, and they are trying to find the right price point that still maximizes savings for the shipper/carrier.

Sadi asks if the timing of the delivery influences behavior. Whitehouse asks if delivery time can incentivize behavior changes. Rose says they haven't investigated it, but that is an element of what could drive usage.

Price asks if the size of packages can be a barrier to using parcel lockers. Rose says that barrier can be accommodated by the supplier/shipper.

Wadle mentions off peak deliveries and truck parking. Rose says that he and Dr. Phares have been looking into a truck parking study that would examine illegal parking behaviors.

Wright says that Iowa DNR have given a grant to Goodwill of Iowa to produce boxes onsite to fit the boxes to the item which would reduce the amount of material used.

Rosburg says that based on his experience, no matter the demographic, price is always the most important factor driving behavior. He also says that parcel lockers will not work in every location for every consumer. Rose says that part of his research is examining where to start with parcel lockers.

**1:30 PM Adjourn**

**Future meetings:**

- June 14, 2024 – Ankeny
- September 20, 2024 - TBD
- December 13, 2024 - Ankeny





# Iowa DOT Update

Iowa Freight Advisory Council - March 8, 2024

IOWA | DOT





# Agenda

## 2024 Legislative Session

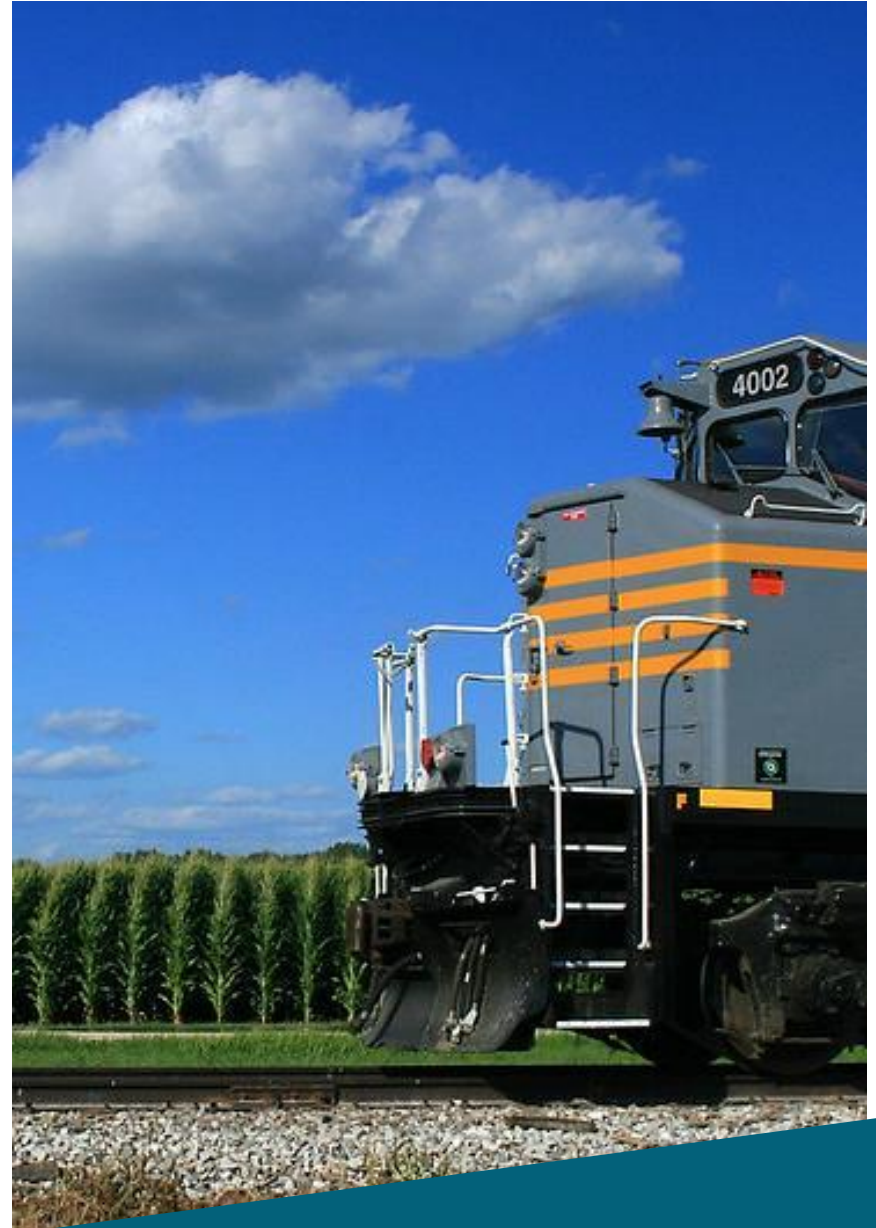
Iowa DOT Legislative Proposals

FY 2025 Modal Program  
Requests

FY 2025 Operations Budget  
Request

FY 2024 Status

2025-2029 Highway Program



## Iowa DOT Legislative Proposals – 2024 Session

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- Minimum Value Threshold for Vehicles Requiring a Bond
- Remove Sensitive Information from Printed Vehicle Title
- Right of Way Streamlining - Appraisal Waivers for Small Areas of Land for Disposal
- Streamlining of Road Use Tax Fund Reporting Requirements

## Modal Program Appropriations (\$000 Omitted)

Item	FY 2024 Budget *	Adjustments	FY 2025 Request*
Commercial Service Vertical Infrastructure	\$1,900	-	\$1,900
General Aviation Vertical Infrastructure	\$1,000	-	\$1,000
State Recreational Trails	\$2,500	-	\$2,500
Public Transit Infrastructure	\$1,000	\$500	\$1,500
Commercial Air Service – Terminals	\$10,000	(\$10,000)	-
Railroad Revolving Loan and Grant Program	\$500	\$1,500	\$2,000
<b>Total</b>	<b>\$16,900</b>	<b>(\$8,000)</b>	<b>\$8,900</b>

\*Appropriations requested from Rebuild Iowa's Infrastructure Fund (RIIF)

## FY 2024 Status

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- State Highway Program
  - FY 2024 lettings through February: \$30.5 m above programmed amounts
  - FY 2024 revenue through January: \$33.1 m above forecast
  - Overall balance: \$22.3 overprogrammed (started at \$24.9 m over programmed)
- FY 2024 Appropriation Bill expected to be signed today (March 8, 2024)

## 2025-2029 Highway Program

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- Under development now
- Approval in June
- Financial situation
  - No new revenue
  - Inflation is moderating
  - Three of the five years are beyond the life of the Infrastructure Bill – forecast flat revenue



# Questions?

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# Canadian National (CN) Acquisition of Iowa Northern (IANR) Railroad

## Agenda

CN-IANR acquisition  
information

Schedule

Current STB Filings

CN contacts

Open discussion and questions



# CN-Iowa Northern Acquisition Information Slide

**On December 6, 2023 CN announced its plans to Acquire Iowa Northern Railway**

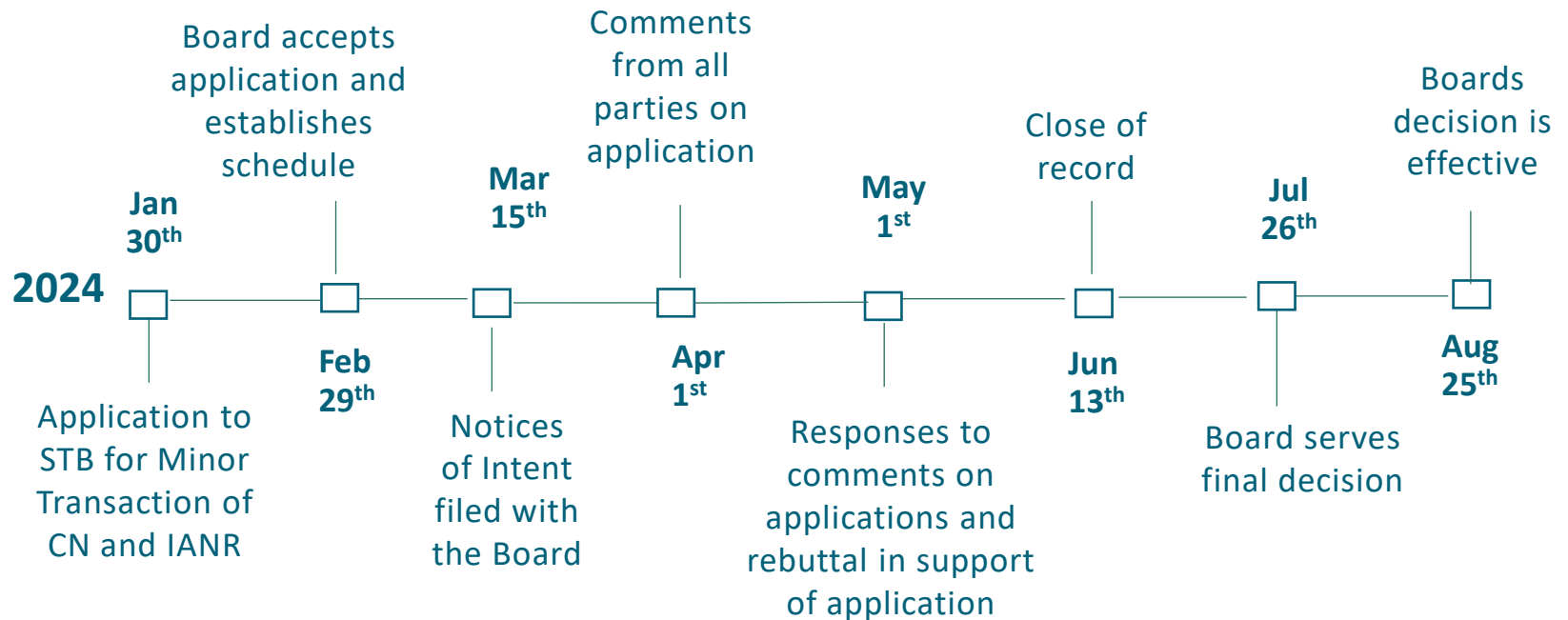
*Acquisition Will Provide Options for Shipping to and from Iowa*

*CN (TSX: CNR) (NYSE: CNI) announced it has signed and closed an agreement to acquire Iowa Northern Railway (IANR), which operates in Iowa and connects to CN's U.S. rail network. The transaction closed into an independent voting trust pending regulatory review of the transaction by the U.S. Surface Transportation Board (STB).*

- **January 30, 2024 Application filed with STB**

# Proposed Schedule in Application

## STB Filing





**CN to Acquire Iowa Northern Railway**

On December 3, 2022, CN (TSX: CNQ) announced it has a signed and filed an agreement to acquire Iowa Northern Railway (INRW), which operates in Iowa and connects to CN's U.S. rail network. The transaction is valued into an independent ruling court, pending regulatory review of the transaction by the U.S. Surface Transportation Board (STB).

[Read Full Press Release](#)

## A Combined CN-Iowa Northern Railway

✔ A combined CN-Iowa Northern Railway (IANR) is good for rail customers and supply chains, for Iowa Northern employees, and for Iowa's broader business community and economy.

✔ The CN-IANR transaction will provide Iowa businesses with more efficient single-line access to a much broader rail network and markets via CN's 18,600 miles of rail network that extends from Eastern to Western Canada and into the U.S. South.

✔ Iowa rail shippers in a wide range of agricultural and industrial markets will benefit from the transaction. CN's investment in IANR will promote resiliency in important supply chains, such as food products and biofuels.

✔ The transaction will enable IANR to continue providing reliable first- and last-mile service to local customers while offering new, single-line rail options to and from Iowa.

✔ The transaction will create new single-line options that will be good for Iowa shippers. Existing interline options between IANR and other rail carriers (including Union Pacific, Canadian Pacific Kansas City, and the Cedar Rapids and Iowa City Railroad) will remain available.

**"We are confident that, as part of CN, IANR will be able to continue to provide reliable first and last mile service to our local customers while providing them access to a much broader network and market."**

- Daniel Todd, Chairman of Iowa Northern Railway

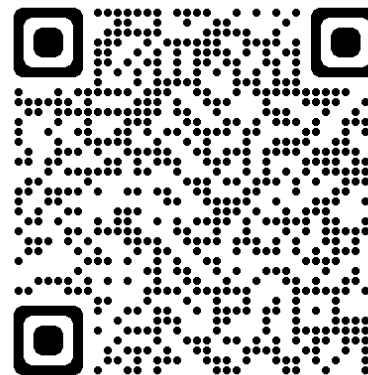


**"We look forward to the opportunities our combined network will provide customers, farmers, and our partners to respond to the needs of their existing and new markets."**

- Tracy Robinson, President and Chief Executive Officer at CN

# CN and Iowa Northern Website

[cniowanorthern.com](http://cniowanorthern.com)



## STB Documents

[Surface Transportation Board \(stb.gov\)](http://stb.gov)

Docket Number  
FD-36744

STILL HAVE QUESTIONS?

[Submit Questions](#)

[HERE](#)

## Navigating STB Website:

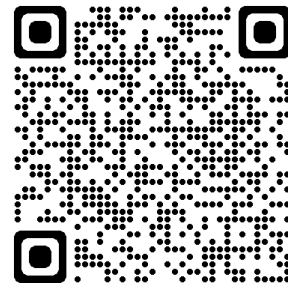
<https://www.stb.gov/proceedings-actions/dockets-and-service-lists/>

- 1 You will need to select “Filings” from the drop-down list in the “Search For” field.
- 2 Below this box you will select “FD” from the drop-down option in the “Docket Number” field.
- 3 In the second box you will enter the “36744”. The remaining boxes and field can be blank.
- 4 Select the blue SEARCH button to display the results.

Search For:

Docket Number:

Docket Title:



## Key Highlights

- STB review process of minor acquisitions can move quickly.
- No changes to service are expected.
- Rail Traffic will not increase more than one train/day on each segment.
- STB public comment period is open (Due April 1<sup>st</sup>, 2024)!
- Formal decision is anticipated in July 2024.
- More information <https://iowadot.gov/iowarail/>

## Acquisition Questions:

Email: [info@cniowanorthern.com](mailto:info@cniowanorthern.com)  
[jeffrey.price@cn.ca](mailto:jeffrey.price@cn.ca)

**Iowa Northern Railway Headquarters**  
201 Tower Park Dr  
Suite 300  
Waterloo, IA 50701



Questions?

# Canadian National (CN) Acquisition of Iowa Northern (IANR) Railroad

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## Important issues for the US trucking labor market

Jonathan Phares, PhD

Department of Supply Chain  
Management

**The New York Times**

Alone on the Open Road:  
Truckers Feel Like 'Throwaway  
People'

**FleetOwner**

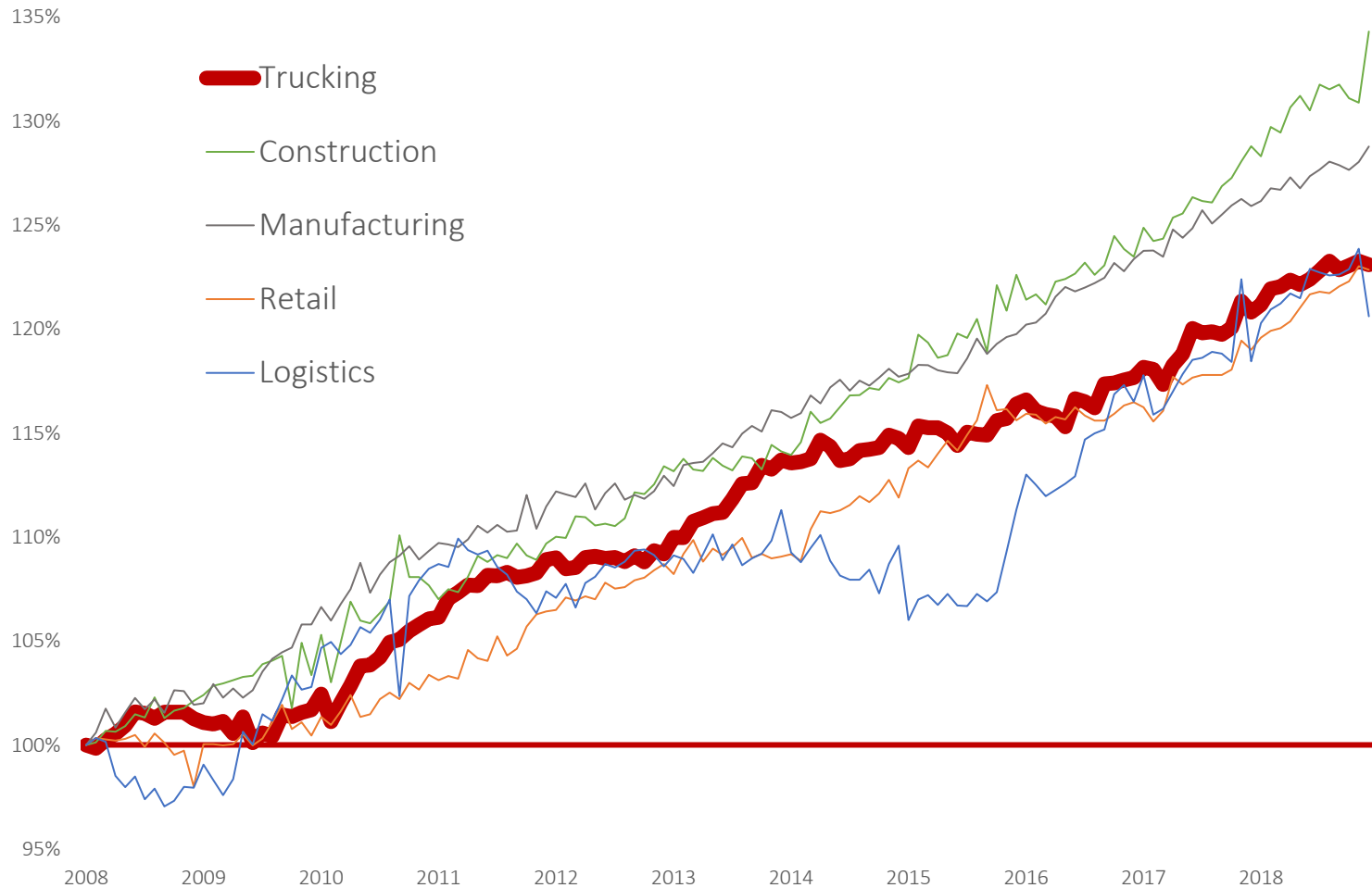
Trucking industry  
faces a marijuana  
dilemma

**THE WALL STREET JOURNAL**  
Trucking Giant Yellow  
Shuts Down Operations

**TIME**

As the Trucking Bubble Bursts,  
Independent Drivers Struggle at risk

# Competing industry wages important to driver R&R



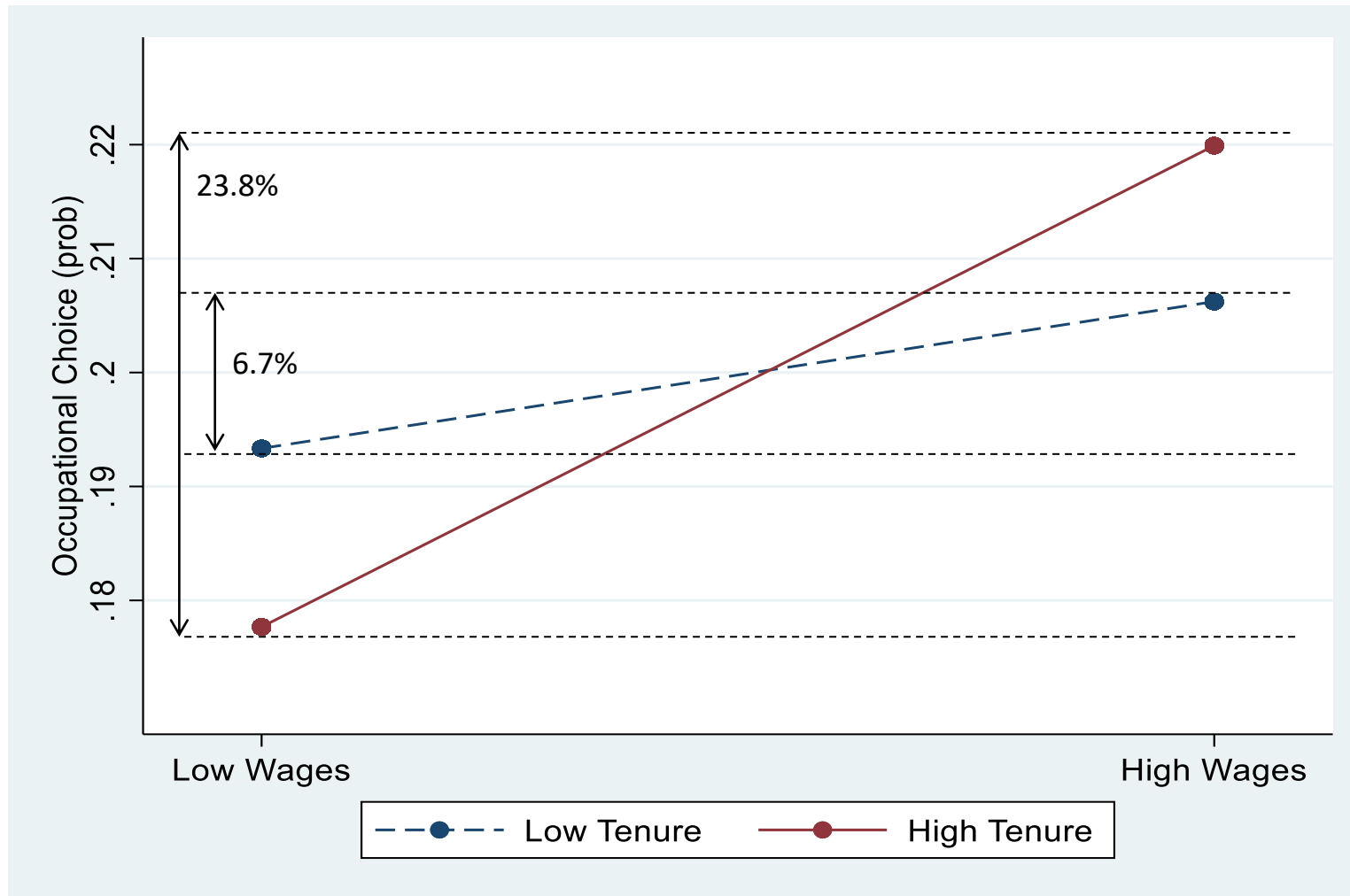
Driver wages have not kept pace with competing industries

# Elasticity plays important role in industry turnover

Truckers more responsive to competing industry wage changes

Industry	Elasticity
<b>Trucking</b>	0.301
<b>Const.</b>	0.222
<b>Sales</b>	0.236
<b>Mfg.</b>	0.234
<b>Log.</b>	0.309

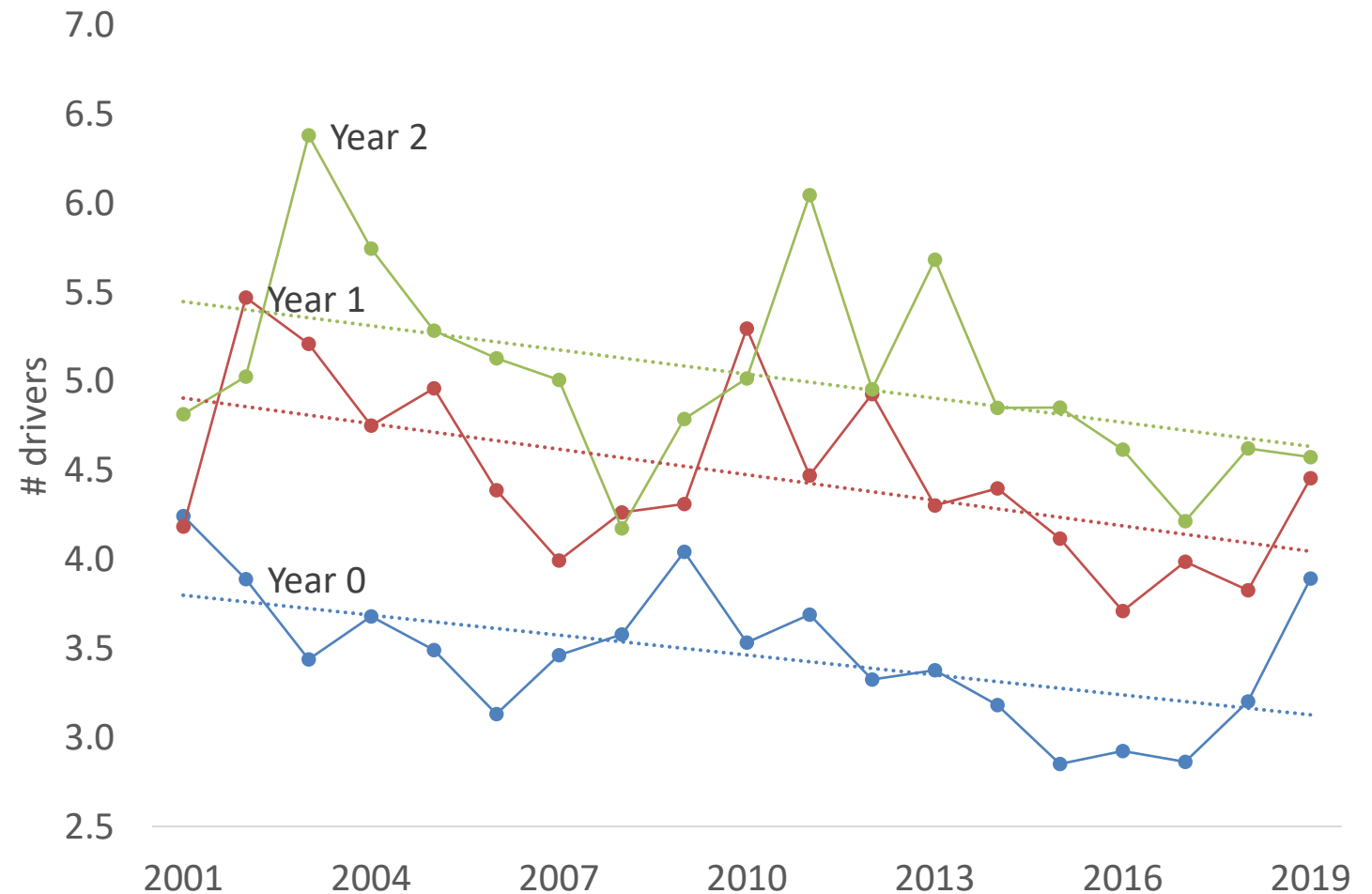
# Trucker tenure key to industry retention



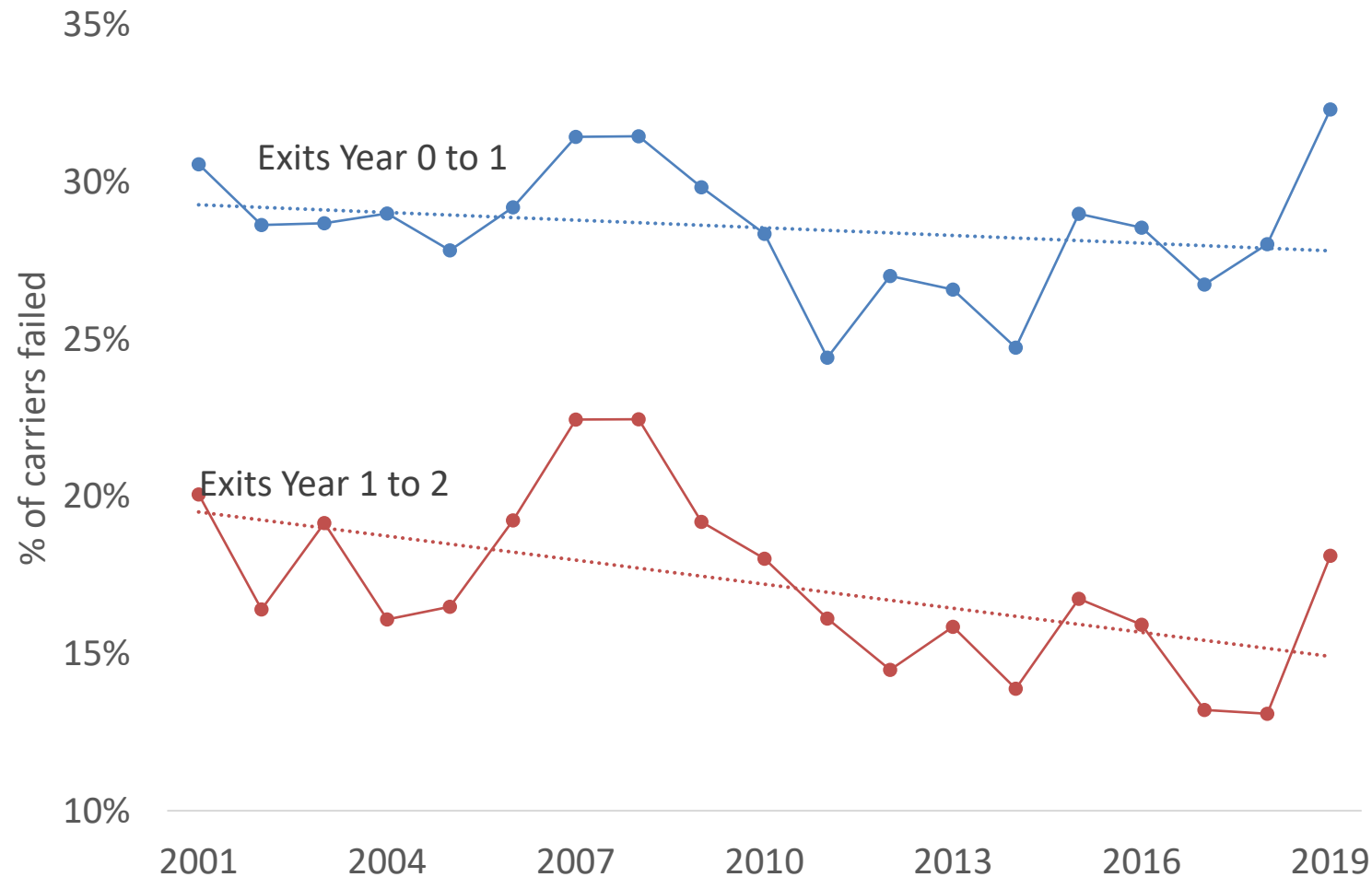
Reducing industry turnover contingent on improving non-pay-related job characteristics when pay is low

# Young carriers create more jobs but destroy more, too

Young carriers grow fast in initial years, but we see a decline in size over the years



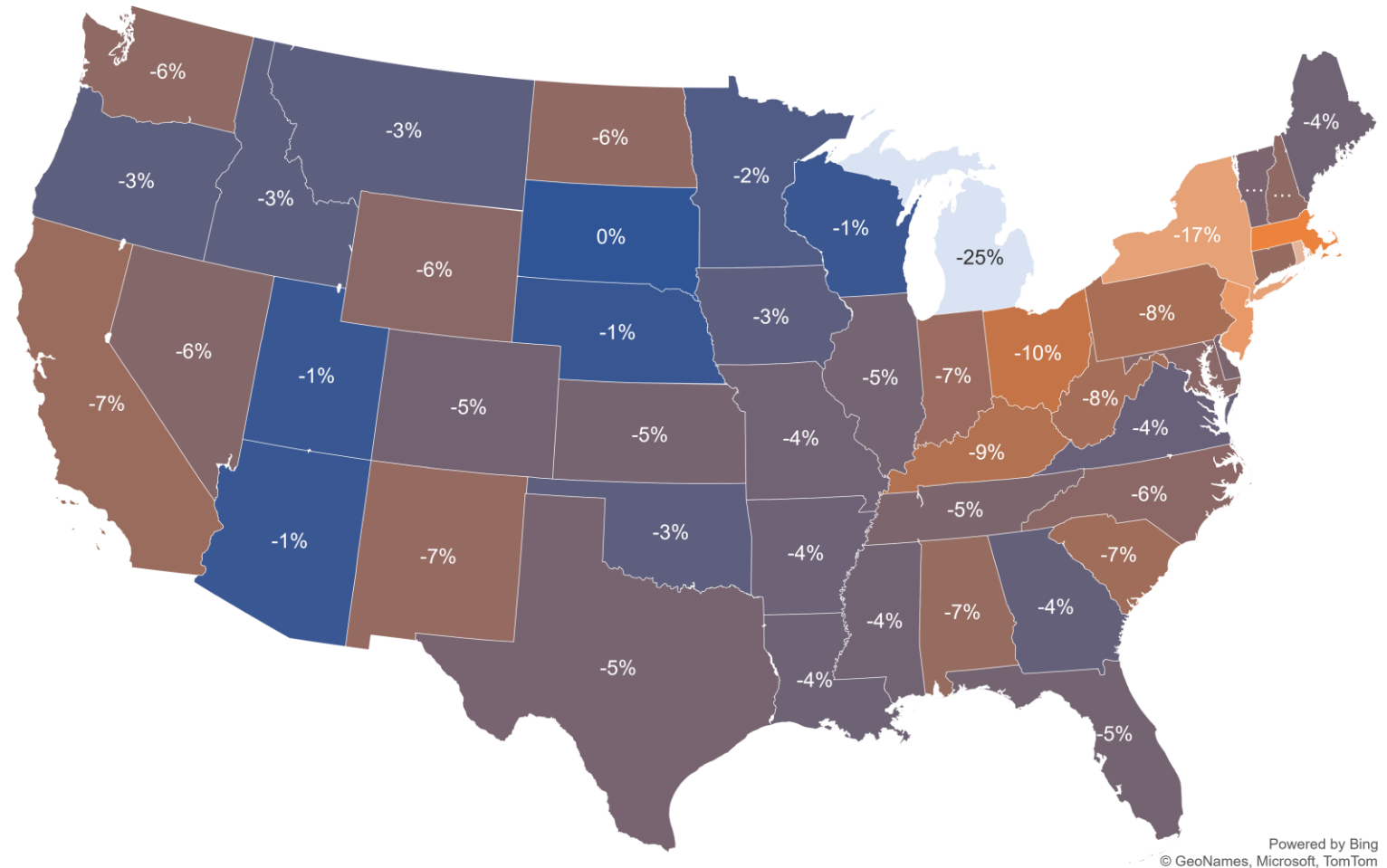
# Carrier exit highest in year 1, then survival improves



Carriers survive by understanding cost structure & contingency planning

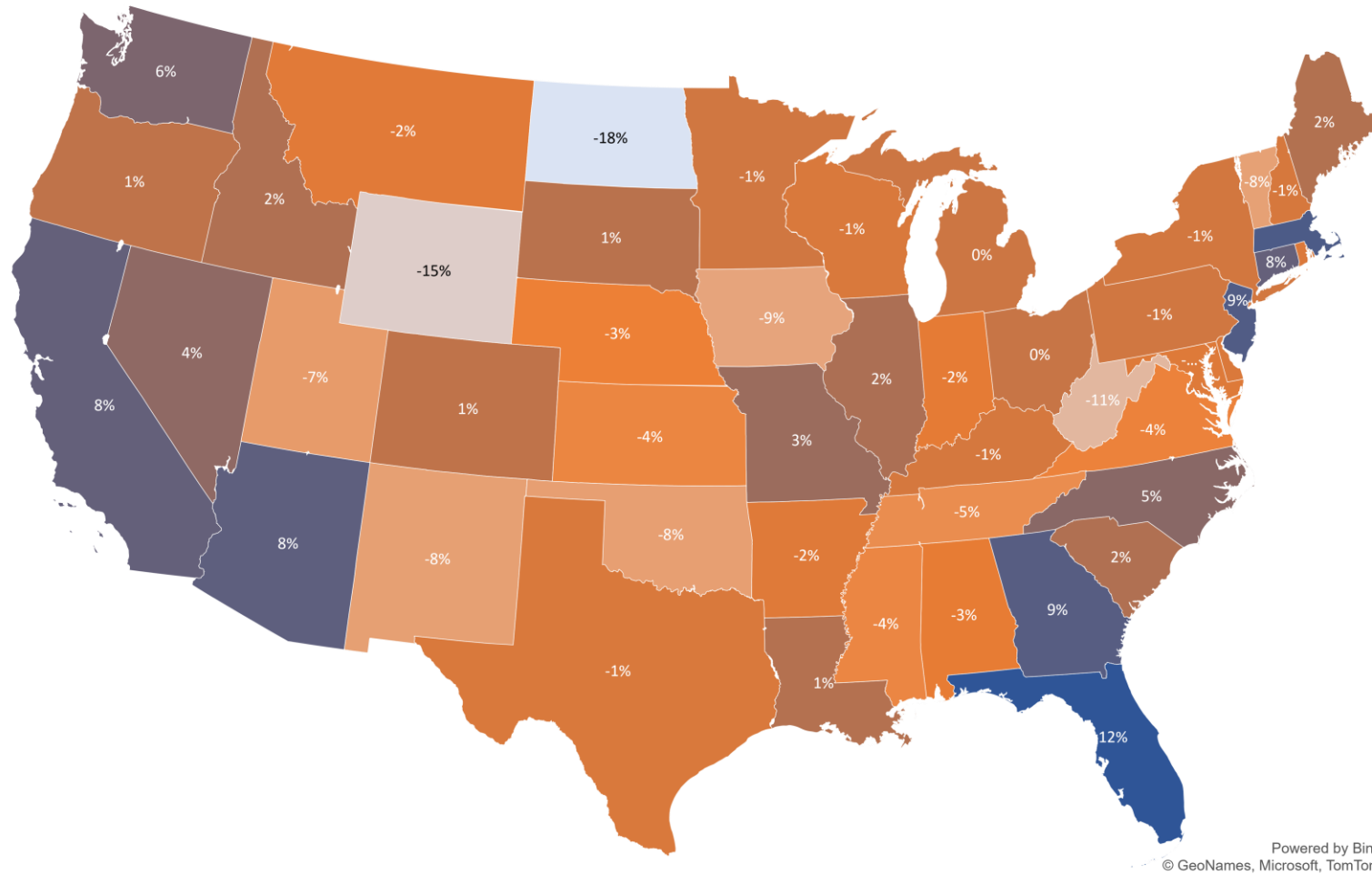
# Trucking employment tied to demand-generating industry

Trucking declines steepest in states with steepest post-COVID-19 mfg. declines





# Trucking job growth linked to state-level characteristics

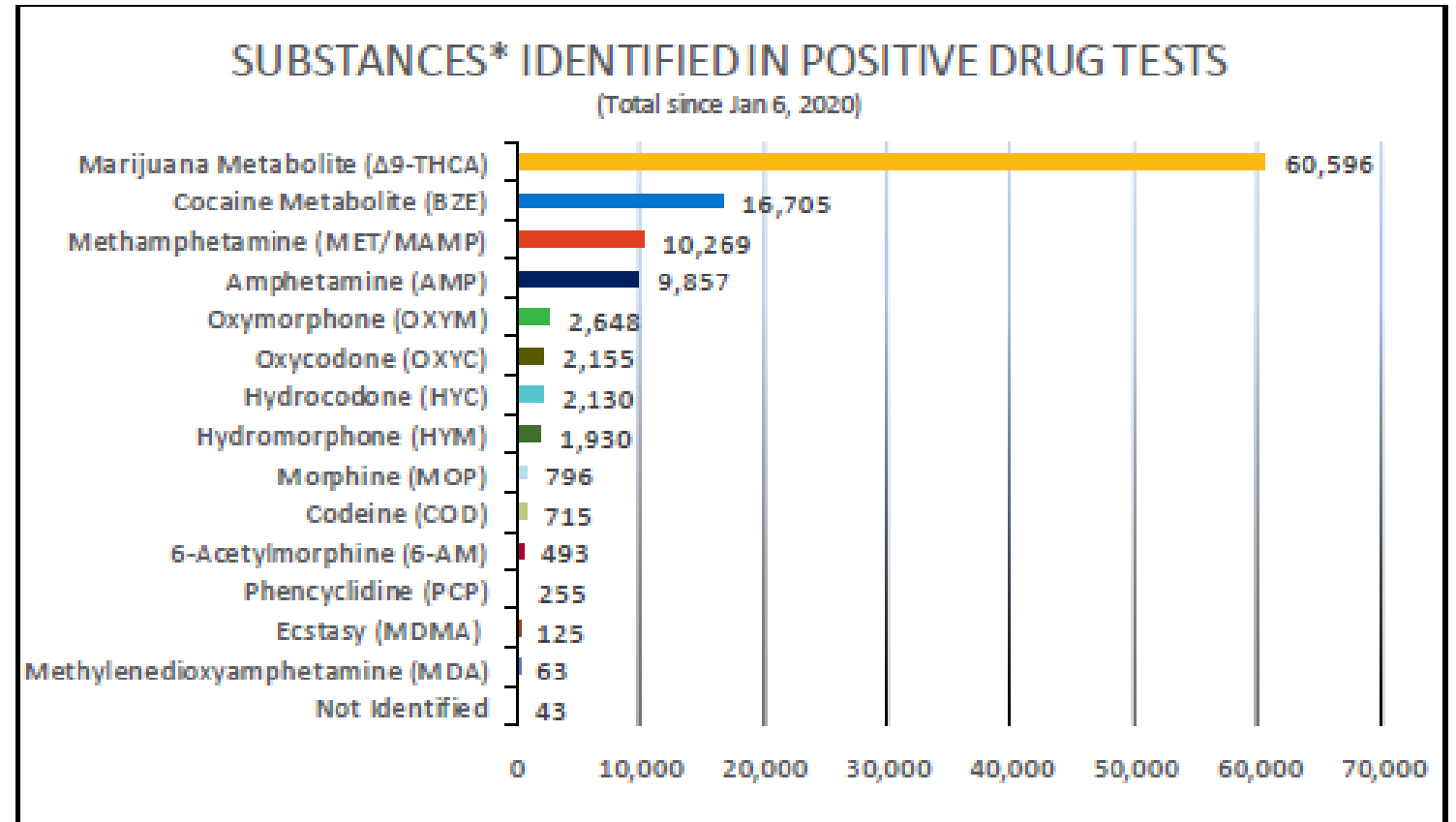


Trucking rebounds strongest in states with ports & mfg. recovery to pre-COVID-19 levels

Powered by Bing  
© GeoNames, Microsoft, TomTom

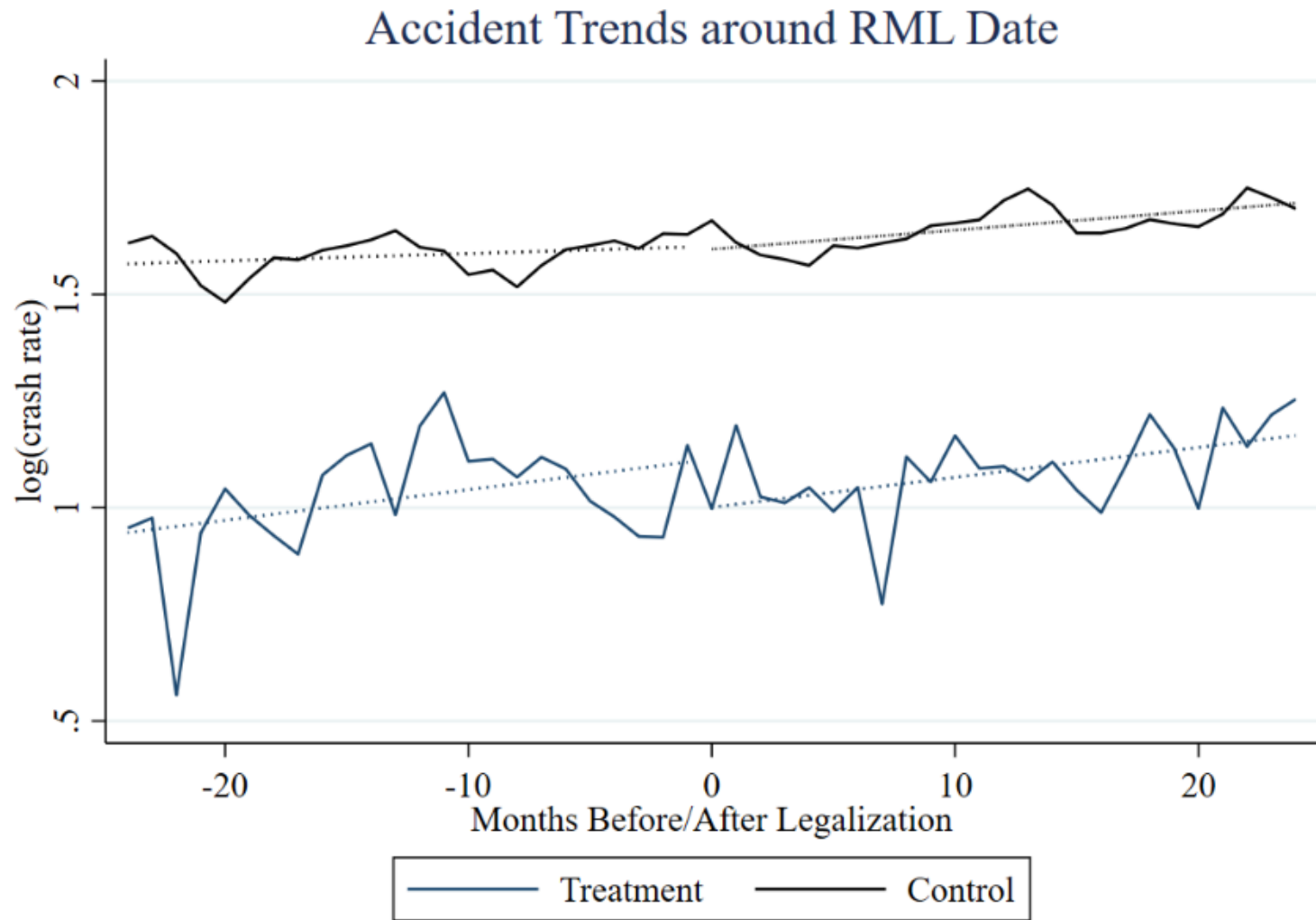
# Recreational marijuana a problem for trucking hiring

Drug & Alcohol  
Clearinghouse may  
reduce driver pool  
though drivers may not  
be high



*Positive drug tests reported through December 2021, as of 1/1/22*

# But not a problem for trucking safety



States that legalize saw reductions in heavy truck crashes

# Implications for carriers & policymakers

- Conventional wisdom about trucking labor may not provide best strategic & operational guidance
- Capacity growth may be more of a demand-side issue
- Recruiting & retaining drivers requires new tactics
- Safety rules may reduce labor pool without improving safety

## Important issues for the US trucking labor market

**For more information or to discuss research opportunities:**

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Assistant Professor of Supply Chain Management

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# Panama Canal: “Enough to be Dangerous”

March 8<sup>th</sup>, 2024



**SOY TRANSPORTATION  
COALITION**

# Early History



- “Panama” – indigenous word meaning, “abundance of fish”
- First discussion of building a canal across the isthmus in 1534
- Territory of Colombia until 1903; Darien Gap
- Current population: 4.5 million; 2 million in Panama City

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# Interest in Building a Canal Increases

- January 14, 1848: James Marshall finds gold flakes at Sutter's Mill on the American River east of Sacramento (launches the California Gold Rush)
  - Three ways to travel to San Francisco:
    - Wagon across the country: 2,000 miles from Missouri to San Francisco; 6 months
    - Boat around Cape Horn: 18,000 nautical miles; 6 months
    - Boat to Panama → Cross overland → Boat to San Francisco: 10,000 nautical miles; 3 months
  - Panama Canal Railway: Built in 1855 (1<sup>st</sup> transcontinental railroad) by United States
  - President U.S. Grant commissioned expeditions & surveys to determine optimal location for a Central American canal
-

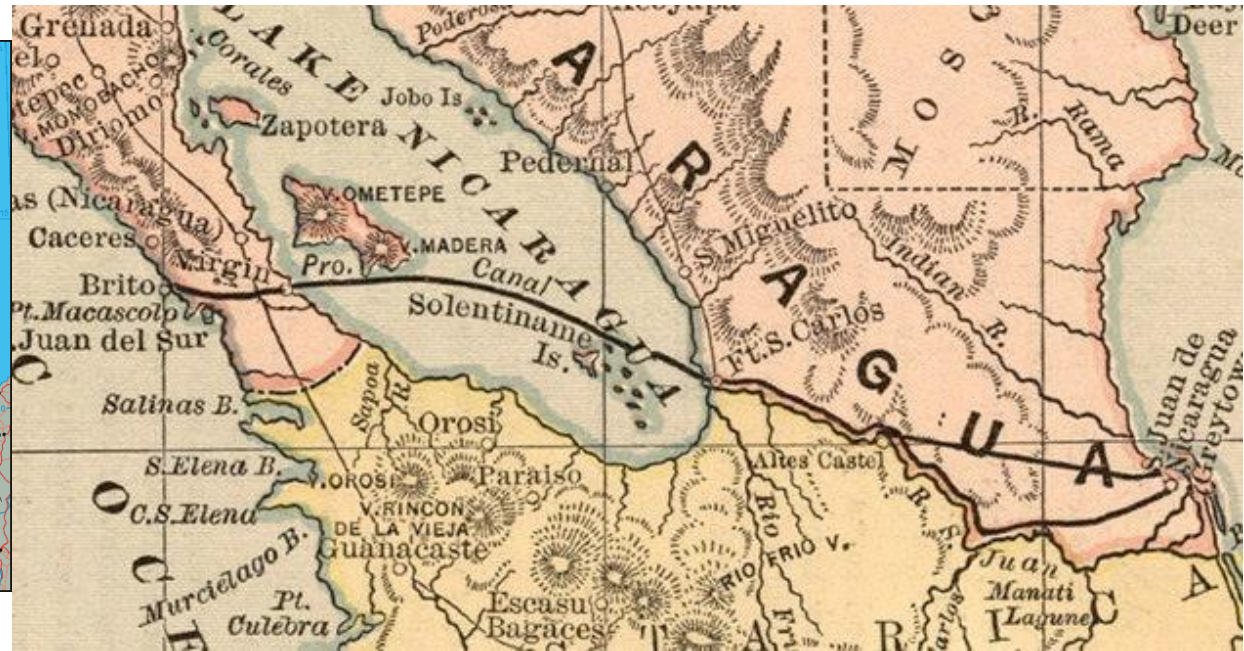
# Ferdinand de Lesseps (1805-1894): One of the world's first celebrity entrepreneurs



- French diplomat: Developed friendship with Said Pasha (later Viceroy of Egypt)
- Built the Suez Canal (1859-1869)
  - Sea level canal (no locks)
- Most famous person in France; Head of Franco-American Union that presented the Statue of Liberty to the U.S. (October 1886)
- Became interested in building a canal in Panama
- Wyse Concession received from Colombia in 1878
- 1879 Paris Congress on central American canal
  - U.S. delegation proposed a canal through Nicaragua
  - Adolphe Godin de Lepinay proposal for Panamanian canal with locks
- Dominated by de Lesseps, Congress approved constructing a sea level canal in Panama



# U.S. delegation supported Nicaraguan Canal



- Closer to the United States
- Politically less volatile
- Geography less imposing than Panama
- San Juan River + Lake Nicaragua = Approximately the same amount of construction as Panama
- Plan would include a series of locks

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# French Effort

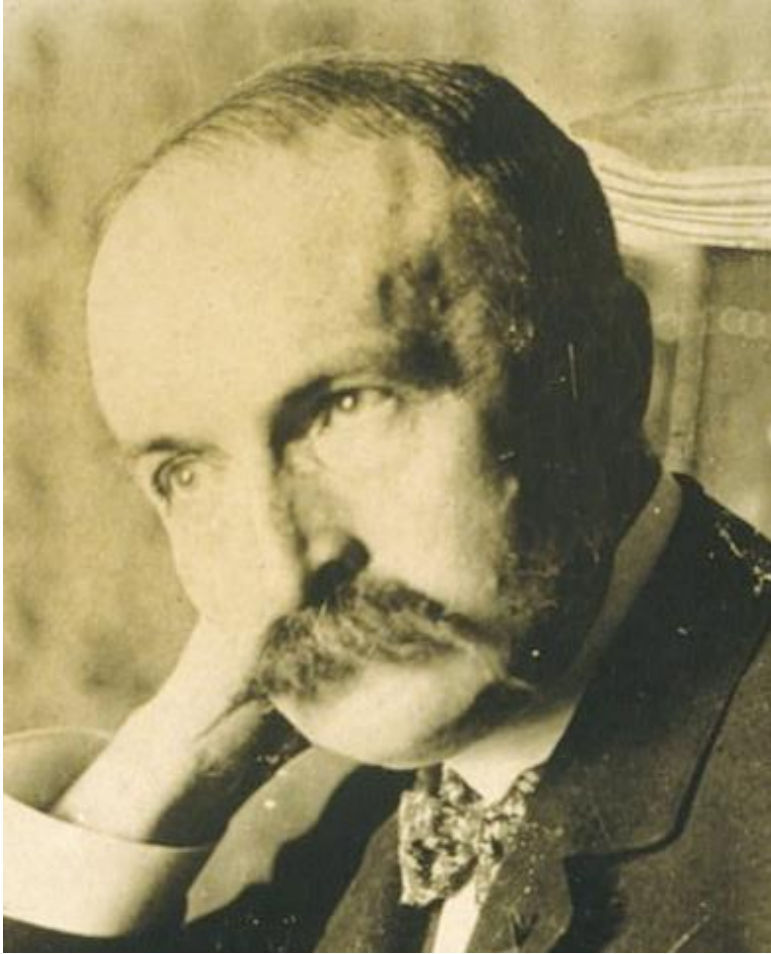
- French effort: 1881-1888 (bankruptcy) 1889 (liquidation)
  - Ferdinand de Lesseps only visited Panama during dry season (mid-December through April)
  - Difficult conditions (rain/flooding, humidity, snakes, etc.)
  - Failed for two main reasons:
    - Stubborn insistence on a sea level canal (mudslides, esp. at Culebra Cut)
    - Massive fatality from diseases (especially Malaria & Yellow Fever); 20,000 estimate\*
  - Massive scandal in France: Ferdinand & Charles de Lesseps convicted; Politicians & journalists received bribes
-

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# American Effort

- Increasing sentiment that national military & commercial greatness → a function of a dominant navy; Theodore Roosevelt a strong proponent
  - Resurgence of interest in central American canal after Spanish-American War (1898); Philippines, Guam became U.S. territories; Journey of U.S.S. Oregon
    - Nicaragua Canal remained preferred option
  - Philippe Bunau-Varilla (“Pot stirrer of the Panama Canal”)
-

# Philippe Bunau-Varilla (“Pot stirrer of the Panama Canal”)



- French Engineer who briefly managed the French effort
- Assumed control of French assets & concession after liquidation
- Partnered with New York attorney William Nelson Cromwell on successful public relations/lobbying campaign to discredit Nicaraguan option



Source: Getty Images

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# Hay-Herran Treaty

- Proposed treaty would sell ownership of French assets & concession to U.S.
  - Approved by Colombian administration, but rejected by Colombian Senate; Outraged Roosevelt
  - Bunau-Varilla told Roosevelt & Sec. of State Hay of Panamanian separatists
    - Separatists declared independence from Colombia on November 3<sup>rd</sup>, 1903
    - U.S. instantly recognized; Naval presence; Panama railroad would not transport Colombian troops to suppress rebellion
-



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# Hay Bunau-Varilla Treaty

- U.S. purchased French assets, concession, & railroad for \$40 million; Paid Panama \$10 million + \$250,000 annual payment
  - Established Panama Canal Zone (10 miles wide X 40 miles long); U.S. sovereignty
  - Immediately criticized by many Panamanians
  - Roosevelt: “I took the canal & let Congress debate it, & while the debate continues, so does the canal.”
-

# John Findley Wallace: Appointed by Roosevelt as 1<sup>st</sup> Chief Engineer



- Public & political pressure to “let dirt fly”
- Frustrated by conditions, demoralized workforce, dilapidated equipment, bureaucracy
- Resigned after a year (May 1904 – June 1905)
- Not an enthusiastic supporter of Dr. Gorgas’ efforts
- Advocated for a sea level canal

# John Frank Stevens: 2<sup>nd</sup> Chief Engineer



- Successful railroad builder; Responsible for Great Northern Railway
- Four major contributions:
  - Worker conditions
  - Significantly upgraded the Panama Railroad (“The canal is a railroad project.”)
  - Persuaded Roosevelt to approve a canal with locks
  - Supported Dr. William Gorgas
- Resigned after 20 months (June 1905 – February 1907)



# George Washington Goethals: 3<sup>rd</sup> Chief Engineer



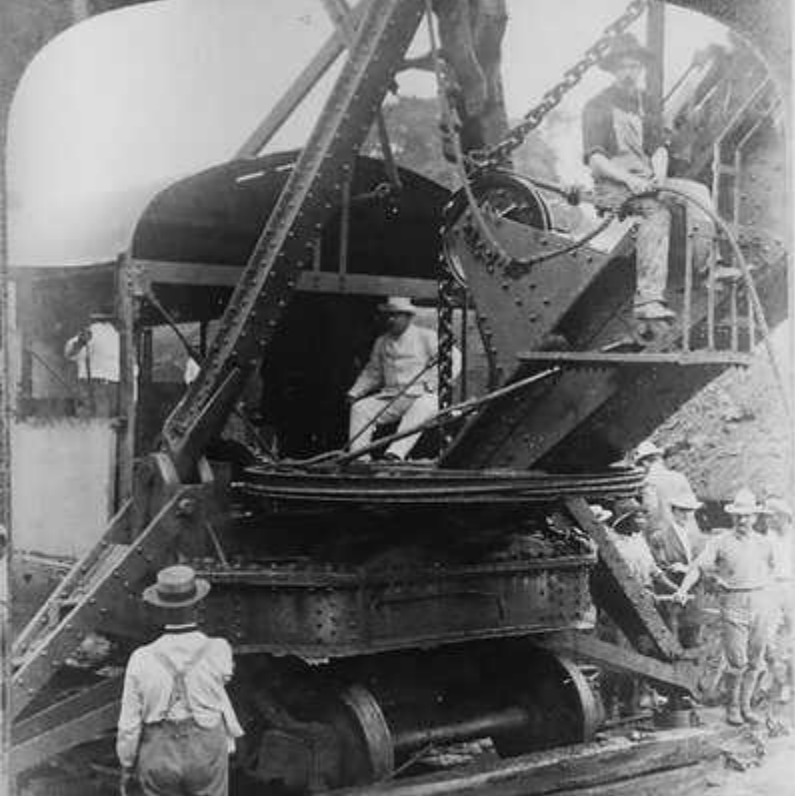
- Military engineer; Roosevelt wanted someone under orders who could not quit
- Continued Stevens' successful strategy
- Oversaw operations until completion (1907-1914); Two years ahead of schedule & \$23 million under budget
- 268 million cubic yards of material excavated (238 million by U.S. + 30 million by France); 4 times the original estimate
- Final cost: \$500 million (\$14.6 billion in current dollars)

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# Dr. William Crawford Gorgas



- Chief Sanitation Officer
- Trained under Dr. Walter Reed in Havana; Advanced the theory that malaria & yellow fever are transmitted by mosquitos
- Instituted extensive, military-style operation to combat mosquitos (spraying insect breeding areas, draining stagnant water, nets/screens)
- Panama Canal was just as much an epidemiological triumph as an engineering triumph



Source: Getty Images



**SS Ancon in the Panama Canal,  
15 August 1914**



# Inaugural transit: August 15, 1914



- Gatun Lake: Largest manmade lake in the world at the time
- Three locks take a ship up 85 ft. (approximately 28 ft. per step)
- Original “Panamax” canal (south to north):
  - Miraflores Locks: 2 steps
  - Pedro Miguel Locks: 1 step
  - Gatun Locks: 3 steps

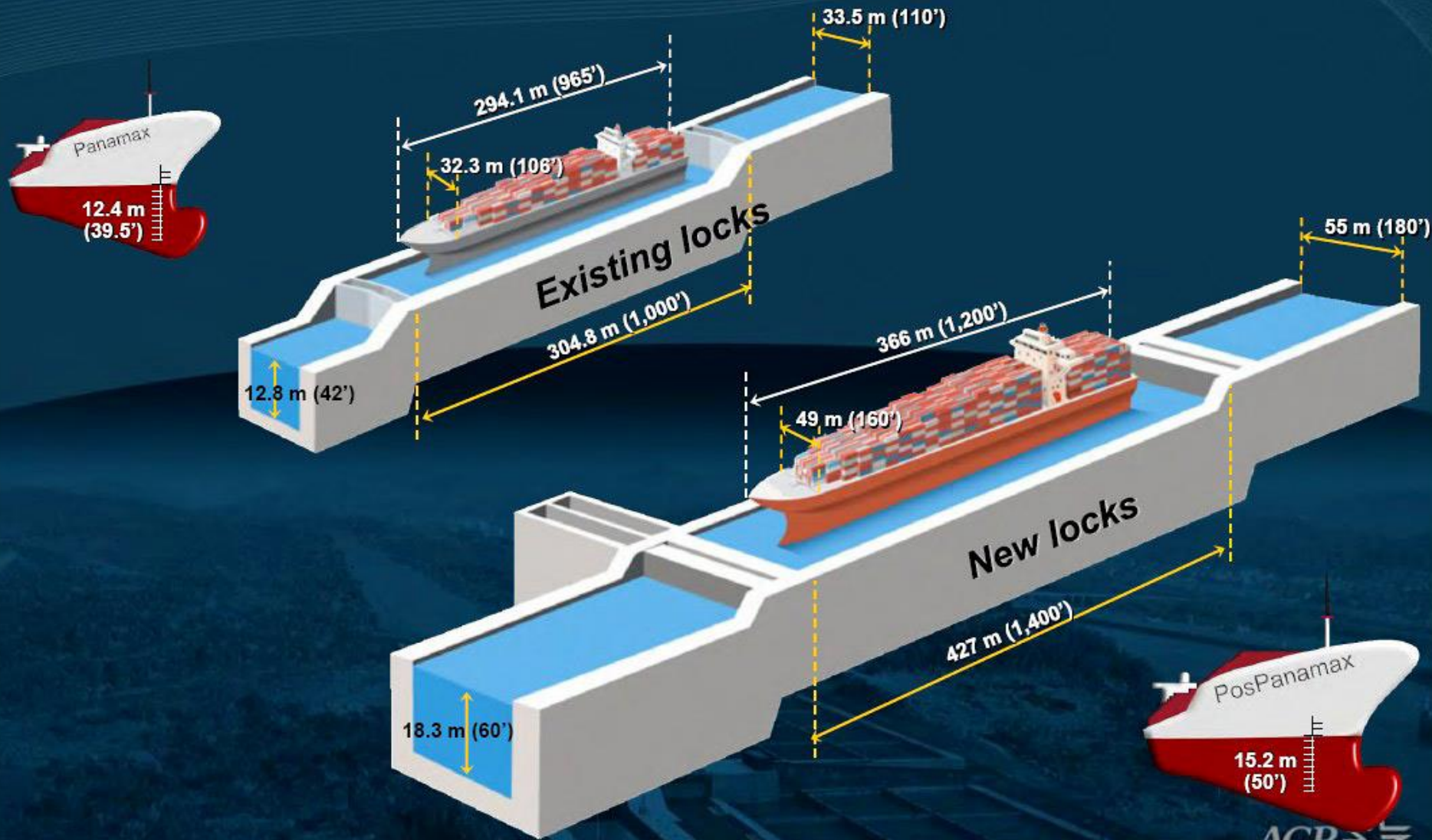
# Carter-Torrijos Treaty (September 7, 1977)



Source: Getty Images

- Original Hay-Bunau-Varilla Treaty widely criticized by many Panamanians since it was signed
- Increasing protests over the subsequent decades; Tension between U.S. & Latin America
- 20-year transition period
- Full transfer on December 31<sup>st</sup>, 1999
- Permanent neutrality of canal

# Existing locks' maximum vessel 4,800 TEU



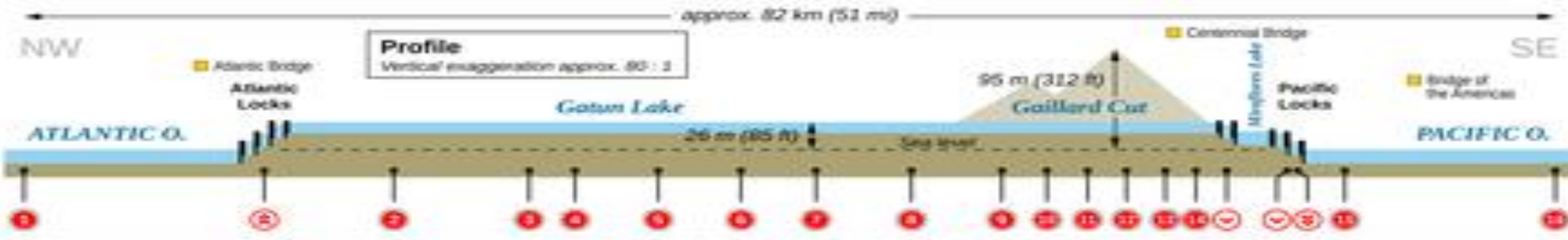
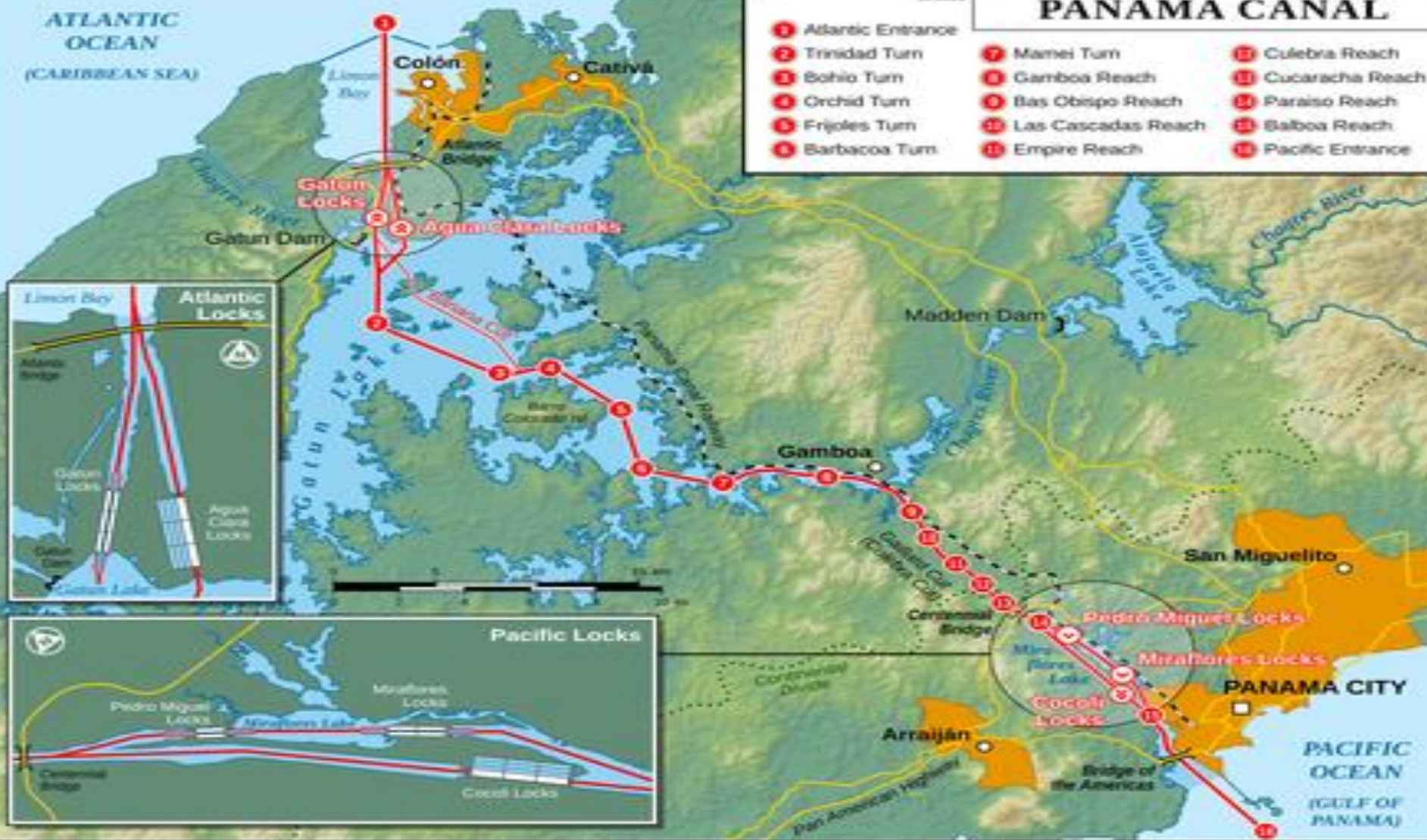
# New locks' maximum vessel size: 12,600 TEU



# PANAMA CANAL

ATLANTIC OCEAN  
(CARIBBEAN SEA)

- |                     |                       |                     |
|---------------------|-----------------------|---------------------|
| 1 Atlantic Entrance | 7 Mamei Turn          | 13 Culebra Reach    |
| 2 Trinidad Turn     | 8 Gamboa Reach        | 14 Cucaracha Reach  |
| 3 Bohio Turn        | 9 Bas Obispo Reach    | 15 Paraiso Reach    |
| 4 Orchid Turn       | 10 Las Cascadas Reach | 16 Balboa Reach     |
| 5 Frijoles Turn     | 11 Empire Reach       | 17 Pacific Entrance |
| 6 Barbacoa Turn     |                       |                     |



# Current drought conditions



Source: Panama Canal Authority

- Gatun Lake: 80.7 ft. vs. 83.9 ft. normal
- Panamax locks: 52 million gallons of freshwater release each transit
- Neopanamax locks (2007-2016): 48 million gallons due to retention basins (60% retention)
  - Cocoli Locks (Pacific side); 3 steps
  - Agua Clara Locks (Atlantic side); 3 steps
- Cross-filing; Inner gates; Simultaneous lockage
- Limiting number of transits (24 vs. 36-40); Approximately 11 hours per transit
- Draft reduction of 44 ft. for Neopanamax locks; Panamax locks remain at 39.5 ft.
- Terrorist attacks at Suez route



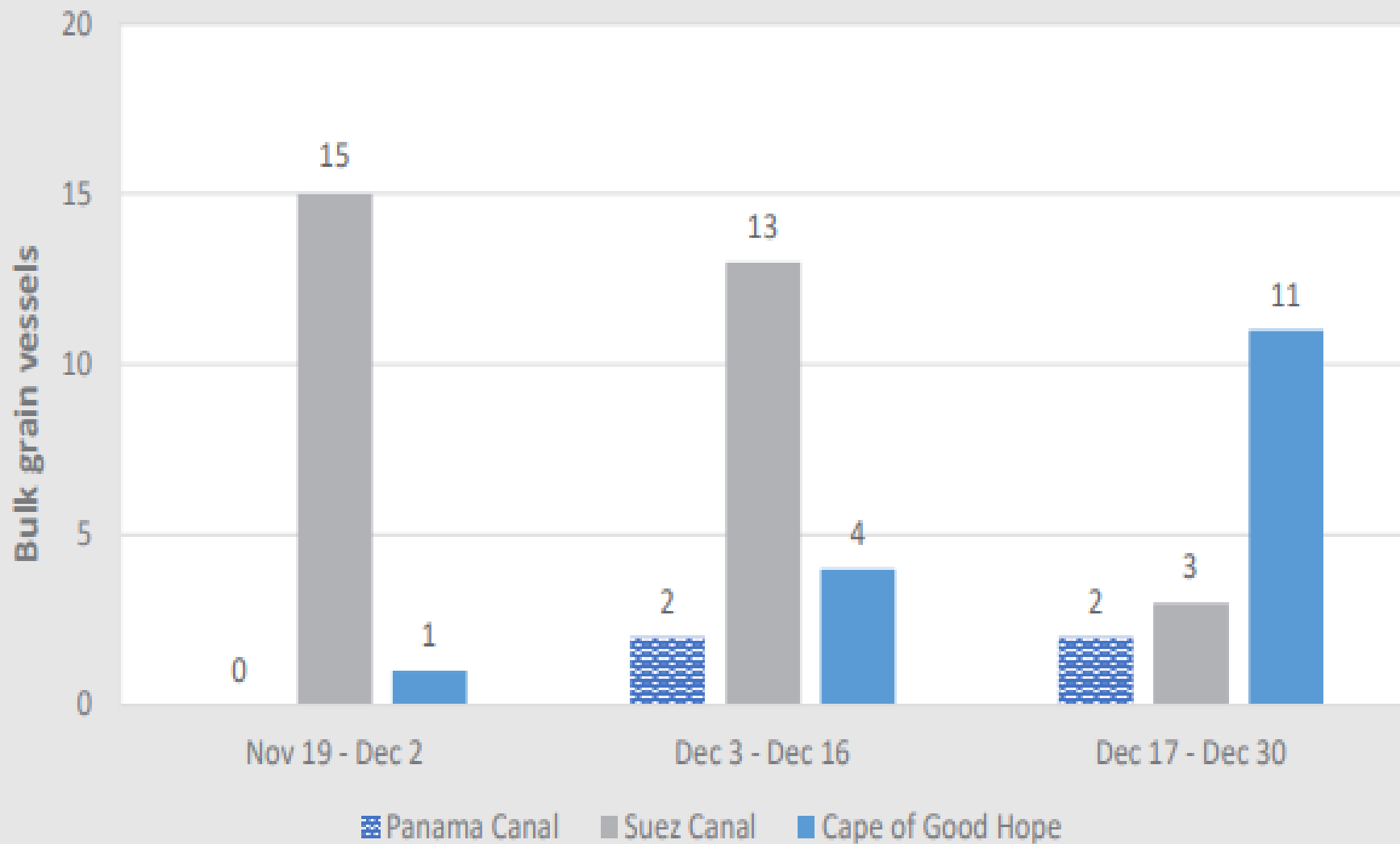
**Figure 1. U.S. Gulf export routes to Japan**



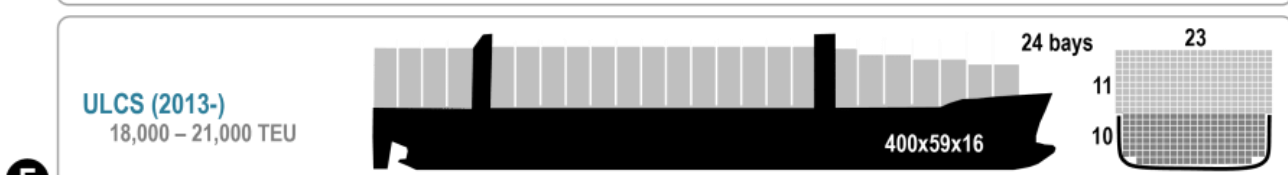
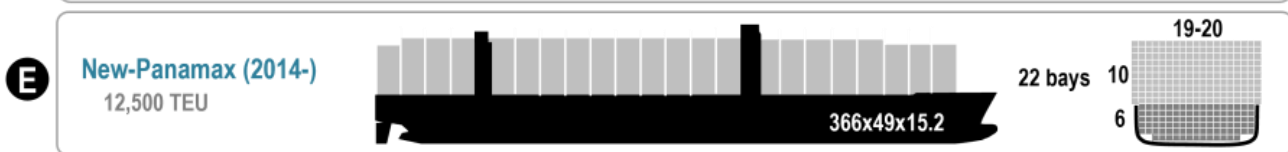
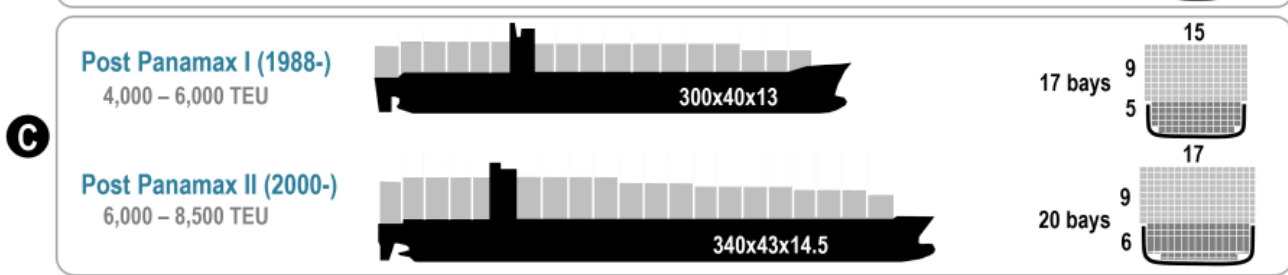
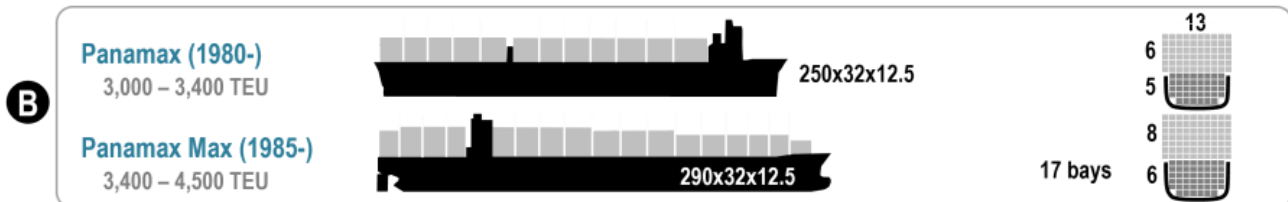
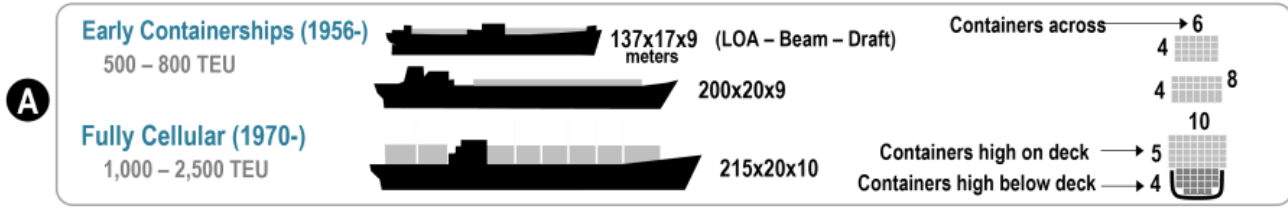
Fig. 1A0, NOAA, USGS

Source: U.S. Department of Agriculture

Figure 2. Bulk grain vessels from U.S. Gulf to East Asia, by route



Source: U.S. Department of Agriculture



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# Thank You

Soy Transportation Coalition

1255 SW Prairie Trail Parkway

Ankeny, Iowa 50023

515-727-0665

[www.soytransportation.org](http://www.soytransportation.org)

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**SOY TRANSPORTATION  
COALITION**

# Urban Logistics

Incorporating citizens into logistics strategy and operations

# The Urban Logistics Problem



How we want it



How it feels



# Avoidance or Integration





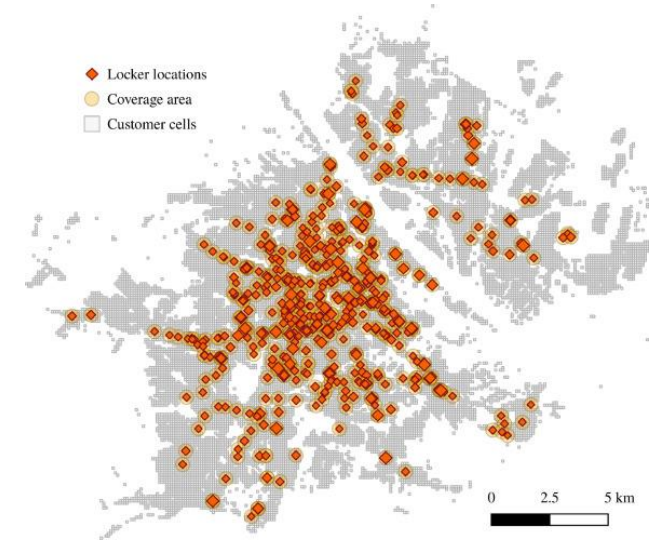
# Parcel Lockers





# Two Problems

- Where?
- Who?



## Checkout (1 item in cart)

Review items and choose your delivery option:



Qty: 1

- Home delivery (FREE 2 day delivery)
- Parcel locker delivery (FREE 2 day delivery)\*

\*Online orders in the U.S. have more than tripled in the last decade and that number is expected to keep growing. As we continue to receive more orders and send more products, we now offer delivery via parcel lockers. **Adding a parcel locker option will help the environment as delivery vehicles make one stop instead of several small trips, emitting two-thirds less CO2.**

Place your order

Order total: \$949.99



# Measures and Messages



# Solutions

- Make it green
- Rural utility and urban enjoyment
- Target the suburbs first



**DID YOU KNOW?**

Each Parcel Locker  
**reduces CO<sup>2</sup>** emissions  
by as much as **13,845 kg**  
per year



nabco

The complex block features a dark grey background with a large orange question mark graphic on the right. The text is in white and orange. Below the text is a photograph of a large, modern parcel locker unit with a central yellow access panel. The Nabco logo is in the bottom left corner.

# Questions

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