#### 45<sup>th</sup> Meeting of the

### IOWA FREIGHT ADVISORY COUNCIL



Friday, June 14, 2024; 10:00 AM to 2:00 PM Courtyard by Marriot 2405 SE Creekview Dr, Ankeny, IA 50021

#### Meeting input objectives

- 1. Provide input on Horizontal Supply Chain collaboration.
- 2. Provide input on the Railroad Revolving Loan and Grant Program.
- 3. Provide input on the specific port locations for products exported from lowa.
- 4. Discuss the resiliency in supply chains and freight.

10: 00 AM	Safety Briefing	<b>Amanda Martin</b> lowa DOT
	Welcome & Introductions  New member – Haozhe Chen, ISU Supply Chain Management Ice breaker: Provide any comments, updates, notable items, etc.	<b>Mike Steenhoek</b> 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).	<b>Stu Anderson</b> Iowa DOT
10:40 AM	Railroad Revolving Loan and Grant Program  Overview of the history and status of the program as well as information for potential applicants.	<b>James Glaspie</b> Iowa DOT
11:00 AM	Horizontal Supply Chain Collaboration Social control agents	<b>Dr. Henrik Sternberg</b> ISU Supply Chain Management
11:40 AM	Break Take a break, grab your boxed lunch, and return for a working lunch.	-
12:00 PM	State Rail Plan Input A statement on the vision, goals, and objectives of the state rail plan.	Caleb Whitehouse Iowa DOT
12:20 PM	Iowa Economic Development Authority An overview of lowa imports, exports, and maritime ports of significance.	<b>Joseph Rude</b> IEDA
1:00 PM	Freight and Supply Chain Resiliency Discussion  A facilitated group discussion on infrastructure and supply chain resiliency in the state and region.	Mike Steenhoek Soy Transportation Coalition
2∙00 DM	Adjourn	

#### 2:00 PM Adjourn

### Future meetings:

- September 20, 2024 TBD
- December 13, 2024 Ankeny

#### 45<sup>th</sup> Meeting of the

### IOWA FREIGHT ADVISORY COUNCIL



Friday, June 14, 2024; 10:00 AM to 2:00 PM Courtyard by Marriot 2405 SE Creekview Dr, Ankeny, IA 50021

Tammy Nicholson, Iowa DOT Modal Transportation

Charlie Purcell, Iowa DOT Project Development

Kevin Beichley, Iowa DOT Finance Bureau

#### Meeting input objectives

- 1. Provide input on Horizontal Supply Chain collaboration.
- 2. Provide input on the Railroad Revolving Loan and Grant Program.
- 3. Provide input on the specific port locations for products exported from lowa.
- 4. Discuss the resiliency in supply chains and freight.

Amanda Martin, Iowa DOT Modal Transportation Bureau

Garrett Pedersen, Iowa DOT Systems Planning Bureau

Caleb Whitehouse, Iowa DOT Systems Planning Bureau

Мє	Members							
Χ			Jillian Walsh (Vice Chair), Travero					
	Gabe Claypool, Des Moines Industrial	Х	Paul Kirpes for Greg Dickinson, Ten D, Inc.					
			Copanies/Merchants Distribution Service					
	Jackson Doud, Iowa Farm Bureau	Х	Amy Homan, Iowa Northern Railroad					
Χ	Matthew Leyser, John Deere Des Moines Works	Х	Larry Lloyd, CPKC Railroad					
	Doug Martin, Amazon DSM5		Joe McConnell, Perishable Distributors of Iowa					
	Allison Meiners, Iowa Motor Truck Association		Delia Moon-Meier, Iowa 80 Group					
	James Niffenegger, Landus Cooperative		Kelli O'Brien, Union Pacific Railroad					
Χ	Joe Parsons, Iowa Interstate Railroad		Ty Rosburg, Rosburg Livestock					
	Peter Skosey, BNSF Railway	Х	Jessica Sargent, Sukup Manufacturing					
	Marty Wadle, Ruan Transportation Management	Х	Mark White, Agribusiness Association of Iowa/Smith					
	Systems		Fertilizer and Grain					
Χ	Ron White, Artco Fleeting Service	Х	Dr. Haozhe Chen, ISU Supply Chain Management					
Ex	Ex Officio Members							
	Tim Bruun, Iowa Department of Public Safety	Х	Zhi Chen, DMAMPO					
	Colonel Jesse Curry, USACE, Rock Island District	Х	Amie Davidson, Iowa DNR, Land Quality Bureau					
	Andrew Goodall, USACE, Rock Island District	Χ	Mike Hadley, Keokuk County Board of Supervisors					
Χ	Mike Harrington, IDALS	Χ	Sean Litteral, FHWA, Iowa Division					
Χ	Scott Marler, Iowa DOT		Tim Marshall, FHWA, Iowa Division					
	Shirley McGuire, FMCSA	Х	Jarred Lassiter for Mike Norris, SEIRPC					
Χ	Joseph Rude, IEDA		Louis Vander Streek, Iowa Utilities Board					
Gu	ests							
Χ	Dr. Henrik Sternberg, ISU Supply Chain Management	Х	Joshua Squires, DMAMPO					
Χ	Brian Pribyl, Iowa DOT Traffic Operations	Х	Michael Blank, MAPA					
lov	va DOT Staff							
X	Zahrah Alghalibi, Iowa DOT Systems Planning Bureau	Х	Stu Anderson, Iowa Transportation Development Division					
	Mikel Derby, Iowa DOT Government and Community		Brenda Freshour-Johnston, Iowa DOT Systems and					
	Relations		Administration Bureau					
	Melissa Gillett, Iowa DOT Motor Vehicle Division	Х	Jim Glaspie, Iowa DOT Modal Transportation Bureau					
Χ	Sam Hiscocks, Iowa DOT Systems Planning Bureau	Х	Maria Hobbs, Iowa DOT Modal Transportation Bureau					
Χ	Alex Jansen, Iowa DOT Central Programs Bureau		Renee Jerman, Iowa DOT Legislative Compliance					
	Troy Jerman, Iowa DOT Chief Operating Officer		David Lorenzen, Iowa DOT Systems Operations Division					
	I							

Bureau

Χ

#### 10:00 AM Safety Briefing

#### Welcome & Introductions

New member – Haozhe Chen, ISU Supply Chain Management Ice breaker: Provide any comments, updates, notable items, etc.

Amanda Martin Iowa DOT

**Mike Steenhoek**Soy Transportation
Coalition

Martin gives the safety briefing and designates Glaspie as the 911 caller and Hobbs as the backup. Whitehouse is designated to take roll in the case of evacuation.

Steenhoek asks the group to go around and introduce themselves.

Steenhoek says that a Buchanan County is currently building the longest railroad flatcar bridge. Soy Transportation Coalition is supporting the project by providing some funding to offset design expenses and to install a camera recording the bridge construction.

Marler says that there have been 119 traffic fatalities in the state, which is 17% lower from this time last year. Also, Iowa DOT had a ribbon cutting this week in Council Bluffs to open the Council Bluffs expressway. Steenhoek asks what Marler attributes the positive trend to. Marler says that as traffic has returned to prepandemic levels, excessive speeding has gone down.

Beichley adds to Marler's comments on the Council Bluffs ribbon cutting and mentions the resiliency components of the project. Ron White says that there have been low volumes on the Mississippi river this year, but we still have the best transportation network in the world. Water levels are about normal.

Dr. Chen introduces himself to the FAC. Iowa State's Supply Chain Management Department and their faculty are consistently ranked highly among similar institutions. Dr. Chen is originally from China and has worked in international trade for 8 years and 8 years as faculty at East Carolina University. He has been at Iowa State since 2015.

#### 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

Anderson says that FY 2024 lettings through May are \$30.4 million above programmed amounts. The overall balance is \$18.8 million overprogrammed (Iowa DOT started \$24.9 overprogrammed). Anderson says that this has been a very good fiscal year for Iowa DOT. Congress has passed the FY 2024 appropriation bill which allows the department to access federal funds and plan future budgets.

The 2025-2029 Highway Program was approved June 11<sup>th</sup> and includes \$4.5 billion of state/federal funding. The program includes 50 new truck parking spots at interstate rest areas, increased investments on pavements (focusing on interstate pavements), and adds the final phase of I-380 widening between Iowa City and Cedar Rapids. The Iowa DOT decided not to close some of the parking only facilities in this program.

All four DOT legislative priorities were passed during the legislative session and signed by Governor Reynolds. As part of the Governor's effort to streamline the executive branch, the Secondary Roads Fund Distribution Committee was dissolved and its responsibilities transferred to the Transportation Commission. DOT is advising the Commission to retain the committee in an advisory role.

The Governor also approved the DOT's budget request as submitted. The request included status quo budgets for positions and an overall reduction in Capital due to large capital appropriations in FY 2024, and also increased funding for vehicle safety improvements. RRLG has received \$2 million in FY 2025, up from \$500,000 in FY 2024. The State Recreational Trails program also received an extra \$1 million than requested.

The Iowa Transportation Commission has two new members: Bill Anderson and Mary Mulgrew Gronen. The Transportation Commission will tour Honey Creek Resort in August and Decorah in October.

### 10:40 AM Railroad Revolving Loan and Grant Program

Overview of the history and status of the program as well as information for potential applicants.

James Glaspie Iowa DOT

The Railroad Revolving Loan and Grant Program was created in 2005 as part of the Iowa Railroad Finance Authority (no longer in existence). It is a competitive, application-based program that utilizes reimbursements. Recommendations for awards are made by DOT staff. The goal of RRLG is to foster improvements to Iowa's economy by leveraging rail. Glaspie gives an overview of two recent projects: Boone & Scenic Valley rail line in Boone and a crushing plant in Alta.

Rude asks if there is anyway to change the timing of solicitation and awards. A lot of companies are unable to work within the Iowa DOT's timeframe. Glaspie explains that they are pretty limited on their ability to change the timeline as the program is tied to annual appropriations.

#### 11:00 AM Horizontal Supply Chain Collaboration

Social control agents

**Dr. Henrik Sternberg** ISU Supply Chain Management

Dr. Sternberg begins by asking the committee who drove to this meeting alone. He says that ridesharing is an example of horizontal collaboration. In trucking, 20-30% of road miles are driven empty, and 43% of truckloads are partially empty. Sternberg uses an example of two UK shippers who entered into a horizontal collaboration arrangement and collectively saved 177,000 road miles by eliminating deadheading (return trips with empty trucks). Empirical studies have found that theoretically, horizontal collaboration can result in savings of 14%-30%.

Collaboration begins by looking at the logistical flows that two firms share. History has shown that systematic efforts to collaborate between firms has been unsuccessful. In order to avoid issues of legality (anti-trust laws), firms can use an intermediary organization as a go-between so that firms are not sharing information with each other directly.

Sternberg says the elements necessary for successful collaboration are clear boundaries, clear cost-benefits, collective decision making, conflict identification and resolution, and self-determination. It is important that firms are able to opt-in to the collaboration scheme instead of being forced by a government agency.

Collaboration schemes fail for different reasons. One reason is because a firm might find that collaboration would benefit their competitors more than them. Sternberg's research has not found a successful scheme that involves more than 3 firms.

Sternberg's ongoing research includes interviewing individuals about improving the trucking industry for firms, drivers, the environment, and consumers. One thing he has found is that the vision of law enforcement is limited to certain areas.

Another area of research is how to encourage women to enter the truck driver workforce, as well as how supply chain for consumers can increase sales and improve retention and how that can be used in the trucking industry.

Kirpes asks about one of the collaboration examples that Sternberg gave, specifically if the firms shared a fleet or used their own. Sternberg says that both ways work but using proprietary fleets is a more approachable method for firms.

Rude asks what Dr. Sternberg's view on the driver shortage versus driver retention is. Sternberg says that it is a mix of both and how drivers are able to easily change between truck driving and other industries such as construction.

#### 11:40 AM Break

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

#### 12:00 PM State Rail Plan Input

Caleb Whitehouse Iowa DOT

A statement on the vision, goals, and objectives of the state rail plan.

Whitehouse presents the vision statement that Iowa DOT staff has crafted using input from the Freight Advisory Council, Rail Advisory Council, Passenger Rail Advisory Council, and MPO/RPA staff. FAC members give their thoughts. Whitehouse gives an overview of the survey that Iowa DOT has been conducting of local governments regarding issues with rail. He also presents the major categories of concern, and a word cloud of the responses.

### 12:20 PM Iowa Economic Development Authority

Joseph Rude

An overview of lowa imports, exports, and maritime ports of significance.

**IEDA** 

Iowa is a top 5 net exporting state, meaning Iowa exports more products than it imports. Half of Iowa's exports are manufactured. 80% of Iowa exports are ocean bulk and 20% are ocean container. Davenport and Council Bluffs are the leading exporting metros in the state.

When the Port of Baltimore closed due to a bridge collapse, it mainly affected Iowa's agricultural equipment industry. 64% of Iowa's ag equipment/rolling stock goes through the Port of Baltimore. Iowa is among the top 5 producer states exporting through that port.

Container availability is a major constraint for Iowa exports. Rude gives an overview of Iowa's major commodities, how they have trended in the past 3-4 years, and what ports those commodities are exported from.

Whitehouse asks if recent decreases in corn exports to Asia are a result of restrictions at the Panama Canal. Rude says that the canal is part of the issue, but there are many other things that are in play including pricing. Steenhoek adds that the power of the global dollar plays a role, and that China is experiencing major demographic changes (the country is becoming younger) which will have a huge impact on global agriculture.

### 1:00 PM Freight and Supply Chain Resiliency Discussion

Mike Steenhoek

A facilitated group discussion on infrastructure and supply chain resiliency in the state and region.

Soy Transportation Coalition

Steenhoek continues the discussion on resiliency by using the analogy of a resilient boxer who can "slip" a punch (or avoid a disaster), absorb a punch (or how to react to a disaster), and get up from the canvas (or recover from a disaster). Steenhoek opens the discussion up to the group and asks which disasters lowa should be attentive to.

Dr. Chen clarifies that there should be a difference in terms between resiliency and responsiveness. Pedersen says that from the Iowa DOT perspective, flooding is a huge concern. For the first time, the DOT's long range transportation plan included a system-wide flood risk analysis. Smaller scale disasters such as tornados and snowstorms impact the short-term operations of the roadway. Pedersen also mentions efforts by the Iowa legislature to direct funding towards specific projects at the detriment of department priorities.

Lloyd mentions that CPKC has undertaken track raising along the Mississippi River in anticipation of flood events. Lloyd also mentions labor disruptions in Canada that impact rail operations including rail workers and border control unions. Steenhoek adds context about labor issues in Canada.

Parsons says that weather events can create flooding that impacts rail operations. It is key for IAIS to have good relationships with their shippers to deal with issues as soon as possible. Parsons also mentions how railroads are less able to react to network issues such as bridge closures and must negotiate with other railroads to use other infrastructure.

Homan says that cybersecurity threats are an issue that we should focus on. Parsons says that the cost of cyber insurance is a "punch" on its own. Steenhoek says that a firm's ability to stay in business is increasingly reliant on the firm's ability to stay insured.

Steenhoek asks what can be done to increase the resiliency of the assets themselves rather than our responsiveness to disasters. Purcell mentions bridge piers and the risks of bridge strikes on the Mississippi and Missouri Rivers. Purcell says there are certain features that can be added to bridges to make them more resilient. Also, data collection to predict flood events and their consequences which improve reactivity. Steenhoek mentions "dolphins" around bridge supports which can slightly redirect a ship if it strikes the support.

Lassiter says that there are still several swing-span bridges along the Mississippi river that are very old and reliant on old technology.

Steenhoek asks if there are issues with federal response to emergencies that limit reactivity. Pribyl says that early awareness is key. Ron White says that there is a lot of collaboration between carriers in the river industry to react to emergencies. White also says that a lot of main channel piers are protected by dolphins, but during flood events, those piers are not protected.

Steenhoek says that he has noticed that that the cost of resiliency is frequently a barrier to prevention, but no considerations as to the cost of not doing anything.

Hadley says that he thinks America is the most resilient country in the world. He says that efforts by FEMA have made communities resilient to disasters that they've never trained for.

#### 2:00 PM Adjourn

#### Future meetings:

- September 20, 2024 TBD
- December 13, 2024 Ankeny

## HAOZHE CHEN

WALKER PROFESSOR IN LOGISTICS & SUPPLY CHAIN MANAGEMENT INTERIM CHAIR, DEPARTMENT OF SUPPLY CHAIN MANAGEMENT



## Department of Supply Chain Management at Iowa State

# 1 Institution producing the most impactful research — *Journal of* Business Logistics (2022, 2023) #3 In the world for supply chain management research productivity — 2024 Transportation Journal #8 Supply chain management program in the world for empirical research — 2024 Scmlist.com # 20 Supply chain management program in the nation overall, 2022 U.S. News & World Report "Best College" undergraduate rankings

## Department of Supply Chain Management at Iowa State

- Outstanding faculty
  - 16 faculty members (7 tenured, 5 tenure-track, 4 term faculty)
  - Extensive industry background
  - 6 different countries
- Complete program offerings
  - Undergraduate (380 students in the major)
  - Master's program (coming Fall 2025)
  - Ph.D. program
- Industry engagement
  - The Ivy Supply Chain Forum
  - The Voorhees Supply Chain Conference

## Personal background

- Originally from China
- Education:
  - B.A. in China, 1993
  - M.B.A. The University of Alabama, 2003
  - Ph.D. The University of Oklahoma, 2007
- Work experience
  - Joined Iowa State in 2015
  - 8 years on faculty at East Carolina University
  - 8 years in international trade

## Personal background – Research publications

- Over 40 articles published in leading supply chain/logistics journals
- Editorial board member of 4 in leading supply chain/logistics journals
- Coauthored one book:
  - The Definitive Guide to Integrated Supply Chain Management: Optimize the Interaction Between Supply Chain Processes, Tools, and Technologies (FT Press)
- Coauthored two book chapters:
  - "Secondary markets: Enabling the circular economy" in *Circular Economy Supply Chains From Chains to Systems*, Emerald Publishing, UK.
  - "Reverse logistics: What it is and where it is headed" in The Oxford Handbook of Supply Chain Management, Oxford University Press, Oxford, UK.

## Personal background – Industry involvement

- Council of Supply Chain Management Professionals (CSCMP)
  - Co-chair, Bowersox Doctoral Symposium & Academic Case Collection
  - Academic Strategies Committee & Doctoral Dissertation Award Selection Committee
- Reverse Logistics Association (RLA)
  - Chair, Asia-Pacific Committee
  - Standards Committee and Software Solutions Committee, Consumer Products Committee
- The Reverse Logistics & Sustainability Council (RLSC)
  - Board of Advisors
- Sion-American Logistics Council (SALC)
  - Education Advisory Board
- Iowa FAC

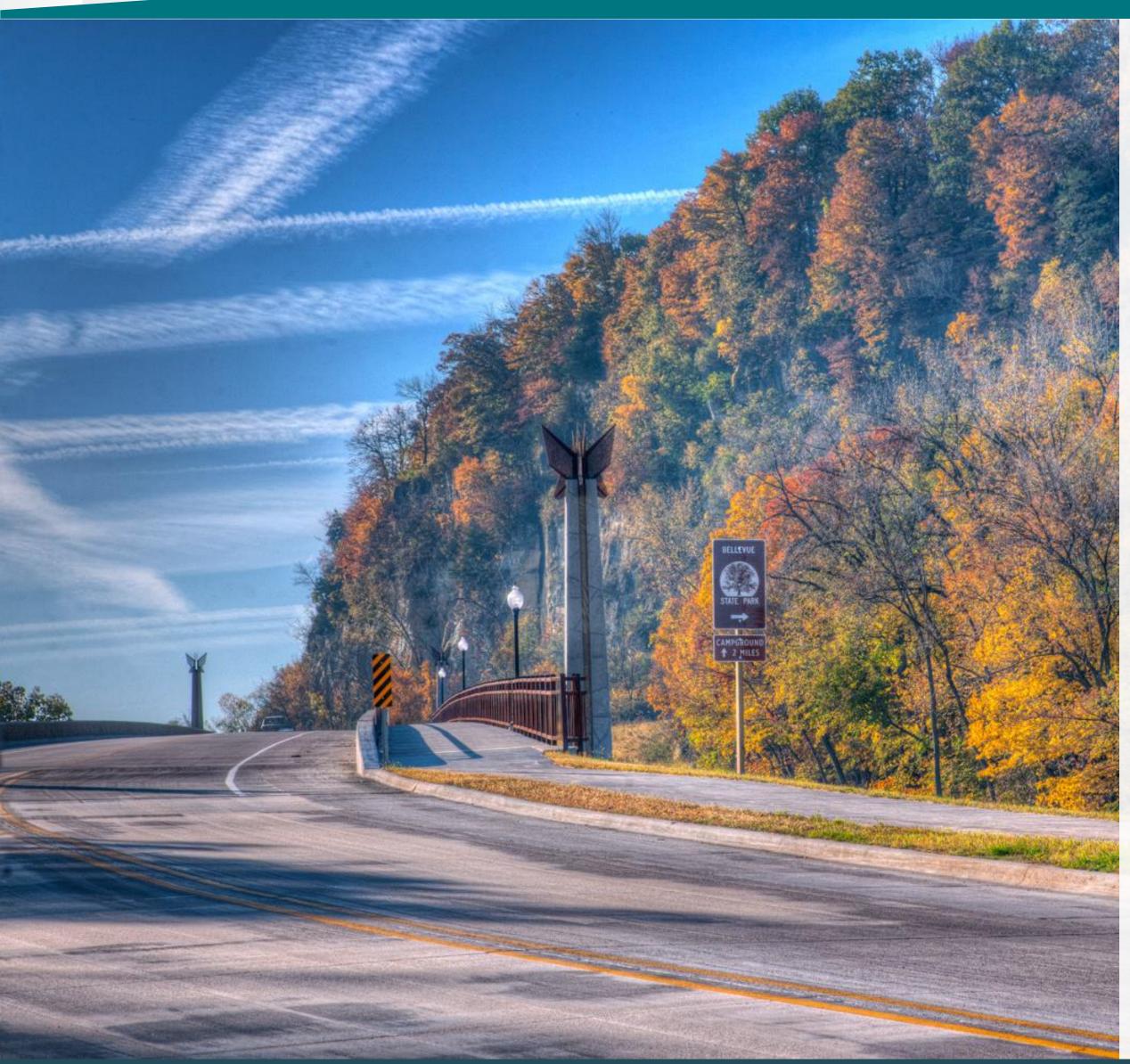
### Haozhe Chen, Ph.D.

Walker Professor in Logistics & Supply Chain Management
Interim Chair, Department of Supply Chain Management
Debbie and Jerry Ivy College of Business
Iowa State University
2341 Gerdin Business Building
2167 Union Drive
Ames, IA 50011-2027
hzchen@iastate.edu

(515) 294-7216



# I PWA DOT





FY 2024 Status

2025-2029 Highway Program Update

2024 Legislative Session Legislative Priorities FY 2025 Budget Request Other Legislative Items

Commission Update

## FY 2024 Status

- Operating Budget Status
- Highway Funding Status
  - State Funding
    - FY 2024 lettings through May: \$30.4 m above programmed amounts
    - FY 2024 revenue through April: \$36.5 m above forecast
    - Overall balance: \$18.8 million overprogrammed (started at \$24.9 m over programmed)
  - Federal Funding FFY 2024 appropriation passed

# 2025-2029 Highway Program

- Approved June 11, 2024
- \$4.5 billion of state/federal funding over five years
- Increased investment on pavements with a focus on Interstate pavements
- Added final phase of I-380 widening between Iowa City and Cedar Rapids
- Adds 50 new truck parking spots on the Interstate
- Financial situation
  - No new revenue
  - Inflation is moderating
  - Three of the five years are beyond the life of the Infrastructure Bill forecast flat revenue

# 2024 Legislative Session

- DOT legislative priorities
  - Removing sensitive information from printed vehicle titles (HF2185) – Signed by the Governor
  - Setting minimum value threshold for vehicles requiring a bond (HF2316) Signed by the Governor
  - Right of Way Streamlining waivers for small areas of disposal (HF2186) Signed by the Governor
  - Streamlining of Road Use Tax Fund reporting requirements (HF2187) – Signed by the Governor
- Boards and Commissions

# FY 2025 Budget Request

- Governor approved our budget request as submitted (operations and modal programs)
- FY 2025 Budget Request: \$452.9 million (FY 2024 budget was \$454.7 million)
- Status quo for positions
- Overall reduction in Capital due to large capital appropriation in FY 2024
- Increased funding for vehicle safety improvements (light bars and GPS/AVL)
- Passed House and Senate and signed by the Governor

# FY 2025 Modal Program Appropriations

Program	FY 2023 Appropriation	FY 2024 Appropriation	FY 2025 Governor Recommendation	FY 2025 Appropriation
Commercial Service Vertical Infrastructure	\$1,900	\$1,900	\$1,900	\$1,900
General Aviation Vertical Infrastructure	\$1,000	\$1,000	\$1,000	\$1,000
State Recreational Trails	\$2,500	\$2,500	\$2,500	\$3,500
Public Transit Infrastructure	\$1,500	\$1,000	\$1,500	\$1,500
Railroad Revolving Loan and Grant Program	\$2,000	\$500	\$2,000	\$2,000
Commercial Service Airport Terminals		\$10,000		
Total	\$8,900	\$16,900	\$8,900	\$9,900

# **Commission Updates**

- New Commissioners July 2024
  - Bill Anderson, Cherokee
  - Mary Mulgrew Gronen, Dubuque
  - Replacing Charese Yanney (Sioux City) and Kathy Fehrman (Des Moines)
- Commission Tours CY 2024
  - ✓ April: Cedar Rapids
  - ✓ June: Council Bluffs
  - August: Honey Creek Resort
  - October: Decorah

Thank you!

**Questions?** 





### I MA DOT

## Rail Revolving Loan & Grant (RRLG) Program

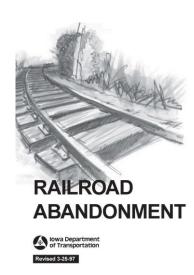
- What is the RRLG program?
  - History
  - Structure
- What is the goal of RRLG?
- How is RRLG funded?
- Who uses RRLG and what are the results?



### **History**

- Created in 2005 by an amendment to Iowa Code 327H.20.
- Created within what was Iowa Railway Finance Authority (IRFA).
- The IRFA was created in 1980 and was active until 2009.





### I MA DOT

## Structure – What is it today?

- Competitive application based reimbursements
- Recommendations are formulated by rail staff and system planning staff
- 3 program parts
  - (1) Targeted jobs creation and retention (grant)
  - (2) Infrastructure creation or improvement (loan)
  - (3) Rail port planning study (grant)
- Project solicitation April, Commission award October

### I MA DOT

### (1) Targeted jobs creation and retention (grant)

- Jobs created by infrastructure creation or improvement.
- Requires a 50% match and payroll verifications following completion
- Can provide up to \$12,000 per job created or retained
- 3-year completion window after a funding agreement is executed
- Funded once per fiscal year

### I WA DOT

### (2) Infrastructure creation or improvement (loan)

- Infrastructure improvement that does not create jobs
- Requires a 20% match
- No max on request amount
- 3-year completion window after a funding agreement is executed
- 0% interest loan for 10 years, following completion period
- Funded once per fiscal year



### (3) Rail port planning study (grant)

- \$100,000 max amount request
- Requires a 20% match
- 18-month completion window after a funding agreement is executed
- Can be approved any time of the year based on funding availability

### I MA DOT

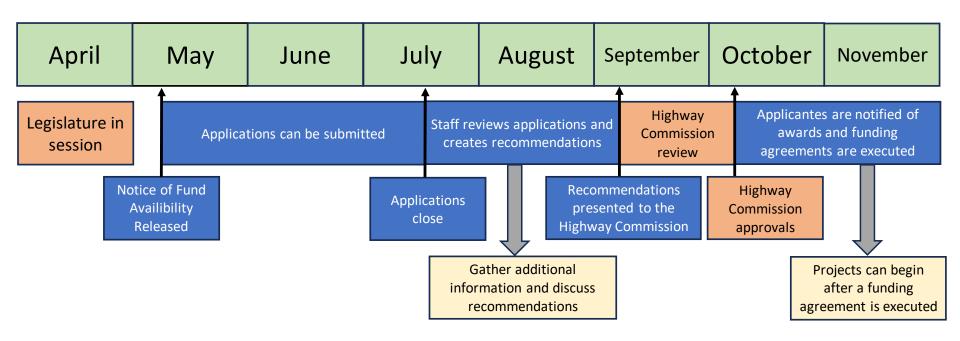
- Competitive application based reimbursements
- Recommendations are formulated by rail staff and system planning staff
- 3 program parts

Parts 1 & 2 can be combined

- (1) Targeted jobs creation and retention (grant)
- (2) Infrastructure improvements or creation (loan)
- (3) Rail port planning study (grant)
- Project solicitation April, Commission award October



### **Structure**





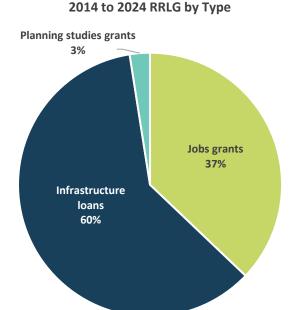
## What is the goal of RRLG?

- Foster improvements to lowa's economy by leveraging rail
  - Support new jobs coming to lowa and keeping jobs in lowa
    - Targeted job creation grants
  - Support the "last mile" of infrastructure improvements
    - 10-year, interest free loans
    - Planning study grants
  - Ensure stewardship of resources available
    - Competitive application process and staff oversight



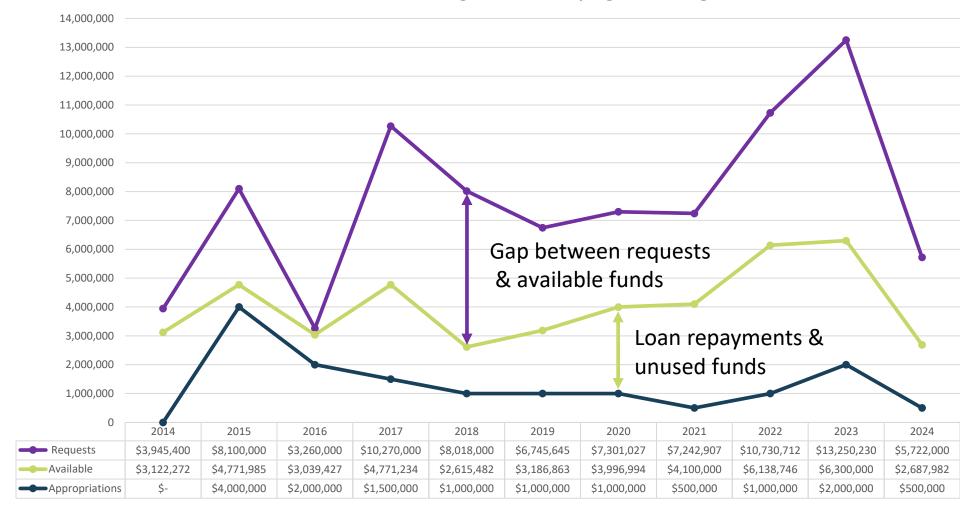
### How is RRLG funded?

- Rebuilding Iowa's Infrastructure Fund (RIIF)
  - Appropriations from the Legislature
- Loan repayments
- Unused & rescinded funds



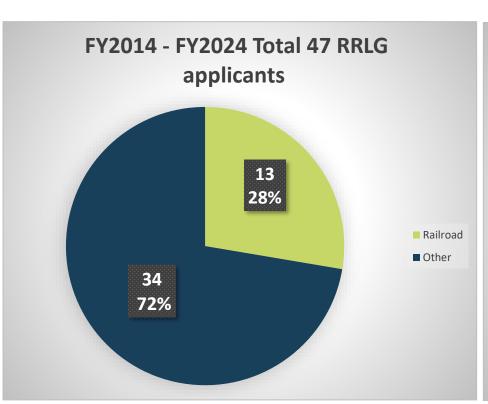


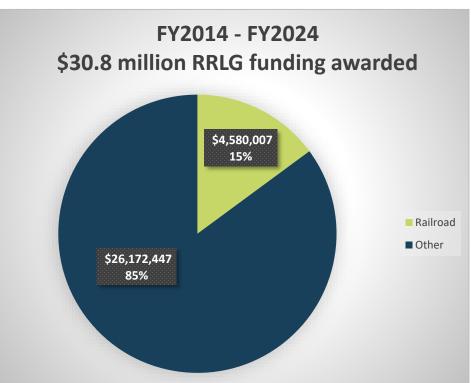
### FY2014 to FY2024 Revolving Loan & Grant program funding





### Who uses RRLG?

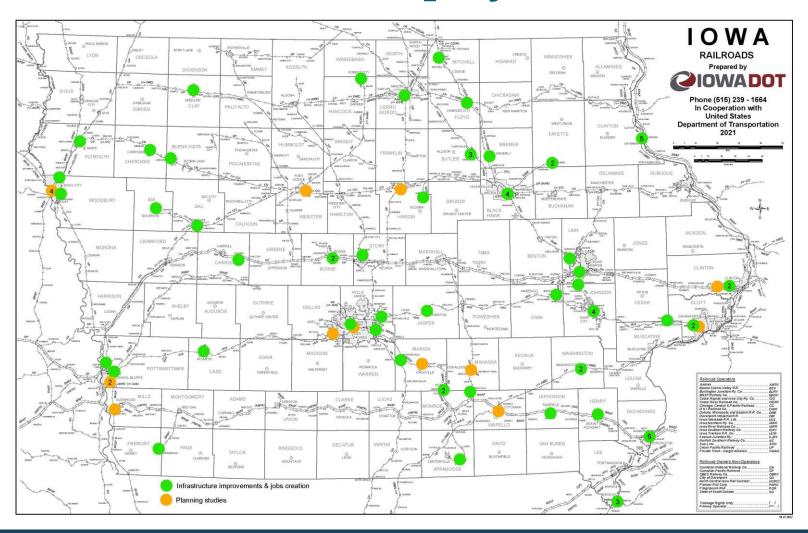




Other includes businesses, cities, counties, development organizations, etc...



## 2006 - 2024 RRLG project locations





### What are the results?

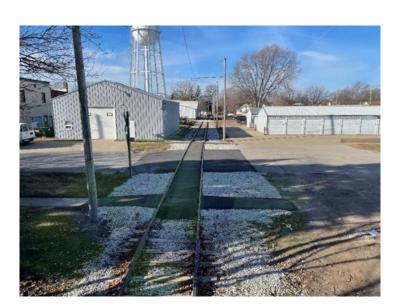
RRLG-ST22(06)--9T-08

BSVR Harrison-Meridian Rail Rehab, Boone Co

Project closed out 12/20/2023

RRLG funding \$373,540.73 (loan)

The project replaced failing ties for about a mile of the existing track, starting at Harrison St. and extending 650 feet beyond Meridian St. in the city of Boone, Boone County. This project finished under budget and supports continued growth leveraging rail access to the industrial park on the East side of Boone.









#### What are the results?

RRLG-ST23(03)--9T-78

IceCap Cold Storage Co, Council Bluffs, Pottawattamie Co

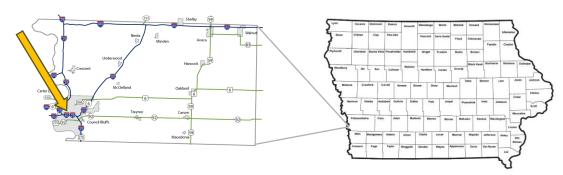
Project closed out 04/11/2024

RRLG funding \$503,315 (loan) & \$576,000 (grant)

This project is an expansion to the new facility built in 2022. It adds 1,458 feet of new, dock accessible, track and a rail spur. Along with access to rail, this project also creates 48 full-time equivalent employee positions, paying at least \$22.30 per hour.









#### What are the results?

RRLG-ST23(01)--9T-11 Platinum Crush, LLC Project closed out 03/18/2024

Alta, Buena Vista County RRLG funding \$2,000,000 (loan) & \$612,000 (grant)

The Platinum Crush facility at Alta, Iowa processes soybeans into soybean oil and soybean meal. The total onsite storage of unprocessed soybeans is 5.1 million bushels. While running at full capacity, this plant can process those 5.1 million bushels in 45 days. The oil and meal will leave the facility using rail. Built at an estimated cost of more than \$14 million, the seven track, 50,147-foot loop track can accommodate 5-unit trains on site.

This facility will also create 51 jobs at an average wage of \$22.32/hour.



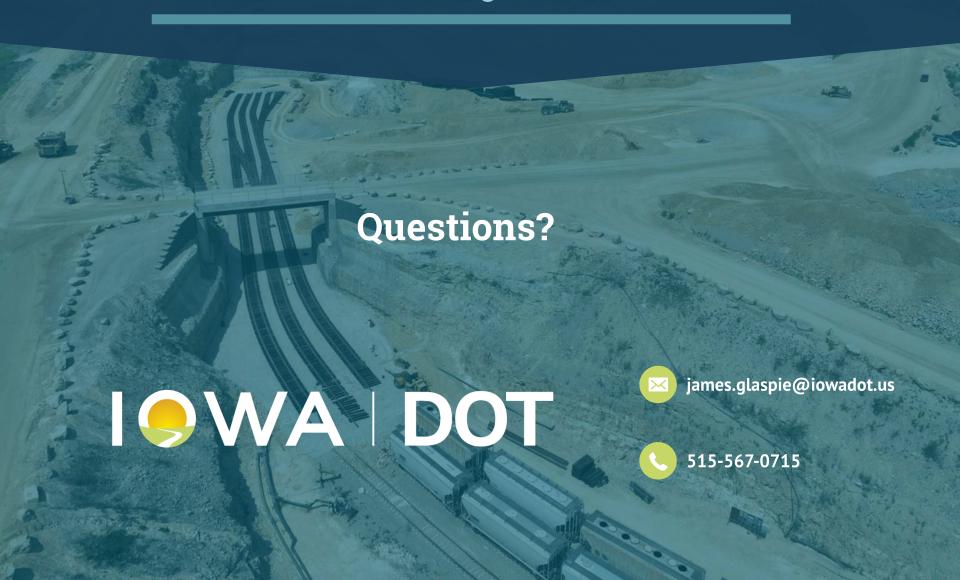




## RRLG goal recap

- Foster improvements to lowa's economy by leveraging rail
  - Support new jobs coming to lowa and keeping jobs in lowa
  - Support the "last mile" of infrastructure improvements
  - Ensure stewardship of resources available

# Thank you!



## Land O'Lakes Shrinks Empty Miles Through Industry Collaboration



SHARE: 🔼 f 💆 in

With truck capacity experiencing wide swings in availability, and shippers struggling to get product to market in a time of highly uncertain demand, it has never been more important to make optimal use of the space that's actually available.

So goes the ideal — but in practice, the industry is subject to substantial amounts of underused over-theroad capacity. The culprit is deadheading: the running of empty trucks on one leg of a round trip. Estimates put the amount as high as 40% of all moves. Horizontal collaboration: How to be successful

> Dr. Henrik Sternberg lowa State University

https://www.fourkites.com/press/land-olakes-shrinks-empty-miles-through-industry-collaboration/



## Transics **VOLVO**

**Volvo Transport Company** Consulting





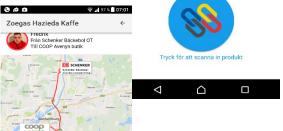


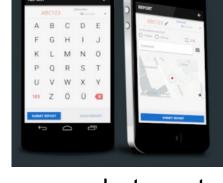
rån Coop Bro Centrallager

а Platser

## Henrik Sternberg: Engaged research







app.cabotagestudien.com

**CABOTAGE STUDIEN** 









♣ Home / Newsletters / Loaded and Rolling / Poor trailer space utilization continues in 2023

Loaded and Rolling

News

Newsletters

Sponsored Insights

## Poor trailer space utilization continues in 2023

Flock Freight survey reports 43% of truckload orders were partially empty



- Trucking transports 70% of all goods
- 20% to 30% empty miles
- Trucking volumes will increase 45% by 2050











177 000 miles saved after 1 year!

#### Questions

- What is horizontal logistics collaboration?
- How do you execute it?

What are the antecedants of success and failure?



TRI = VIZOR is setting up horizontal collaborations to:









Bundle flows

Cluster activities

Share capacity

Pool resources



## How to collaborate?







## Horizontal Logistics Collaboration

 HLC: collaborations among suppliers, customers, and logistics service providers focusing on activities such as transport sharing (Cruijssen et al, 2007; Pan et al, 2019)

#### Empirical reports / calculated savings:

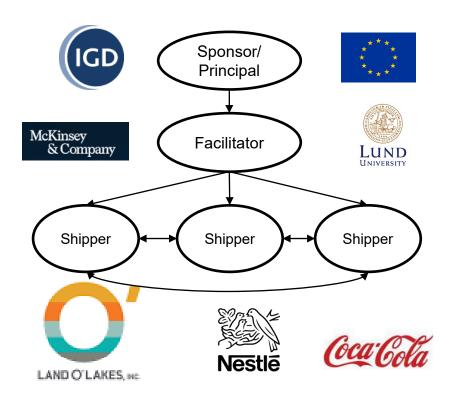
- Palmer & McKinnon (2011): -16%
- Cruijssen et al. (2007): 30%
- Frisk et al. (2010): -14%
- CO3 projects: savings 10 to 30%











Opportunistic -> Systematic horizontal collaboration?



#### **Legal context**

- A) Cartel prohibition (Art. 101 EU), but is not prohibiting
- ☐ cooperation between non-competitors; -> OK
- a cooperation between competing companies that cannot independently carry out the project or activity covered by the cooperation OK
- B) EU Guideline (2011/C 11/01) on Art. 101 EU 'horizontal co-operation agreements' is <u>not prohibiting</u> Horizontal Collaboration, if using a trusted party (eg 'joint purchasing organisation')

#### Legal role of Trustee to comply with EU law:

- ☐ no direct information exchange between the parties
- ☐ trustee does not compete with the parties on the selling market,
- □ all information necessary for the purchases is only disclosed to the joint purchasing organisation, not to the other parties
- □ example: quality specifications, quantities, delivery dates, maximum purchase prices
- ⇒ Horizontal co-operation agreement is not violating EC Competition law!
- ⇒ Recommendation: Use a trustee to avoid anti-trust ②!

## Antitrust Guidelines for Collaborations Among Competitors





Issued by the Federal Trade Commission and the U.S. Department of Justice

## ICA: 43% market share COOP 22% market share

















#### Method

- Qualitative abductive case study
- Unit of analysis each collaboration project
- Covers >20 years of SHLCs
  - United Kingdom
  - Germany
  - Sweden
  - Denmark
  - USA



- Interviews with sponsors, facilitators, participants
- Secondary data: presentations, project documents, public reports

## Cases

Case	Initiator	Sponsor - Principal	Facilitator	Shippers	
DE Furniture (1998)	Principal	Local Industry Association	Research institute	50 furniture manufacturers	
DE MUC (2004–2007)	Principal	Bavarian Ministry of Economics	Research institute	3 automotive suppliers	
SE Forestry (2004–2008)	Principal & Facilitator	Research institute		8 Swedish forestry producers	
UK Starfish (2009–2011)		Institute of Grocery Distribution	University	27 companies: 6 retailers, 3 wholesalers, and 18 of their suppliers	
SE Starfish (2012–2014)	Principal & Facilitator	Swedish Administration of Transport and a research orchestrator	University	2 retailers and 5 of their suppliers	
DK Log (2014–2017)	Facilitator	Danish government and Danish Transport Administration	University	6 Danish companies: 4 manufacturers, 1 industrial material supplier, and 1 B2B retailer	

#### IOWA STATE UNIVERSITY

### **Contrast Cases**

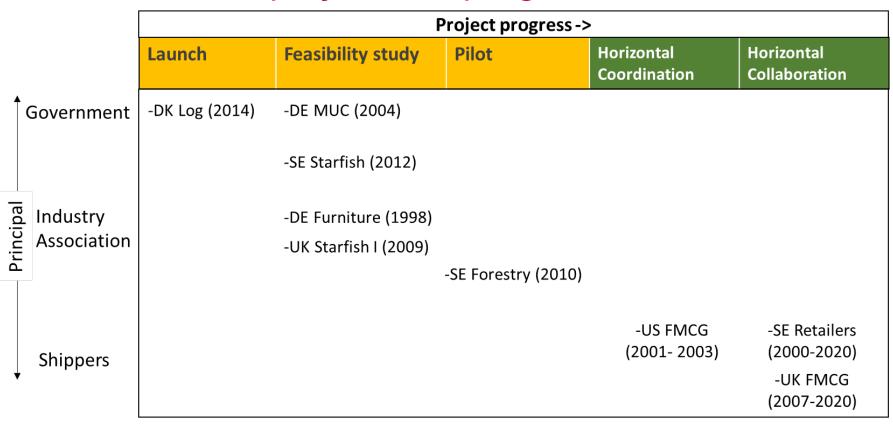
Case	Initiator	Sponsor - Principal	Facilitator	Shippers
SE Retailers (2000–now)	Shippers	NA	NA	2 Large retailers
US FMGC (2001-2004)	Shippers	NA	Network facilitator	3 large FMGC producers
UK FMGC (2007-now)	Shippers	NA	NA	2 large FMGC producers

## **Guiding Theoretical Frameworks**

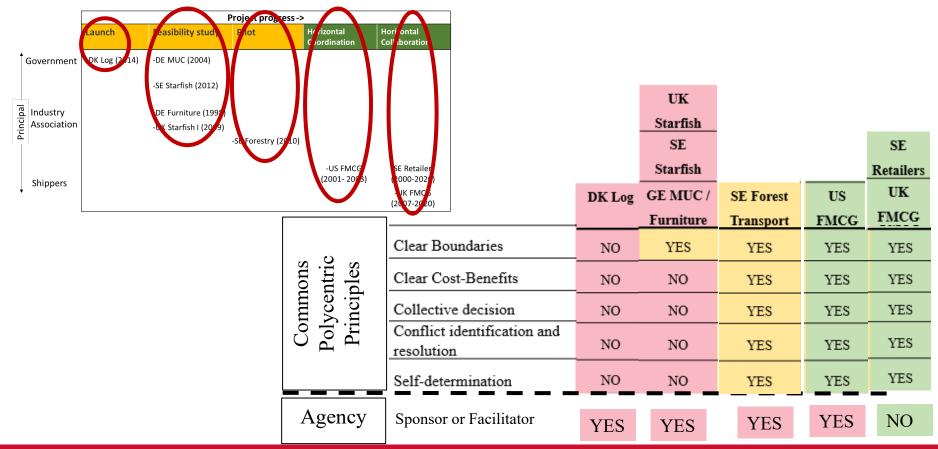
- Commons Theory (Ostrom 1990, 2000)
  - Decentralized collaboration
  - What failed?
  - Boundaries, equivalence, conflict resolution

- Agency Theory (Jensen & Meckling 1976; Eisenhardt 1986)
  - Delegated relationships
  - Why did they fail?
  - Adverse selection, moral hazards

## Results: Which projects do progress?



#### Results: What Failed?



## Results: Why Did they Fail?

	Goals	Adverse Selection	Moral Hazards	
Sponsor	Change Cost-Co2 Recognition			
Facilitator	Data Publications Funding	Theoretical Concept	Limited Search No Failure Studies	
Shipper Shipper	Cost-Co2 Experiment Reputation Funding	Rivalry Heterogeneity	Passive Role	

Iowa State University

### Practical Implications

## **Government and Industry Associations**

- Many projects have been conducted, but few failure reviews have surfaced
- Need to implement mechanisms to learn from projects and disseminate findings

### **Shipping Firms**

- Need to develop capabilities to achieve collaboration success
- Not all negative, some shippers considered project learning experience for future

## Key takeaways



- Collaboration between two or three parties is highly beneficial
- Collaboration projects initiated by the shippers are likely to succeed
- Systematic horizontal collaboration does not yet work
- Public sector trying to orchestrate collaboration usually fail
- Research/external experts can be very helpful for, e.g., profit-sharing, SC design
- External facilitator makes legal compliance easier

## **ONGOING PROJECTS**



## Crowdsourcing: Strategy & Policy implications





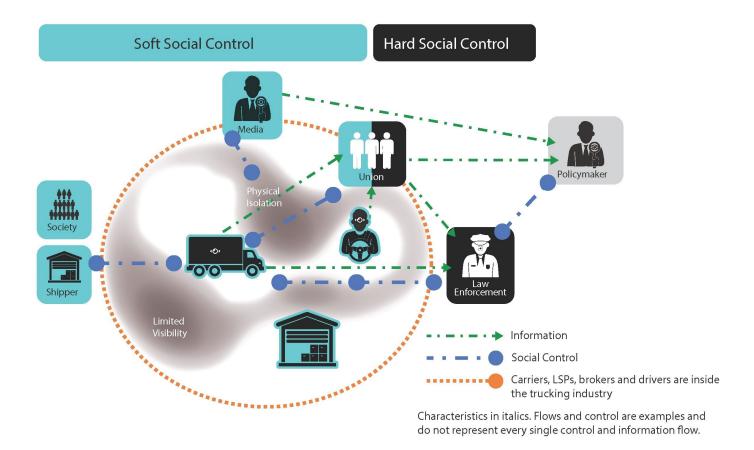
- New Swedish and Danish laws are enacted
- EU legislations on further deregulations halted, partly re-regulated
- Topic of Scandinavian elections
- Conditions improved for thousands of drivers
   "Of course, I downloaded the app... we really need facts about cabotage" (C. Elmsäther, Swedish infrastructure minister)



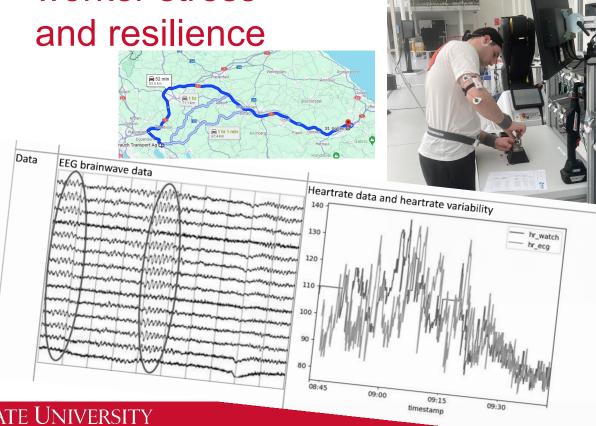


## **MISCOND UCT AND WHAT MAKES** THE **TRUCKING INDUSTRY BETTER?**

Code	Organization	Job Title	Duration (min)	Years of Exp.	Region	Incidents count
T01	Medium/Small Carrier	Owner	45	20	US	7
T02	Broker	Broker	32	15	US	10
Т03	Large Carrier	Vice President	56	35	US	7
T04	Large Carrier	Dispatcher & Driver	61	22	US	7
T05	Large Logistics Co.	General Counsel	37	18	US	13
Т06	Local Excavating Co.	Driver	29	12	US	8
T07	Broker	Owner	71	50	US	7
T08	Large Carrier	Driver	52	37	US	4
Т09	State Patrol	Sergeant	42	24	US	6
T10	Small Carrier	President	53	28	US	11
T11	University	Professor	43	27	US	5
T12	Small Carrier	Owner	30	19	US	4
T13	Specialized Carrier	Driver	18	19	US	5
T14	Broker Association	Program Director	51	2	US	10
T15	Carrier Association	Representative	60	10	Scandinavia	3
T16	Carrier Association	Representative	48	12	Scandinavia	4
T17	Large LSP	Freight Manager	40	13	Scandinavia	4
T18	Retail Company	Freight Manager	58	40	Scandinavia	2
T19	Medium LSP	Freight Manager	20	10	Scandinavia	5
	Large LSP	Quality & Environment Manager	59	21	Scandinavia	3
T21	Owner-Operator	Owner-Operator	58	33	Scandinavia	9
T22	Specialized Carrier	Driver	32	25	Scandinavia	6
T23	Distributor	Driver	48	35	Scandinavia	3
T24	Union	Representative	32	18	Scandinavia	4



Blue collar worker stress



Electro-dermal activity (galvanic skin conductivity)

## Transparency sells

 Repeated scientific studies show that transparency significantly increases sales and increases supply chain trust (Buell & Kalkanci, 2020). Often associated with increased sales in the area of 18-45%. Consumers like to see employees, e.g., Nature Sweet tomatoes.

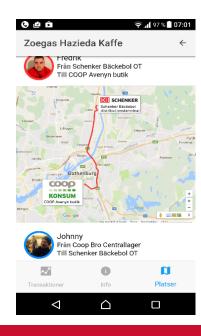






# Would transparency help trucking?

- Studies show drivers often feel a lack of public appreciation.
- For products like appearel and coffee, increased transparency ia proven to drive sales (Buell & Kalkanci 2020).
- We believe driver spotlight could increase carrier business. In the EU such initiatives have gained traction: <a href="https://www.youtube.com/watch?v=nWVdg6KU1MI">https://www.youtube.com/watch?v=nWVdg6KU1MI</a>.



**Questions?** 

henrik@iastate.edu













#### **C**IOWADOT



## Agenda

Draft Vision
Statement and
Survey









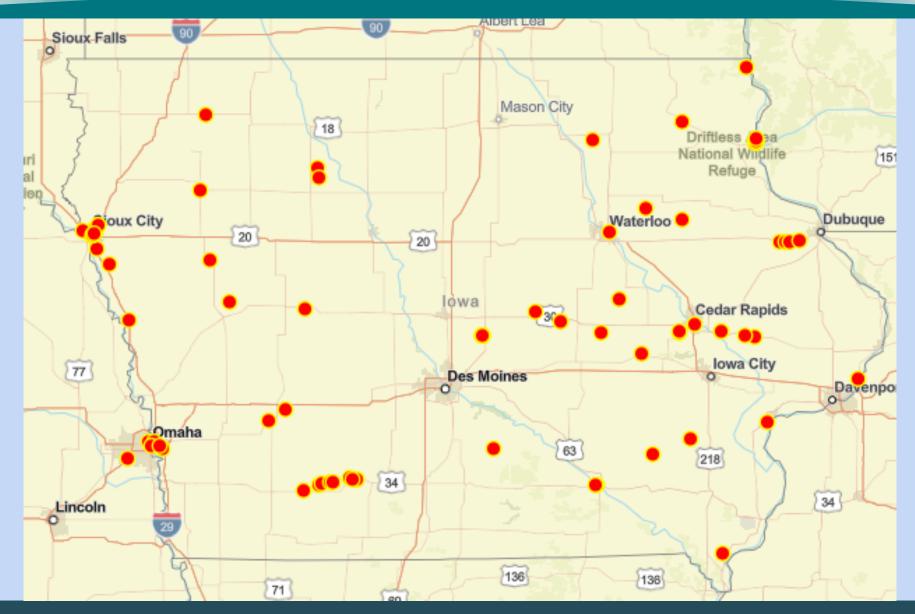


#### Vision

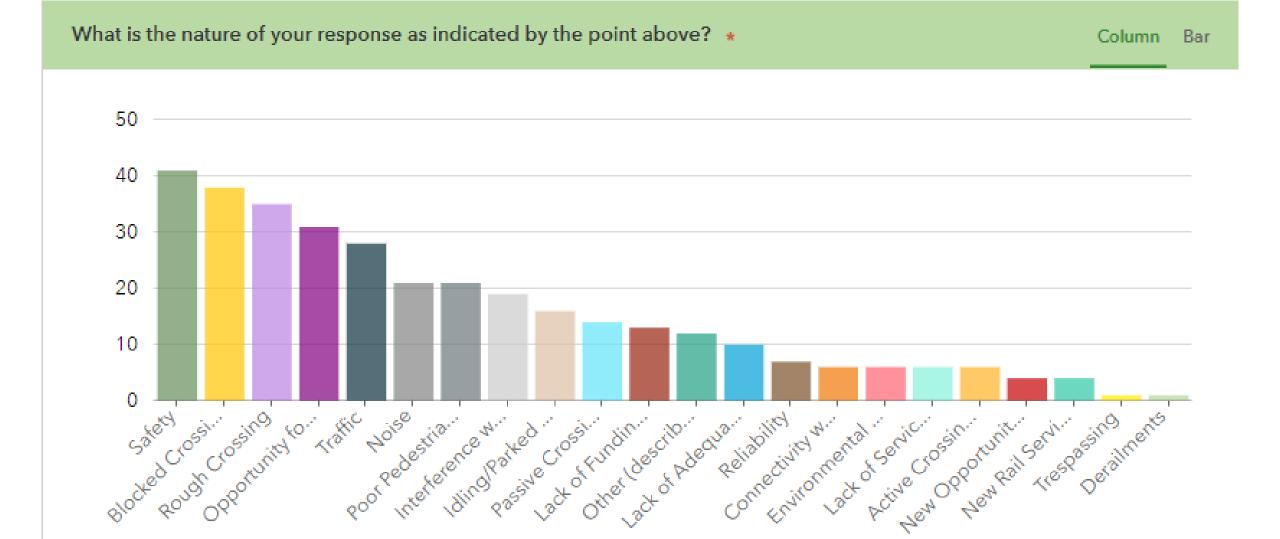
A safe and efficient rail system that provides Iowa with economic growth opportunities and competitiveness by maintaining the rail infrastructure, ensuring connectivity for people and goods in an environmentally sustainable manner.

#### IOWA DEPARTMENT OF TRANSPORTATION

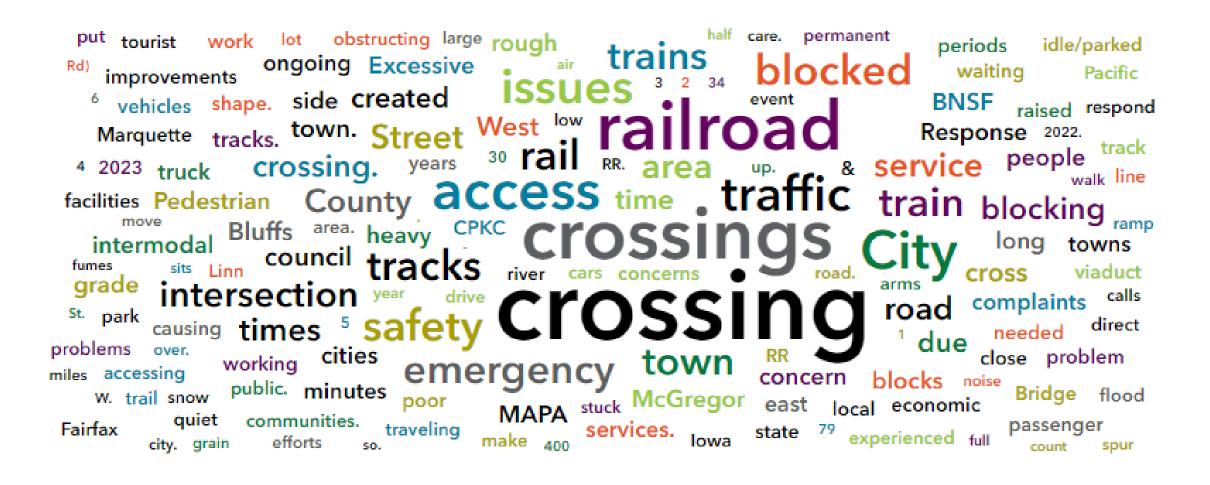
#### **C**IOWADOT







#### **C**IOWADOT









Maria.Hobbs@iowadot.us Caleb.Whitehouse@iowadot.us



515-239-1088 515-233-7767



## **lowa's Exports**

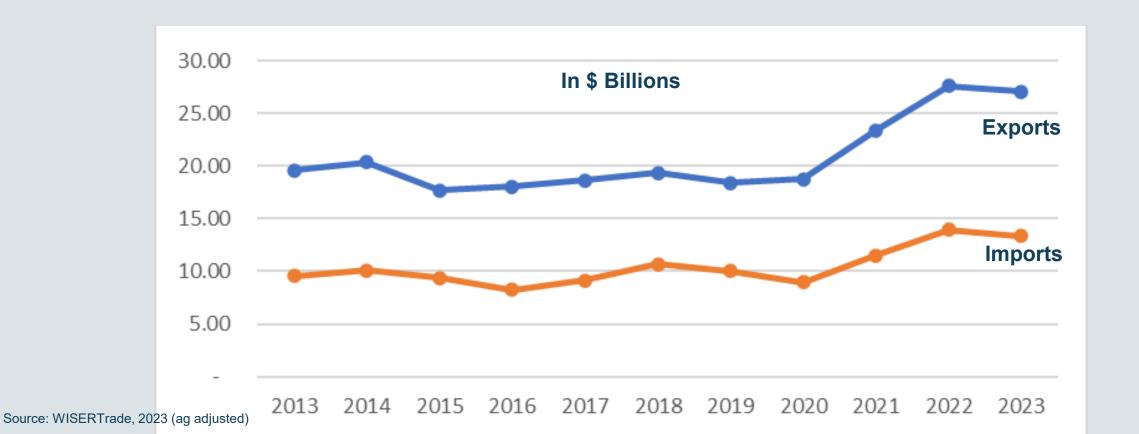
Joseph Rude

Global Business Development

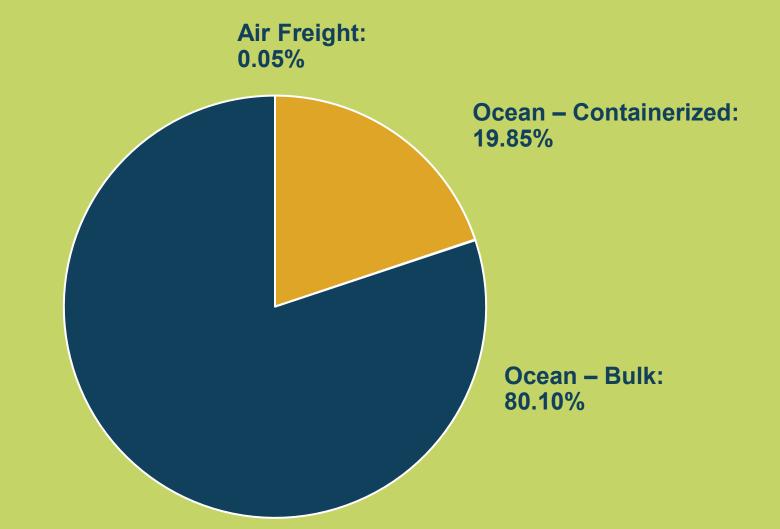
Iowa Economic Development Authority

### Iowa's 2023 Trade Balance

lowa exported \$27.1 billion in goods
lowa is ranked in the top 5 of net exporting states

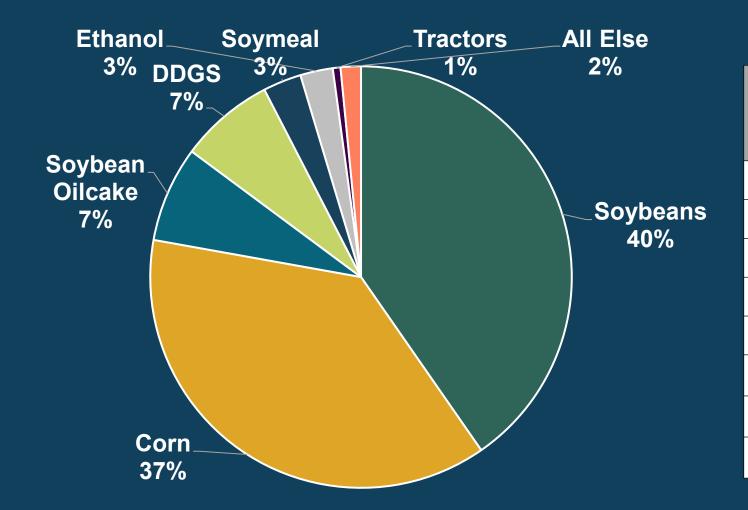


## **Export Modes of Transportation**



2023 17.5 MMTs

## Ocean Exports – Non Containerized

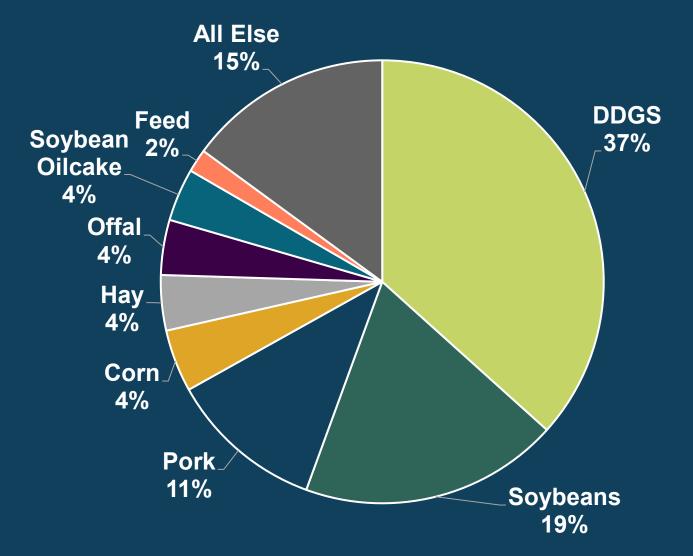


Product Category	2023 Exports (lbs)
Soybeans	5,624,494,358
Corn	5,225,754,017
Soybean Oilcake	1,023,023,612
DDGS	1,012,383,626
Soymeal	409,772,414
Ethanol	347,827,157
Tractors	82,536,266
All Else	216,511,760





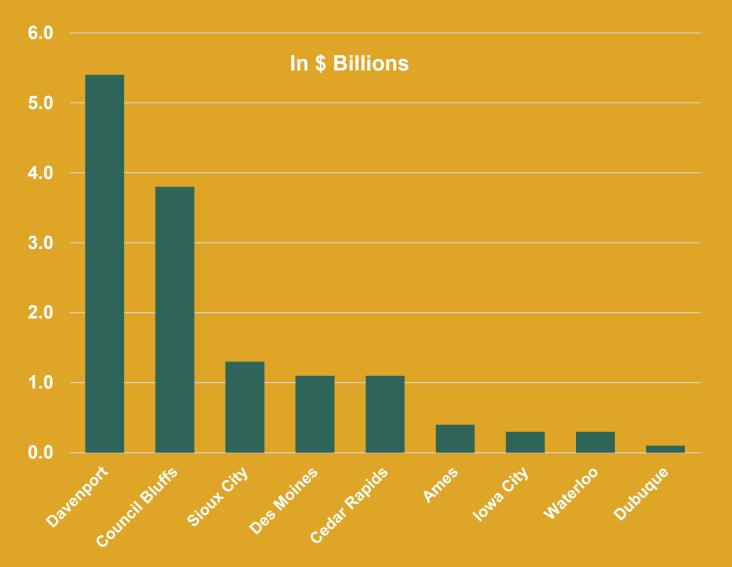
## Ocean Exports – Containerized



Product Category	2023 Exports (lbs)
DDGS	1,266,679,584
Soybeans	653,428,278
Pork	391,350,830
Corn	157,288,759
Hay	139,479,510
Offal	138,895,931
Soybean Oilcake	133,003,078
Feed	58,457,159

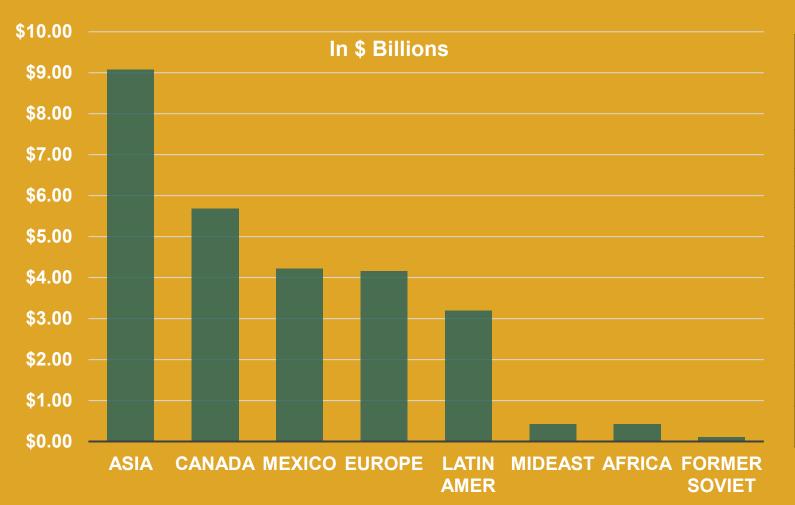


## **Metro Exports**



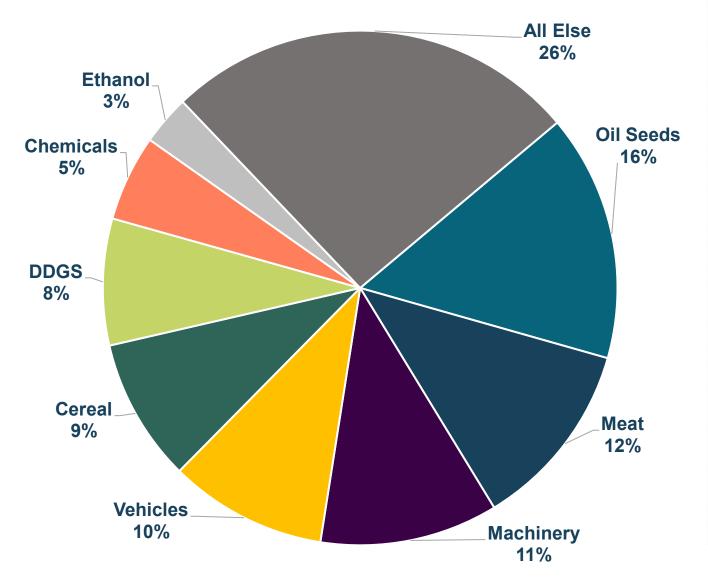
Metro Area	2023 Exports (In \$ Billions)
Davenport	5.4
Council Bluffs	3.8
Sioux City	1.3
Des Moines	1.1
Cedar Rapids	0.4
Iowa City	0.3
Waterloo	0.3
Dubuque	0.1
Elsewhere	4.2

## **Top International Regions**



Metro Area	2023 Exports (In \$ Billions)
Asia	\$9.08
Canada	\$5.69
Mexico	\$4.21
Europe	\$4.16
Latin America	\$3.19
Middle East	\$0.43
Africa	\$0.42
Former Soviet	\$0.10

## **lowa's Leading Exports**

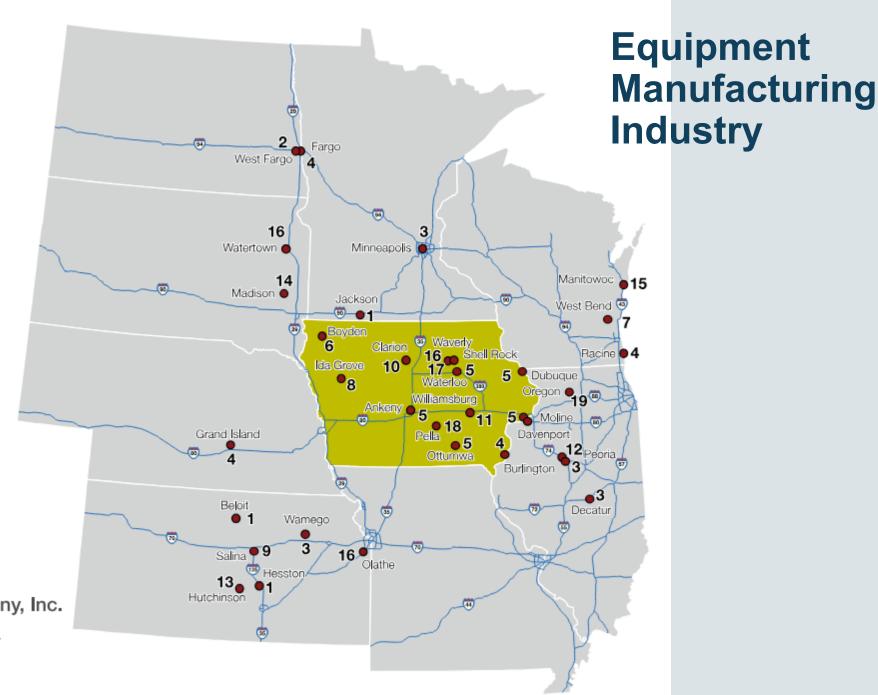


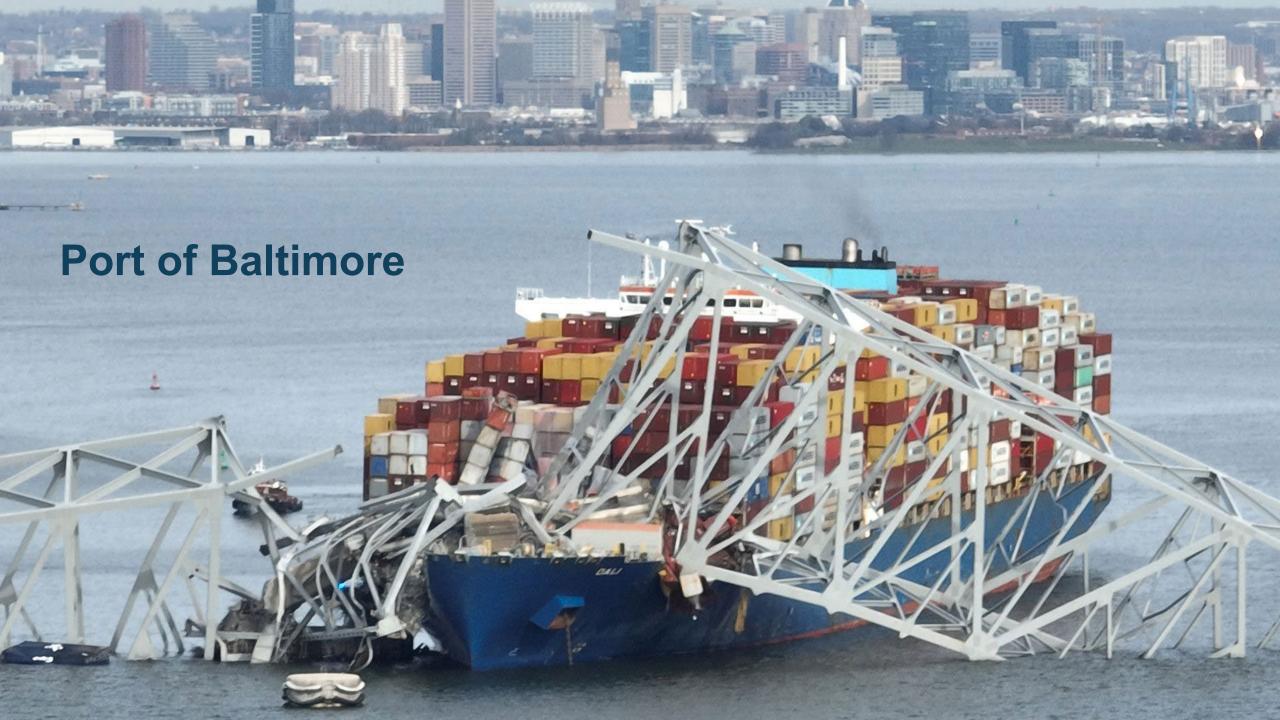
Product Category	2023 Exports (lbs)	нтс
Oil Seeds, etc.; Misc. Grain, Seed, Fruit, Plant, etc.	4,183,317,134	12
Meat & Edible Meat Offal	3,203,558,322	02
Industrial Machinery, including Computers	3,019,350,507	84
Vehicles, except Railway or Tramway & Parts, etc.	2,676,254,095	87
Cereals	2,428,047,782	10
Food Industry Residues & Waste; Prep Animal Feed	2,144,056,529	23
Misc. Chemical Products	1,459,410,729	38
Beverages, Spirits & Vinegar	839,841,899	22
Electric Machinery, etc.; Sound Equip; TV Equip	775,587,675	85
Pharmaceutical Products	592,513,973	30
Sugars & Sugar Confectionary	496,563,542	17
Ores, Slag & Ash	431,716,918	26
Optic, Photo, etc.; Medic or Surgical Instruments, etc.	421,773,497	90
Plastics & Articles Thereof	373,354,542	39
Organic Chemicals	316,612,473	29
Aircraft, Spacecraft & Parts Thereof	277,308,147	88
Prep of Meat, Fish, Crustaceans, Insects	274,549,265	16
Albuminoidal Subst; Modified Starch; Glue; Enzymes	271,629,216	35
Animal, Vegetable or Microbial Fats & Oils, etc.	217,452,516	15
Iron & Steel	201,502,950	72
All Else	2,363,816,604	

## **lowa's Leading Exports – Quick Analysis**

Leading Products	нтс	Leading Markets
Oil Seeds	12	China, Mexico, Germany
Meat	02	Mexico, Japan, China
Machinery	84	Canada, Brazil, Australia
Vehicles	87	Canada, Australia, Germany
Cereal	10	Mexico, Japan, China
DDGS	23	Mexico, Canada, Colombia
Chemicals	38	Canada, Brazil, China
Ethanol	22	Canada, Mexico, UK

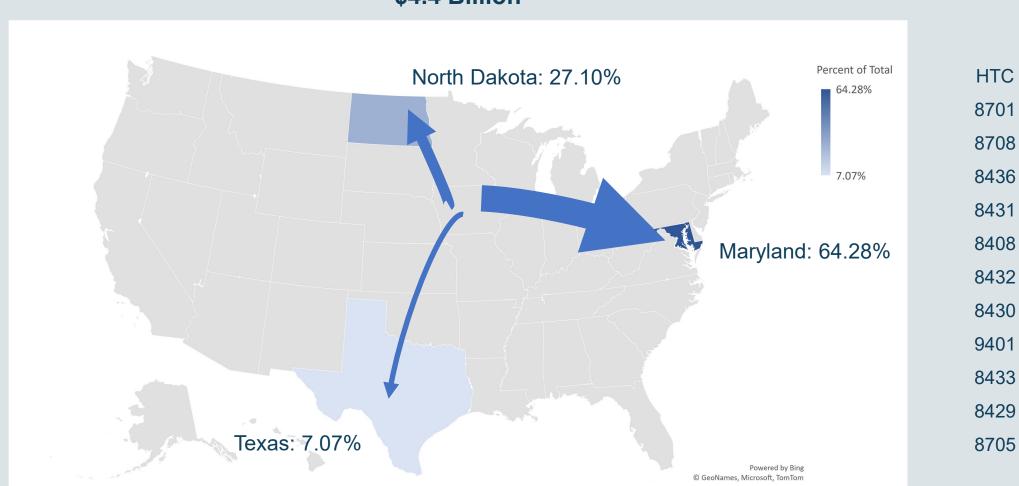
- 1 AGCO Corporation
- 2 Bobcat Company
- 3 Caterpillar, Inc.
- 4 CNH Industrial
- 5 Deere & Company
- 6 DEMCO
- 7 Gehl Company
- 8 GOMACO Corporation
- 9 Great Plains Manufacturing, Inc.
- 10 Hagie Manufacturing Company
- 11 Kinze Manufacturing, Inc.
- 12 Komatsu America Corporation
- 13 Krause Corporation
- 14 Manitou Americas, Inc.
- 15 Manitowoc Company, Inc.
- 16 Terex Corporation
- 17 Unverferth Manufacturing Company, Inc.
- 18 Vermeer Manufacturing Company
- 19 Woods Equipment Company





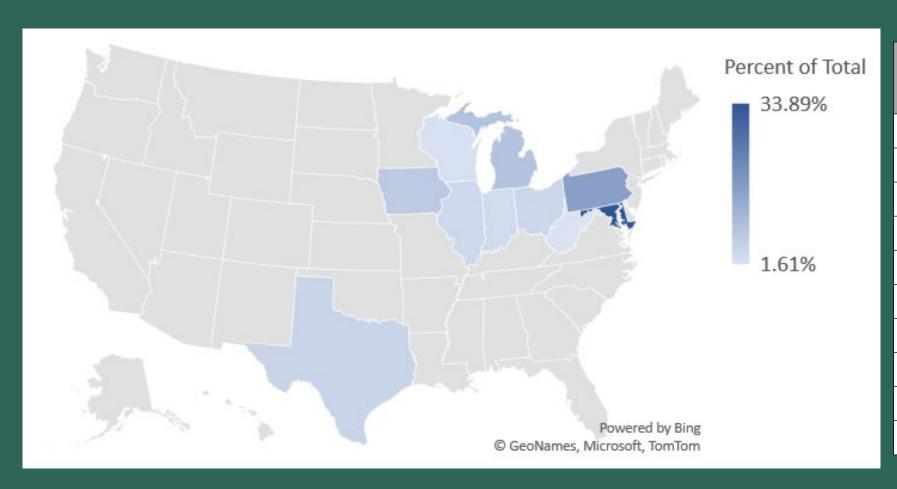
## **Equipment Manufacturing – Export Routing**

Ag & Construction Equipment \$4.4 Billion



Source: WISERTrade, 2023 (ag adjusted)

### **Port of Baltimore – Catchment Area**

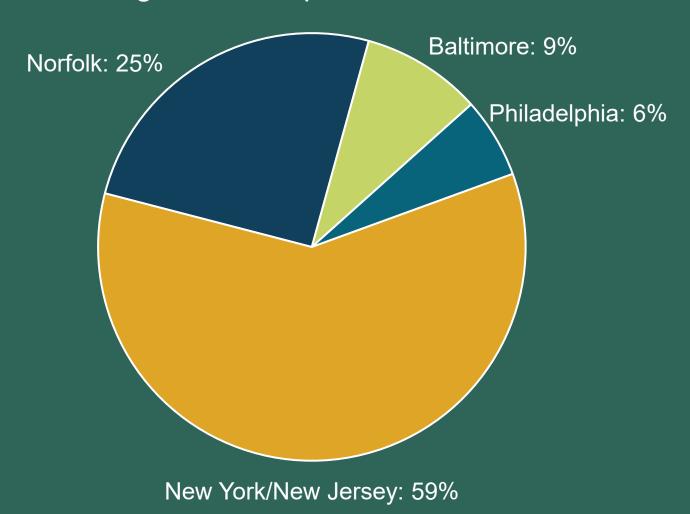


Point of Origin	Percent of Total
Maryland	33.89%
Pennsylvania	16.73%
Michigan	8.74%
Iowa	7.29%
Texas	4.73%
Ohio	4.31%
Illinois	3.98%
Indiana	3.23%
Wisconsin	2.08%
West Virginia	1.61%

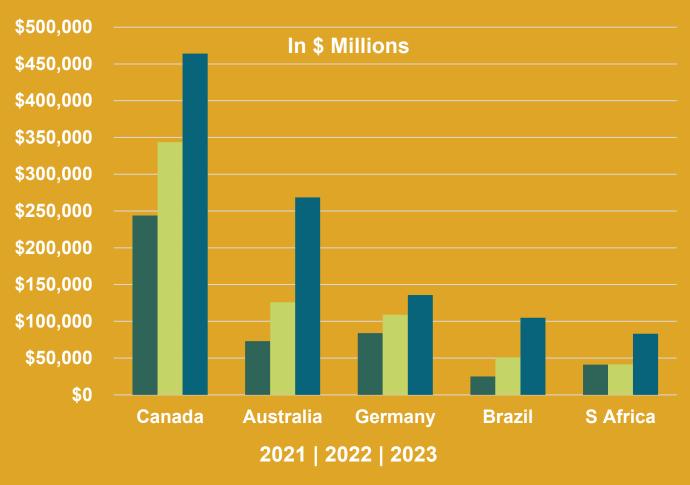
### **Port of Baltimore**

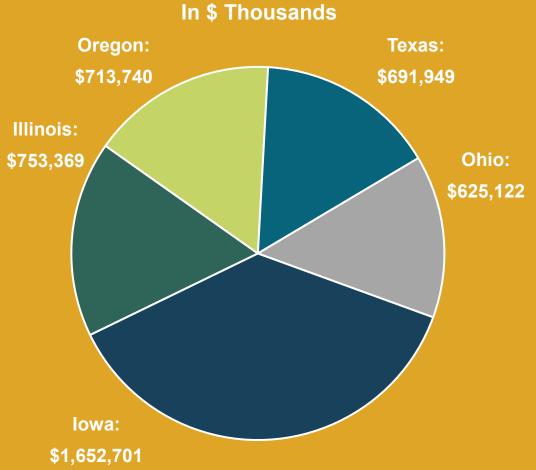
- Sea cargo vessels destined for Baltimore are being diverted to nearby ports such as New York, New Jersey and Norfolk Virginia
- There are resulting implications for the coast and capacity of other principal trade modes like road, air and rail, as companies re-route goods across the country to West Coast ports to avoid delays

#### Leading container ports on East Coast

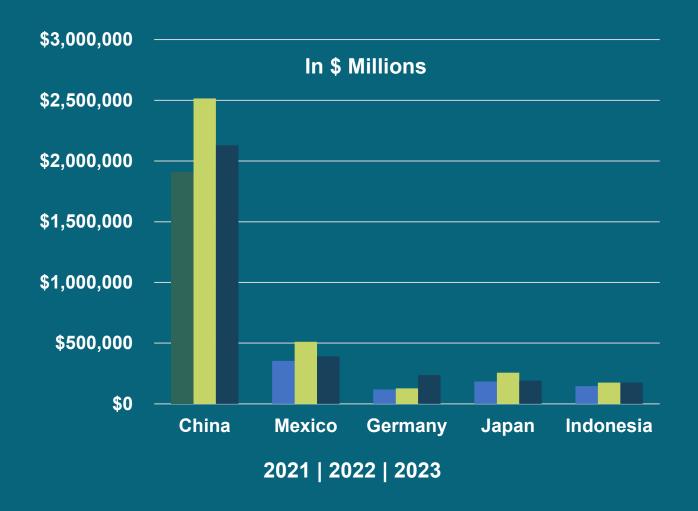


### **Tractor Exports**





## Soy Exports



# In \$ Thousands Nebraska: \$1,909,527 Illinois: \$4,486,954 Indiana: \$2,157,564 Minnesota: \$2,326,294 lowa: \$3,931,654

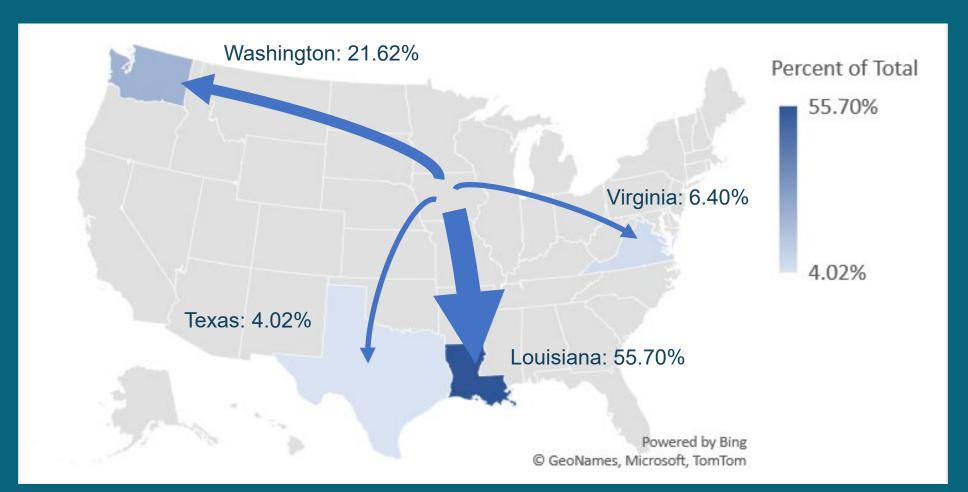


Containerized
Grain &
DDGS



# 2023 Soy Exports

### \$5 Billion

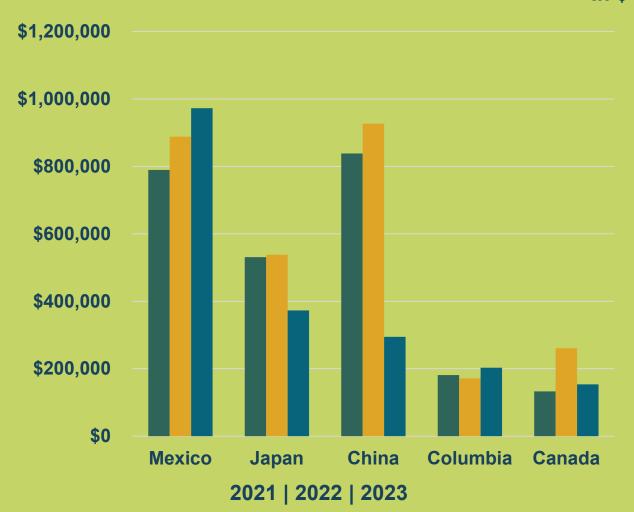


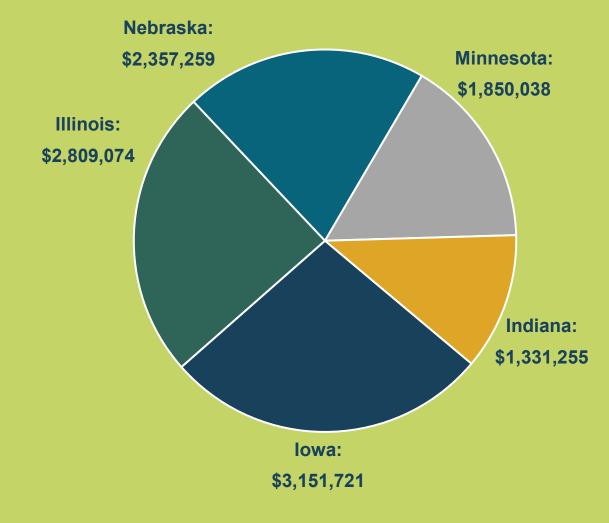
HTC 1201 2304

1208

## **Corn Exports**

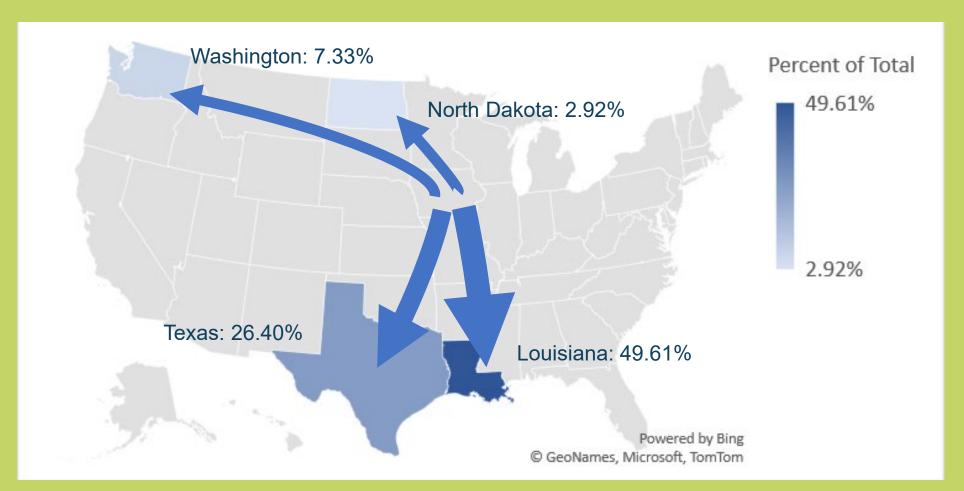
#### In \$ Millions





## 2023 Corn Exports

#### \$3.1 Billion



Source: WISERTrade, 2023 (ag adjusted)

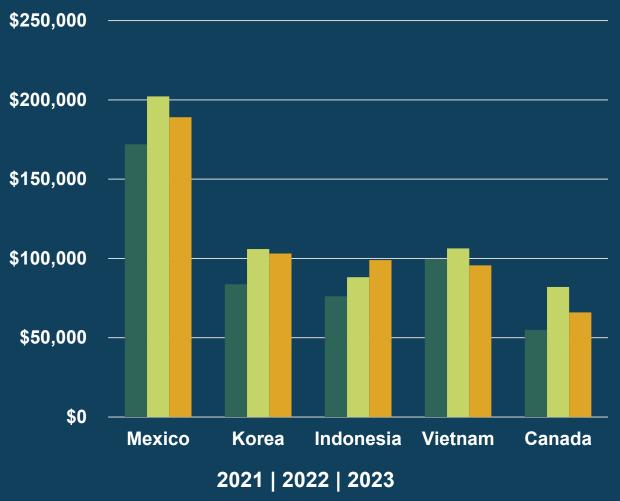
HTC

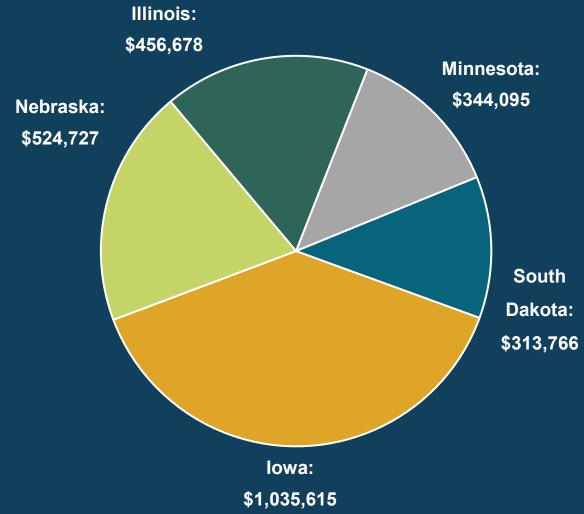
1005

1702

## **DDGS Exports**

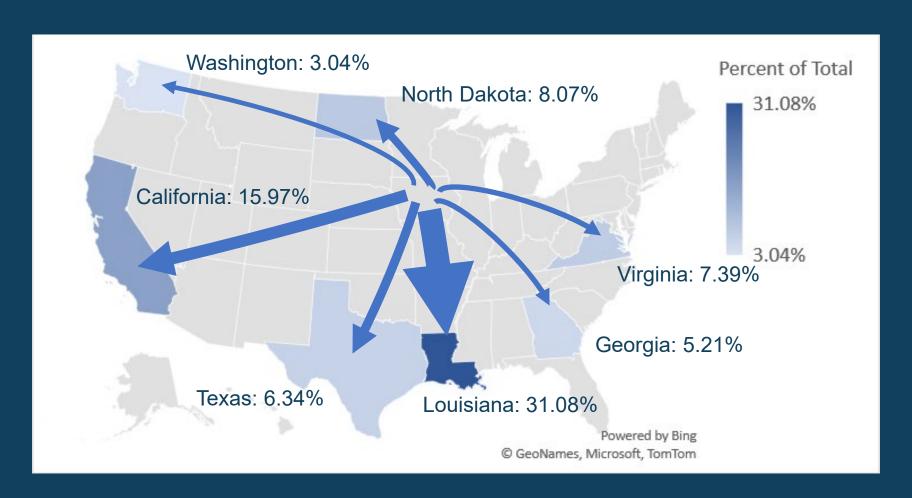




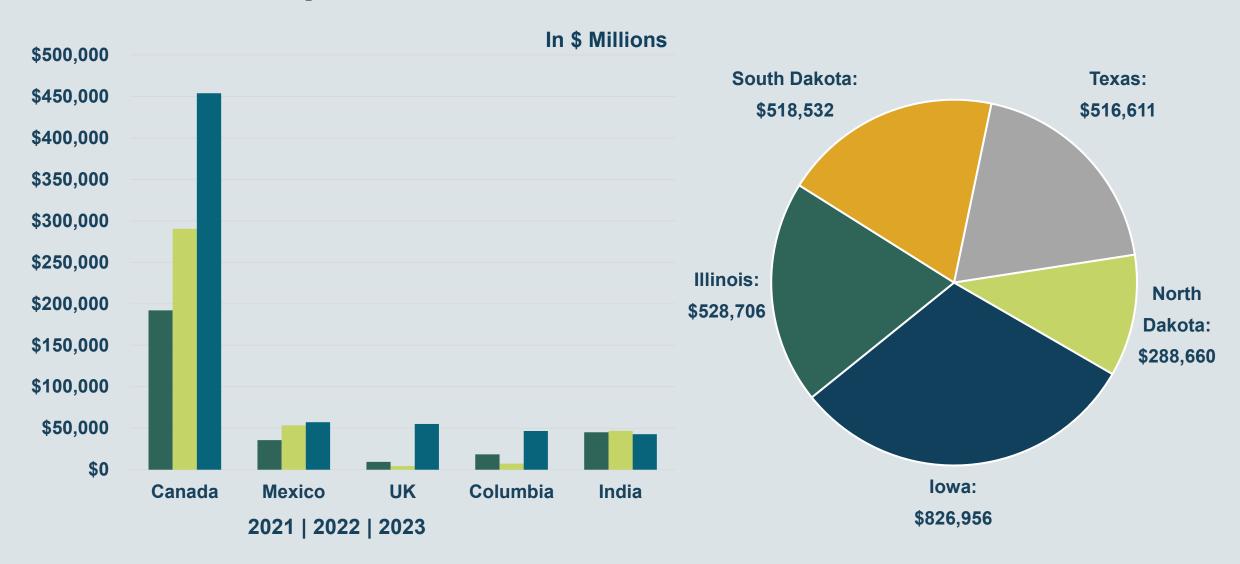


## **2023 DDGS Exports**

### \$1.0 Billion

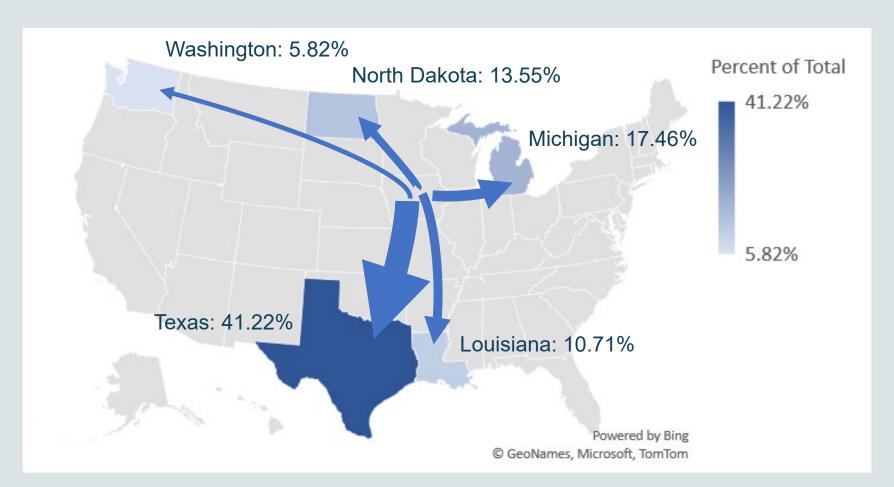


### **Ethanol Exports**



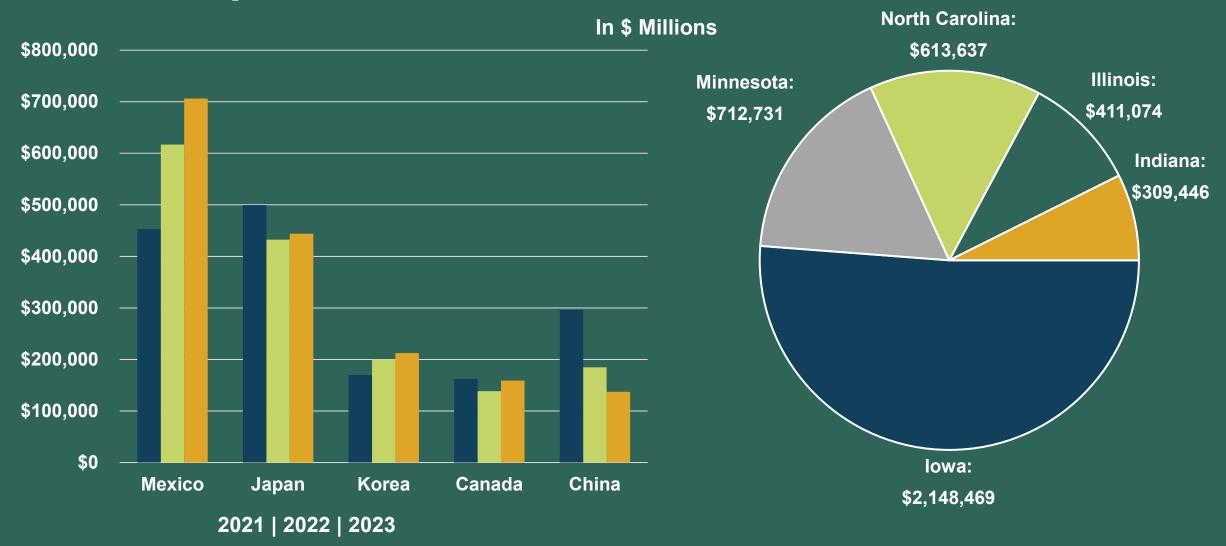
### **Ethanol Exports**

### \$827 Million



Source: WISERTrade, 2023 (ag adjusted)

## **Pork Exports**

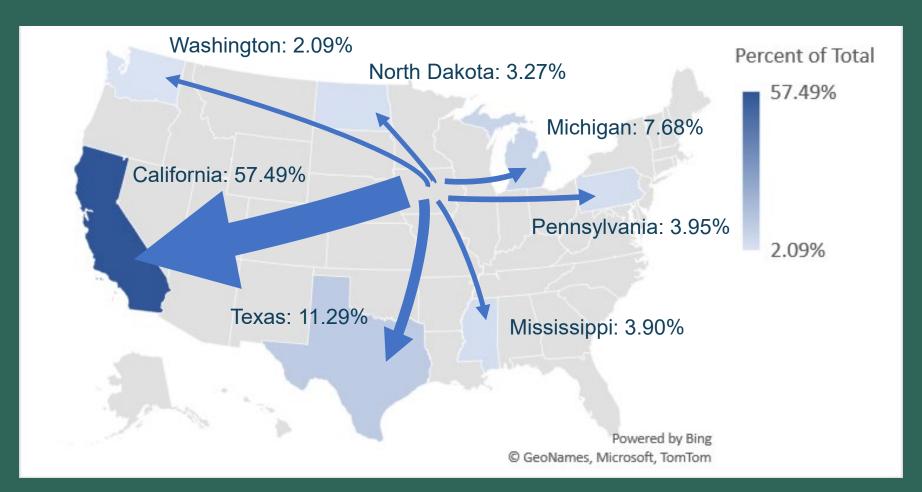


Refrigerated Shipping



### **2023 Pork Exports**

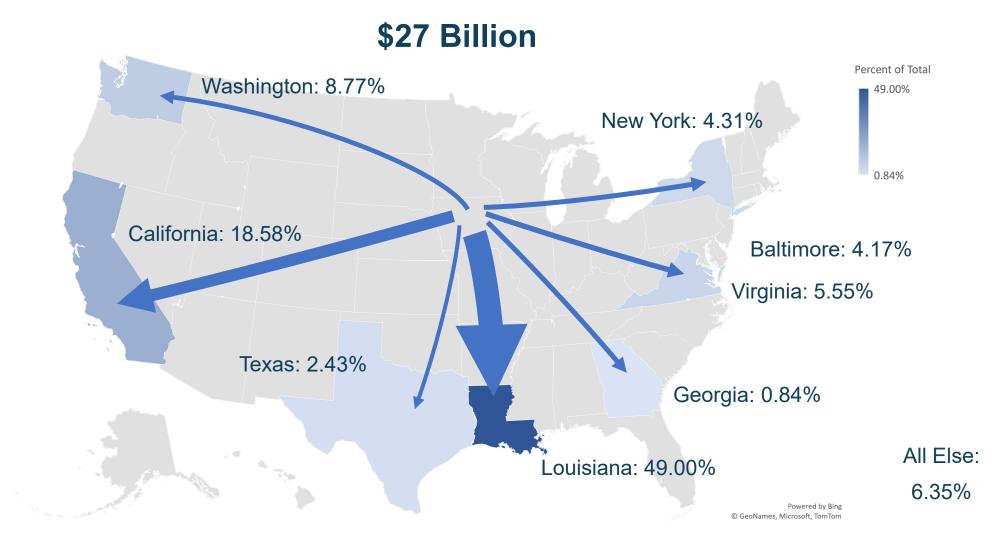
#### \$3.3 Billion



HTC020302061602

3002

### Port of Embarkation – All Ocean Ports





### **THANK YOU**

Joseph Rude
515.348.6244 | joseph.rude@iowaeda.com
lowa Economic Development Authority