

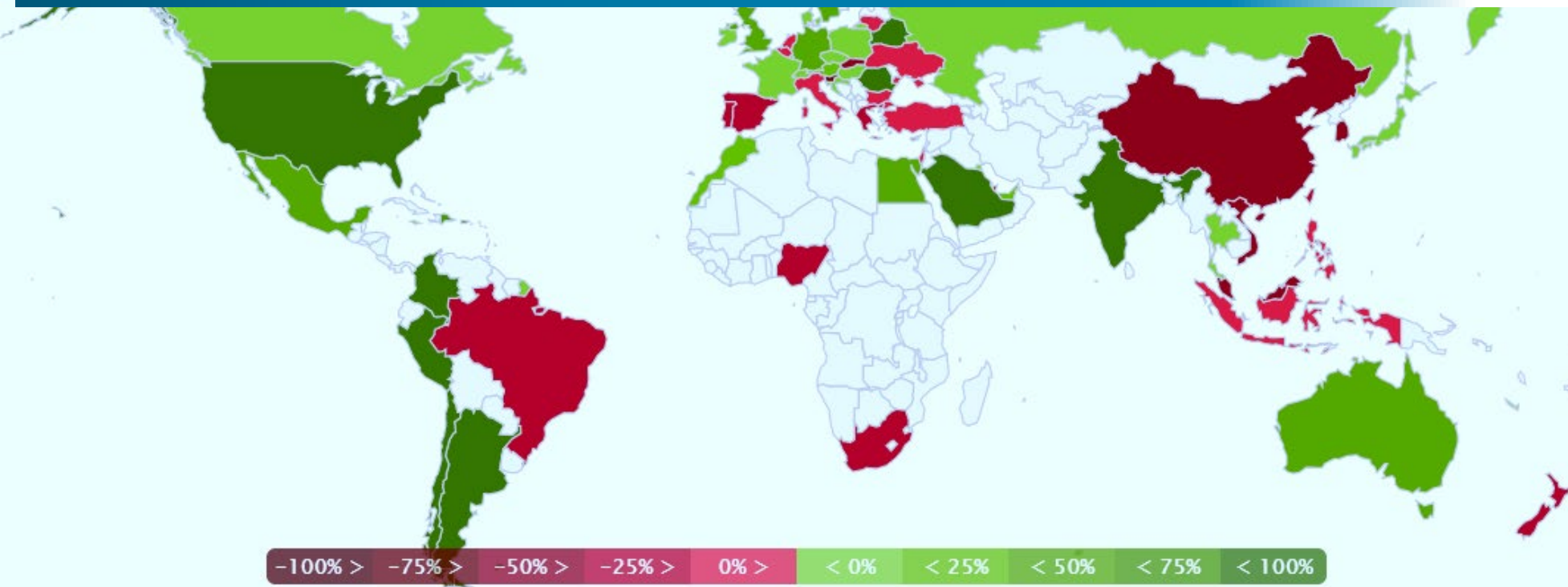
Project Team:

Eman Ibrahim

Scott Weber

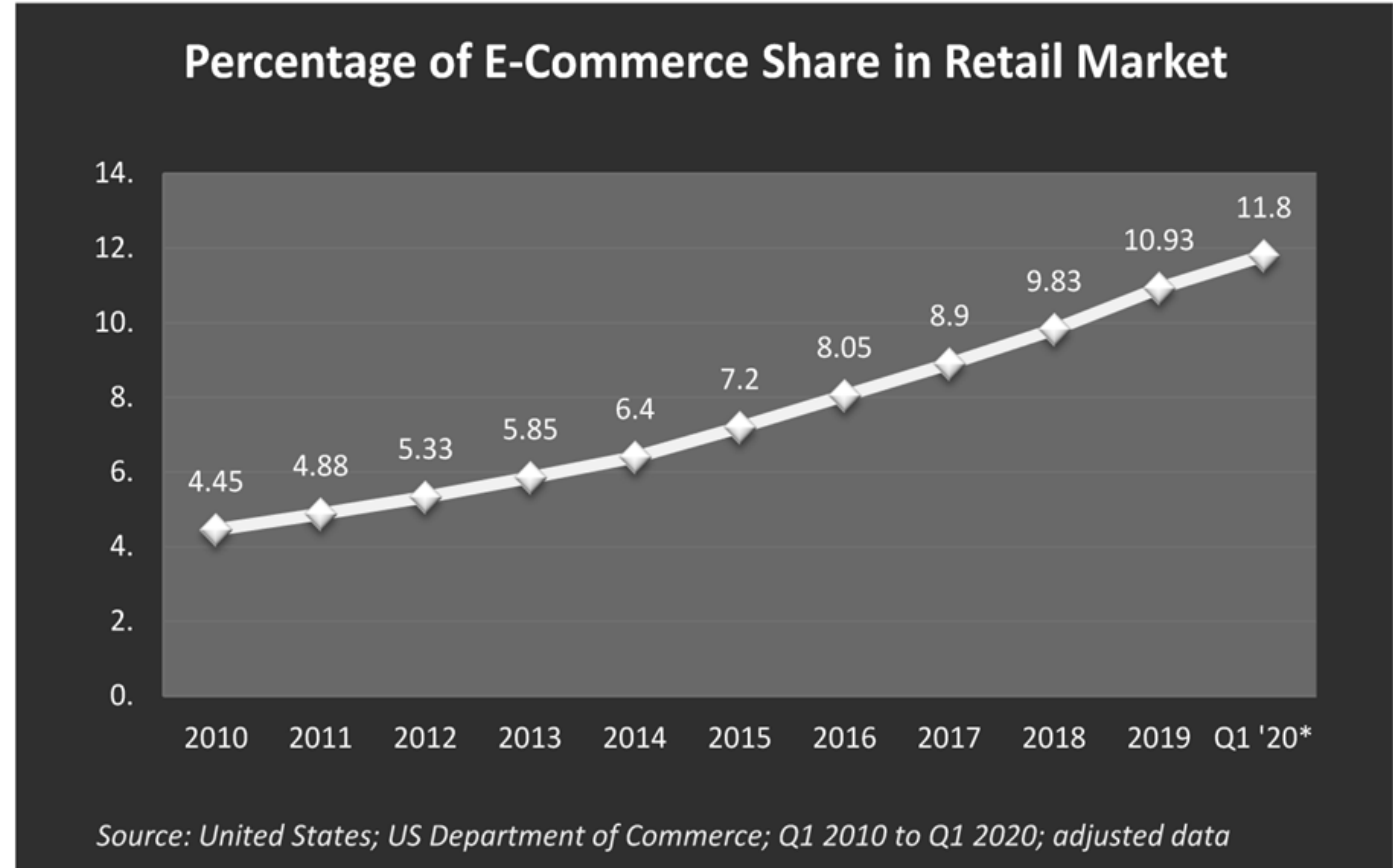
Peter Kimball

NIRPC E-Commerce Project Update



Overview

- E-Commerce impacts directly the transportation network. Urban freight delivery growth is expected to expand 40% by 2050 and that will increase congestion and negatively impact the air quality.
- It is also quickly changing cities and suburbs.
- In 2009, there was a single daily internet delivery for every 25 Americans. Today, there's one for every eight Americans and that traffic will double again by 2023.



The Impact of E-Commerce on Our Region

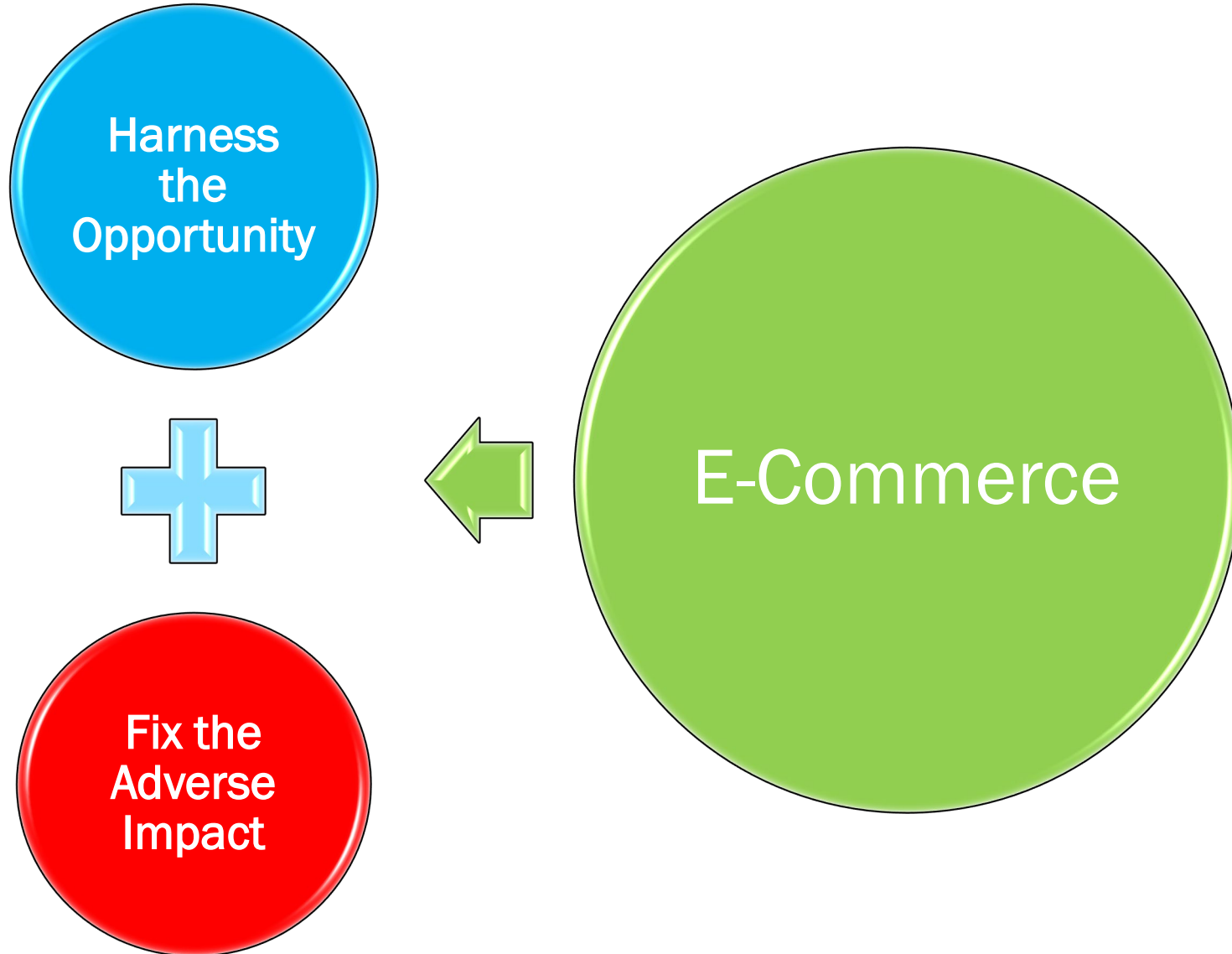
Transportation

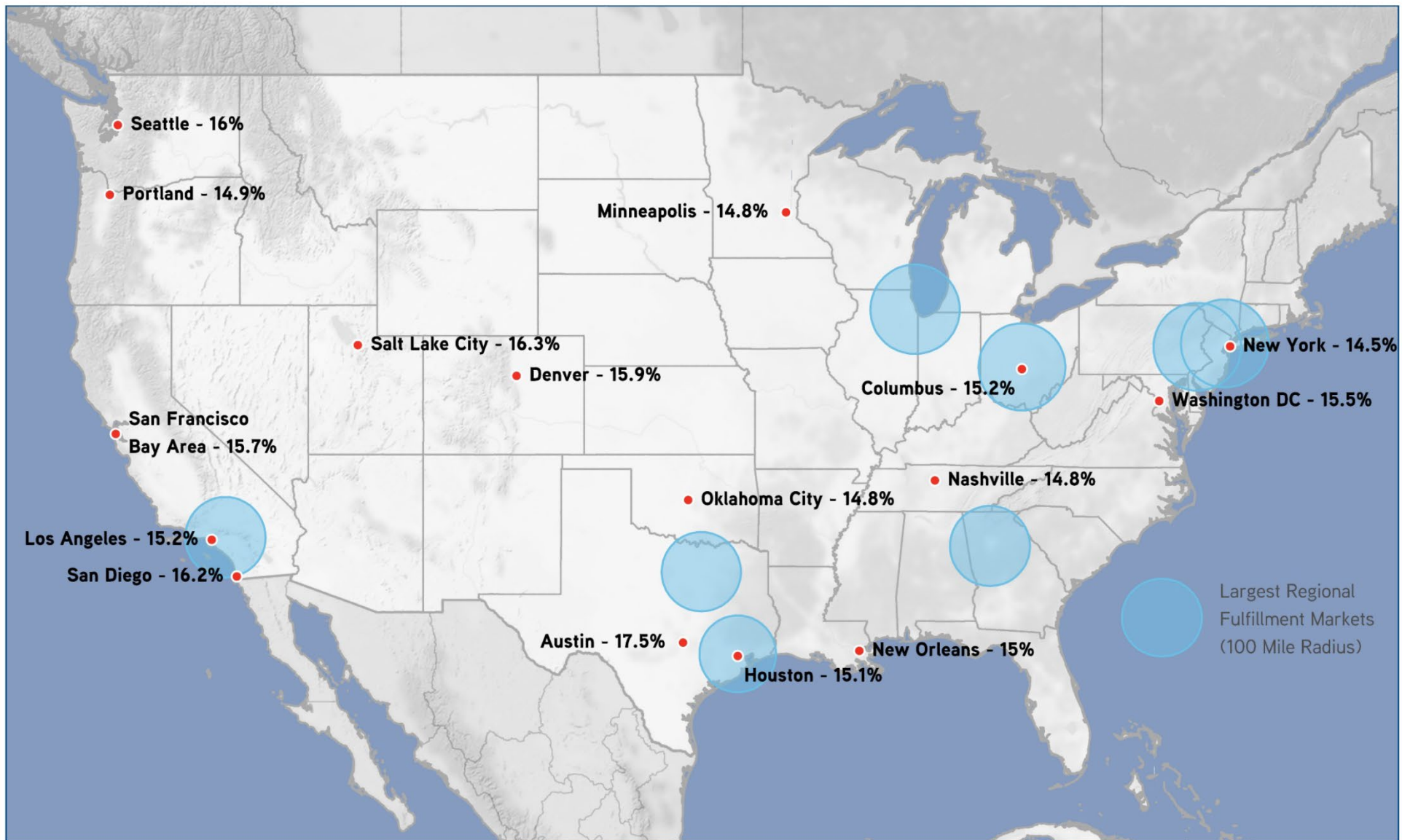
- Further expansion of e-commerce will impact urban logistics and change roadway system use and needs.
- Increase demand on facilities like warehousing, distribution centers, and last mile delivery within urban areas.
- It requires interstate highway access to accommodate more frequent daily truck traffic
- It increases the number of non-peak-period trips into residential areas that impact safety.

Land Use & Retail

- Express delivery services may result in challenges in mixed-use developments with limited freight zones and multiunit housing with limited storage for packages and fresh food deliveries.
- Living near a shopping location becomes less important when it is possible to order everything online and have it delivered to the home.
- Traditional malls have been devastated and large retail stores are going out of business. More than of 50%, based on sf, of the Southlake Mall is vacant with the closing of Sears and Carson's.
- Other Region shopping centers that are dead or declining like the Century Mall in Merrillville, the Woodmar Mall in Hammond, the Village Shopping Center in Gary and the Marquette Mall in Michigan City.

What we Need to Do?

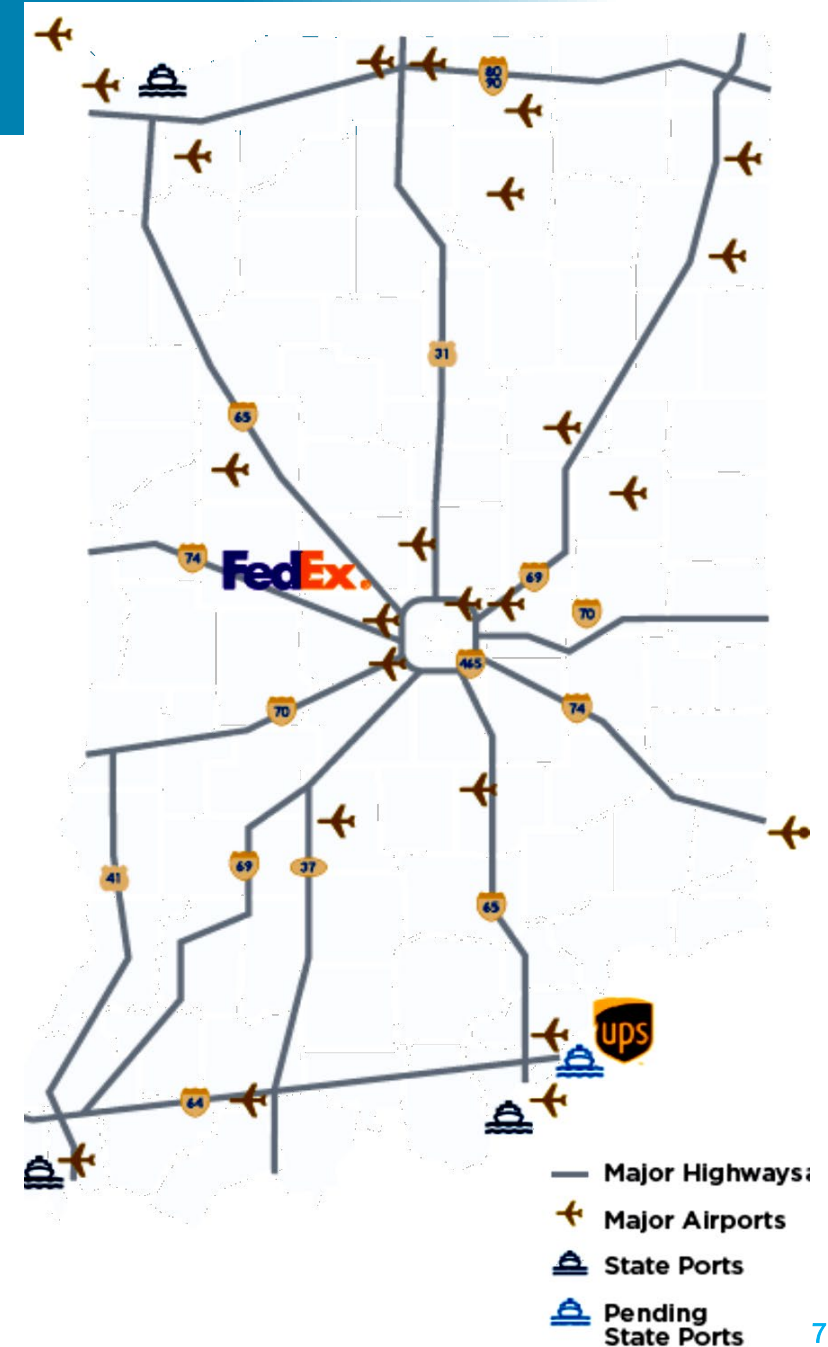




This map illustrates a 100-mile radius around each of the largest regional fulfillment markets in the U.S., as well as the locations of the cities with the highest percentages of millennials. Source: Headlight Data, Colliers International

NWI Opportunities in E-Commerce

- Northwest Indiana is a great freight hub in central United States.
- Indiana ranks ninth (9th) in best tax environment in US based on 2018 State Business Tax Index by Tax Foundation.
- NWI is in proximity to the 2nd largest FedEx air hub worldwide in Indianapolis.
- UPS is expanding express air network to Gary/ Chicago International Airport to help businesses in Northwest Indiana and the Chicago area and to successively position them in the fast pace e-commerce market.
- NWI is located within one of the largest regional fulfillment markets in the U.S. Its proximity to Chicago that represents the third largest city in the U.S
- NWI is located within the 250 miles of the top five industrial distribution markets in the United States. These are Cincinnati, Indianapolis, Kansas City, Memphis and St. Louis
- Chicago as a tier-one market has become more congested and their supply infrequent. Northwest Indiana, being close to Chicago, has a tremendous chance to grow as a secondary major distribution hub.

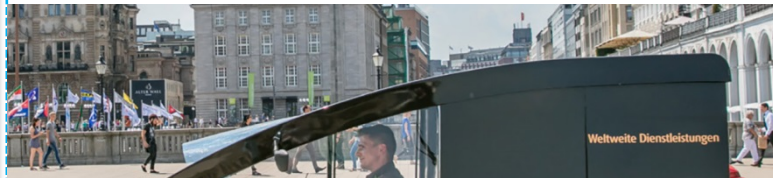


Fix the Adverse Impact

- Analysts estimate that 1 in 4 shopping malls will close its doors by 2022.
- Malls need to change their focus to succeed again
- *Residential areas safety with delivery trucks.*
 - Posting signage indicating delivery trucks to slow down
 - Posting speed limits
 - Designs including bump-outs at crosswalks
 - Multifamily buildings could establish a central drop off area.

Repurposing Vacant Retail Space:

- Malls have enough square footage for distribution centers and warehouses because they are often located along highways.
- Architects and planners presented clever ideas for repurposing vacant retail space. malls turned to medical centers, community college campus, or health club.
- Empty big box stores as Walmart, Kmart or Toys 'R' US are also being redesigned for other uses such as courthouses, libraries, even central park or museums.
- Transforms vacant space into shared creative workspaces and community gathering places.



DELIVERY TRUCKS







The Process

Data Analysis

- Collected data on developed maps for
 - Accessibility
 - Locations of existing and future of warehouses and distribution centers using GIS data and from a number of municipalities staff
 - Traffic trends, congestion, and projection
 - Land use data
 - Environmental data

Developed Prioritization Criteria:

To identify potential locations to locate e-commerce facilities (warehouses- distribution & fulfilment centers) , NIRPC project team defined main the selection criteria for the best possible location :

- Proximity to Airport, Railway Stations & Ports.
- Proximity to key roadway and interstate system and traffic flow.
- Proximity to major manufacturing hubs and suppliers: Given the fact that Northern Indiana is a major manufacturing location and distribution is essential to transport products.
- Location of highest population and employment density.
- Omni Stores: showrooms, warehouses and pickup
- Locations of minimum environmental impact (floodplain-wetland-conservation areas- noise- proximity to neighbors)
- Availability of Utilities

Recommendations

1. Diversifying the workforce to meet the future logistics job demand; increasing and prioritizing funding to improve urban freight movement; and continue to raise the Region's profile as a thriving place to do business.
2. E-commerce, logistics demand, and freight transport are rarely mentioned in important strategy documents such as the comprehensive plans, and the mobility effects of e-commerce are typically absent.
3. Map delivery system, including alleyways to improve the urban freight system.
4. Create loading zones on high traffic roads to make it easier for delivery drivers to find space and access buildings without impeding other road users.
5. Community leaders and planners should rezone and re-purpose larger, vacant retail buildings into other uses.
6. Location: Properties owners and real estate's investors need to focus on location, innovation and building efficiency and flexibility
7. Demand for warehouse and distribution centers that exceed 250,000 square feet is growing in secondary major distribution and population hubs.

Contact name

Eman Ibrahim

Email

eibrahim@nirpc.org

Website

www.nirpc.org

Facebook

facebook.com/nirpcmpo

Instagram

instagram.com/regionmpo

LinkedIn

linkedin.com/company/nirpc

Twitter

twitter.com/NIRPC

YouTube

youtube.com/NIRPCplanning

Phone

(219) 763-6060

Address

6100 Southport Rd Portage, IN 46368