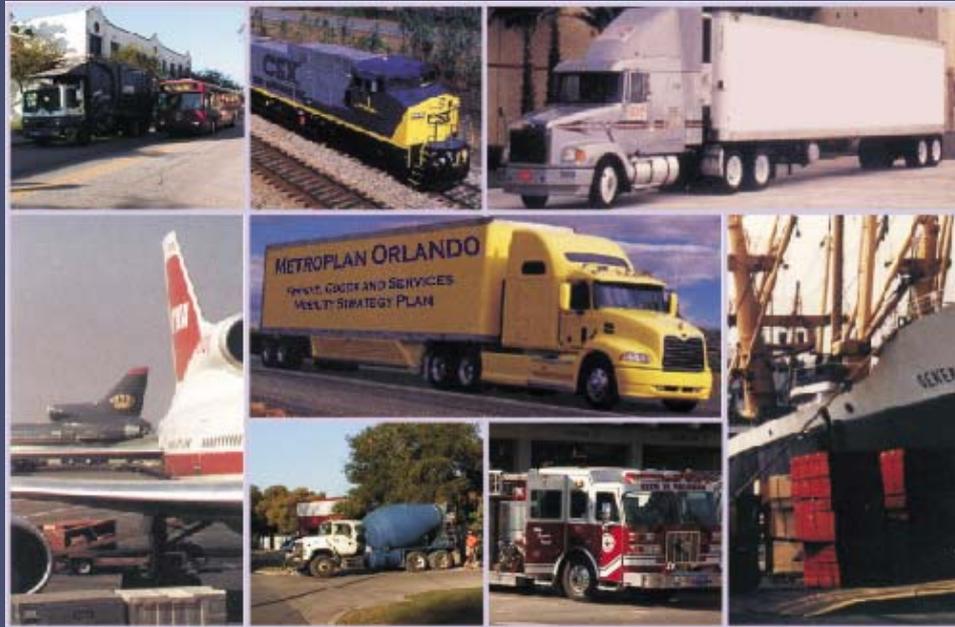


Freight, Goods, & Service Movements in the Orlando Urbanized Area



Presented at NATMEC 2002
May 13th, 2002

Why Plan for Freight, Goods, And Services?

Operational Reliability

- Just-in-time delivery
- Reduce congestion related losses

Public Good

- Growth strains trans. system
- Safety, environment, quality of life

Economic Security

- Attract new businesses
- Maintain positive tourist experience

Homeland Security

- Measures to monitor change
- Integrated transportation system
 - Freight, passengers, road, rail, air, water

MetroPlan Orlando

**Develop a
Plan**

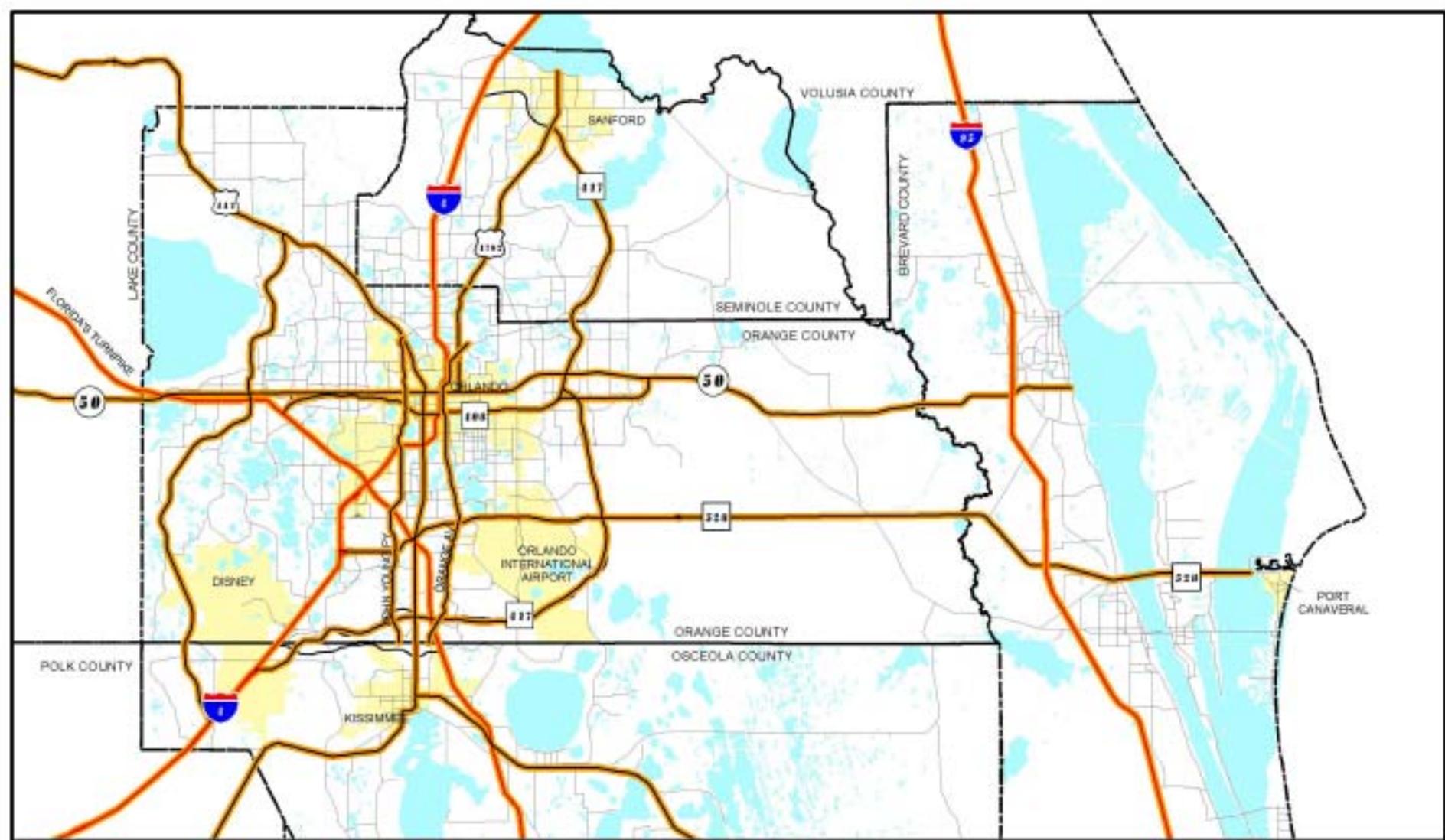
**Dovetail into
upcoming
2025 LR Plan
Update**

S.P.P.

Strategies

Policies

Projects

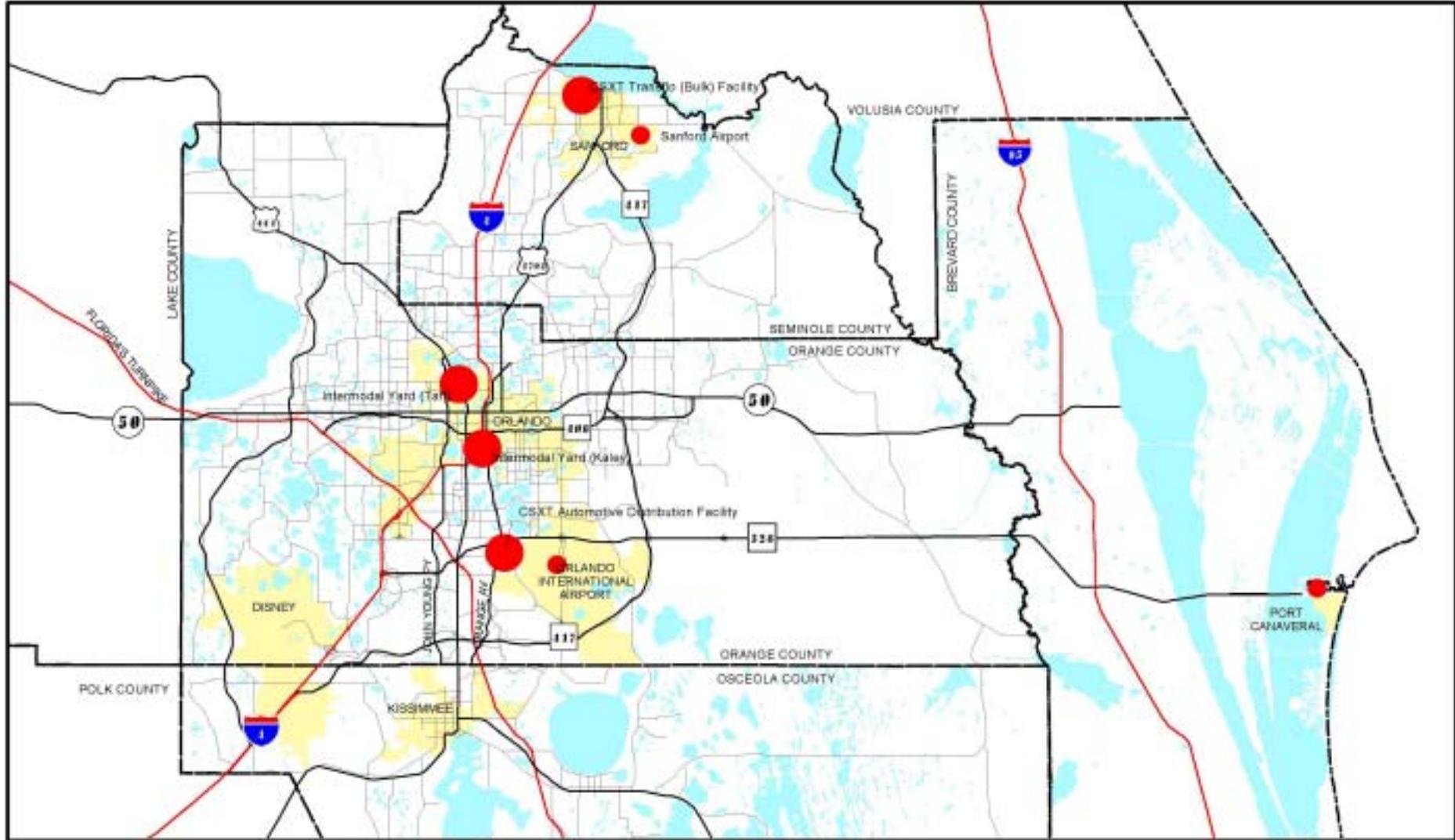


Major Regional Highway Freight Corridors in the Orlando Area

LEGEND

- | | |
|---|---|
|  COUNTY BOUNDARY |  INTERSTATE HIGHWAY |
|  LAKES |  U.S. ROADWAY |
|  CITY BOUNDARIES |  STATE OR COUNTY ROADWAY |
|  MAJOR REGIONAL FREIGHT CORRIDOR |  TOLL ROAD |
|  INTERSTATE AND TURNPIKE | |
|  MAJOR ROADS | |
|  ROADS | |



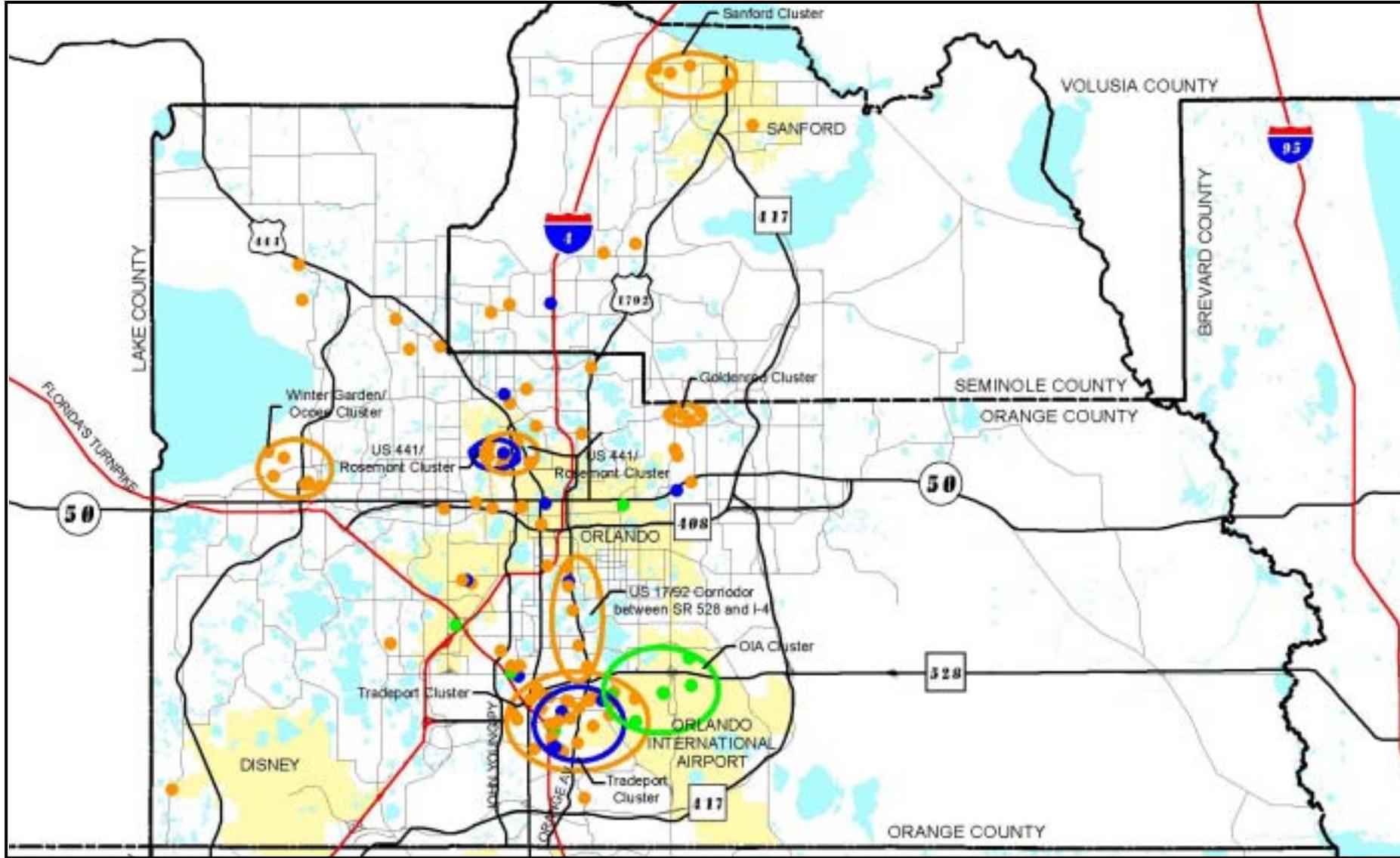


Intermodal Facilities

LEGEND

- | | | | |
|---|-------------------------|---|-------------------------|
|  | INTERMODAL FACILITY |  | ROAD SYMBOLS |
|  | COUNTY BOUNDARY |  | INTERSTATE HIGHWAY |
|  | LAKES |  | U.S. ROADWAY |
|  | CITY BOUNDARIES |  | STATE OR COUNTY ROADWAY |
|  | INTERSTATE AND TURNPIKE |  | TOLL ROAD |
|  | MAJOR ROADS | | |
|  | MAJOR ROADS | | |





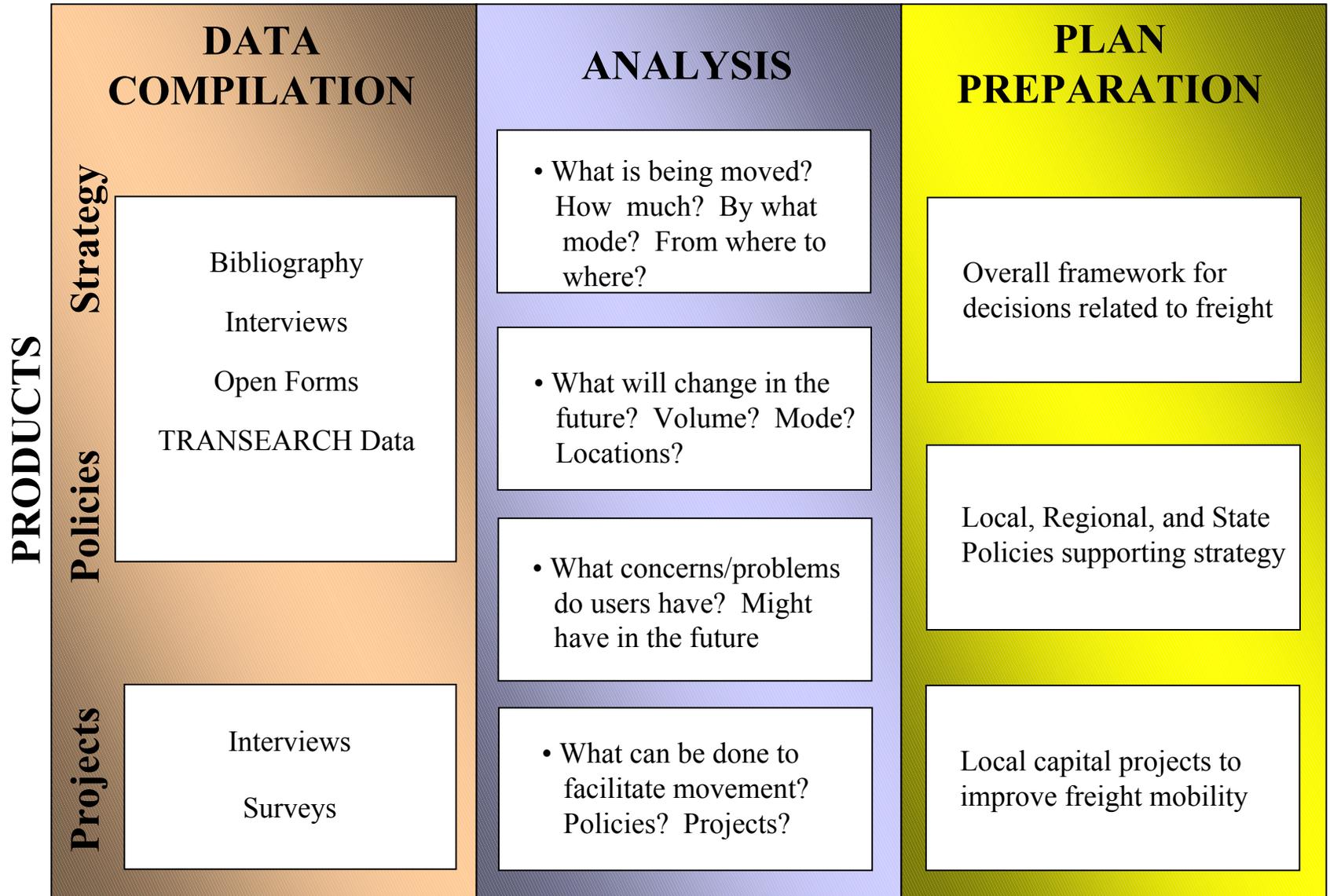
Trucking, Warehousing and Courier Services

LEGEND

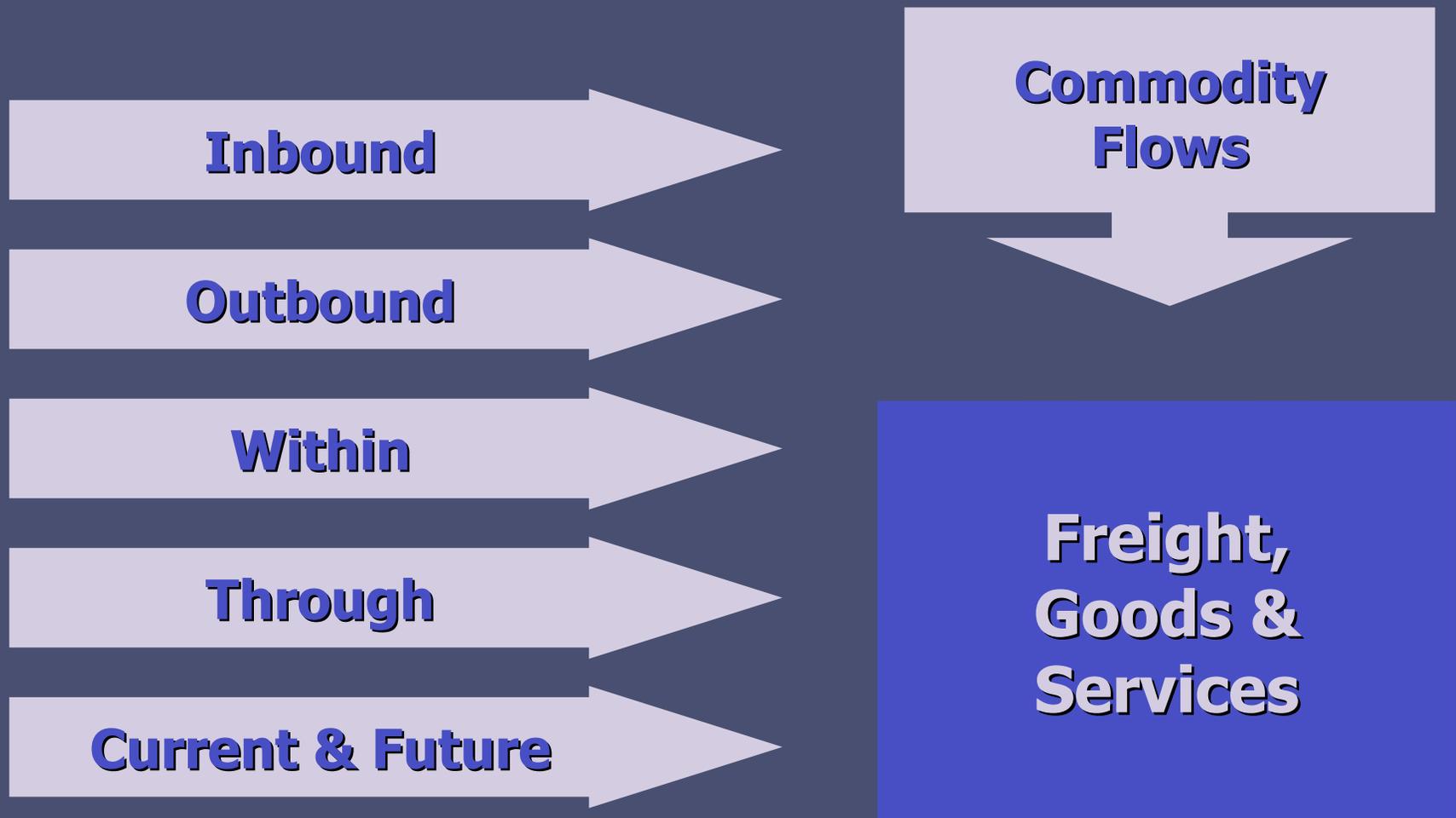
- | | | |
|-------------------------|-------------------------|---|
| COUNTY BOUNDARY | INTERSTATE HIGHWAY | TRUCKING AND COURIER SERVICES |
| LAKES | U.S. ROADWAY | PUBLIC WAREHOUSES AND STORAGE |
| CITY BOUNDARIES | STATE OR COUNTY ROADWAY | AIR TRANSPORTATION, SCHEDULED, AND AIR COURIER SERVICES |
| INTERSTATE AND TURNPIKE | TOLL ROAD | TRUCKING AND COURIER SERVICES |
| MAJOR ROADS | | PUBLIC WAREHOUSES AND STORAGE |
| RAILS | | AIR TRANSPORTATION, SCHEDULED, AND AIR COURIER SERVICES |



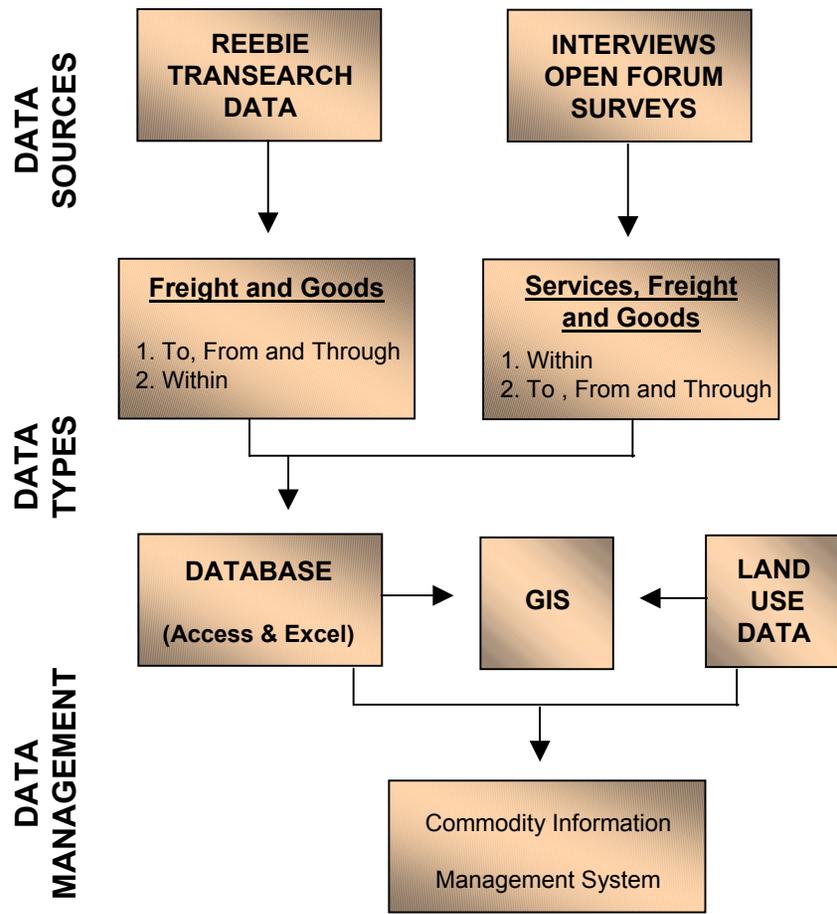
Current State of the Practice



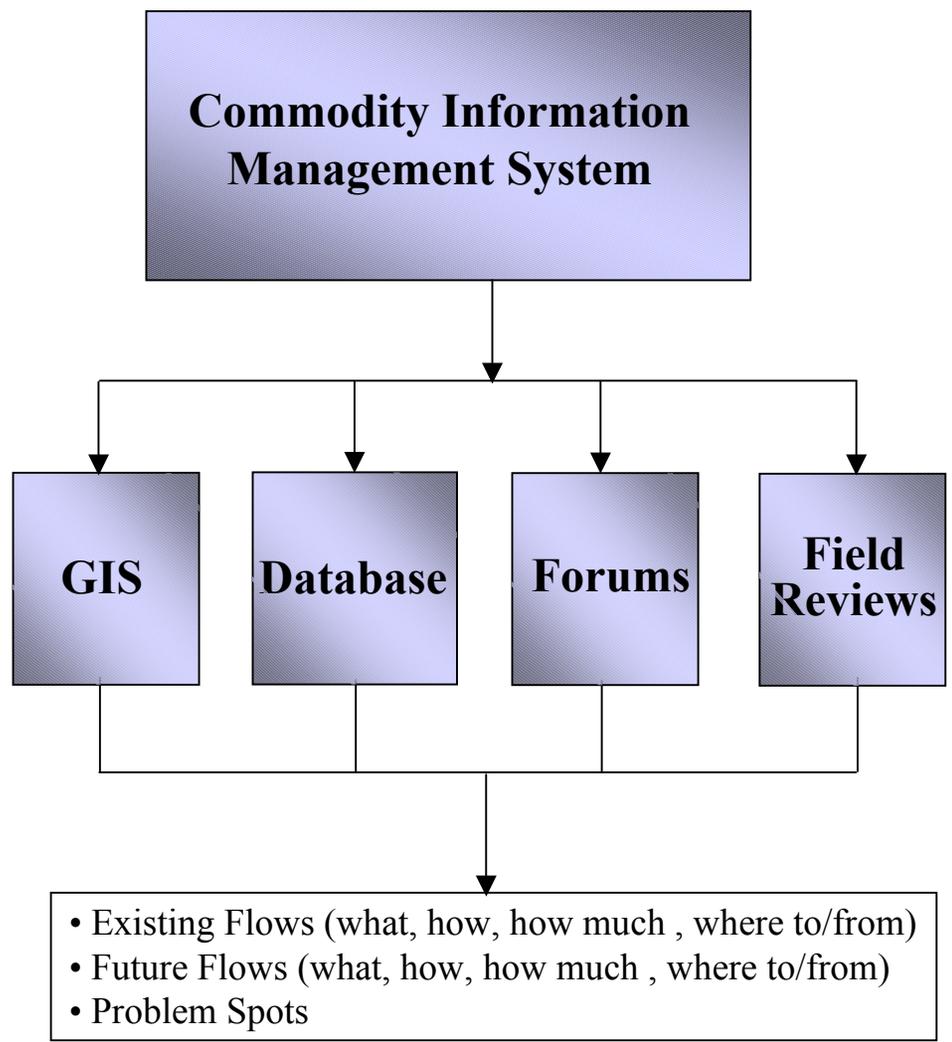
Understanding of the Project



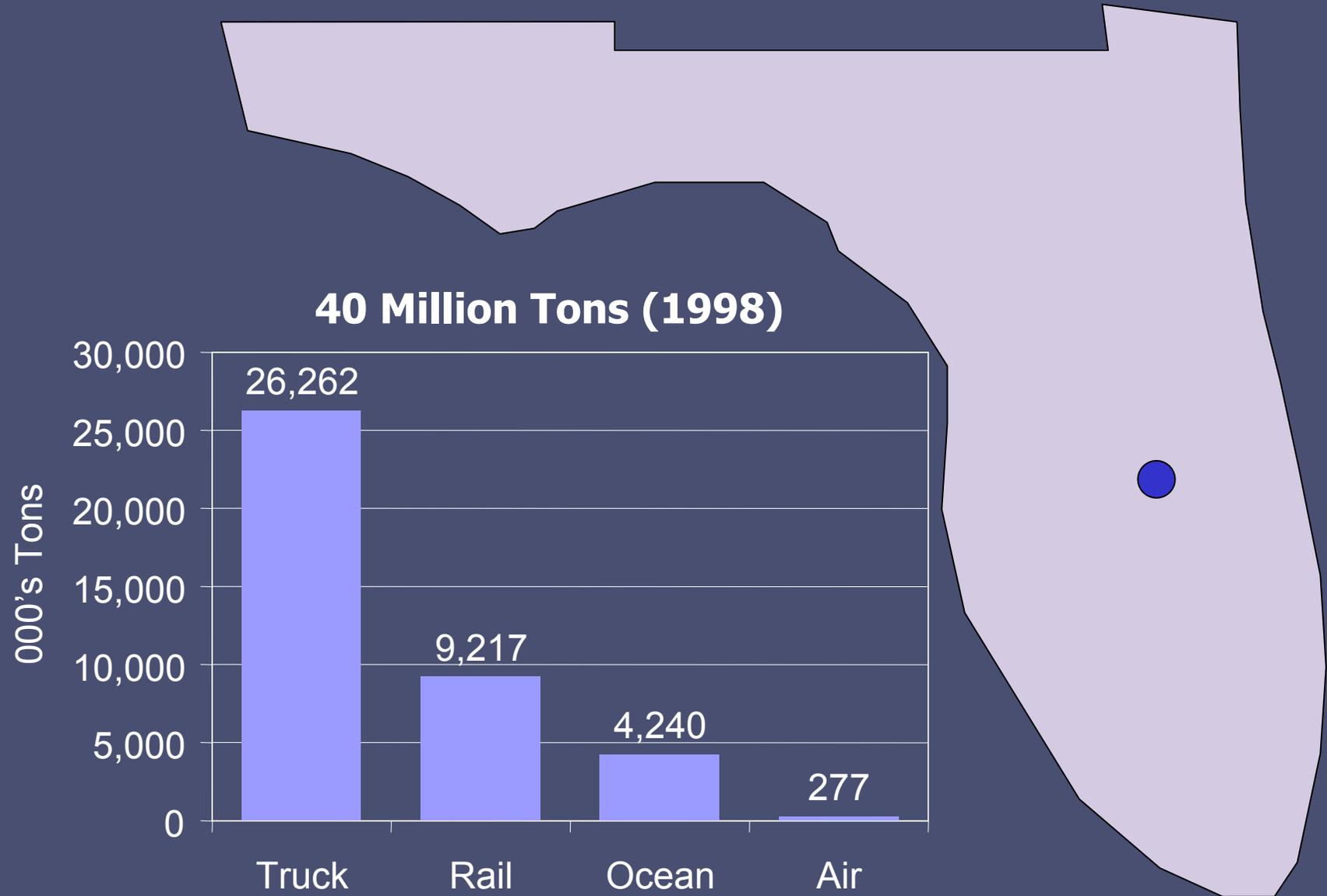
DATA APPROACH



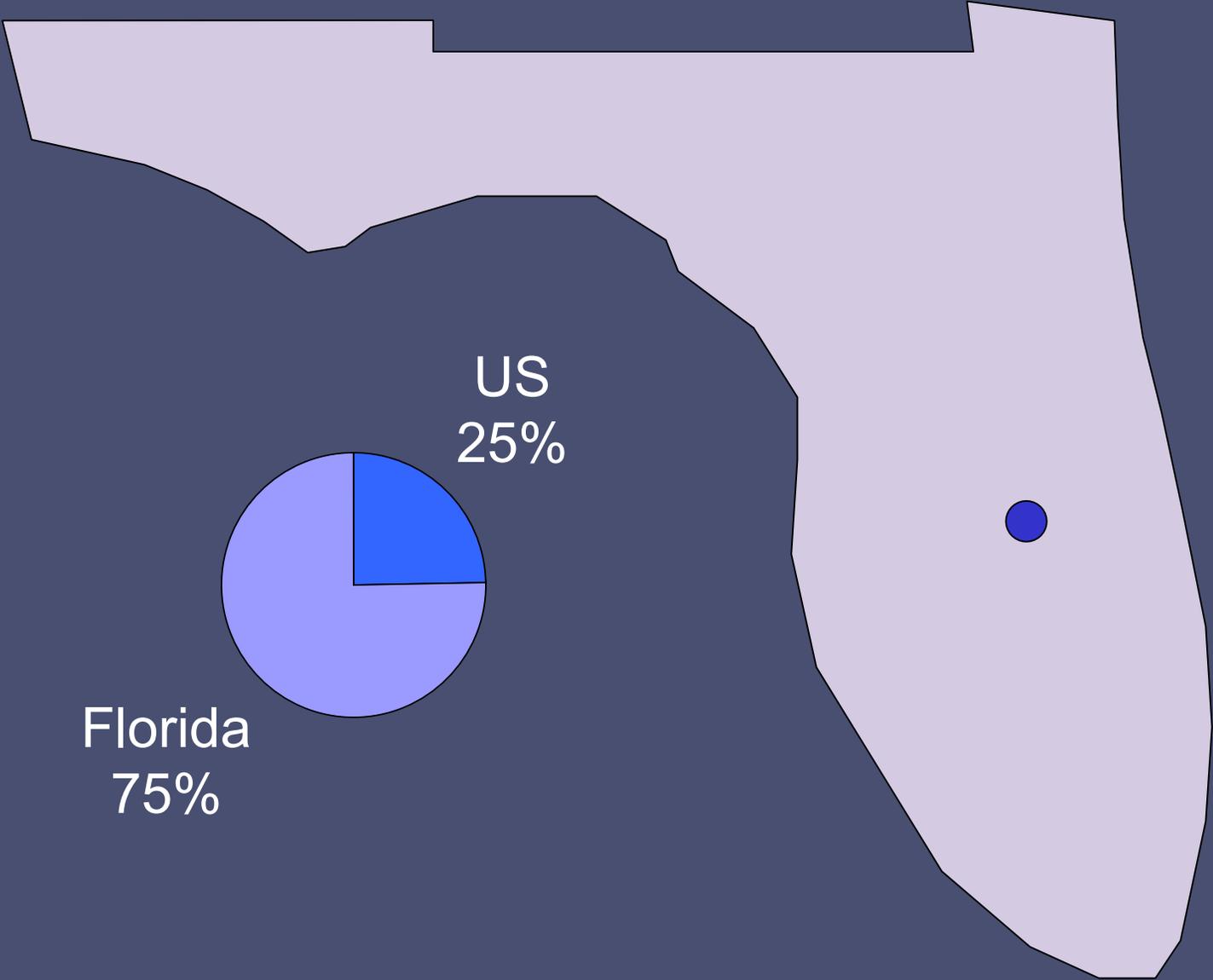
ANALYSIS APPROACH



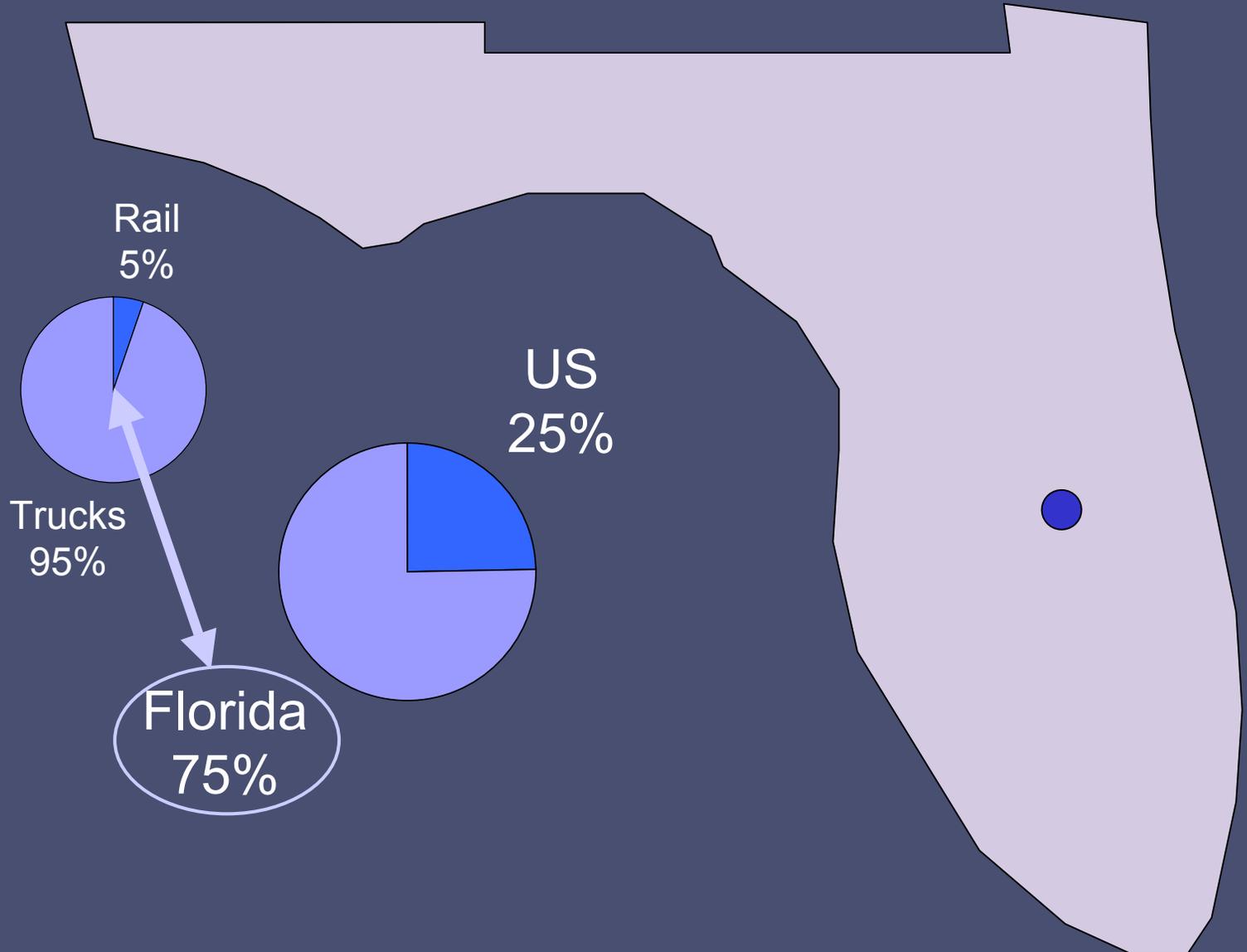
Modes of Choice – To/From Central FL



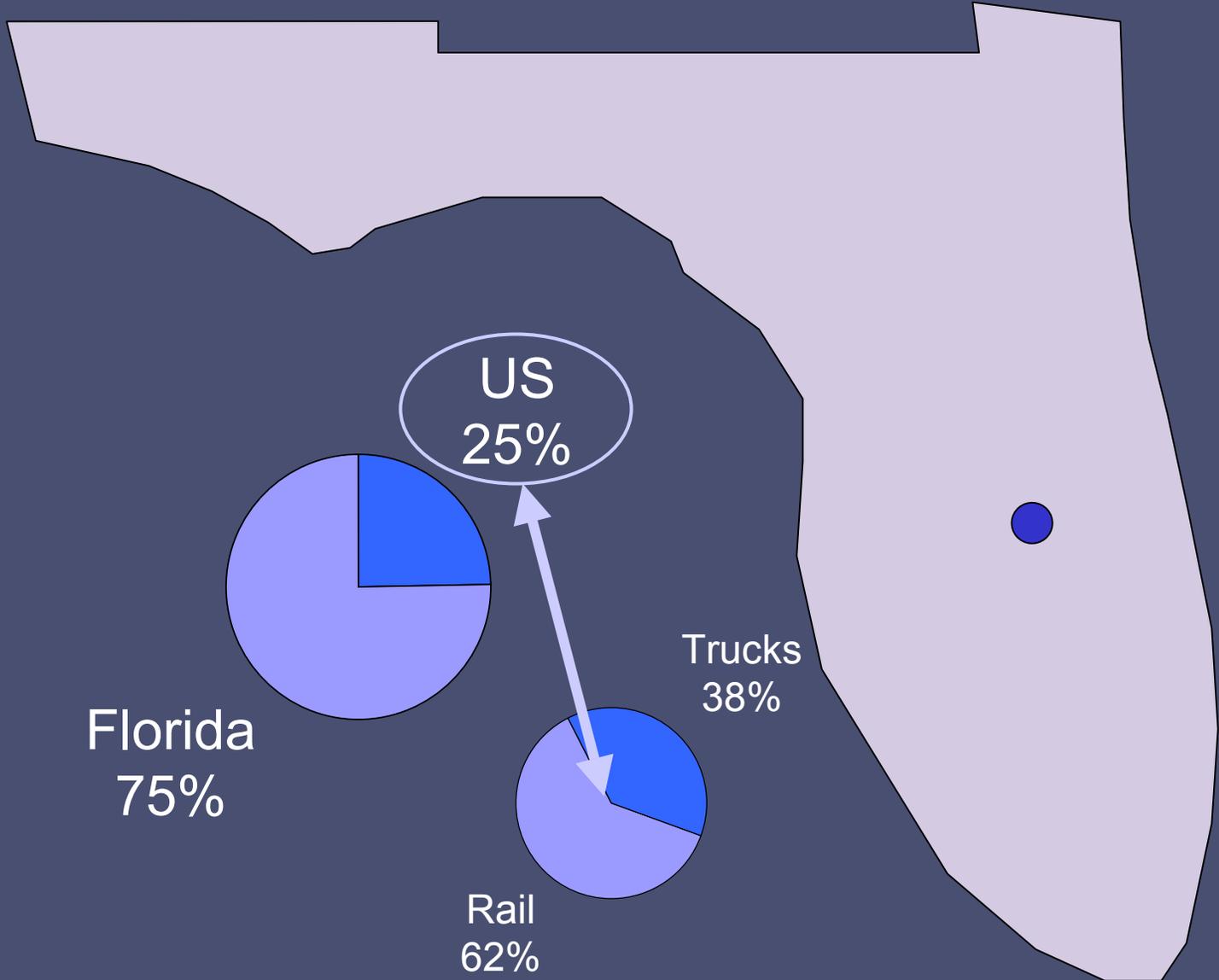
Central FL Key Trade Partners (Surface Modes)



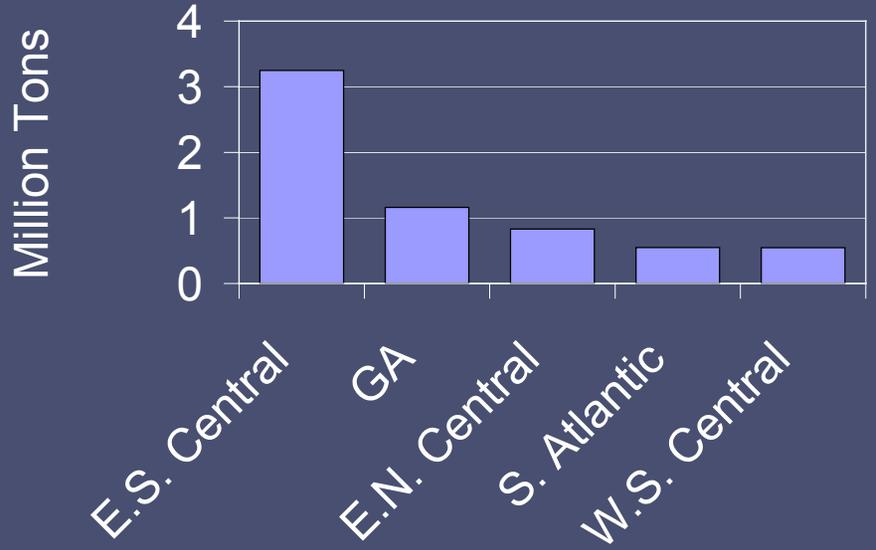
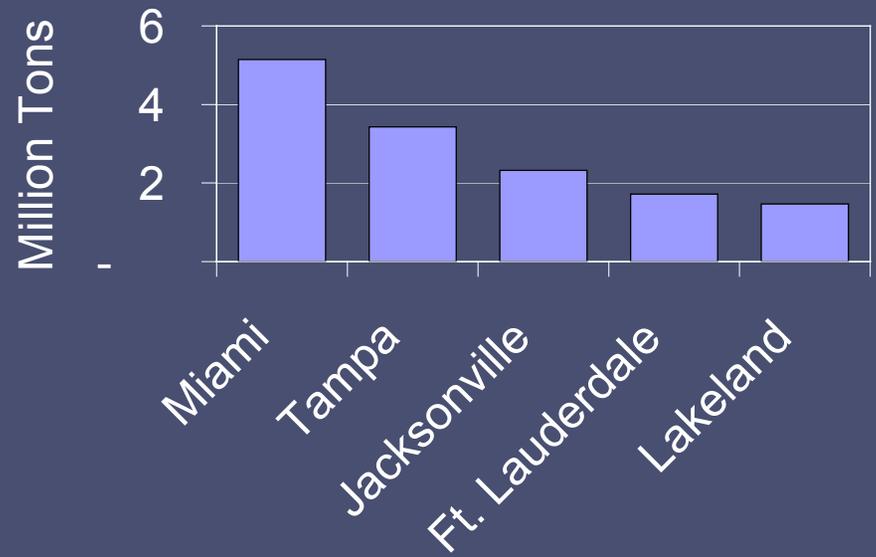
Surface Modal Choice – Florida



Surface Modal Choice - US



Central FL Trade Partners (Surface Modes)



Truck Flow Densities - Total



Legend

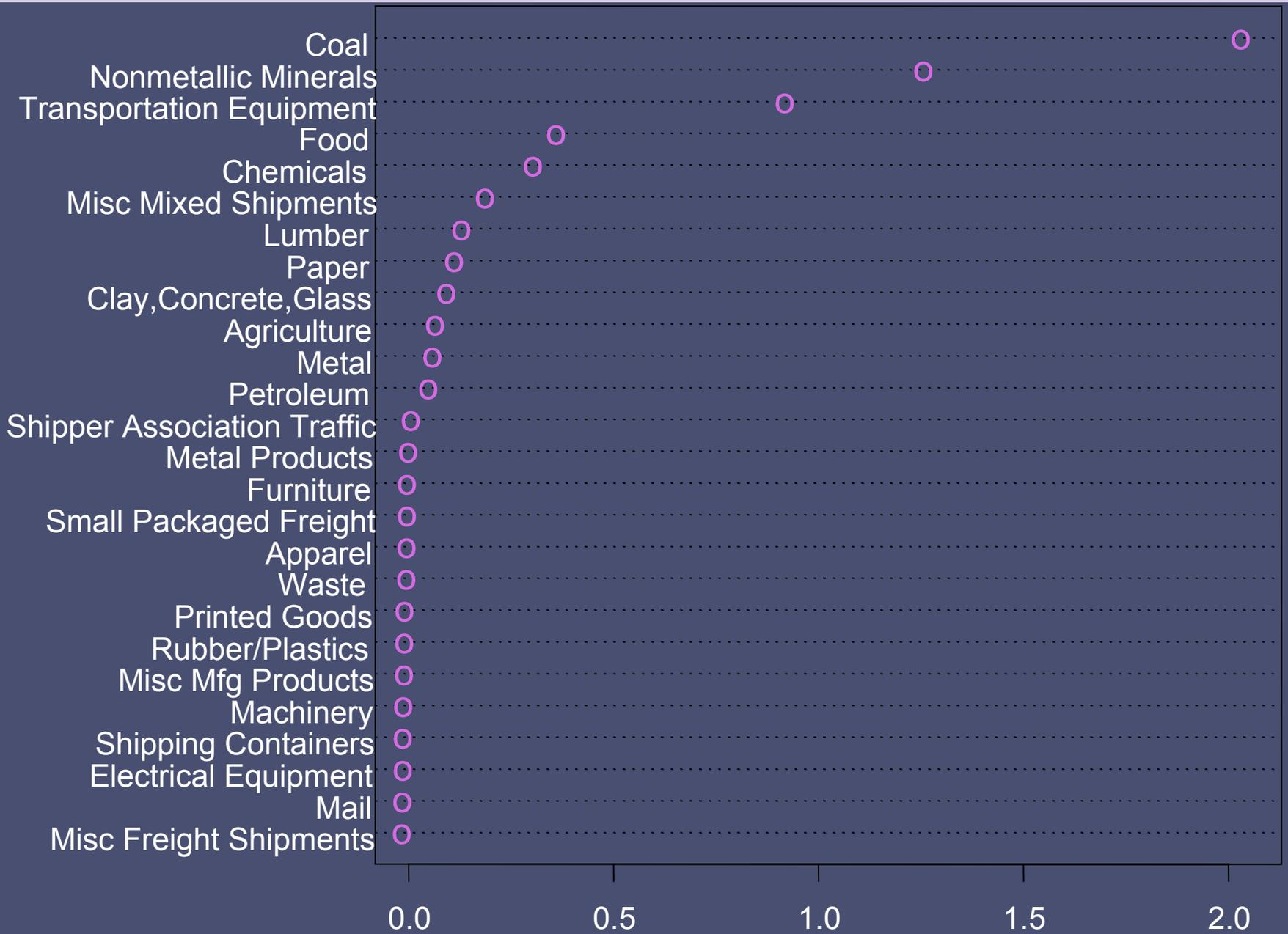
Highway Tonnage

-  14.7 Million - 32.1 Million
-  32.1 Million - 57.1 Million
-  57.1 Million - 101.3 Million

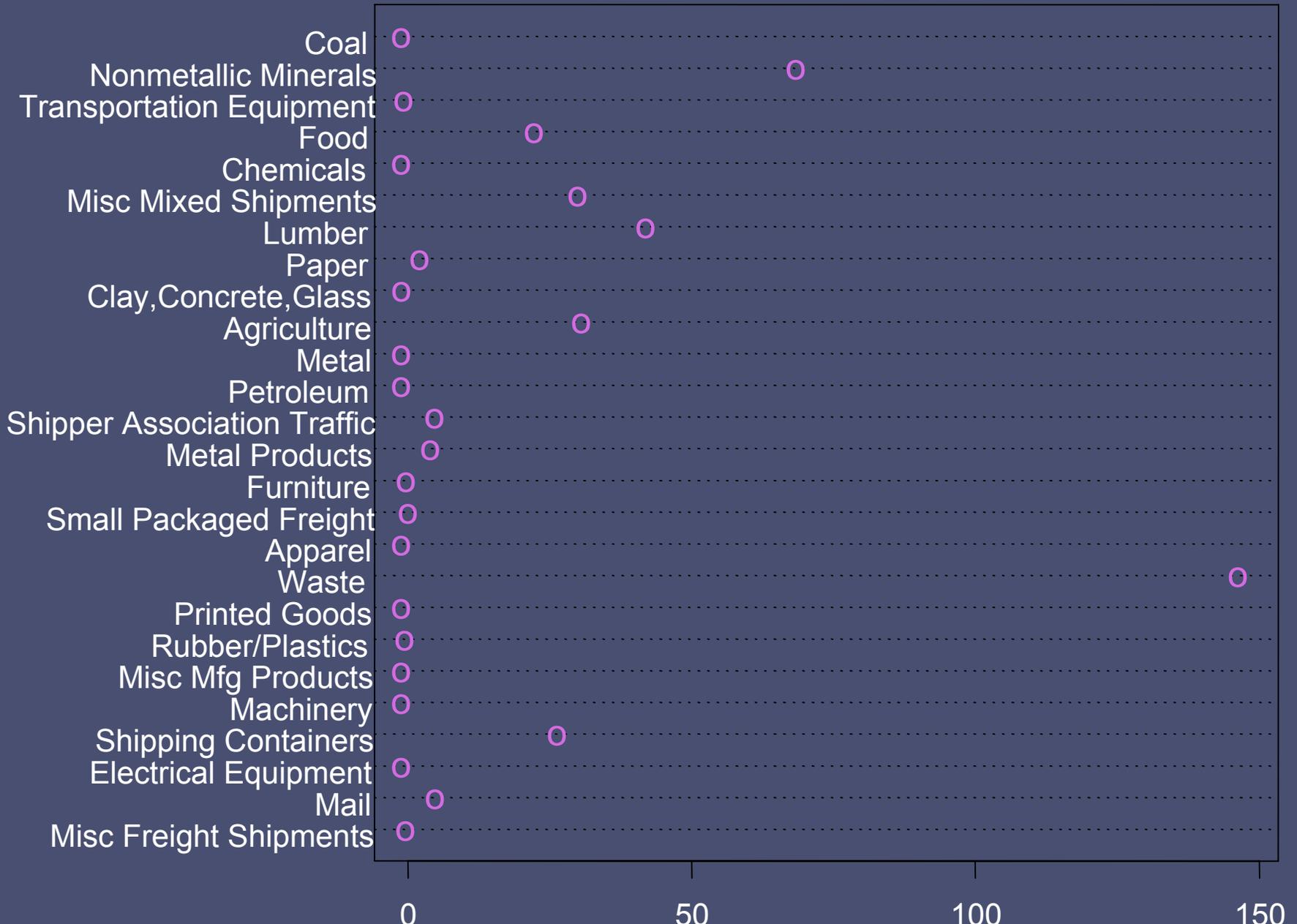
 Urbanized areas

Source: *TRANSEARCH*

Inbound Rail Traffic – Millions of Net Tons

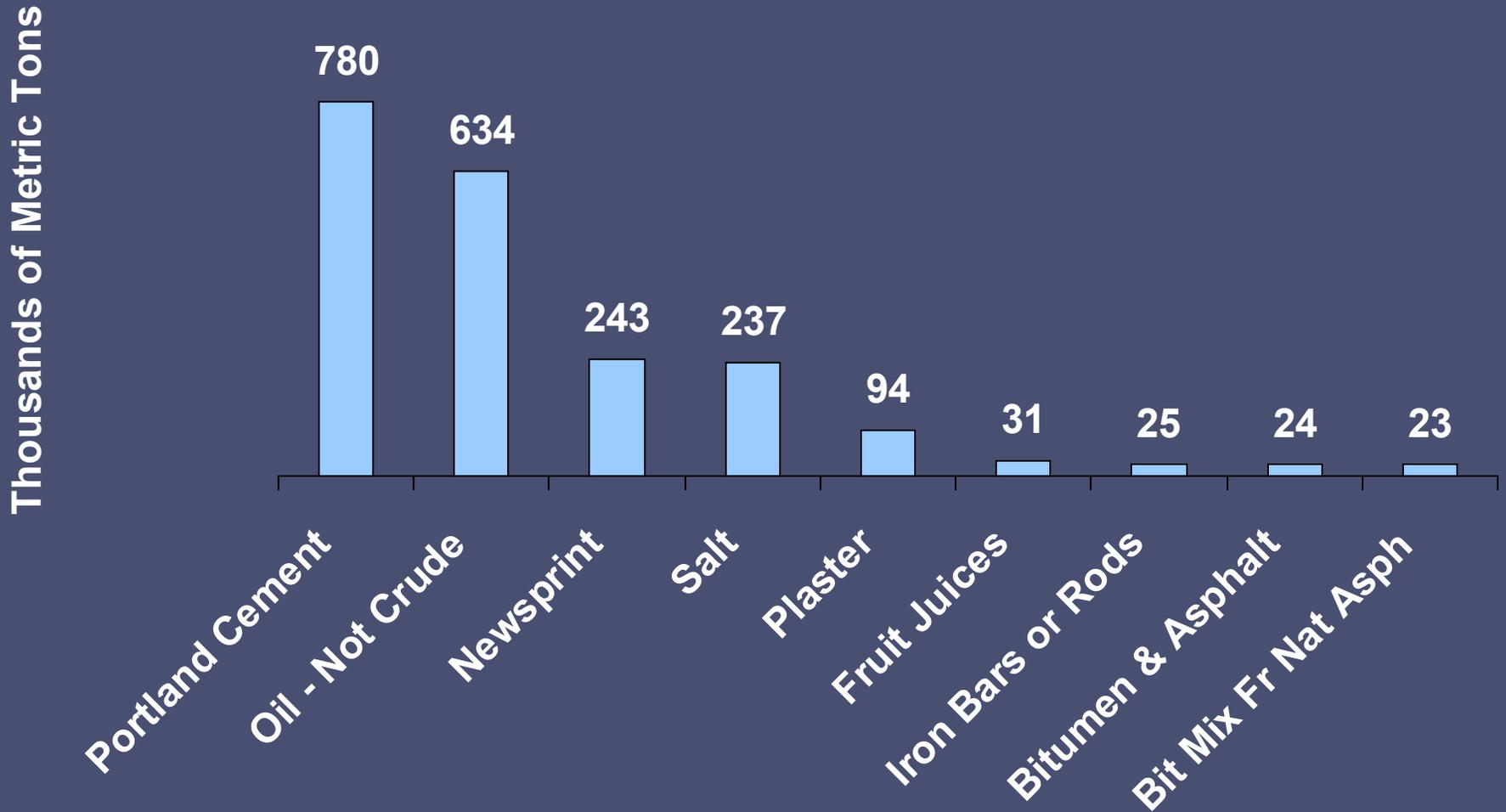


Outbound Rail Traffic – Thousands of Net Tons



Port Canaveral Imports by Commodity

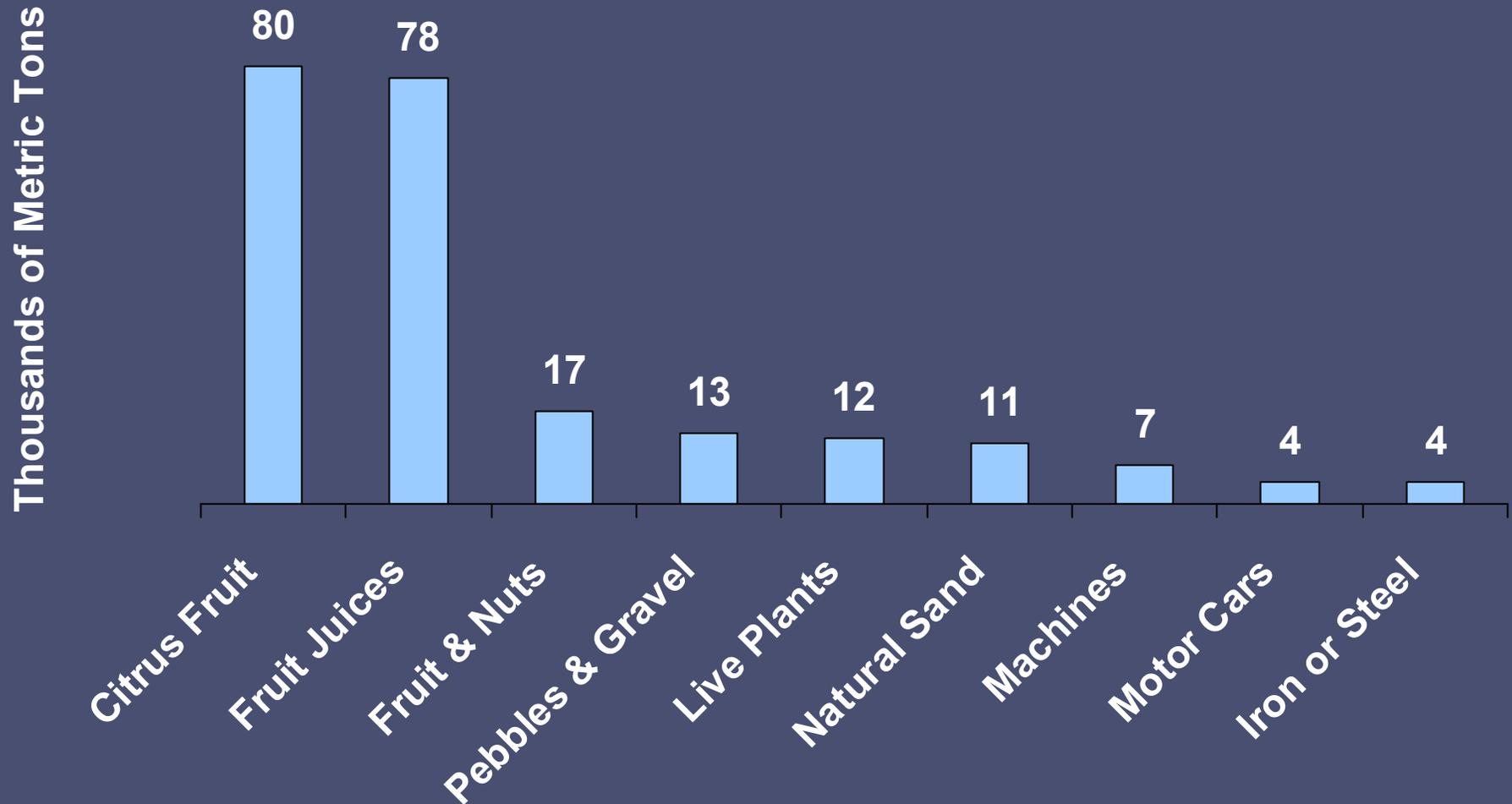
Top Nine Commodities - 98% of Total



Source: 1999 P.I.E.R.S.

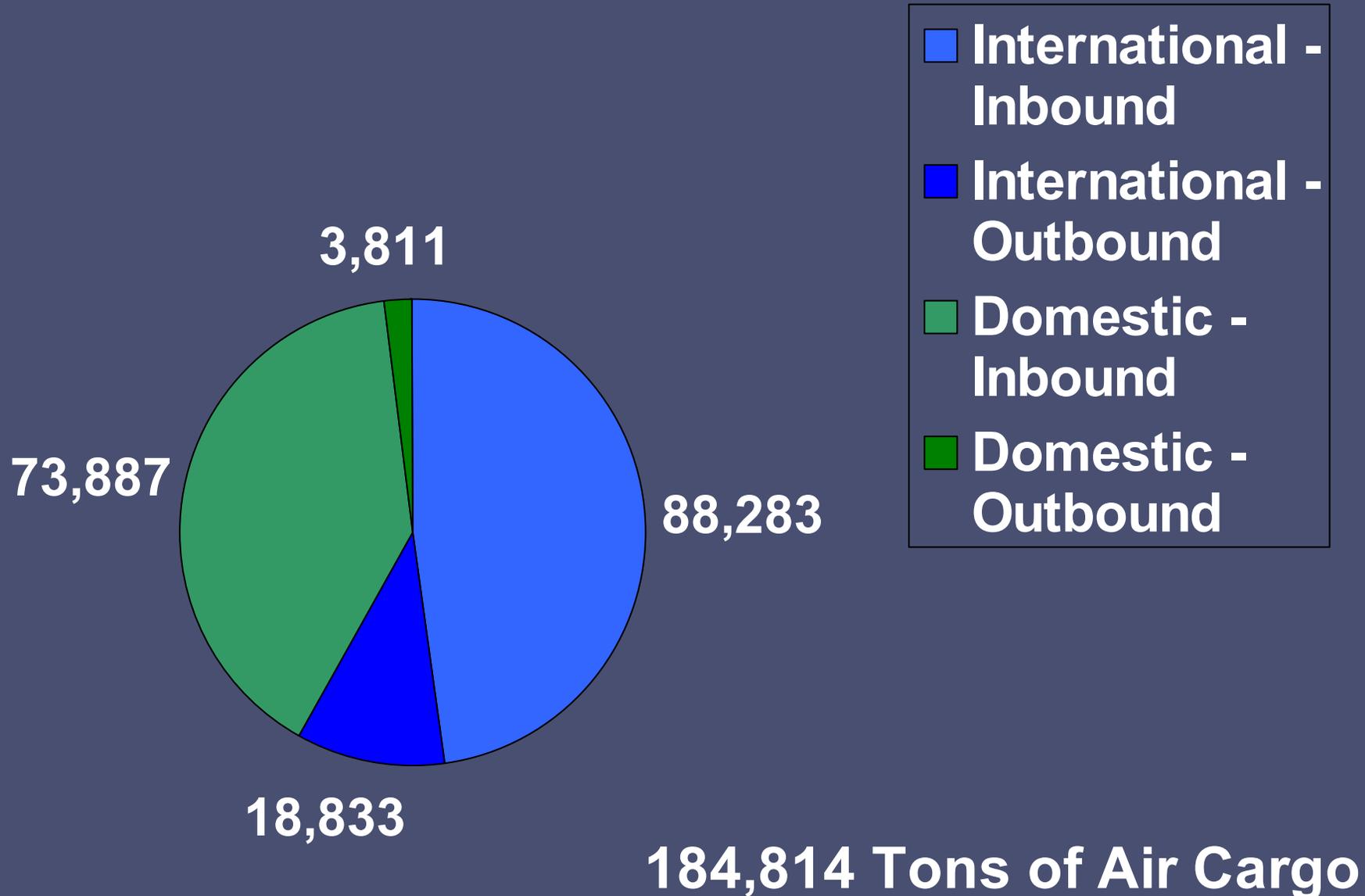
Port Canaveral Exports by Commodity

Top Nine Commodities - 88% of Total



Source: 1999 P.I.E.R.S.

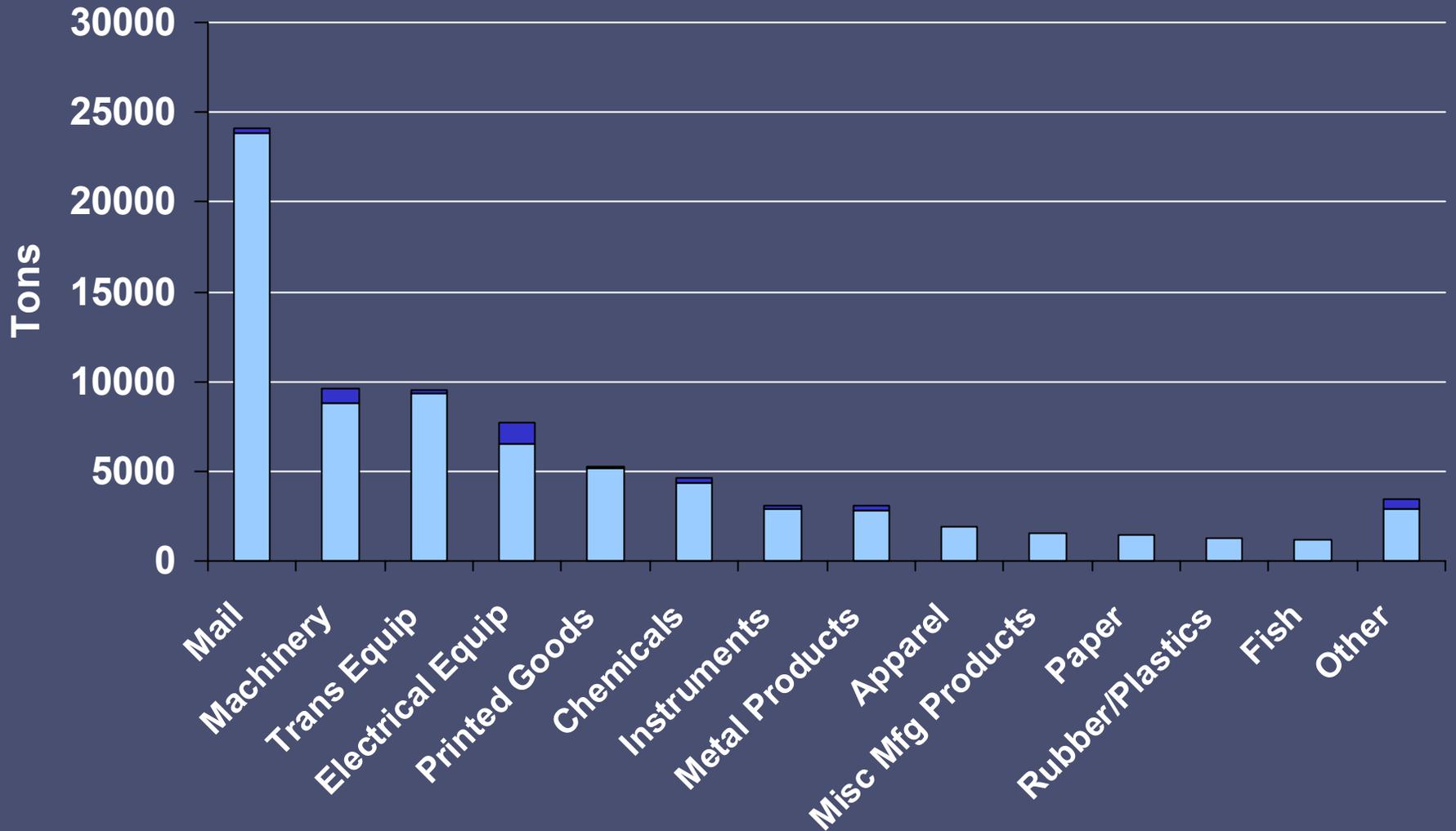
Air Cargo at Orlando International & Sanford



Domestic Air Cargo by Commodity

■ Inbound - 73,887 tons

■ Outbound - 3,811 tons



**50% to 60% of Florida's
Intercity Freight Flows
are To, From, Through
Central Florida**

**Central
Florida**

**Emerging
Staging
Point**

```
graph LR; A[Emerging Staging Point] --> B[Central Florida]
```

The diagram consists of two rectangular boxes. The box on the left is blue with white text that reads 'Central Florida'. The box on the right is white with blue text that reads 'Emerging Staging Point'. A large white arrow points from the right box towards the left box, indicating a flow or relationship from the staging point to Central Florida.

LOCAL TRAFFIC COMPONENTS

GOODS

- Consumption of local production
- Distribution
- Pickup & Delivery

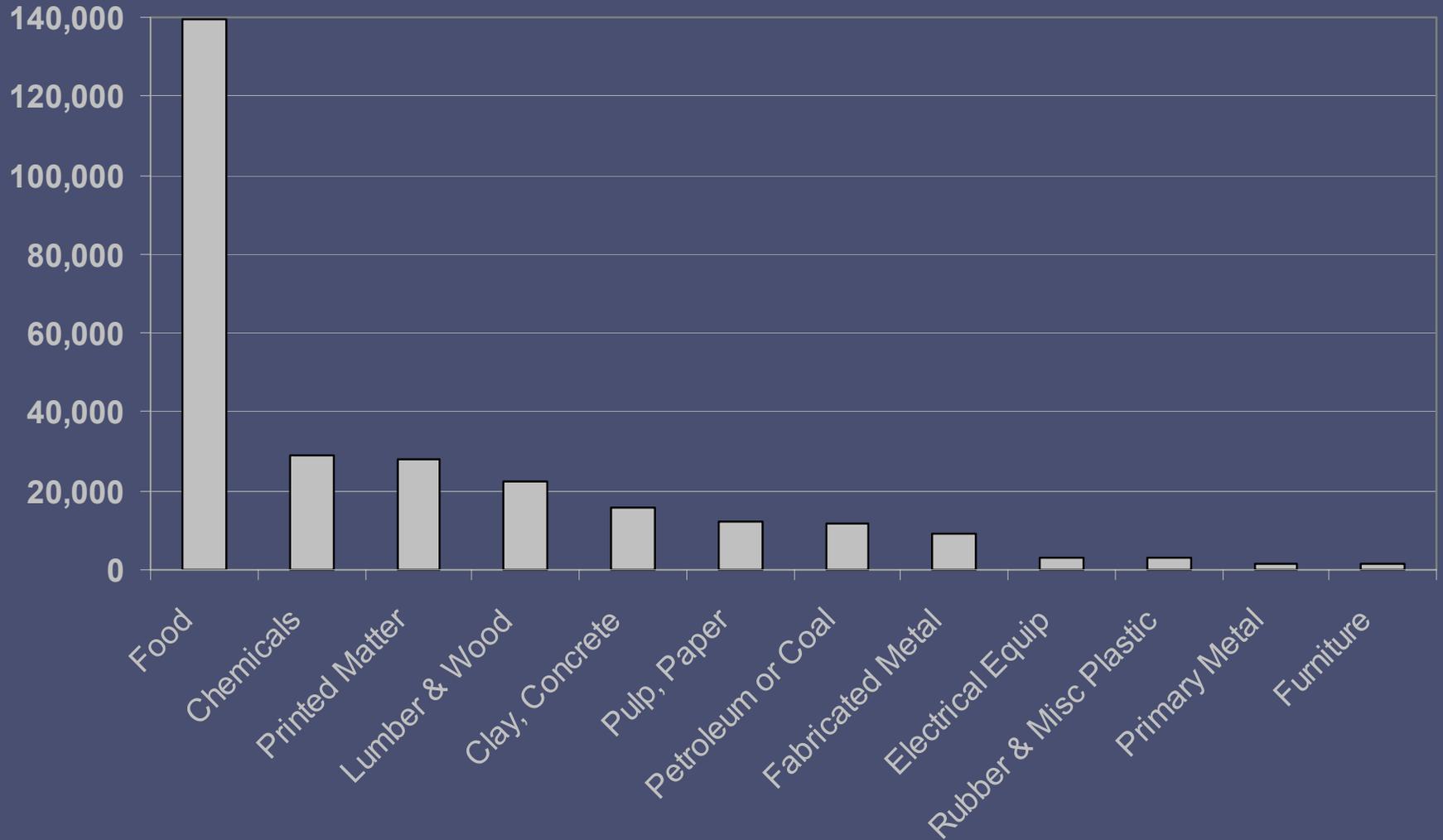
SERVICES

- Exhibition
- Construction
- Waste

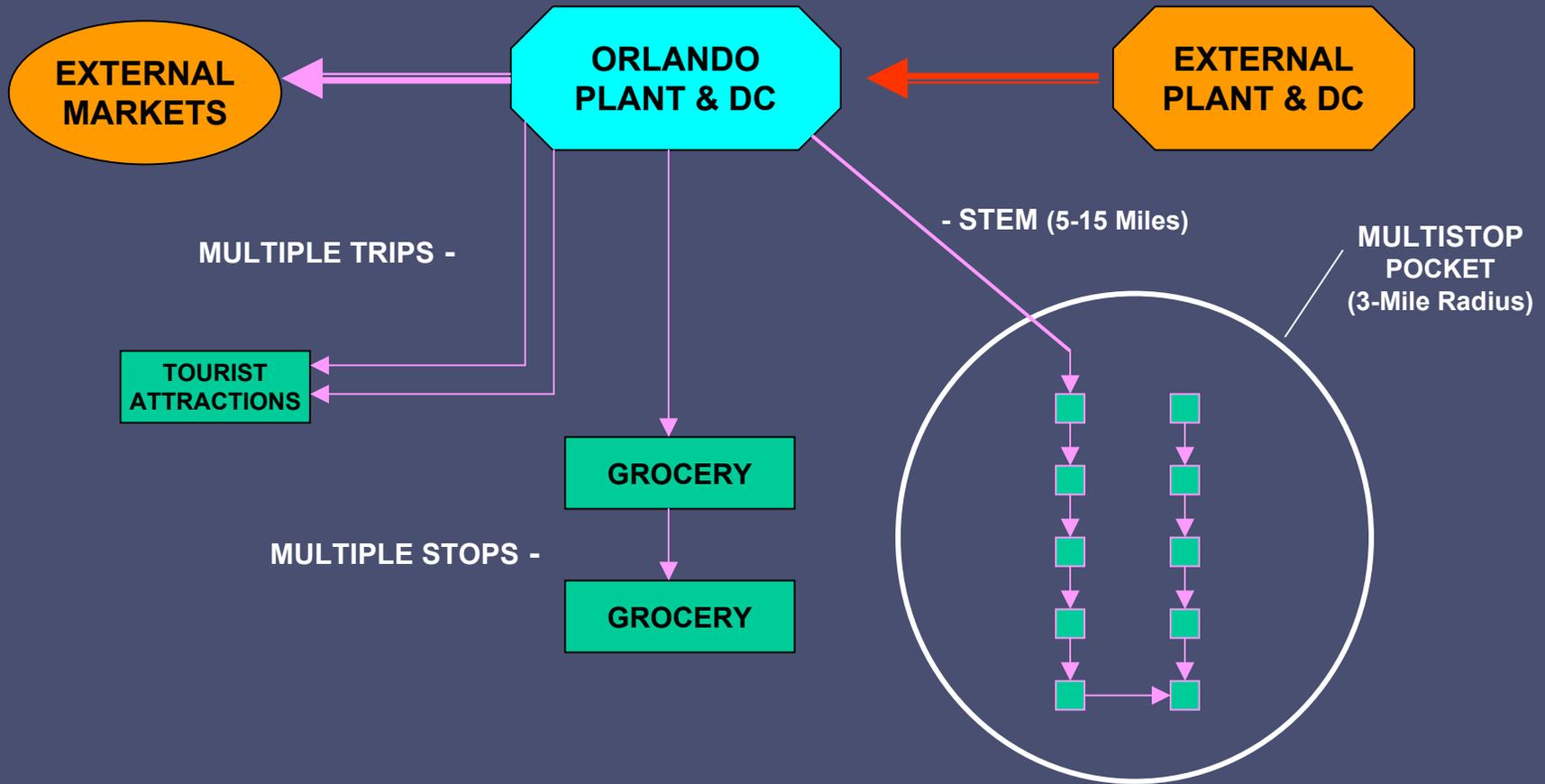


The Local Mode is Truck

GOODS PROCESSED FOR LOCAL CONSUMPTION



BEVERAGE DISTRIBUTION



BULK ORDER DELIVERY
1-3 Stops Per Trip
To Parks & Grocery Stores

SMALL ORDER DELIVERY
10-30 Stops Per Trip
To Convenience Stores, Hotels,
Restaurants, Bars, Offices

KEY:



Production Flow



Production & Wholesale Flow



Orlando Receivers

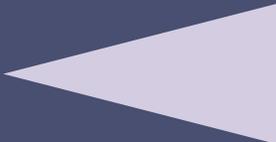
Truck Driver Surveys

**FL Trucking
Association**

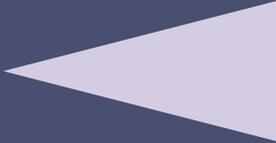


**Truck
Drivers**

Several Hundred Copies



Over 120 Responses



Proposed Project – Rocket Blvd. & Central Florida Pkwy.

Problem:

- The intersection is not wide enough to accommodate trucks turning west off of Rocket Boulevard.

Proposed Action:

- Intersection improvement
- Realign Central Florida Parkway

Central Florida Parkway and Rocket Blvd



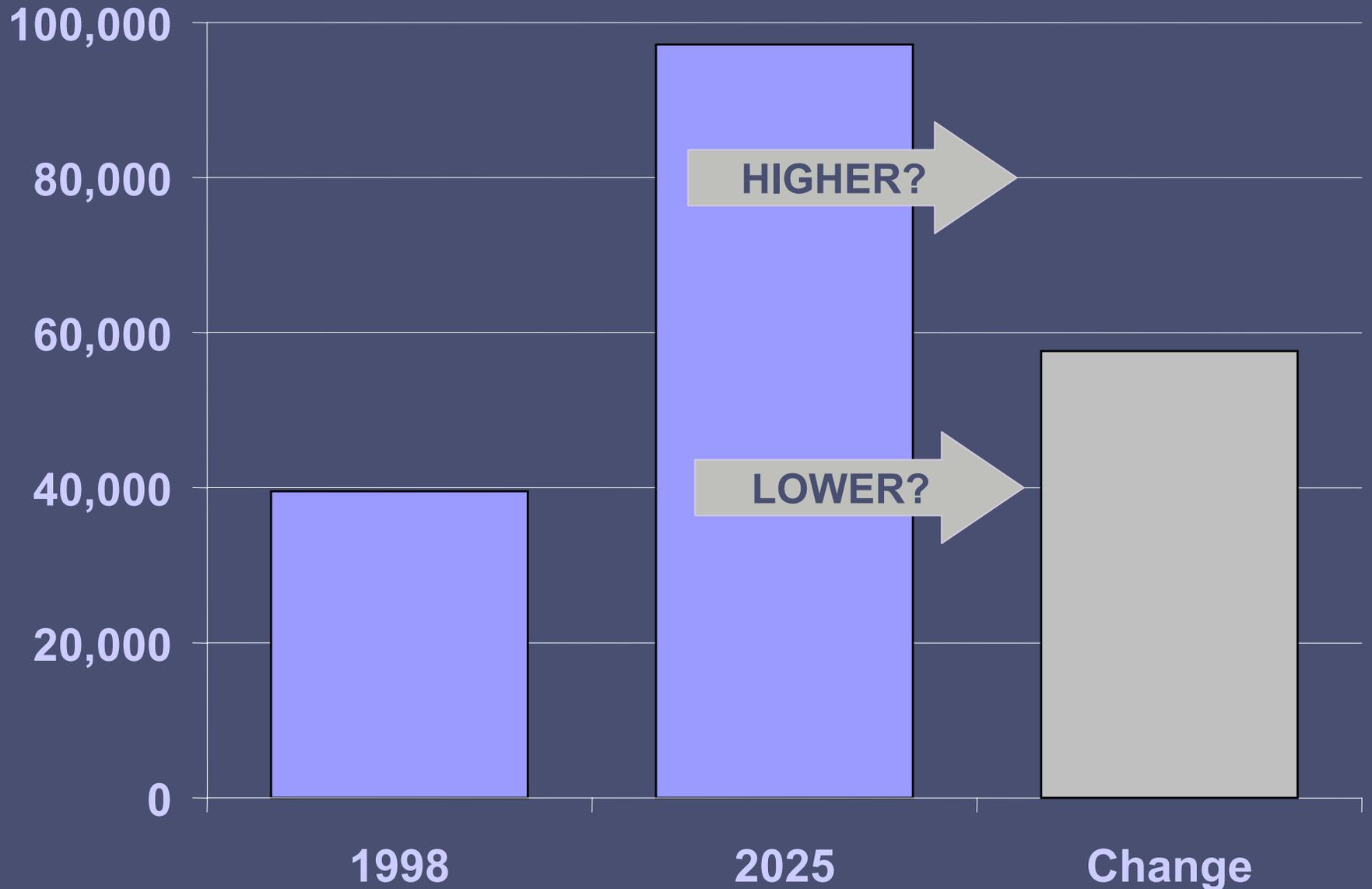
Central Florida Parkway and Rocket Blvd



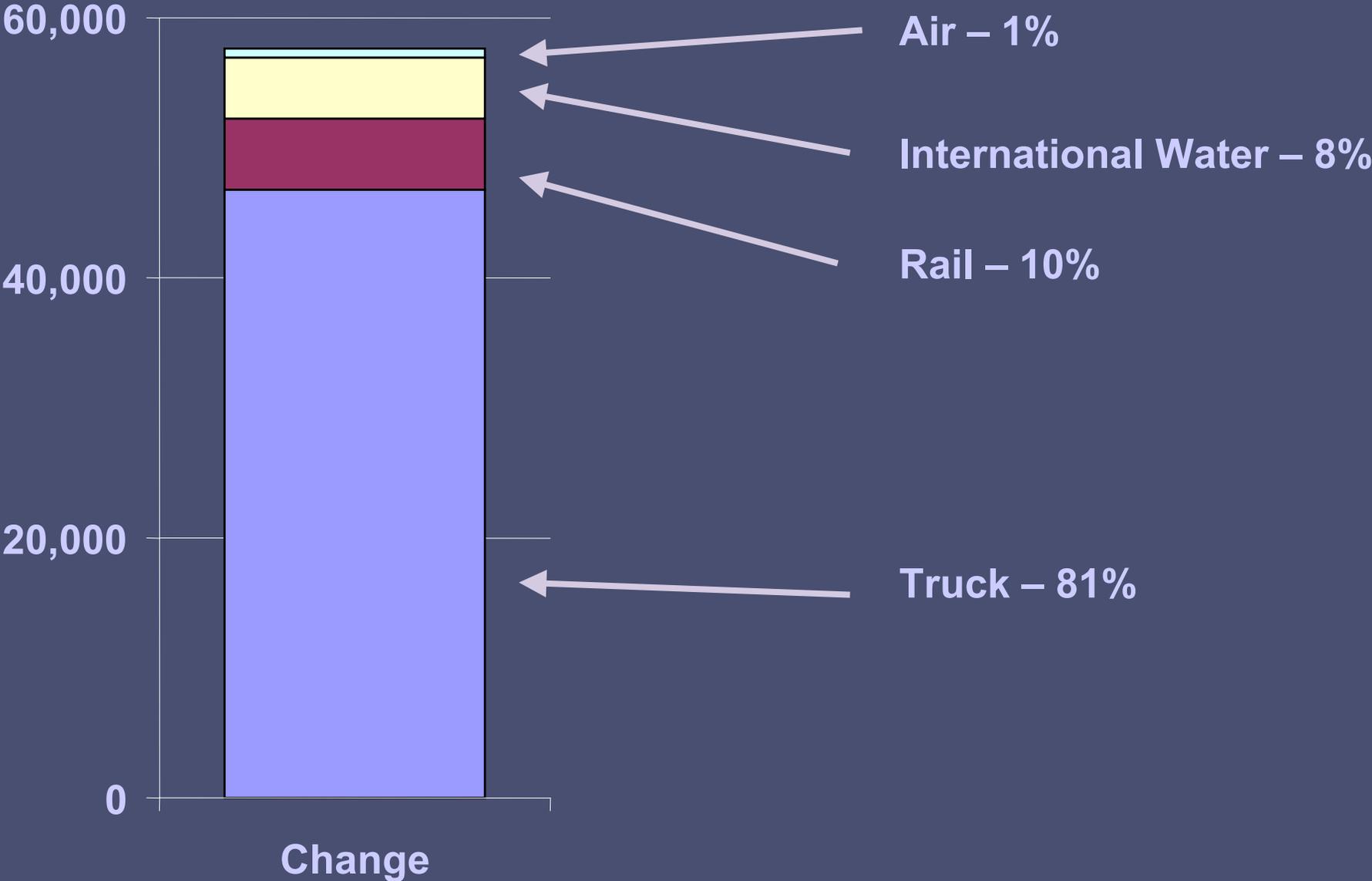


Forecast

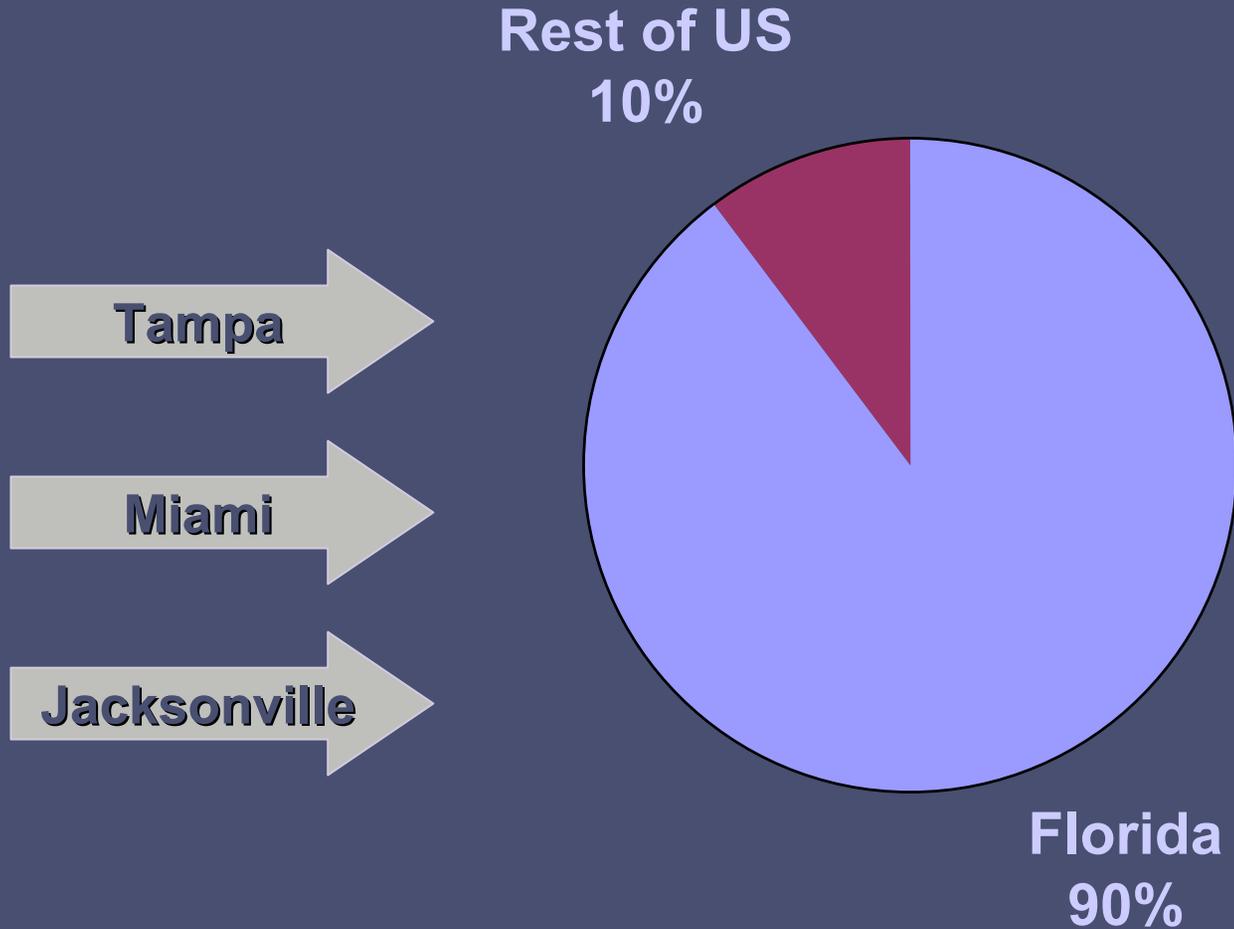
Growth in Freight Traffic



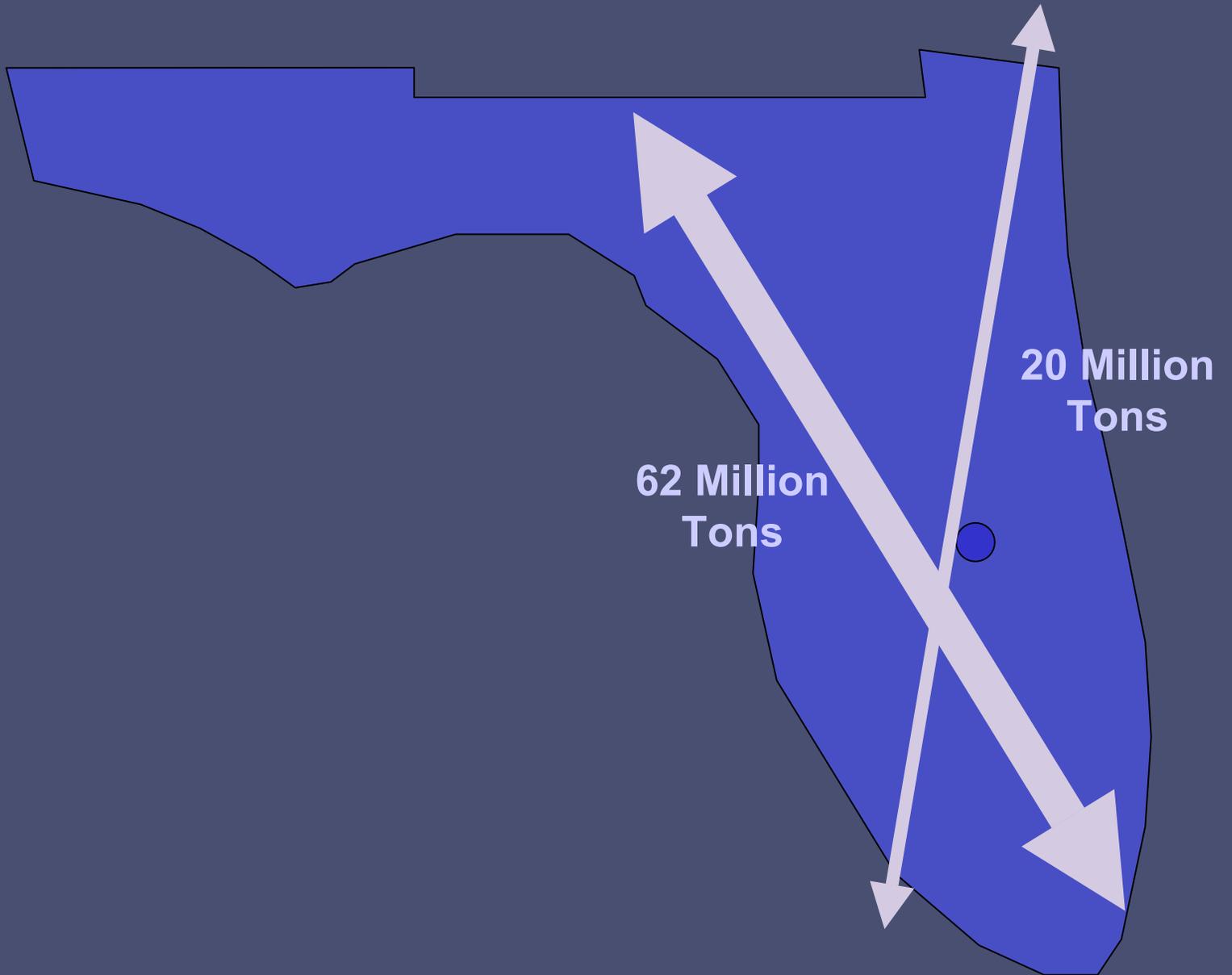
Growth is Dominated by Trucks



Key Truck Markets - Growth



Through Traffic - Change



Therefore.....



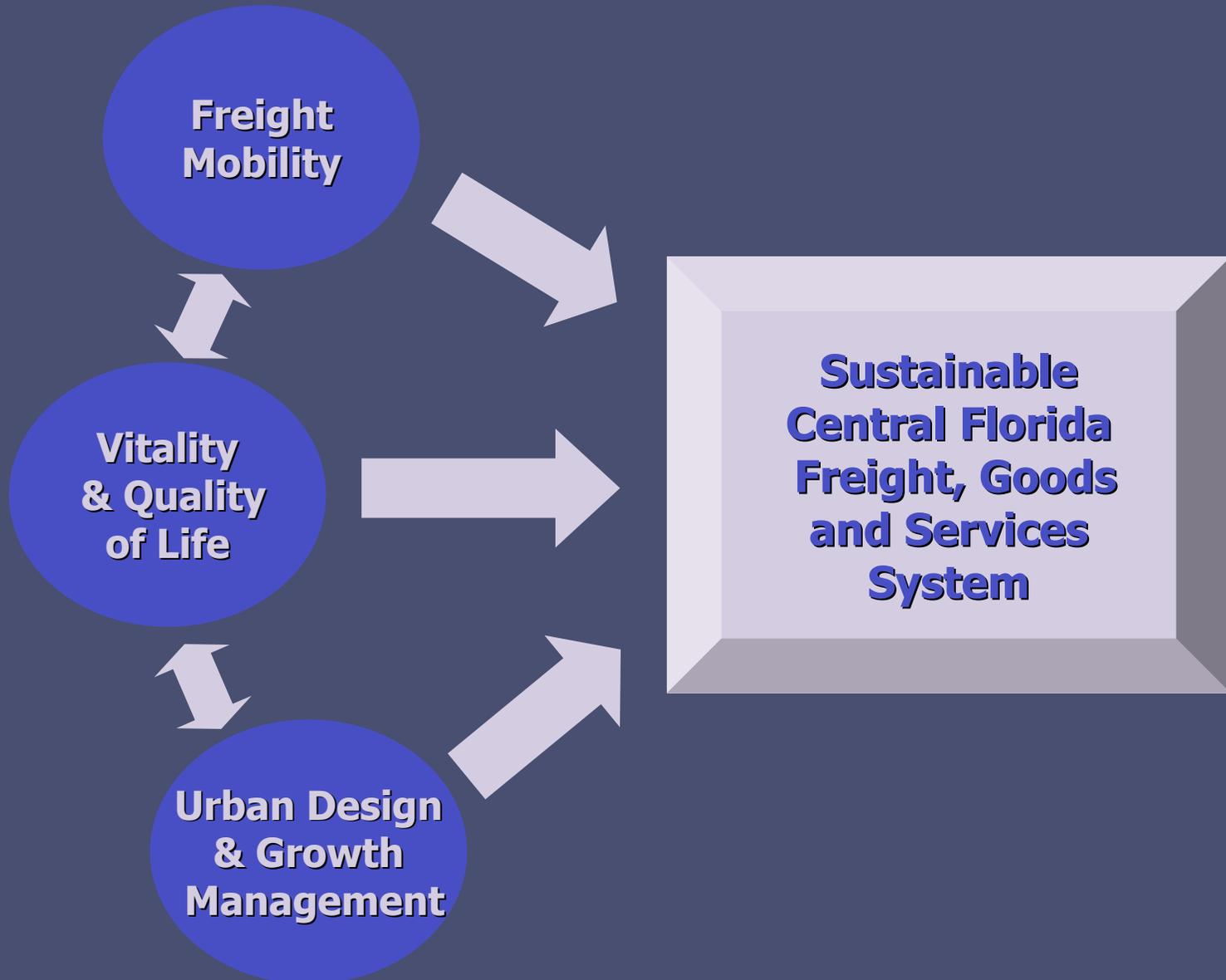
**NEED
A
PLAN**

Goal?

**Sustainable
Economy,
Quality of Life,
Environment**

**Sustainable
Central Florida
Freight, Goods
and Services
System**

Three Objectives



Objectives...

**Freight
Mobility**

Mitigating Congestion

- **Infrastructure design**
- **Signalization**
- **Incident management**
- **Traveler information**
- **Coordination between modes**

Providing Modal Options

Increasing Throughput "Velocity"

Improving Network Reliability

Objectives...

Land Use Planning

- Warehouse/freight facilities
- Urban development

Transportation Planning

- Corridor Planning
- Multimodal staging
- Tollways

Weight & Size

- LCV, oversize aircraft, WB-50 & WB-70 at airports

Urban Design & Traffic Engin.

- Intersections
- Traffic simulation
- Turning Radii
- Freight access design standards

**Design &
Growth
Management**

Objectives...

**Vitality
& Quality
of Life**

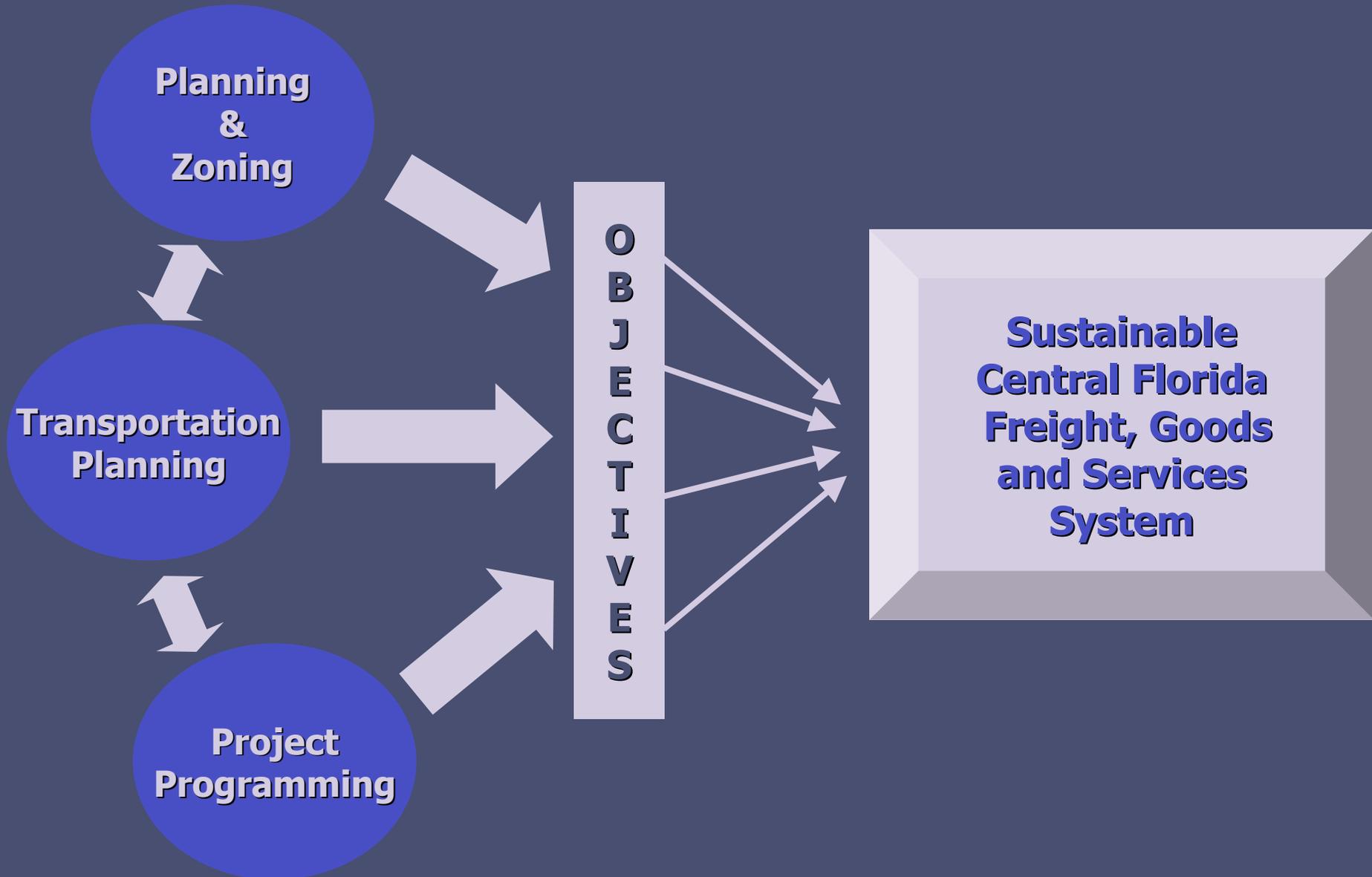
Environmental

- Noise
- Environmental Justice

Safety

- Rail crossings
- Truck corridors
- Perceived?

Identify the Strategies



Potential Strategies....

**Planning &
Zoning**

Freight Staging Facilities

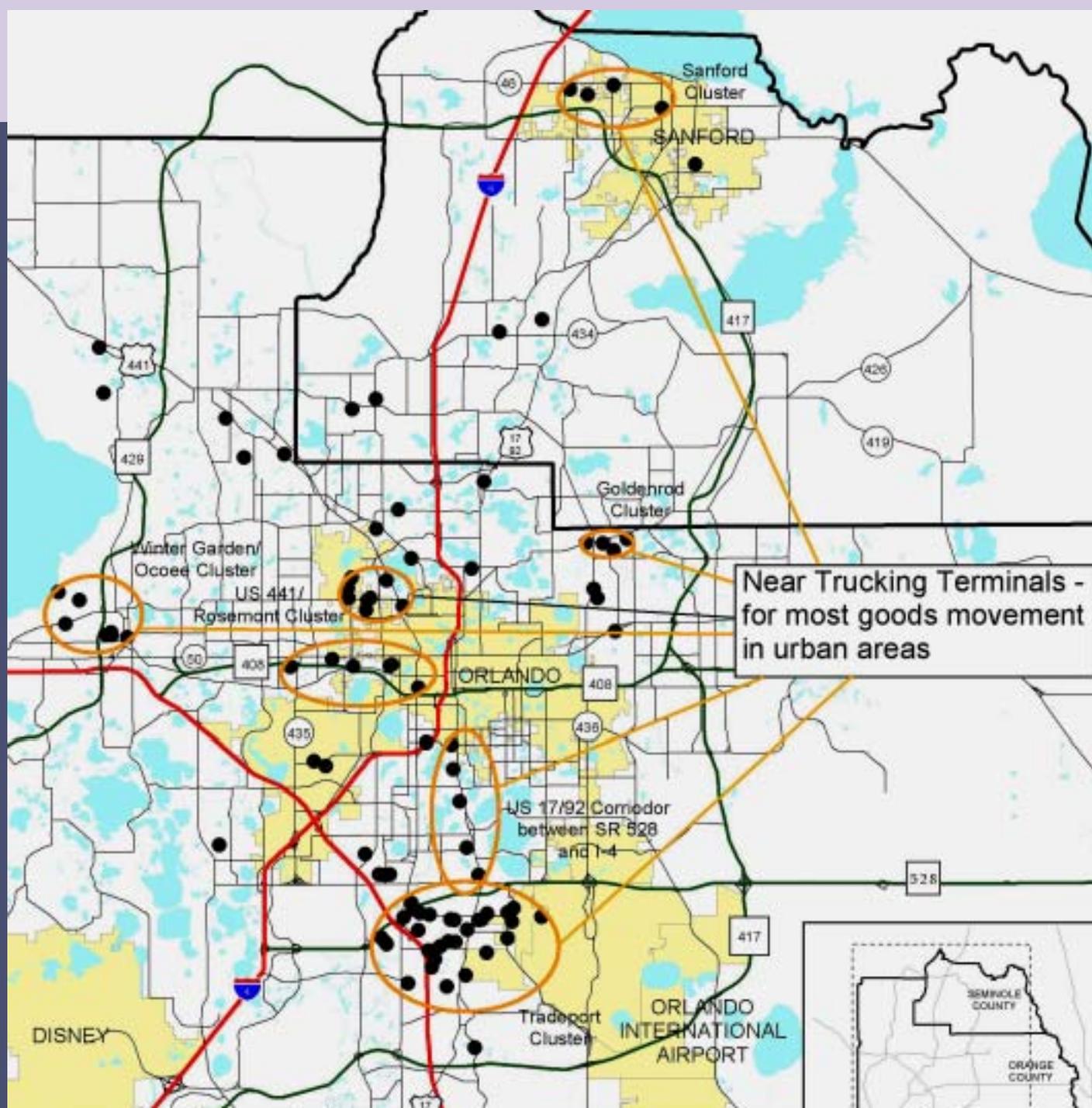
Clustering of warehouse activities

“Freight Villages”

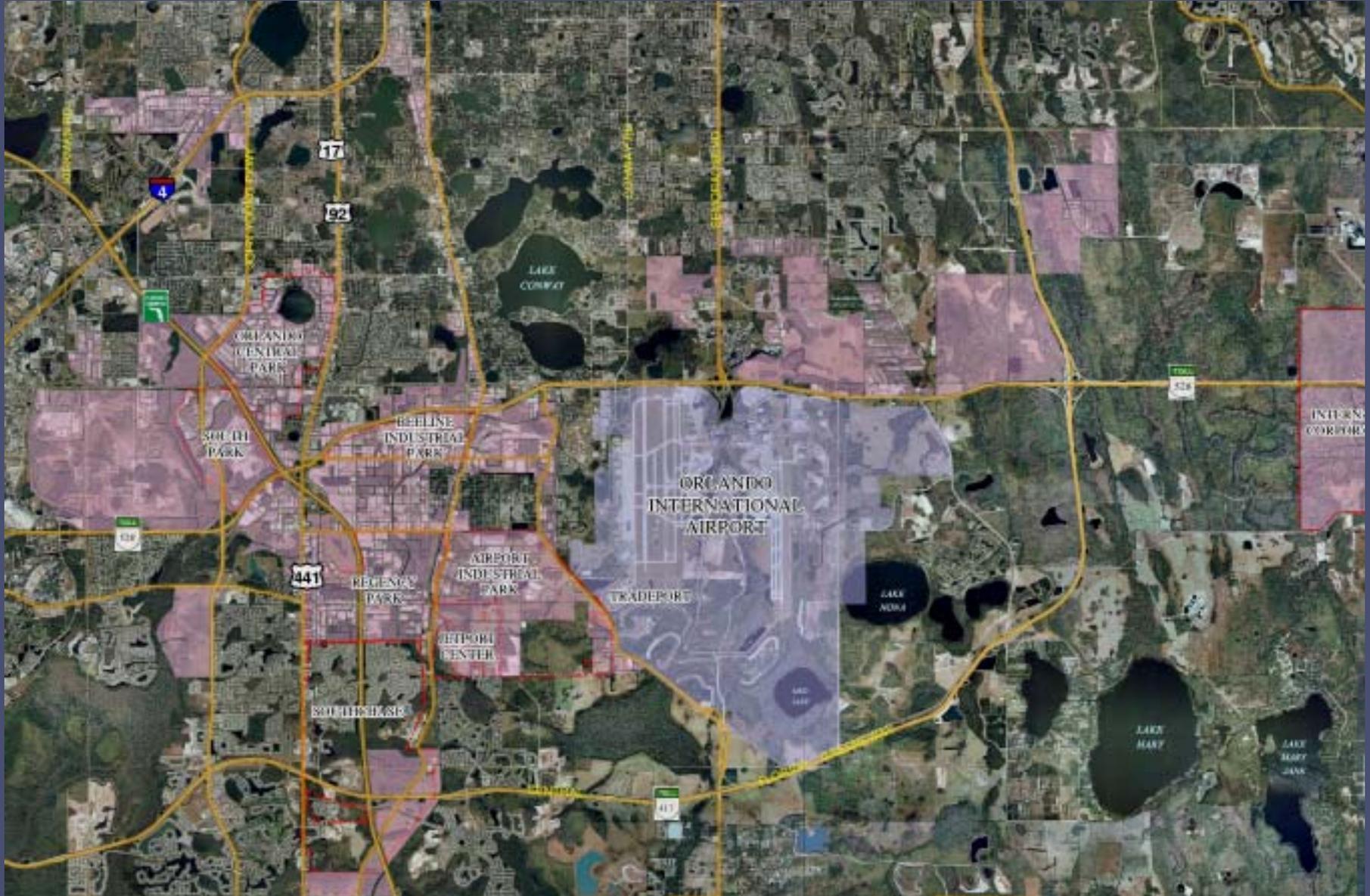
Zoning classification – “WL”

Encroachment on WL areas

Building codes



Ideal Warehouse Logistics Areas



Potential Strategies....



Define Network Role

- Through corridors
- Stem routes
- Existing areas
- Tourist corridors

Roadway Network Design

Intermodal Facilities Access

Data Needs for System Monitoring

- Traffic Surveillance Technologies
- Automatic Vehicle Classification
- Weight in Motion
- Smart Cards

Parking

Future freight mobility strategies should be applied to the truck corridors identified in this study.

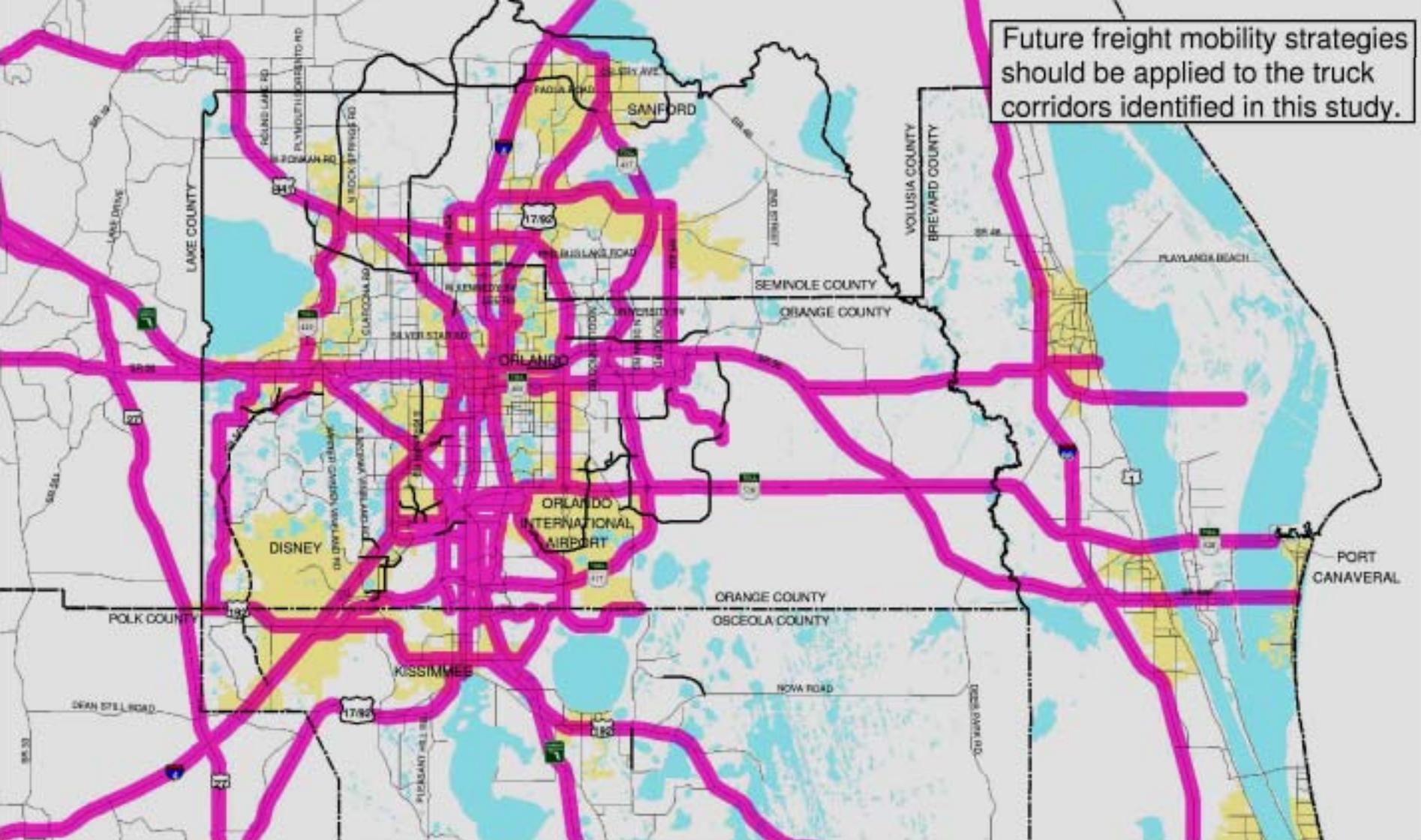


Exhibit 8-3
Corridor Strategies Map

- LEGEND**
- COUNTY BOUNDARY
 - LAKE
 - CITY BOUNDARIES
 - MAJOR REGIONAL FREIGHT CORRIDOR
 - PROPOSED WESTERN BELTWAY
 - ROAD



Need Designated Loading Zone



Potential Strategies....

**Project
Programming**



Immediate Freight Industry Concerns

Physical and Operational Reliability

Access to Ports, Airports, Intermodal

Encourage/discourage Modal Shifts

System Monitoring Capabilities

Multi-Modal Strategies

PUBLIC POLICY

**Need to
Rely on Other
Modes**

Rail

Port

Aviation

**By diverting 15% of
future truck traffic –
eliminate 356 trucks/day**

Involvement

**Bring Them
To The
Table**

**Private
Industry**

Advisory Committee

- Top level

Planning Process

- Technical involvement

Project Identification Process

- Example--Truck Driver Survey

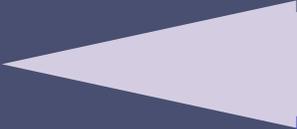
Early Successes

- Follow through with projects

Involvement

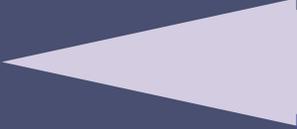


**Task
Force**



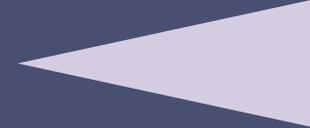
Build on Existing Structure

- **Increased involvement**



Sub-Committees

- **Data – Newsletters, progress, ops**
- **Planning – Identify projects for TIP**
- **Shipping – Traffic Clubs, etc**



Results Oriented

- **Pothole repair**
- **Resurfacing**
- **Grade crossing**
- **Directional signage**
- **Turning Radii**
- **Re-Timing Signals**
- **Striping**
- **Rail sidings**
- **Corridors to ports, airports, rail**

Potential Actions....

**Include
Intermodal
Operators**



**Action
Plan**

**Include
Private
Sector**



Continue with TIP

Institute freight access into LRTP

Revise TIP prioritization process

Work w/ zoning boards

Supplement urban design and building codes

Downtown redevelop. Plan - Add freight aspects

Work with parking Auth/Departments

Work with Toll/Expressway Authority

Work with FDOT

Thank You

