

Replacing Survey Data with Administrative Records

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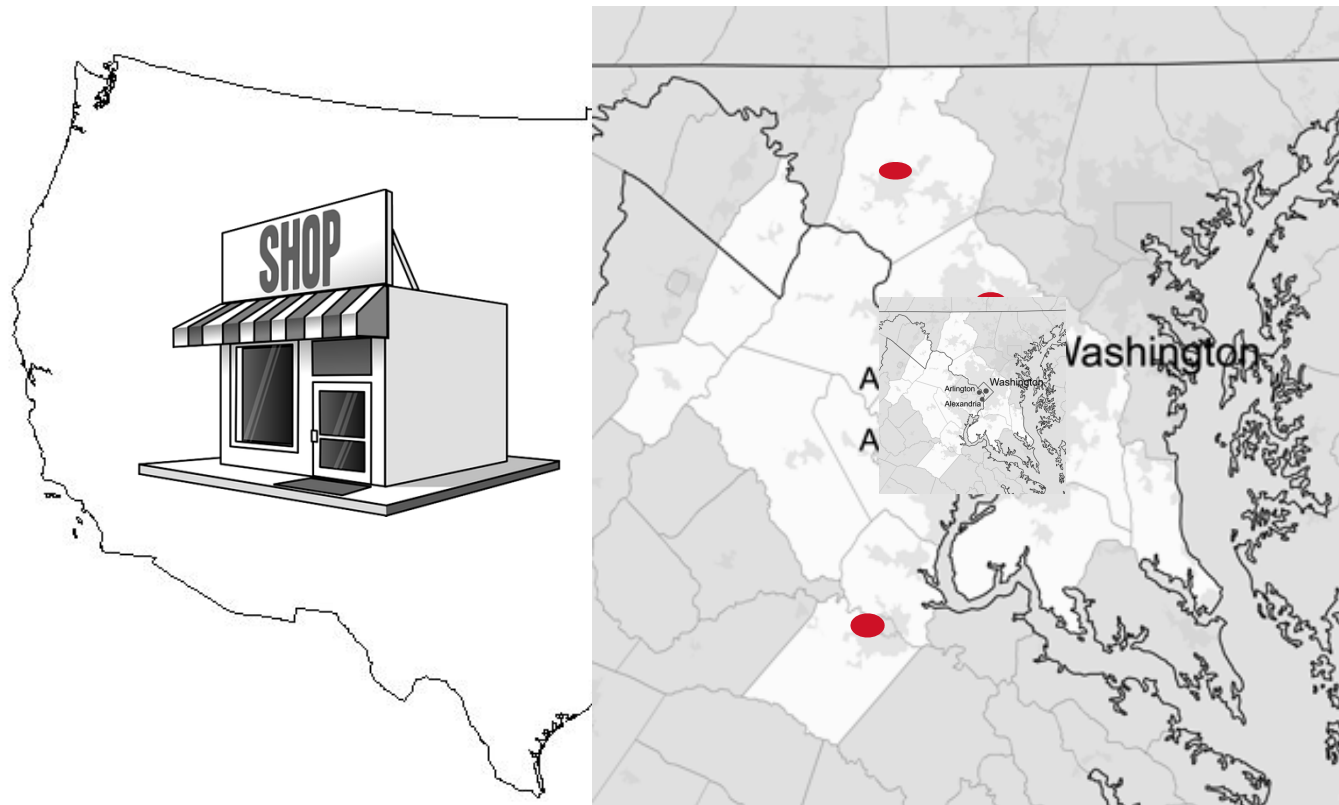
Division of Consumer Prices and Price Indexes

FedCASIC

3/20/2017



Consumer Price Index (CPI)

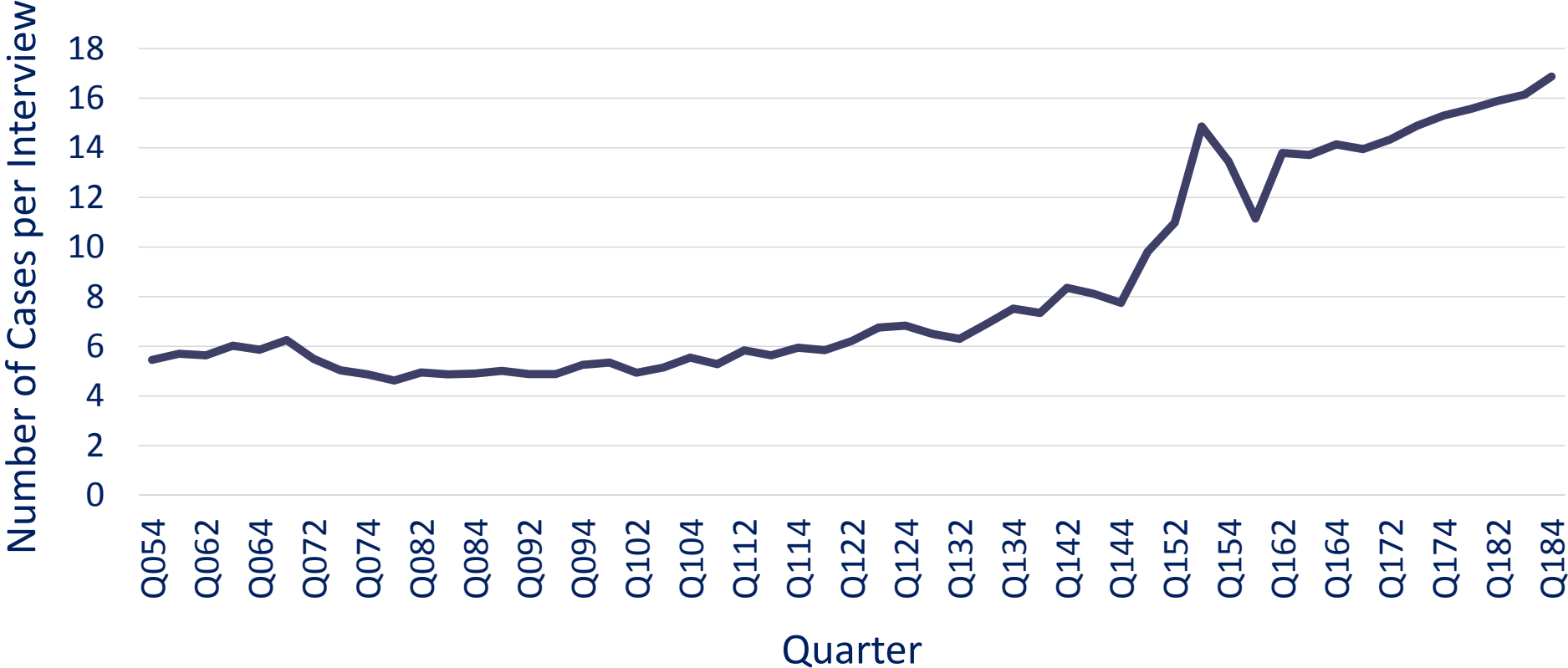


CPI Outlet Sample

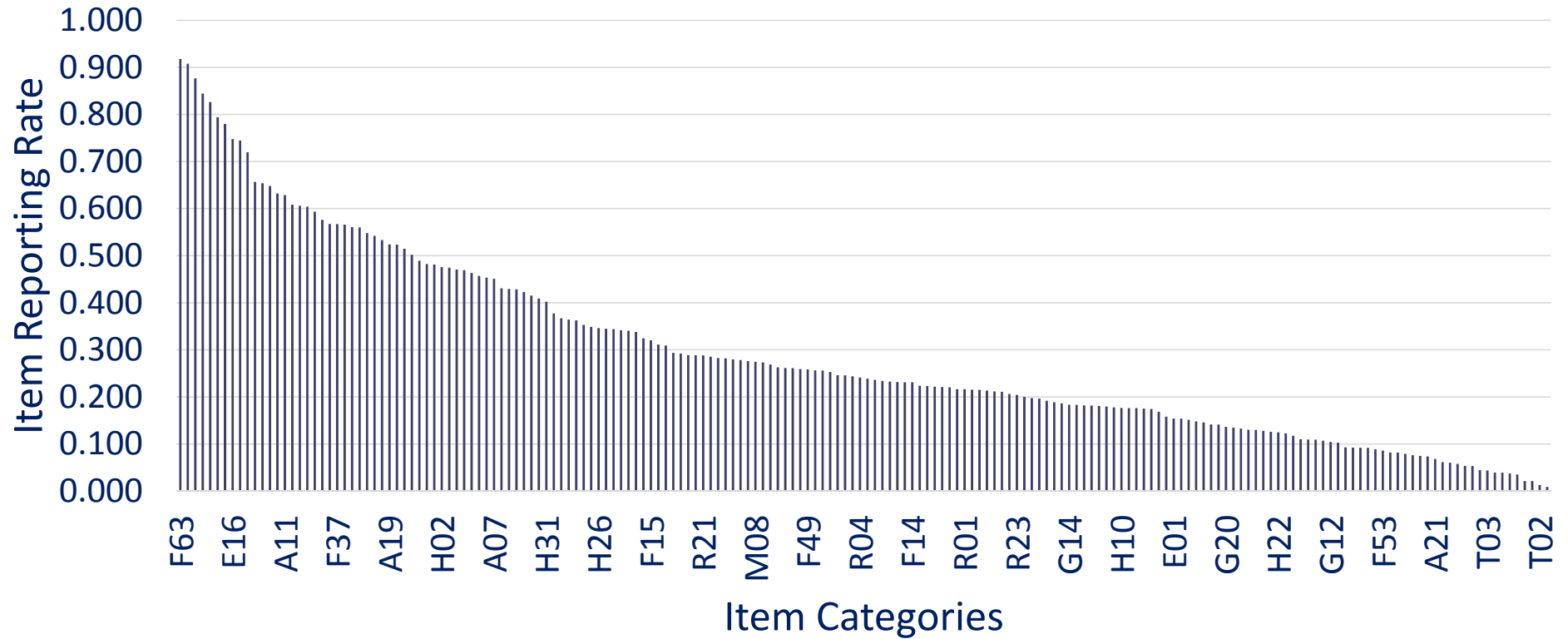
- Telephone Point-of-Purchase Survey (TPOPS)
- TPOPS Item Categories
 - ▶ Men's Suits or Blazers, Housekeeping Services, etc.
- Business Name
 - ▶ Address, City, State
 - ▶ Intersection
 - ▶ Shopping Center
- Expenditure



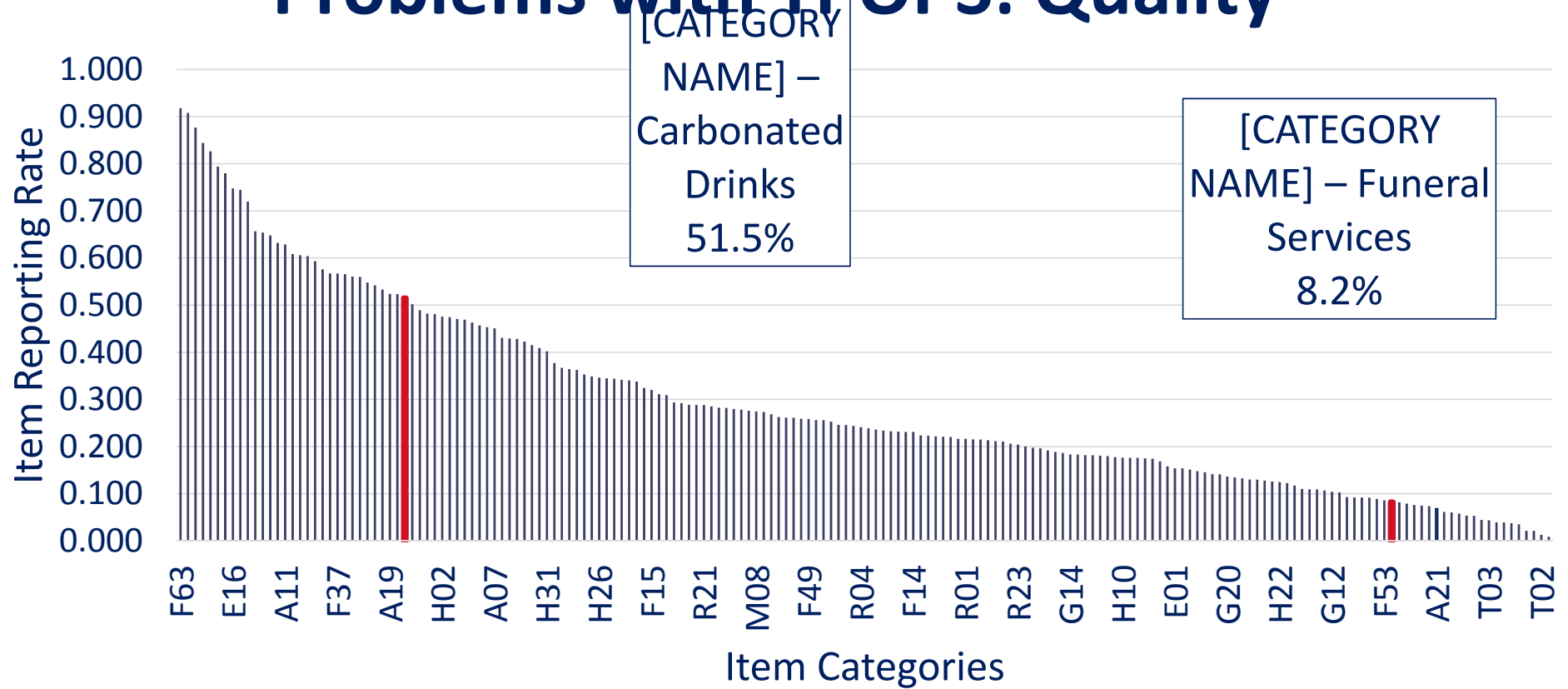
Problems with TPOPS: Cost



Problems with TPOPS: Quality



Problems with TPOPS: Quality



Current Alternative Sources

- Electricity
- Utility (Piped) Natural Gas
- Nursing and Convalescent Home Care
- State Vehicle Registration
- Airline Fares
- Intercity Busses
- Intercity Trains
- Postage
- Tenants and Household Insurance
- Used Cars and Trucks
- Motor Vehicle Insurance
- Care of Invalids, Elderly, and Convalescents in Home



BLS Business Register

- Quarterly Census of Employment and Wages (QCEW) program
 - ▶ State Unemployment Insurance (UI) tax files
 - ▶ 9 million businesses
- What data does it have?
 - ▶ NAICS code
 - ▶ Address, City, State, County Code, etc.
 - ▶ Employment
 - ▶ Wages



Challenges

- Consumer data vs Business data
 - ▶ No concordance between TPOPS items and NAICS codes
- Measure of size
 - ▶ No expenditure data to weight businesses for sample selection
 - ▶ Use employment or wages?
- Where you shop vs Where you live
 - ▶ New York price index includes Orlando hotel prices



F32 – Carbonated Drinks





F32 – Carbonated Drinks

19.5% ◀ Warehouse Clubs and Supercenters 452910

1.1% ◀ All Other General Merchandise Stores 452990

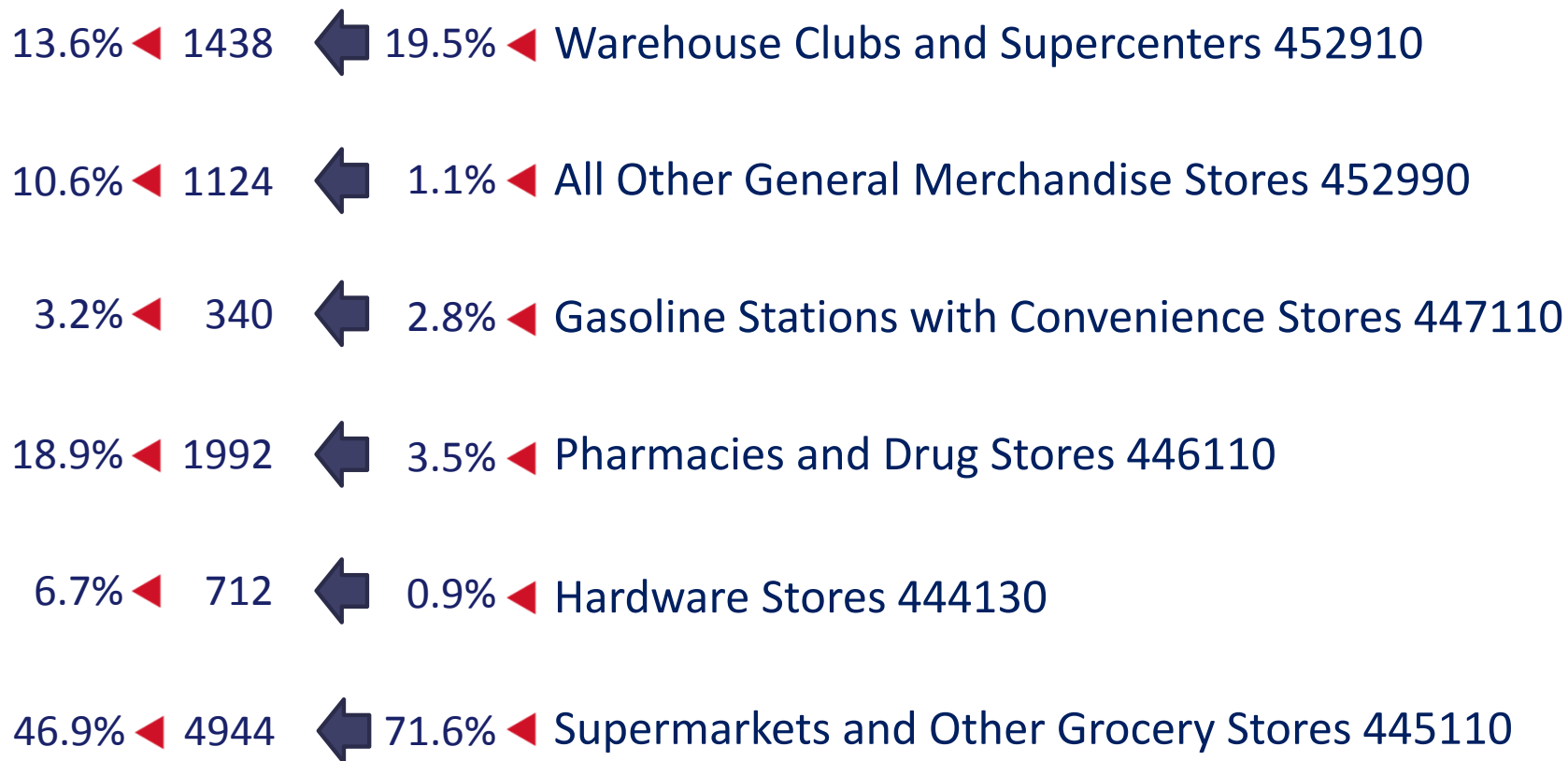
2.8% ◀ Gasoline Stations with Convenience Stores 447110

3.5% ◀ Pharmacies and Drug Stores 446110

0.9% ◀ Hardware Stores 444130

71.6% ◀ Supermarkets and Other Grocery Stores 445110

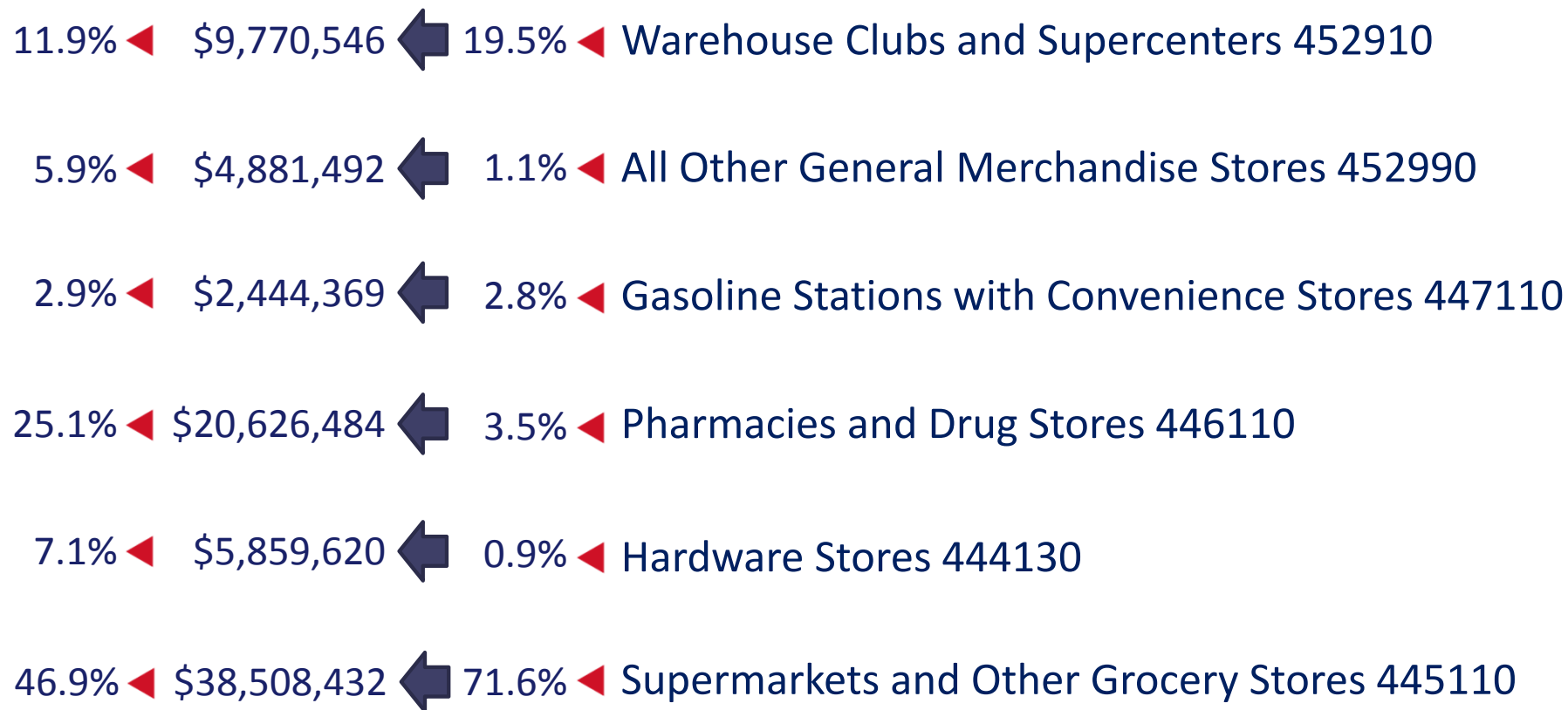
↳ *Distribution of Outlets in CPI Sample
for Washington DC*



Employees

*Distribution of Outlets in CPI Sample
 for Washington DC*





Wages

Distribution of Outlets in CPI Sample for Washington DC



Warehouse Clubs and Supercenters 452910



F32 – Carbonated Drinks



R01 – Televisions



F62 – Milk, Eggs,
Cheese, Ice Cream,
or Frozen Yogurt



A06 – Men's Shirts,
Sweaters, or Vests

Where You Shop vs Where You Live

Category	Items	Percent of Purchases Outside Home Area
T04	Rental Cars, Trucks, or Vans	79.7%
H02	Lodging such as Hotels, Motels, or Vacation Rentals	73.8%
T17	Ship Travel or Passenger Cruises	67.9%
E04	Tuition or Fixed Fees for a College or University	38.4%
F32	Carbonated Drinks	0.0%

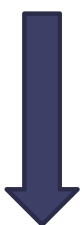


Where Business Register Can Work

- Perfect concordance between items and NAICS codes
 - ▶ Item category **A** maps only to NAICS codes **X, Y, and Z**
 - ▶ NAICS codes **X, Y, and Z** map only to item category **A**
- Low rate of purchases outside home area

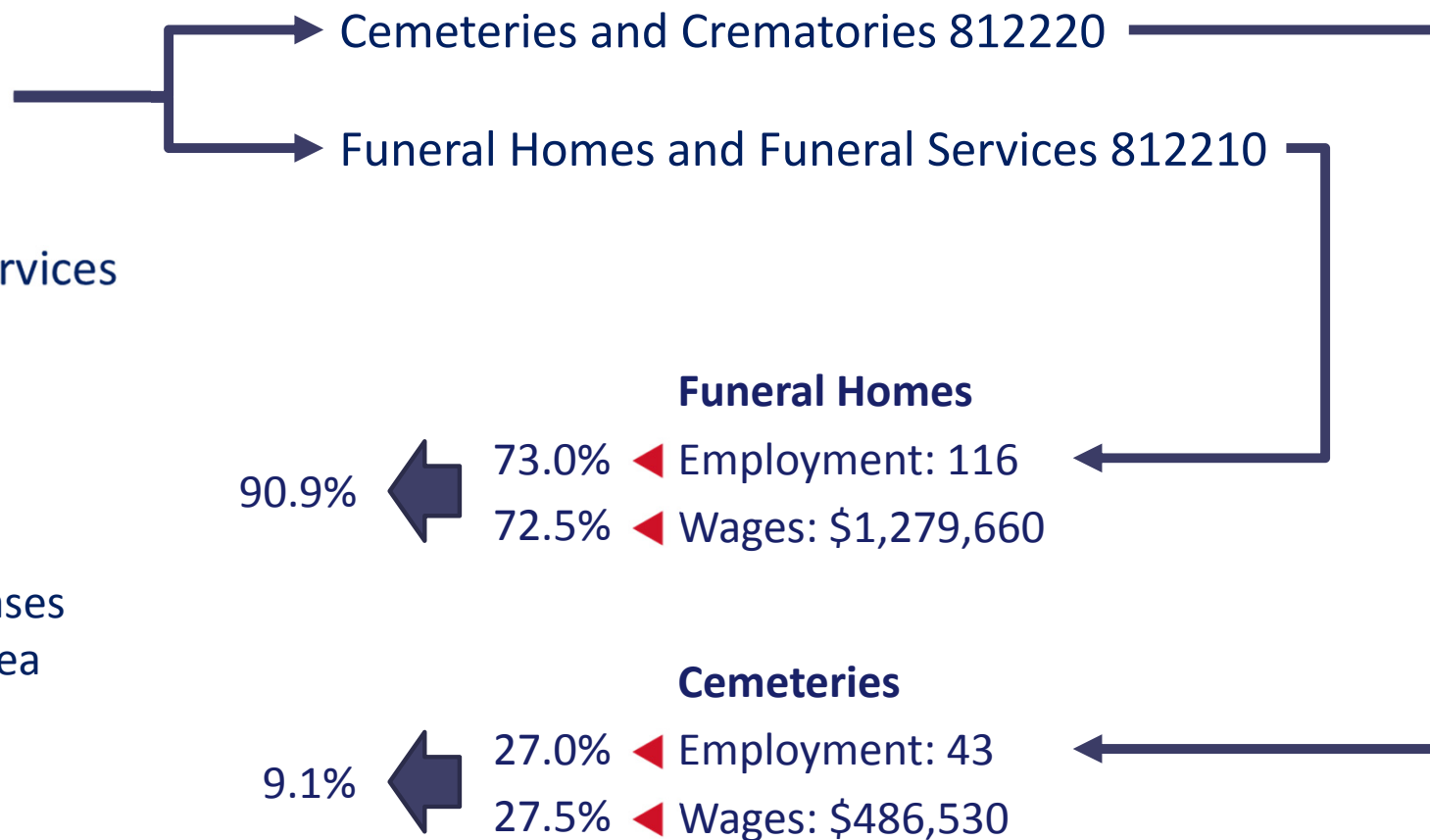


G10 – Funeral Services



Percent of Purchases
Outside Home Area

10.8%



Other Examples

- Veterinarian Services – R11
 - ▶ Veterinary Services – 541940
- New Motorcycles – T02
 - ▶ Motorcycle, ATV, and All Other Motor Vehicle Dealers – 441228



Summary

- Business Register CANNOT replace all TPOPS item categories
 - ▶ High rate of purchases made outside home area
 - ▶ Many items map to many NAICS codes
 - Number of employees or wages not a good measure of size
- Business Register CAN replace some TPOPS item categories
 - ▶ Low rate of purchases made outside home area
 - ▶ Perfect item to NAICS concordance
 - Number of employees or wages could potentially be used as a measure of size

Contact Information

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