

CIVIC DIGITAL FELLOWSHIP

Analyzing Product Revenue Data from the 2017 Economic Census

Timothy Lynch

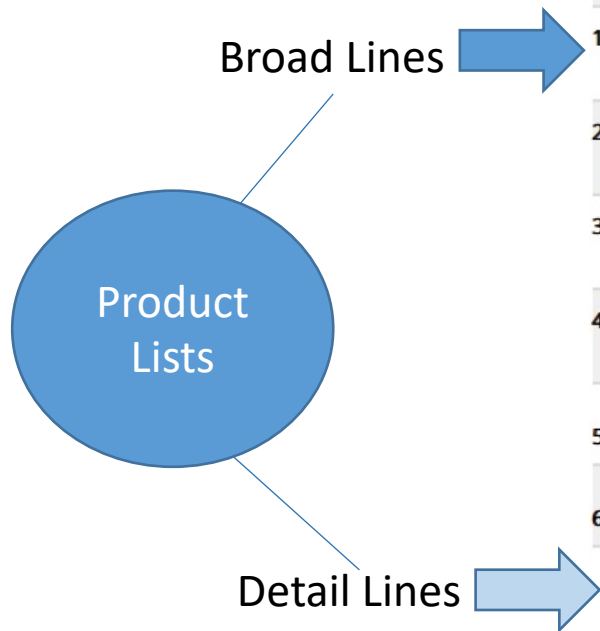
Supervised By Diane Willimack and Justin Ward

Economic Statistical Methods Division

Economic Census

- Mandatory collection conducted every 5 years for reference years ending in 2 or 7
- ~4 million business establishments

Product Revenue Collection via Tailored Product Lists (Item 22)



Description	Select	Product Code
1. Retail sales of fresh meat and poultry (Report deli meats on line 6a and meats sold in a frozen state on line 7a.)	<input type="checkbox"/>	5000025000
2. Retail sales of fresh fish and seafood (Report fish and seafood sold in a frozen state on line 7a.)	<input type="checkbox"/>	5000050000
3. Retail sales of fresh fruit and vegetables (Report frozen vegetables on line 7a.)	<input type="checkbox"/>	5000075000
4. Retail sales of eggs and dairy (except ice cream) (Report deli cheeses on line 6a and ice cream and other frozen dairy products on line 7b.)	<input type="checkbox"/>	5000100000
5. Retail sales of baked goods	<input type="checkbox"/>	5000125000
6. Retail sales of perishable prepared foods packaged for future consumption	<input type="checkbox"/>	5000150000
a. Retail sales of delicatessen items, including deli meats and other service delicatessen items (except prepared sandwiches, dishes, and entrees)	<input type="checkbox"/>	5000150003
b. Retail sales of soup and salad bars	<input type="checkbox"/>	5000150006
c. Retail sales of all other perishable prepared foods, including prepared sandwiches, dishes, and entrees	<input type="checkbox"/>	5000150009

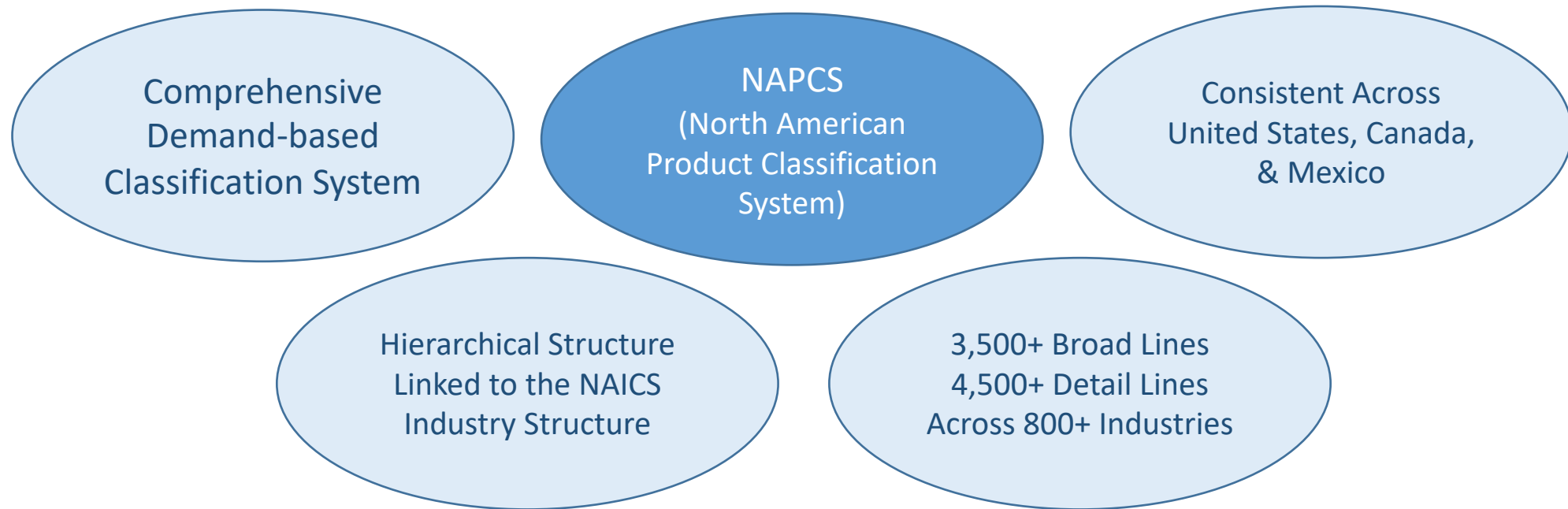
Problem: Many industries have very lengthy product lists, which places a burden on respondents.

- Triple-80 Approach: Developed from Research on 2012 EC Data

“Triple-80 Approach”: Selecting Relevant Products By Industry		
Within Each Industry		For Each Product
1. Identify products that cumulatively account for 80% of the <u>Total Industry Revenue</u> .	2. Identify products that are reported by >80% of establishments in the industry.	3. Identify industries that cumulatively account for 80% of the <u>Total Product Revenue</u> .

Research Question: How effective is the Triple 80 Approach at improving response quality and decreasing respondent burden by generating more concise, relevant product lists?

2017 Economic Census: First Conducted Under NAPCS



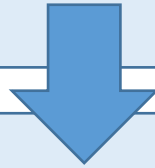
Implications of NAPCS Being Introduced:

- Triple-80 Methodology needed to be adapted to fit NAPCS data structure
- Hierarchical structure of NAPCS allows for other product line-related research that was not considered previously

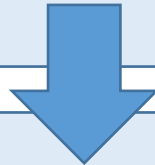
Project Objectives



1. Recode and Apply the Triple 80 Approach to 2017 Data Under New NAPCS Structure In Order to Evaluate Overall Effectiveness



2. Use NAICS-Linked Structure of NAPCS to Evaluate Triple 80 Approach's Ability to Capture Out Of Sector Products



3. Expand Research Into the Selection of Relevant Detail Lines to Further Optimize Product Lists

Conclusion & Next Steps

Guiding List Creation

Incorporating Paradata

Continued Evaluation

Triple 80 Approach provides a consistent, evidence-based methodology for identifying and selecting product lines that would:

- Ease burden on respondents to the Economic Census
- Support improved data quality for analysts and other data users