

**New Jersey Child Health Study**  
**FOOD STORE AND RESTAURANT CLASSIFICATION PROTOCOL**

**Check NAICS codes**

Before starting with the classification process, on the master list of outlets for that year (for example, Export\_Food\_and\_PhysAct\_9\_2012) make sure there's something in each NAICS code so we know we received all the codes we requested. Those codes for food outlets are:

445110: Supermarkets and grocery stores  
445120: Convenience stores  
447110: Convenience stores with gas stations  
445210: Meat markets  
445220: Fish and seafood markets  
445230: Fruit and vegetable markets  
445292: Confectionary and nut stores  
445291: Baked goods stores  
445299: Other specialty stores  
452910: Superstores  
446110: Pharmacies and drug stores  
722511: Full service restaurants  
722513: Limited service restaurants  
722515: Snack and nonalcoholic beverage bars

**Preparing worksheets for classification**

1. Separate master list into 10 different excel sheets according to city and retail (codes in green) or restaurant (codes in red) (e.g. Newark retail, Newark restaurants, etc. for the other 4 cities)
2. Put copies of the master list and all ten spreadsheets on the z-drive.
3. On the dropbox versions of the 10 spreadsheets, do the following:
  - On retail sheets insert 3 columns at the beginning: #, Category, Healthy/Unhealthy. Add a Notes column at the end.
  - On restaurant sheets add 3 columns at the beginning: #, Category, Limited/Full Service. Add a Notes column at the end.

## Classifying Retail Outlets

For **classifying retail outlets** use the following codes:

Retail Type	Code
supermarket	1
chain grocery store (Aldi, Save A Lot, etc.)	11
small grocery store	2
convenience store	3
meat market	4
meat market + small grocery store	24
fruit and vegetable market	5
pharmacy	16
convenience store with gas station	17
supercenter	10
membership supercenter	101

Description of retail types:

- Supermarket: very large supermarket, such as a Fry's, Safeway or Bashas'. Look for Pathmark, Shoprite, Key Foods or Stop and Shop. Sales over \$2 million, 4 or more checkouts.
- Chain grocery store: a smaller store that is a chain (more than one location), similar to a Fresh N' Easy. Look for Aldi or Save a Lot.
- Small grocery store: a smaller store that sells at least 3 of the 4 healthy food categories (below). May look like a convenience store from the outside. Will have sales less than \$2.5 million.
- Convenience store: small store that sells less than 3 of the 4 healthy food categories.
- Meat market: store that primarily sells meat
- Fruit and vegetable market: store that primarily sells fruits and vegetables

Follow the classification system described below to code each outlet. Once a category has been determined for a store, put the correct code number in the 'Category' column, and color the store name cell according to category (e.g., if you categorize a store as a supermarket, put '1' in the 'Category' column, and color the store name cell yellow).

### **Classification System for Supermarkets, Grocery Stores, Convenience stores (as designated by NAICS codes)**

Sort stores by NAICS codes and organize each NAICS code according to annual sales volume

## Sales volume over \$2 million

1. Start with a name recognition scan
  - a. If identifiable as part of a local or national supermarket chain, (this can be determined from past years to see which stores are east coast chain supermarkets) classify as **supermarket (code = 1)**. If identified as local or national smaller grocery store chain (e.g., Aldi, Save a Lot), classify as **chain grocery store (code = 11)**
  - b. If identified as local or national convenience store chain (e.g., Wawa, 7-11, Circle K), classify as **convenience store (code = 3)**
2. If unidentifiable by name, do an Internet search
  1. Use website or online description to determine if store is a supermarket/chain grocery store. For example, store ads may indicate that it sells many healthy foods like a full service supermarket. (Check dates on ads to ensure they are current.) If store is found to be a supermarket or chain grocery store, use appropriate code to classify.
3. If unidentifiable by Internet search, or if found not to be a supermarket/chain grocery store, call the store using the Retail Food Script. Classify according to answers obtained from call:
  - a. If someone answers and you go through the script:
    - Manager's perception of the store similar to Pathmark or Shoprite or Stop and Shop; has more than 4 checkouts; classify as **supermarket (code = 1)** (chain grocery store with smaller selection of food items such as Aldi or Save A Lot **code = 11**)
    - If above does not apply but they sell at least 3 of 4 food groupings asked about, classify as **small grocery store (code = 2)**
    - If they sell fewer than 3 of the food groupings asked about, classify as **convenience store (code = 3)**
    - If through the conversation it appears they are a meat market or fruit and vegetable market, see information in next section(s)
  - b. If number listed is out of service or there is no answer, search Internet for alternate number(s).
    - If all numbers you can find for the store (from InfoUSA and online) are out of service, shade the store name gray
    - If you get a store answering machine, you can't understand them, or they hang up on you, record in "Notes" the day, date (important for knowing if it's Daylight Savings Time, and time (AZ time) of the call. Also note what the result was (e.g., hung up on me, store answering machine, etc.).
      - Call on different days of the week and different times of the day **until you get responses to the script questions below** or until you reach 6 calls. If you reach 6 calls without responses, shade the store name **maroon**.\*
    - If no one answers, record in "Notes" the day, date (important for knowing if it's DST), time (AZ time) of the call and the results (e.g., no answer, generic vm).

- Call on different days of the week and different times of the day **until someone answers**, or until you reach 6 calls. If you reach 6 calls **with no answer ever**, shade the store name gray.

### **Retail Food Script**

Hello, this is \_\_\_\_\_ and I am calling for Rutgers University and ASU School of Nutrition and Health Promotion. We are doing a study to learn about the types of stores in your community and would like to ask you a few questions about foods available at your store.

**IF THEY ANSWER “NO,” SAY:** Is there a manager or someone else I could talk to, or is there a better time to call back?

(Write down the day and time if there is a better time)

**IF THEY ANSWER “YES,” SAY:** Thank you. This is a confidential survey and your responses will only be used to group stores of similar types.

1. How would you describe your store? Is it a supermarket (like Stop and Shop or Pathmark or Shop Rite), a smaller grocery store, or a convenience store (like 7-11 or Wawa)?
2. How many checkouts does your store have?
3. Does your store sell five or more different kinds of fresh fruits?
4. Does your store sell five or more different kinds of fresh vegetables?
5. Does your store sell fresh or frozen meats?
6. Does your store sell skim or low-fat (1%) milk?

**Closing:** Thank you for your help and answering our questions.

### **Sales volume \$1-2 million**

1. Start with a name recognition scan.
  - a. If identifiable as part of a local or national supermarket chain, (this can be determined from past years to see which stores are east coast chain supermarkets) classify as **supermarket (code = 1)**. If identified as local or national smaller grocery store chain (e.g., Aldi), classify as **chain grocery store (code = 11)**
  2. If identified as local or national convenience store chain, classify as **convenience store (code = 3)**
2. If unidentifiable by name, call the store using the Retail Food Script. Classify according to answers obtained from call.
  - a. If someone answers and you go through the script:
    - Manager’s perception of the store similar to Pathmark or Shoprite or Stop and Shop; has more than 4 checkouts; classify as **supermarket (code = 1)** (chain grocery store with smaller selection of food items such as Aldi or Save A Lot **code = 11)**

- If above does not apply but they sell at least 3 of 4 food groupings asked about, classify as **small grocery store (code = 2)**
  - If they sell fewer than 3 of the food groupings asked about, classify as **convenience store (code = 3)**
  - If through the conversation it appears they are a meat market or fruit and vegetable market, see information in next section(s)
- b. If number listed is out of service or there is no answer, search Internet for alternate number(s).
- If all numbers you can find for the store (from InfoUSA and online) are out of service, shade the store name gray
  - If you get a store answering machine, you can't understand them, or they hang up on you, record in "Notes" the day, date (important for knowing if it's Daylight Savings Time, and time (AZ time) of the call. Also note what the result was (e.g., hung up on me, store answering machine, etc.).
    - Call on different days of the week and different times of the day **until you get responses to the script questions below** or until you reach 6 calls. If you reach 6 calls without responses, shade the store name **maroon**.\*
  - If no one answers, record in "Notes" the day, date (important for knowing if it's DST), time (AZ time) of the call and the results (e.g., no answer, generic vm).
    - Call on different days of the week and different times of the day **until someone answers**, or until you reach 6 calls. If you reach 6 calls **with no answer ever**, shade the store name gray.

**Sales volume less than \$1 million**

1. Search for terms *liquor*, *bar*, and *auto repair* in the store name. Shade these gray.
2. Search for term *pharmacy*, *Walgreens*, *CVS*, *drug*. If pharmacy, classify it as **pharmacy (code = 16)**
3. Classify anything else in this category as a convenience store **(code = 3)**.

**Classification System for Other Stores (specialty stores like farmers' markets, meat markets etc., as designated by NAICS codes)**

- I. Sort by NAICS codes.
- II. Search the store name for words such as *gifts*, *florist*, *distributor*, and others that do not sell food and that are nonfood businesses. When these are found in any category, color the store name cell gray.
- III. For the following NAICS descriptions:

1. Meat markets

- a. Call the store using the Retail Food Script. If number listed is out of service or there is no answer, search Internet for alternate number(s).
- b. Classify according to answers obtained from call:
  - i. Sells fewer than 3 of the food groupings asked about, and primarily sells meat (dead or alive), classify as **meat market (code = 4)**
  - ii. Manager's perception of the store similar to Pathmark or Shoprite or Stop and Shop; has more than 4 checkouts; sells many healthy foods (like a full service supermarket) classify as **supermarket (code = 1)** (This almost never happens) (chain grocery store with smaller selection of food items such as Aldi or Save A Lot **code = 11**)
  - iii. If above does not apply, and does **not** primarily sell meat but sells at least 3 of 4 food groupings asked about, classify as **small grocery store (code = 2)**
  - iv. Primarily a meat market but also sells at least 3 of 4 food groupings asked about, classify as **small meat market grocery store (code = 24)**
  - v. Sell fewer than 3 of the food groupings asked about **and** is not primarily a meat market, classify as **convenience store (code = 3)**
  - vi. If all numbers found (through InfoUSA and online) are out of service, shade the store name gray
  - vii. If you get a store answering machine, or you can't understand them, or they hang up on you, record in "Notes" the day, date (important for knowing if it's DST), and time (AZ time) of the call. Also note what the result was (e.g., hung up on me).
    1. Call on different days of the week and different times of the day **until you get responses to the script questions above** or until you reach 6 calls. If you reach 6 calls without responses, shade the store name **maroon**.\*
  - viii. If no answer, record in "Notes" the day, date (important for knowing if it's DST), time (AZ time) of the call and results.
    1. Call on different days of the week and different times of the day **until someone answers**, or until you reach 6 calls. If you reach 6 calls **with no answer ever**, shade the store name gray.

2. Fruit and vegetable markets

- a. Call the store using the Retail Food Script. If number listed is out of service or there is no answer, search Internet for alternate number(s).
- b. Classify according to answers obtained from call.
  - i. Primarily sell fruits and vegetables, classify as **fruit and vegetable market (code = 5)**
  - ii. Manager's perception of the store similar to Pathmark or Shoprite or Stop and Shop; has more than 4 checkouts; sells many healthy foods (like a full

service supermarket) classify as **supermarket (code = 1)** (chain grocery store with smaller selection of food items such as Aldi or Save A Lot **code = 11)**

- iii. If above does not apply, and does not primarily sell vegetables, but sells at least 3 of 4 food groupings asked about, classify as **small grocery store (code = 2)**
- iv. Sell fewer than 3 of the food groupings asked about and does not primarily sell fruit and vegetables, classify as **convenience store (code = 3)**
- v. If all numbers found (InfoUSA and online) are out of service, shade the store name gray
- vi. If you get a store answering machine, or you can't understand them, or they hang up on you, record in "Notes" the day, date (important for knowing if it's DST), and time (AZ time) of the call. Also note what the result was (e.g., hung up on me).
  1. Call on different days of the week and different times of the day **until you get responses to the script questions above** or until you reach 6 calls. If you reach 6 calls without responses, shade the store name **maroon**.\*
- vii. If no answer, record in "Notes" the day, date (important for knowing if it's DST), time (AZ time) of the call, and the result.
  1. Call on different days of the week and different times of the day **until someone answers**, or until you reach 6 calls. If you reach 6 calls **with no answer ever**, shade the store name gray.

### 3. Pharmacies

- a. Name recognition scan
  - i. If identified as part of local or national pharmacy chain, or has *pharmacy* (not *pharmaceuticals* – that may not be retail) in the name, classify as **pharmacy (code = 16)**
  - ii. If identified as a pharmacy that may be part of a supermarket (e.g., Shop Rite pharmacy), check to see if the supermarket is listed separately. If it is, shade the pharmacy name gray.
- b. If unidentifiable by name, do an Internet search
  - i. Websites clearly designating store as a pharmacy
- c. If unidentifiable by Internet search, call the store using the Retail Food Script. You will probably be able to stop after asking, "How would you describe your store?" If number listed is out of service or there is no answer, search Internet for alternate number(s).
- d. Classify according to answers obtained from call.
  - i. Describe themselves as a pharmacy, classify as **pharmacy (code = 16)**
  - ii. Manager's perception of the store similar to Pathmark or Shoprite or Stop and Shop; has more than 4 checkouts; sells many healthy foods (like a full service supermarket) classify as **supermarket (code = 1)** (chain grocery

- store with smaller selection of food items such as Aldi or Save A Lot **code = 11)**
- iii. If above does not apply, but sell at least 3 of 4 food groupings asked about, classify as **small grocery store (code = 2)**
  - iv. Sell fewer than 3 of the food groupings asked about and is not a pharmacy, classify as **convenience store (code = 3)**
  - v. If number out of service, shade the store name gray
  - vi. If you get a store answering machine, or you can't understand them, or they hang up on you, record in "Notes" the day, date (important for knowing if it's DST), and time (AZ time) of the call. Also note what the result was (e.g., hung up on me).
    1. Call on different days of the week and different times of the day **until you get responses to the script questions above** or until you reach 6 calls. If you reach 6 calls without responses, shade the store name **maroon**.\*
  - vii. If no answer, record in "Notes" the day, date (important for knowing if it's DST), time (AZ time) of the call and result of the call.
    1. Call on different days of the week and different times of the day **until someone answers**, or until you reach 6 calls. If you reach 6 calls **with no answer ever**, shade the store name gray.
4. Convenience store with gas station – ONLY FOR NAICS CODES 447110. If it's a gas station only with a different NAICS code, gray it out (most – probably all – will be grayed out)
- a. Name recognition scan
    - i. If identified as part of local or national convenience store with gas station chain, classify as **convenience store with gas station (code = 17)**
  - b. If unidentifiable by name, do an Internet search
    - i. Websites, internet, Google maps street view (this works well for gas stations)
  - c. If unidentifiable by Internet search, call the store using the script above. You will probably be able to stop after asking, "How would you describe your store?" If number listed is out of service or there is no answer, search Internet for alternate number(s).
  - d. Classify according to answers obtained from call.
    - i. Describe themselves as a gas station, classify as **convenience store with gas station (code = 17)**
    - ii. Manager's perception of the store similar to Pathmark or Shoprite or Stop and Shop; has more than 4 checkouts; sells many healthy foods (like a full service supermarket) classify as **supermarket (code = 1)** (chain grocery store with smaller selection of food items such as Aldi or Save A Lot **code = 11)**
    - iii. If ii (above) does not apply, but sell at least 3 of 4 food groupings asked about, classify as **small grocery store (code = 2)**



- iv. Sell fewer than 3 of the food groupings asked about, classify as **convenience store (code = 3)**
  - v. If number out of service, shade the store name gray
  - vi. If you get a store answering machine, or you can't understand them, or they hang up on you, record in "Notes" the day, date (important for knowing if it's DST), and time (AZ time) of the call. Also note what the result was (e.g., hung up on me).
    - 1. Call on different days of the week and different times of the day **until you get responses to the script questions above** or until you reach 6 calls. If you reach 6 calls without responses, shade the store name **maroon**.\*
  - vii. If no answer, record in "Notes" the day, date (important for knowing if it's DST), time (AZ time) of the call, and result.
    - 1. Call on different days of the week and different times of the day **until someone answers**, or until you reach 6 calls. If you reach 6 calls **with no answer ever**, shade the store name gray.
5. Supercenters and membership supercenters
- a. Name recognition scan
    - i. If identified as part of national non-membership supercenter (e.g., Walmart, Target, Kmart), classify as **supercenter (code = 10)**
    - ii. If identified as part of membership supercenter (e.g., Sam's Club, Costco), classify as **membership supercenter (code = 101)**

**For everything above:**

- If any stores are inside places like airports, ballparks, arenas, movie theaters, etc., do not classify them. Gray them out.
- If found through any of the search processes that the store is actually a restaurant, color the store name cell light blue and record in "Notes" that it should be moved to restaurants.
- If found through any of the search processes to not be any type of food store or pharmacy, shade the store name cell gray. Record in "Notes" what type of store it is
- \*Conduct Internet searches (websites and google street view) for all stores shaded maroon to determine their classifications.

## Classifying Restaurants

For classifying restaurant outlets use the following codes:

Restaurant Type	Code
snack specialty	6
other specialty	18
deli	70
chicken/fish	71
pizza	72
burger/hotdog	73
subs/hoagie	74
Chinese takeout	75
Chinese restaurant	751
Fast food chain [national]	76
other fast food	77
burritos/taco/Mexican	78
full service	79
limited service as per NAICS	7
cafeteria	61

Description of Restaurants:

- Snack specialty: primarily sells food items that are ready-to-eat and can be eaten in store, such as bagels, coffee, donuts, ice cream.
- Other specialty: primarily sells food items intended to be taken with the customer to eat, rather than eaten in the store (e.g., stores that sell nuts, candy etc.).
- Full service: sit-down restaurant with wait staff. You eat and then pay your bill.
- Limited service (in general): you **always** pay before you receive your food. It can be to-go (like a McDonalds) or sit-down (like a Pei Wei), and there is no wait service.
- Fast food chain [national]: any national fast food chain, regardless of type of food sold (e.g., McDonalds, Taco Bell, Panda Express, Dominos Pizza)
- Limited service as per NAICS: for restaurants where additional information cannot be gathered, but has a limited service NAICS code

Follow the classification system described below to code each outlet. Once a category has been determined for a restaurant, put the correct code number in the 'Category' column, and color the restaurant name cell according to category (e.g., if you categorize a restaurant as a pizza place, put '72' in the 'Category' column, and color the store name cell blue).

### Classification System for Restaurants

1. Sort stores by NAICS codes.

2. Name-recognition scan to identify and classify chain full-service restaurants (**code = 79**).
3. Name-recognition scan to identify and classify national chain fast food restaurants (**code=76**).
4. Other specialty stores
  - a. Name recognition scan
    - i. If identified as part of local or national specialty store (e.g., Rocky Mountain Chocolate Factory), classify as **other specialty store (code = 18)**
    - ii. If unidentifiable by name, do an Internet search: Websites, internet, Google maps street view
    - iii. If unidentifiable by Internet search, call the store using the Retail Food Script. You will probably be able to stop after asking, "How would you describe your store?" Classify according to answers obtained from call.
      1. Primarily sell food items intended to be taken with the customer to eat, rather than eaten in the store (e.g., stores that sell nuts, candy, etc.), classify the store as **other specialty, code=18**.
      2. Primarily sell food items that are ready-to-eat and can be eaten in store, such as bagels, coffee, donuts, ice cream, classify the store as **snack specialty, code=6**.
      3. Manager's perception of the store similar to Pathmark or Shoprite or Stop and Shop; has more than 4 checkouts; sells many healthy foods (like a full service supermarket) classify as **supermarket (code = 1)** (chain grocery store with smaller selection of food items such as Aldi or Save A Lot **code = 11**)
      4. If above does not apply, but sell at least 3 of 4 food groupings asked about, classify as **small grocery store (code = 2)**
      5. If is not a snack or specialty store, and sells fewer than 3 of the food groupings asked about, classify as **convenience store (code = 3)**
      6. If number out of service, shade the store name gray
      7. If you get a store answering machine, or you can't understand them, or they hang up on you, record in "Notes" the day, date (important for knowing if it's DST), and time (AZ time) of the call. Also note what the result was (e.g., hung up on me).
        - a. Call on different days of the week and different times of the day **until you get responses to the script questions above** or until you reach 6 calls. If you reach 6 calls without responses, shade the store name **maroon**.\*
      8. If no answer, record in "Notes" the day, date (important for knowing if it's DST), time (AZ time) of the call and result.
        - a. Call on different days of the week and different times of the day **until someone answers**, or until you reach 6 calls. If you

reach 6 calls **with no answer ever**, shade the store name gray.

5. Classify restaurants with the following words in the name – fried chicken, chicken, pizza, hot dog, burger, hoagie, Chinese/China, taco, burrito, deli, sandwich – as limited service. Put them in the correct category on the classified restaurants sheet.
6. Internet check/Google maps street view for restaurants in question
  - a. check menus and restaurant descriptions
  - b. restaurants primarily selling hamburgers, fried chicken, pizza, hot dogs, Chinese, classify as a limited service restaurant and choose the correct category
  - c. restaurants described as fine dining experiences or with table service – classify as full service restaurant, **code=79**
7. Phone calls using script below for restaurants still in question. If number listed is out of service or there is no answer, search Internet for alternate number(s).
  - a. If customers do **not** pay for their order before they eat, classify as **full service**.
  - b. If customers **always** pay for their order before they eat, classify as **limited service** in the correct category according to type of food (when calling, you may need to ask what type of food they serve)
  - c. If all numbers you try (from InfoUSA and online) are out of service, shade the store name gray
  - d. If you get a store answering machine, or you can't understand them, or they hang up on you, record in "Notes" the day, date (important for knowing if it's DST), and time (AZ time) of the call. Also note what the result was (e.g., hung up on me).
    - i. Call on different days of the week and different times of the day **until you get responses to the script questions above** or until you reach 6 calls. If you reach 6 calls without responses, shade the store name **maroon**.\*
  - e. If no answer, record in "Notes" the day, date (important for knowing if it's DST), and time (AZ time) of the call.
    - i. Call on different days of the week and different times of the day **until someone answers**, or until you reach 6 calls. If you reach 6 calls **with no answer ever**, shade the store name gray.
8. If found through any of the search processes that the store is actually a retail store, color the store name cell light blue and record in "Notes" that it needs to be moved to retail.
9. If any restaurants are inside places like airports, ballparks, arenas, movie theaters, etc., do not classify them. Gray them out.
10. If found through any of the search processes that the business is not any type of food store or a gas station (e.g., flower shop, hair salon), shade the store name cell gray. Record in "Notes" what type of store it is.

\*Conduct Internet searches (websites and google street view) for all stores shaded maroon to determine their classifications.

### **Restaurant Script**

Hello, this is \_\_\_\_\_ and I am calling for Rutgers University and ASU School of Nutrition and Health Promotion. We are doing a study to learn about the types of restaurants in your community and would like to ask you a question about your restaurant.

**IF THEY ANSWER “NO,” SAY:** Is there a manager or someone else I could talk to, or is there a better time to call back?

(Write down the day and time if there is a better time)

**IF THEY ANSWER “YES,” SAY:** Thank you. This is a confidential survey and your responses will only be used to group stores of similar types.

Do your customers always pay for their order before they can eat?

**Closing:** Thank you for your help and answering our question.