Consumer Spending and Use of Big Data

Kyle Brown, Chief, PCE Branch
2017 Advisory Committee Meeting
New Data from NPD Group

- NPD Group will provide quarterly estimates for the rate of retail growth/decline in the following product categories, comparing, when appropriate, online vs. brick and mortar sales:
  - Smartphones
    - Handset/Equipment Only
  - Software
    - Boxed software
    - Downloaded software
    - Non-game apps
  - Video Games
  - Physical Video Media and Permanent Digital Downloads
  - Physical Audio Media and Permanent Digital Downloads
New Data from NPD Group (cont’d)

• NPD will also provide estimates for the following services:
  – Contract ride services (e.g. Uber and Lyft)
  – Streaming video subscription services (e.g. Hulu and Netflix)
  – Streaming audio subscription services (e.g. Pandora and Spotify)
  – Software subscriptions (e.g. Windows 365, Azure, etc.)
• Athena provides coding and billing software for physicians offices

• BEA researchers have built a model using the data to predict Census QSS revenue for offices of physicians

• Early results show potential improvements for Advance estimates of PCE physicians services

• Provide a better monthly pattern for PCE estimates
Improved Retail Control

• Adjust retail control group to remove gasoline sales at general merchandise stores
  – Use merchandise lines from the Economic Census and PCE gasoline and other motor fuel to estimate these sales
  – Subtract these sales from the retail control

• Increased gasoline sales by “big box” retailers have exposed core sales to the effects of large swings in gasoline prices

• A study by Macroeconomic Advisers concluded that “sharp declines in gasoline prices weigh on sales at these kinds of businesses and tend to reduce overall core sales”

• Use of annual “physical” music revenue from RIAA to estimate PCE Audio discs, vinyl, and digital downloads

• Implementation of these proposals scheduled for the 2017 Annual Update
Improved Merchandise Line Shares

• Update merchandise line shares for non-store retailers using two data sources:
  – Annual E-Commerce sales data from the U.S. Census Bureau
  – Retail scanner data from NPD Group

• Implementation scheduled for the 2017 Annual Update