

# 2020 Census Program Management Review

## 2020 Census - Center for Adaptive Design Interface Collaborative Research and Development

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# Center for Adaptive Design

- **Adaptive Design** is a method of managing survey and Census work to conduct data collection faster, cheaper and better. It supplants “fixed designs,” which strive for the highest response rate until time or money runs out. - Dr. Peter Miller
- The **Center for Adaptive Design (CAD)** works to increase survey and census efficiency by researching, designing and building tools and methods that enable the use of empirical data to facilitate intelligent business decisions prior to and during data collection. We also work to educate Census Bureau customers and stakeholders about the benefits of using these tools. - CAD Statement of Purpose



# Shared Vision for the Future

- Flexible response: Multiple modes of data collection
  - Paper
  - Internet, telephone, self-report
  - Automated field interviewing
  - Administrative records
- Increased efficiency: Near real-time mode switching and data driven operations management
- Near real-time data evaluation and estimation
- Reusable solutions: Shared IT services across the Census Bureau
- Maintained Quality

All of these leading to containing costs



# Attributes of the Vision for Adaptive Design

- 24-hour cycles on mode-switch, preliminary imputation, preliminary estimation
- Empirical stopping rules for continued data collection efforts
- Statistical modeling to combine survey/census data with external, relevant other digital data
- Reduced cost, increased timeliness





# Research, Testing, and Implementation

## The National Survey of College Graduates (NSCG)

- Goals of Using Adaptive Design:
  - To reduce the cost of the NSCG
  - To reduce the time between the fielding the survey and the delivery of data files (from 18-21 months to 12 months)
  - To maintain data quality
- Test Plan:
  - Using a panel of 4,000 cases (of NSCG's 80,000 new 2013 cases), test:
    - Integrated Data Collection Systems
    - Mode Switching
    - Flow Processing
    - Data Monitoring
    - Integrated Reporting



# Timeline

- Initial Research and Testing for Adaptive Design:
  - National Survey of College Graduates (February 2013)
  - 2020 Census Research and Test Phase
- Implementation in production:
  - American Community Survey (December 2014)
  - Annual Survey of Manufacturers (December 2015)
  - Company Organization Survey (December 2015)
  - 2017 Economic Census (December 2017)
  - 2020 Census (Spring 2019)



# Research, Testing, and Implementation

## Initial Census Site Test

- CAD will run a separate adaptive design panel with two Homogeneous Crew Leader Districts (~1,000 cases each)
  - Control Group: up to four contact attempts, mix of telephone and in-person
  - Experimental Group: Adaptive Design treatment – number and kind of contacts determined by enhanced frame information, mode options, contact history, response propensity, cost

# Questions and Discussion

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