

Survey Costs: Results and Insights from Census Task Forces

NCHS Board Meeting
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U S C E N S U S B U R E A U

Helping You Make Informed Decisions

Overview

- Task Forces Background
- Survey Management Opportunities
- Data Collection Opportunities
 - Common
 - Survey Specific
- Adaptive Design Opportunities
- Next Steps

The Challenge

- Declining survey cooperation among general public
- Rising operational survey costs
- Can't sustain data collection under the old model
- Need to contain costs, maintain data quality, increase operational efficiency

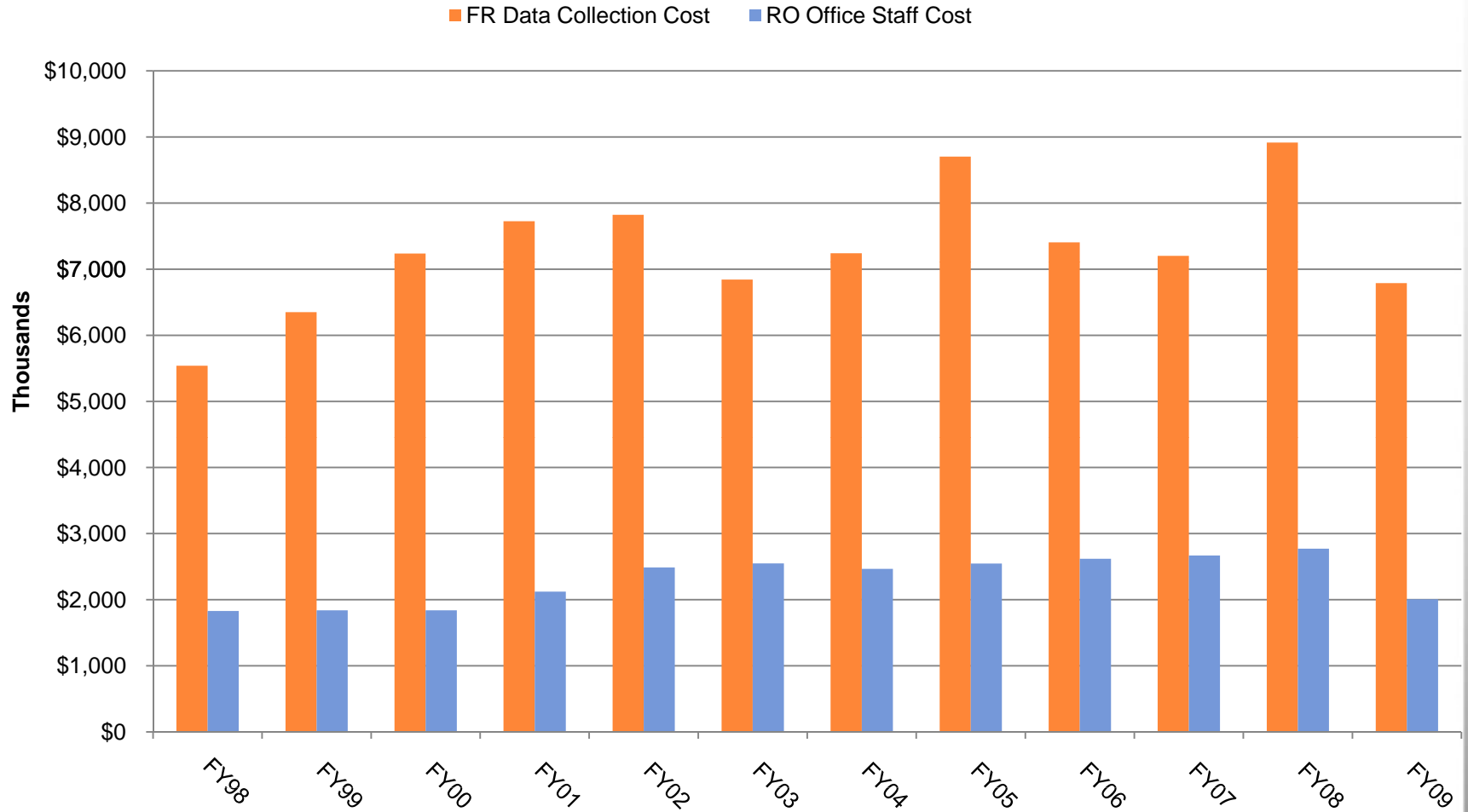
NCHS: The Demand for Survey Information

- High demand for health care information in current climate of health care reform.
- Increasing complexity and sensitivity of medical information.
- Need for timely data. Target release is six months after collection.
- Budget pressures are ongoing and severe.

Rising Costs

- From 1998 to 2008, NCHS payments to Census for NHIS grew by 42%, while NCHS total program funds grew by only 20%
- NAMCS and NHAMCS increases in payments to Census: 2006 vs. 2009
 - NAMCS: 16% higher
 - NHAMCS: 21% higher

NHIS Field Costs: FY98-FY09



Current Survey Design

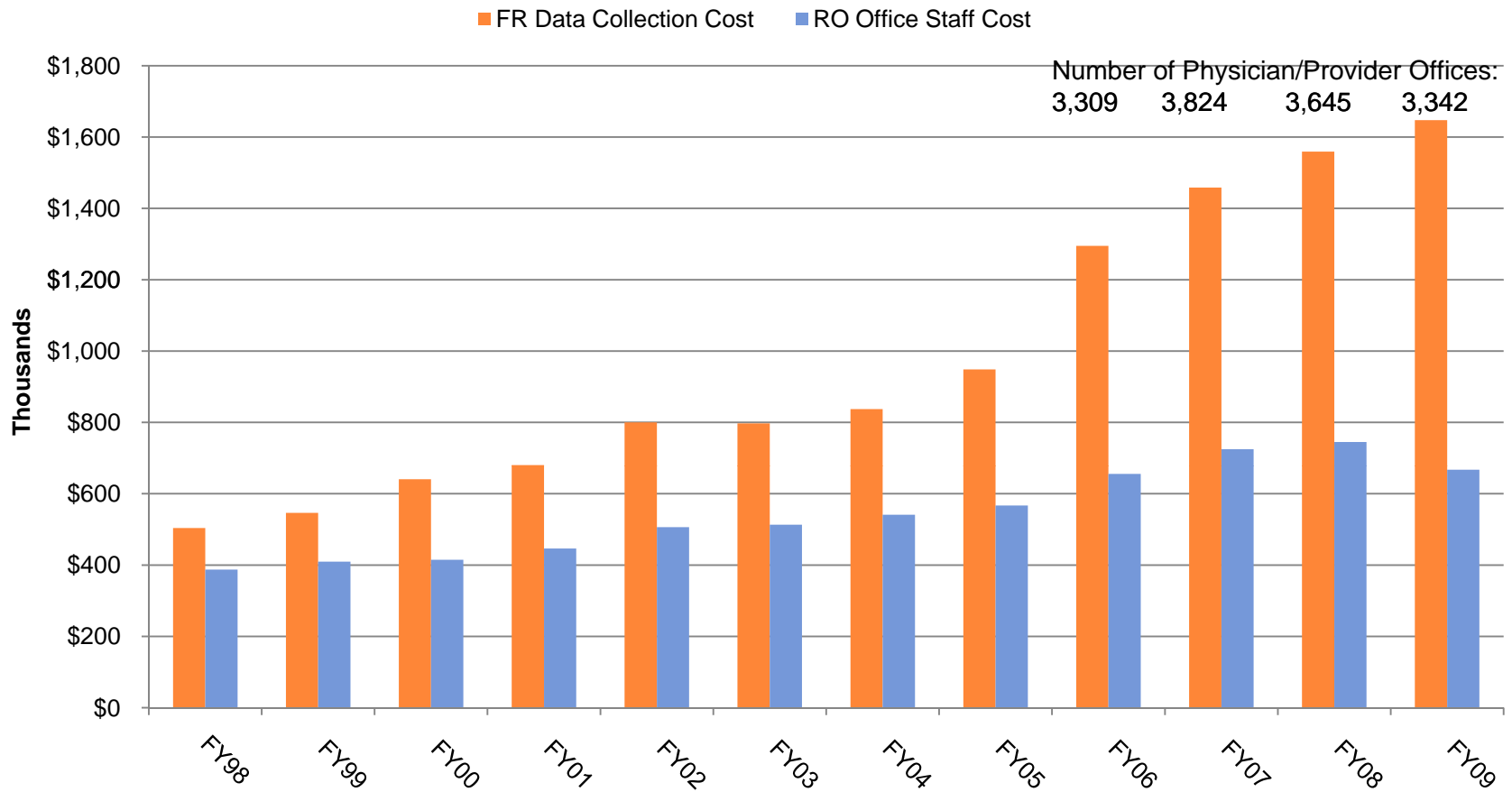
National Ambulatory Medical Care Survey:

- Sample: ~ 3,200 office-based physicians and ~ 312 Community Health Center physicians/providers
- Sample unit: patient visit
- Cases assigned equally across 52 weeks, quarterly closeout schedule
- Attempt to screen for eligibility by phone; in-person induction interview; sample of patient records for each physician
- Respondent: sample physician / clinician; nurse or assistant can provide information as appropriate

National Hospital Ambulatory Medical Care Survey:

- Sample: ~480 hospitals and ~200 freestanding ambulatory surgery centers
- Sample unit: patient visit
- Cases divided into 16 subsamples, each with a specific 4-week reporting period; quarterly closeout schedule
- Attempt to screen for eligibility by phone; in-person induction interview; sample of patient records for each facility
- Respondent: hospital administrators, medical record personnel

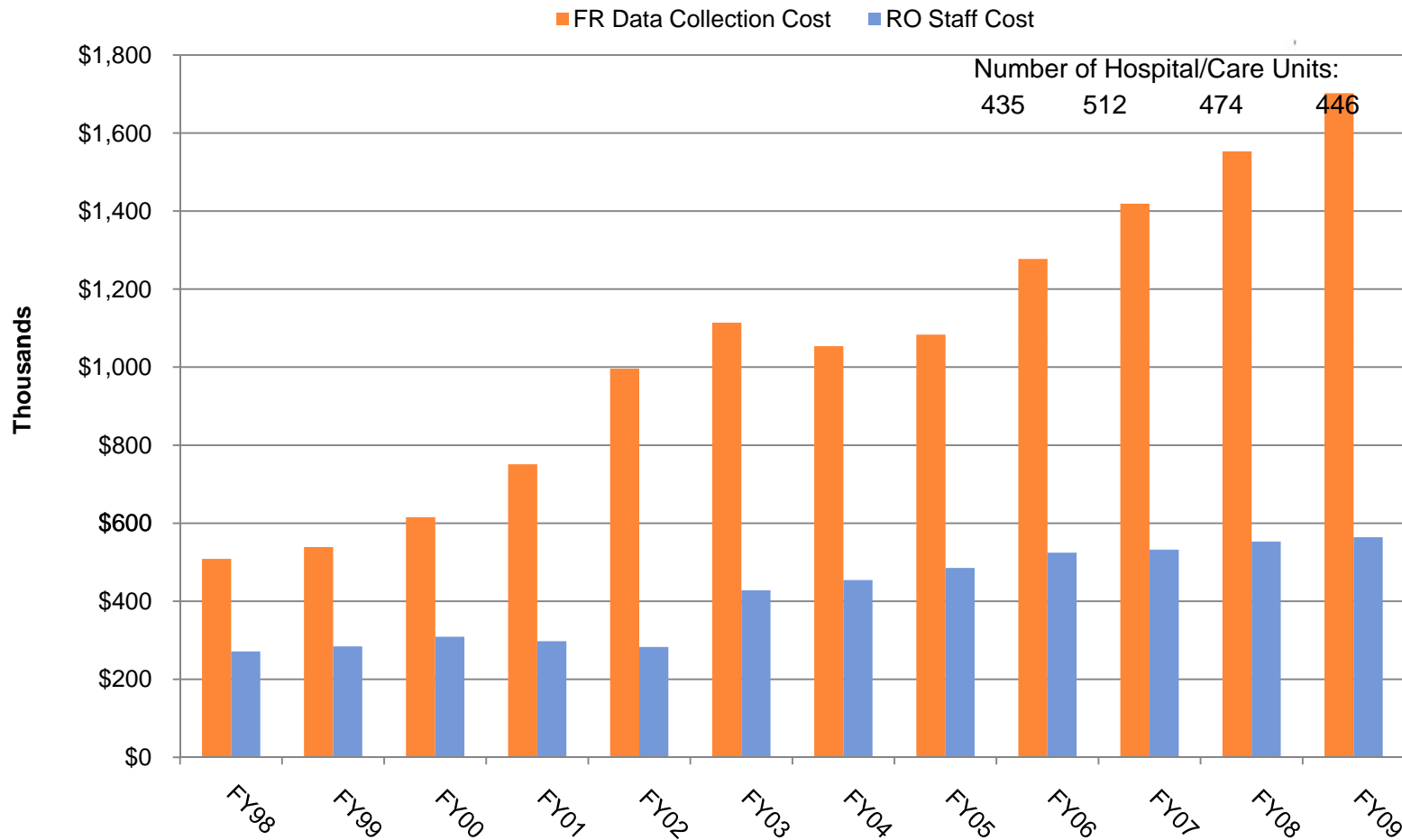
NAMCS Field Costs: FY98-FY09



Source: Field Division

NOTE: FR is Field Representative (interviewer);
RO is Regional Office.

NHAMCS Field Costs: FY98-FY09



Source: Field Division

NOTE: FR is Field Representative (interviewer);
RO is Regional Office.

Purpose of Cost Task Forces Initiative

- To identify most promising opportunities to improve cost efficiency of survey data collection procedures in Census reimbursable surveys.

The Cost Savings Task Forces

- Designed to specifically focus on cost savings opportunities.
- Short-lived, small teams, including survey methodologist and end-data user external to agencies.
- Dialogue between Census as data collection agency and survey sponsor agency.

Task Force Surveys

- National Health Interview Survey
- National Ambulatory Medical Care Survey /
National Hospital Ambulatory Medical Care Survey
- Consumer Expenditure Surveys
- National Crime Victimization Survey
- Current Population Survey
- American Housing Survey

Key Opportunities

Broad Opportunity Themes

- Need for better information to understand and manage cost drivers.
- Less complex management structure and less fragmentation of responsibilities.
- Continuous and cooperative cost management throughout the data collection period.

Census Survey Management

Survey Management

- Streamline survey management responsibilities to reduce overhead costs.
 - Fragmentation of responsibilities contributes to overhead costs.
- Coordinate and consolidate management of data collection across Regional Offices to reduce redundancy within surveys.
 - Distinguish geo-specific functions from the more general management functions.

Survey Management (2)

- Enhance the program management process at Census through a project-based organization.
 - Reinforce “single voice” for Census communications to our sponsors through improved internal coordination.
- Establish a more detailed survey cost accounting system, including all survey functions from all divisions.
 - Understand cost drivers, close to real time.
 - Provide greater transparency on costs.

Data Collection

Data Collection

- Provide electronic communications options to field representatives.
 - Improve efficiency of data transmissions, survey materials access, and field communications.
- Reduce field address listing to update the sample frame.
 - Master Address File (MAF) for Title 13; Delivery Sequence File (DSF) for “Title 15” surveys.

Data Collection (2)

- Conduct more interviews by phone to reduce travel and mileage costs.
 - Establish cost benefits of centralized CATI phone interviews vs. field rep CAPI phone vs. CAPI in-person.
 - Set expected proportion of phone completes by survey under revised household eligibility guidelines.
- Improve CAPI questionnaire flow, response linkage, and probes to reduce post-interview editing and respondent burden.

Data Collection (3)

- Establish more detailed activity codes for field reps to track field work preparation, travel and interviewing time.
 - Develop algorithms to estimate cost per specific case.
- Revise field staff performance evaluation standards to incorporate cost saving and data quality metrics, in addition to response rate.
 - Distribute ownership of cost containment across all field staff.

NHIS Survey Specific

Move from Weekly to Monthly field data collection assignments

- Simplifies Regional Office management of field data collection.
 - Manage 1 set of field assignments rather than 3 sets on any given day.
 - More efficient travel schedules of FRs.
- No loss in data detail to NCHS.
- Implementation effective January, 2011.

NAMCS Survey Specific

Improve the quality of sample list of physicians provided to field representatives.

- Misinformation in AMA list results in substantial field effort to “clean” case assignments.
- Describe and quantify types of file errors.
- Evaluate options to clean list before FR assignments.
 - Use external business files to verify and update information.
- Determine the value of pre-cleaning file by comparing cost to current cost of having FR resolve discrepancies.

NAMCS/NHAMCS Survey Specific

Standardize the process for contact and data collection attempts through specific guidelines.

- Set clear expectations on the schedule to open, contact, and complete cases.
- Monitor case progress more closely and address concerns promptly. Contact History Instrument (CHI) in 2012.
- Establish rolling closeout schedules with cases to be completed within 7 weeks of release.

NAMCS/NHAMCS Survey Specific

Reduce time to gain physician / provider cooperation.

- Consider initial phone contact through centralized calling center or RO phone bank to
 - assess case eligibility,
 - identify office contact person,
 - identify best times for FR visit.
- Analyze case history data from past surveys to understand nonresponse patterns.
- Establish field guidelines on steps to be taken to avoid nonresponse, based on the analysis.

NAMCS/NHAMCS Survey Specific

Develop electronic data entry option for patient record forms for providers' office staff use.

- One half of patient data collection is done by the physician/provider's office staff.
- Computer-based (Blaise) instruments will be available only to Census field reps.
- Design consultant hired in FY10 Q4 to identify electronic data entry options for office staff to complete patient forms.
- Future: Common platform for both Census and office staff use?
Electronic records extraction without rekeying?

NAMCS/NHAMCS Survey Specific

Increase efficiency of data coding and processing with fewer transfers of paper forms.

- Current paper process is time consuming with a number of handoffs.
- In 2012, Census field reps will have computer-based questionnaire and patient forms. But, patient forms completed by provider will continue to be on paper.
- Revise process and reduce the number of handoffs.

NAMCS/NHAMCS Survey Specific

Identify characteristics of successful Field Representatives (FRs) and develop these skills among the survey FRs.

- FR skills to contact and gain cooperation in physician and establishment surveys vary from those for household demographic surveys.
- Review and revise FR selection criteria. May suggest fewer FRs with appropriate skills and larger caseloads.
- Consider assigning case tasks to more than one FR, based on strengths. One assignment to gain cooperation and conduct induction interview; Second assignment to complete patient information forms.

NAMCS/NHAMCS Survey Specific

Consider collecting multiple weeks of patient records per physician or healthcare provider.

- Unit of analysis is the patient record, with each week representing an independent sample.
- Research needed to determine cost/benefit trade-off in respondent cooperation and the effects on the estimates.
- Past evaluation of this idea raised concerns about respondent burden and reduced cooperation and data quality.

Adaptive Survey Design

Adaptive Survey Design

- Use the Contact History Instrument (CHI) in all surveys.
 - Tracking of contact attempts indicates level of effort by case.
- Systematically collect survey process data (in addition to CHI) and develop monitoring tools and intervention guidelines for case management.
 - Paradata can lead to responsive design.

Adaptive Survey Design (2)

- Sample nonrespondents late in the field period and target effort on completing the subset of cases.
 - Manage expenditures in final weeks in the field.
 - Can improve weighted response rate and protect against bias.

Adaptive Survey Design (3)

- Evaluate alternative sample designs based on estimated differences in field costs.
 - Set cluster sizes to achieve more control over interviewer workloads.
 - Evaluate panel sample designs to determine cost/benefit trade-offs (precision, cost, quality) of alternatives.
- Develop web-based survey instruments and target use of an Internet response option.

Adaptive Survey Design

- Actively pursue use of administrative records to reduce data collection effort and to improve survey estimates.
- Conduct a responsive design pilot study to demonstrate data-driven interventions to control cost and data quality during data collection.
 - Census is in early stages of defining a pilot study.

Opportunities: Census

- Corporate staff restructuring
- Contact History Instrument in all surveys
- Reduced address listing
- Field rep activity coding / guidelines / expectations
- Paradata pilot study (e.g., nonrespondent sampling)
- Costs of alternative sample designs
- Phone and web-modes as cost savers

Opportunities: Sponsors

- Survey-specific opportunities
 - Process modifications
 - Research agendas
 - Survey design considerations
- Inter-agency collaboration on costs

Progress

- Synthesis report of all task forces completed.
- Synthesis presented to Census Operating Committee.
- Draft of action plans in progress.
- Upcoming presentation to all agency heads (ICSP).
- Survey-specific changes in progress and others need collaborative attention.

Thanks

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