

ORGANIZATION AND MANAGEMENT OF A DATA COLLECTION CENTER

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I. BACKGROUND

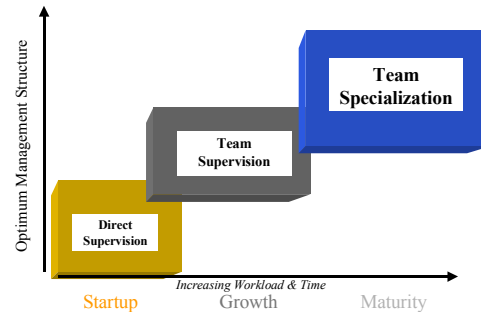
The Atlanta Data Collection Center (DCC) of the Bureau of Labor Statistics opened in the fall of 1990 with three interviewers collecting employment data via Computer-Assisted Telephone Interviews (CATI) for the Current Employment Statistics (CES) survey. In 1992 a similar DCC was opened in Kansas City followed by Dallas in 1997. By 2001 Atlanta CES staff and workload had grown to 40 interviewers handling over 45,000 monthly CES sample units with multiple projects and software. The Job Openings and Labor Turnover Survey (JOLTS) DCC, also in Atlanta, opened in the fall of 1999, now with 21 interviewers handling over 11,600 JOLTS sample units. From the first decade into the second, the DCC presented management challenges to maintain trained staff who worked many projects while adjusting to organizational and workload shifts.

This paper will provide a case-study analysis of the interrelationship between organizational growth and management of a Data Collection Center (DCC), and its impact on the successful implementation of CATI collection for an establishment survey.

II. ANALYTICAL FRAMEWORK

Our case-study will analyze the Atlanta DCC organization and management utilizing what can be described as the DCC Growth-Management (DGM) Model. This model describes the performance optimizing relationship between management structure in a DCC and organizational change. In the model, performance is measured by survey collection rates and workload (Chart 1).

DATA COLLECTION CENTER
GROWTH-MANAGEMENT MODEL



The DGM model groups organizational change into three phases; Startup, Growth, and Maturity. Startup represents the period of time from the opening of the functional unit, or beginning of actual operation when new staff are hired and trained. Growth occurs as the organization begins to expand activities and staff. Finally, at Maturity efficiencies become realized with expansion and specialization of staff assignments.

The DGM model matches three unique management structures to each of the three change phases. Each matching set effectively provides the most optimum structure for the relevant change phase. The first structure is Direct Supervision. This structure is characterized by direct production control by management. The second structure is Team Supervision. Direct management control is exchanged with supervisory teams, allowing for economies of scale. Finally, Team Specialization allows an organization to achieve efficiencies in the Maturity phase while maintaining an optimum level of performance.

ANALYTICAL FRAMEWORK

DCC GROWTH-MANAGEMENT MODEL

■ Describes the performance optimizing relationship between management structure in a DCC and organizational change.

Org Change Phase

Startup
Growth
Maturity

Management Structure

Direct Supervision
Team Supervision
Team Specialization

■ Performance measured by Survey Collection Rates

III. CASE STUDY – Atlanta DCC

1. Start-up (1990 – 1992)

The Start-up phase had concerted support of upper management, both locally and nationally. One BLS manager was assigned to the Center with an assistant added later. The Center opened with state-of-the-art equipment for the period in a new and attractive setting. All software was DOS-based, and printers were not initially networked. Interviewers and first-line supervisors were contractual staff obtained through the DOL competitive-bid process. Since 1992 the contractor has been Computer Based Systems, Incorporated, (CBSI) now a subsidiary of the Titan Corporation. CBSI recruited applicants and screened them with BLS management review and approval. Candidates were chosen for interviewer positions based on computer experience, data entry skills, strong customer service background, good telephone skills, and poise. Interviewer staff worked part-time hours during the first two-weeks of the month preparing mail packages for respondents. Staff worked full-time during the last two weeks of the month. This schedule was a result of the CES collection period for current month's data which follows the pay period including the 12th of the month. These last two weeks were dedicated to intensive CATI collection.

Center management prepared training materials, incorporating mock interviews and hands-on workshops. Training emphasized persuasion skills and data movements for employment, payroll and hours edit parameters reflective of CES data experience. After six months of interviewer contact, respondents were asked to report to a touch-tone data entry (TDE) system or return to mail response with State Employment Security Agencies (SESA's). At this point, time-consuming decisions related to address refinement and reporting site coverage were rare.

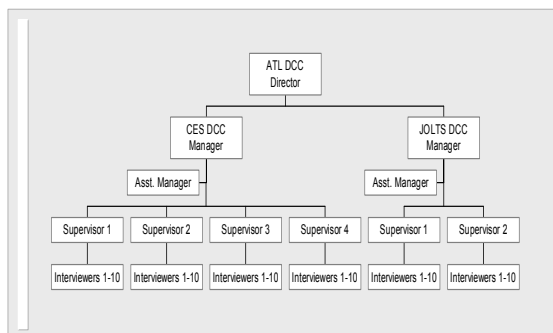
2. Growth (1992 – 1998)

In the 1990's, CES workload, projects, critical software and equipment changes required management and staff adaptation. Interviewers were trained to handle one project where CES respondents reporting via mail were contacted by telephone interviewers to provide data that would be entered, edited and corrected on-line in BLS developed software. From 1990 through 1996, we enjoyed early success with collection rates averaging 95 percent throughout this project. Staff excelled at single focus CATI collection. Each supervisor was assigned ten interviewers to monitor and evaluate with standards similar for duties surrounding survey procedures and collection. There were some intermittent projects for experienced interviewers who had an in-depth understanding of basic work and could easily adjust to new or additional related activities. During 1994 we conducted the Response Analysis Survey of Payroll Processing Firms that developed into a BLS report. By 1996 we were engaged in additional activities that were permanently maintained and added to our monthly workload and training requirements. CES work projects included:

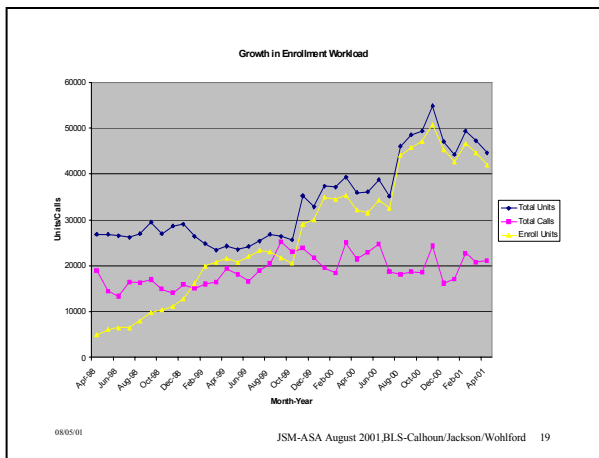
- CATI collection of CES sample for six months, primarily larger establishments
- Mail-to-TDE conversion of SESA mail reporting units to TDE reporting, primarily smaller establishments
- NRP (non-response prompt) calls to delinquent TDE respondents
- Operating and maintaining a TDE system

In 1995 the Atlanta and Kansas City DCC's worked with the University of Michigan's Institute for Social Research to determine best sample solicitation techniques. In these three locations, through randomly drawn establishment samples from BLS-Washington, we assigned stratified panels among senior interviewers for control testing. During this growth phase, the Atlanta DCC expanded to four supervisors with 40 interviewers in order to continue the ongoing CES work and complete solicitation testing. The goal was to establish "best practices" for the CES Redesign when the program changed from a quota sample to a probability sample. From controlled testing and interviewer debriefings, the project that began as solicitation of CES establishments was changed to "enrollment," replacing a marketing term with survey lexicon. In addition, interviewers perceived a negative connotation from the public to the term "survey." We substituted the term "report" in our literature and script where appropriate.

CASE STUDY - Atlanta DCC



During this time, the DCC received upgraded software to handle the many new functions associated with enrollment of sample members. As in any office, and particularly one with production standards, new software can have a critical impact on staff who must adapt to new processes. Handling new sample units meant that not only were interviewers required to learn new persuasion skills, but they also had to engage in address refinement, including locating the potential respondent who had the payroll information to complete the CES form. (In JOLTS, through separate pre-survey tests, BLS learned that target contacts could be located in human resource departments where job openings and vacancy data were more likely retained.) Analysis by BLS Washington reported that address refinement average time exceeded enrollment and collection times. In Atlanta, average time spent on each function was 44 percent on address refinement, 35 percent on enrollment and 21 percent on collection. As the CES solicitation project grew, workload and activity shifted toward consuming all four weeks of the month with address refinement and enrollment work filling out the first two weeks of the month. Most staff became full-time interviewers, and were expected to handle all projects. In addition to other work, four interviewers were assigned to another project, the All Employee Payroll test, which resulted in another BLS report.

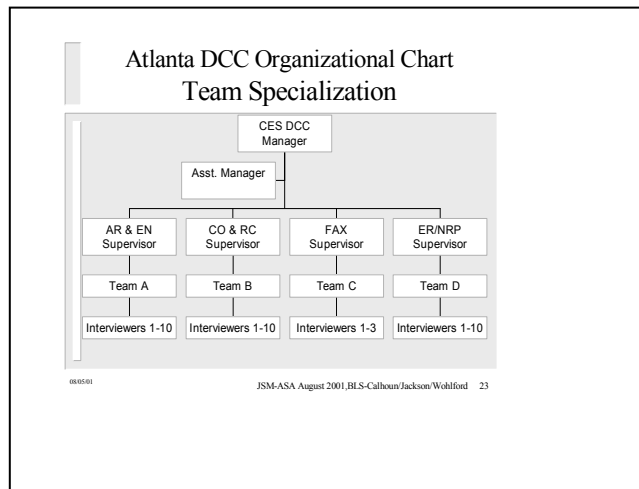


3. Maturity (1998 - 2001)

During the late 1990's, DCC staff turnover increased from almost nonexistent to severe. Particularly, the Atlanta job market became very tight with an unusually high number of telephone centers vying for similar skills. An article in the Atlanta Journal-Constitution, July 26, 1999, titled "Call Centers Ring Georgia's Number," cited that Atlanta was home to 184 telephone centers which employed over 82,000 people. With new software, growing turnover and new work processes,

office morale and performance slipped in some categories.

In July of 1998, Atlanta Collection Center organization changed to team management where each supervisor's group of ten was separated into two teams of approximately five members. DCC management distributed instructions for team conduct and management changes. Management, supervisors and interviewers were excited to engage in a new structure that added more staff involvement. Teams met and elected senior and experienced interviewers as team leaders. The Center was fortunate that over half the staff was experienced, many of whom had been with us in excess of three years. Team members chose their own names like High Percenters, SolSurvivors (referencing our solicitation software, Solcati), Touch of Class and other bonding nicknames. The DCC structure was changed to support teams.



Since CES is a monthly survey, all performance measures are calculated each month at the time of the first closing deadline. The monthly progress reports were modified to highlight team performances. Office atmosphere noticeably improved with team competitions stimulating improved performance. In January of 1999, enrollment was over 50 percent of our call workload. Except for new staff, we had all teams working on enrollment cases, including refining addresses, processing fax reporters and handling TDE support work, covering NRP and edit reconciliation calls to TDE respondents.

As fax workload increased, we decided to assign two interviewers to control all contacts to fax respondents. For the rest of the staff, every month interviewers had to manage their time to meet various quotas. In October of 2000 management decided to differentiate

projects among supervisors and teams for specialization of work. Teams were initially assigned to the following functions:

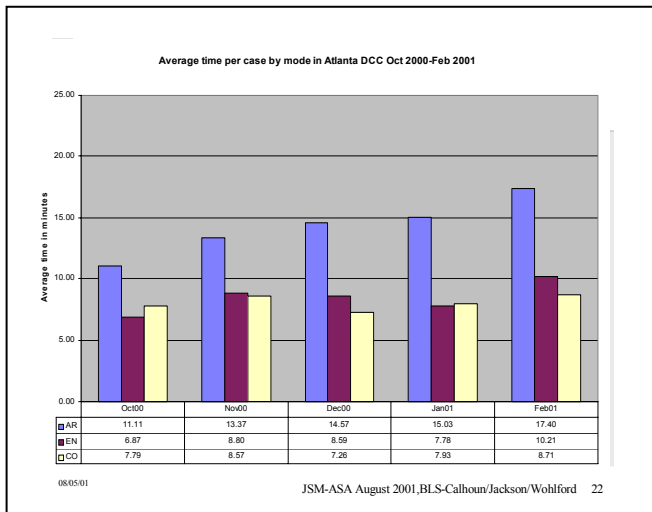
- Address refinement
- Enrollment
- CATI collection and refusal conversion
- TDE support with limited CATI collection
- Fax and refusal conversion

From October 2000 through February 2001, we evaluated the effectiveness of team specialization. During the first two months, we eliminated a backlog of edit reconciliation calls to respondents. Address refinement and enrollment rates immediately improved; however, supervisors reported growing tensions between the address refinement and enrollment teams. In CES and JOLTS, the sample unit is drawn from

address team, having relinquished responsibility for the case, felt their work was completed, and was not aware of extra research performed by the enrollment interviewers. We then assigned each address team member a partner on the enrollment team, and much progress was made.

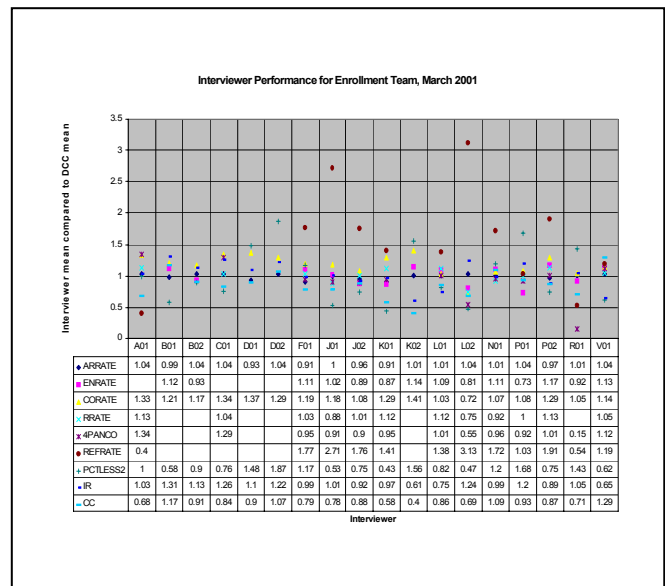
After five months of separate address refinement assignment, we regrouped again. At the current time with many projects and quotas, we organized into our most productive structure for CES with specialized teams assigned to:

- Enrollment
 - Enrollment and address refinement
- Collection
 - CATI collection and refusal conversion
 - Fax and refusal conversion
- Support activities
 - TDE support and limited CATI collection



Comparing performance for all staff to performance by specialty team, we see increased uniformity within the specialty team. In other words, there is a high dispersion of performance measures when all interviewers are included. When performance measures are charted by team, we see higher correlations in performance measures. It is easy to see the effectiveness of the new structure. The team charts depict structures with similar targets in meeting the DCC goals. For example, enrollment interviewers encounter higher refusal rates than interviewers handling permanent CATI cases. We then evaluate interviewers by team, by performance measure. Workload and performance evaluations had to be adapted to mirror the specialized activity within the overall expectations for the DCC.

SESA's file of firms registered with the state unemployment insurance (UI) system. In CES the entire UI number is drawn with its site children while in JOLTS the UI account is disaggregated into sites prior to sampling. With each, there are complications in address refinement. One of the observations, not addressed in this paper, is the growing centralization of payroll and administrative records by firms in this country. With mergers and the increased use of payroll processing software or firms, more often we are directed to a central office to collect employment data. As a result, the address refinement process has become increasingly complicated. It was not a simple address that the team had to research. Often during the process of enrollment, interviewers might be directed to business operations in different states, or to completely different parent firms with the potential for sample unit overlaps or conflicts. Consequently the enrollment team who inherited work from the address team complained of unresolved contact identification. The



IV. DCC Growth-Management Model and JOLTS

The successful development of the Atlanta DCC prompted BLS to follow the same model with the new JOLTS program. While work in JOLTS has been growing rapidly, the first year of enrollment and collection consumed all available interviewer staff, all performing fairly similar activities.

1. JOLTS Start-up (1999)

The JOLTS DCC began with four full-time interviewers and one supervisor in 1999 and quickly increased to eight within the first four months. The unit immediately began to utilize training materials from the Atlanta CES DCC. With these tools at hand the JOLTS DCC was able to immediately implement full-cycle CATI Collection including refinement, enrollment, and collection activities. With such a small staff, Direct Management Supervision was the key to success at this phase.

2. JOLTS Growth (2000 – 2001, current)

During the period 2000-2001, the unit had grown to 21 full-time interviewers and two supervisors. Additional activities including Touch-tone Data Entry (TDE) and Refusal Conversion activities were implemented. With the increased workload and more than doubling of staff, management quickly moved its operational structure to Team Supervision, as did the Atlanta CES DCC at this junction in its life-cycle.

V. CONCLUSIONS

The Atlanta DCC developed into a mature organization, extending to cover two BLS surveys (CES and JOLTS) while adapting to changing workload and functions within each survey. Structural changes were initiated that fit workload with staff skills and preferences. In line with easing of Atlanta's tight job market, turnover has again slowed, decreasing time spent on interviewing and training new staff. Even so, organizational change reduced interviewer burnout by offering different and rotating duties. Team structures developed employee-bonding groups, and supervisors became more expert in their specialty areas. Specialization increased our total output with more units handled per interviewer.

Based on our Case-Study of the Atlanta DCC, we offer the following conclusions concerning an effective way to manage this type of data collection center:

- 1) A successful survey collection center goes through an organizational cycle from startup through growth to maturity.
- 2) Effective management must be willing to change organization structures to handle changing workload through periods of growth.
- 3) Team management supports staff involvement and improves morale.
- 4) Team specialization improves production efficiencies and increases output.

GROWTH-MANAGEMENT MODEL JOLTS

