

# Using Paradata for Production Monitoring of the National Survey of Family Growth



Nicole Kirgis and Bob Groves

University of Michigan

Survey Research Center

March 2007

# NSFG Cycle 7

- Cross-sectional study of people 15-44
- Cycle 7 began in June 2006
- New quarterly sample rotation schedule
  - Sample is worked for 12-week quarters
- Continuous data collection design
  - Sample areas are rotated in and out of the study each year.

# Importance of Paradata for NSFG

- Understanding the work pattern of quarterly sample.
- Monitoring efficiency compared to Cycle 6.
- Given 12-week schedule, ability to make quick management decisions to change course.

# Three Basic Concepts for Paradata Review

Daily and Quarterly Patterns of:

1. Effort
2. Active Sample
3. Productivity

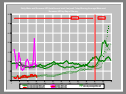
# NSFG Data Structure

Use daily incoming information on:

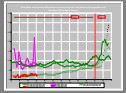
1. Interviewers
2. Sample segments
3. Housing Units
4. Calls
5. Contacts
6. Respondents

# The NSFG Dashboard

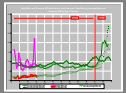
## Effort



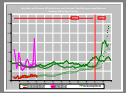
hours



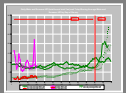
% production



calls



% peak calls

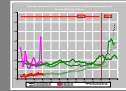


ratio: screener/  
main calls

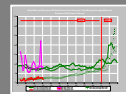
## Active Sample



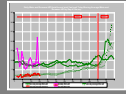
% occupied



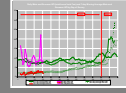
% eligible



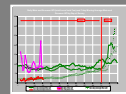
% nonworked



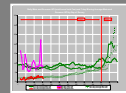
mean calls



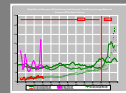
% locked bldgs



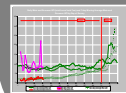
% 8+ calls



% resistant

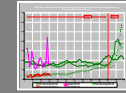


% hard appt.

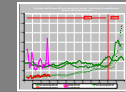


mean propensity

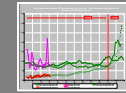
## Productivity



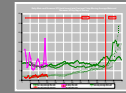
interviews



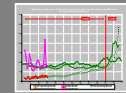
response rate  
targeting



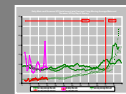
calls/interview



hours/interview



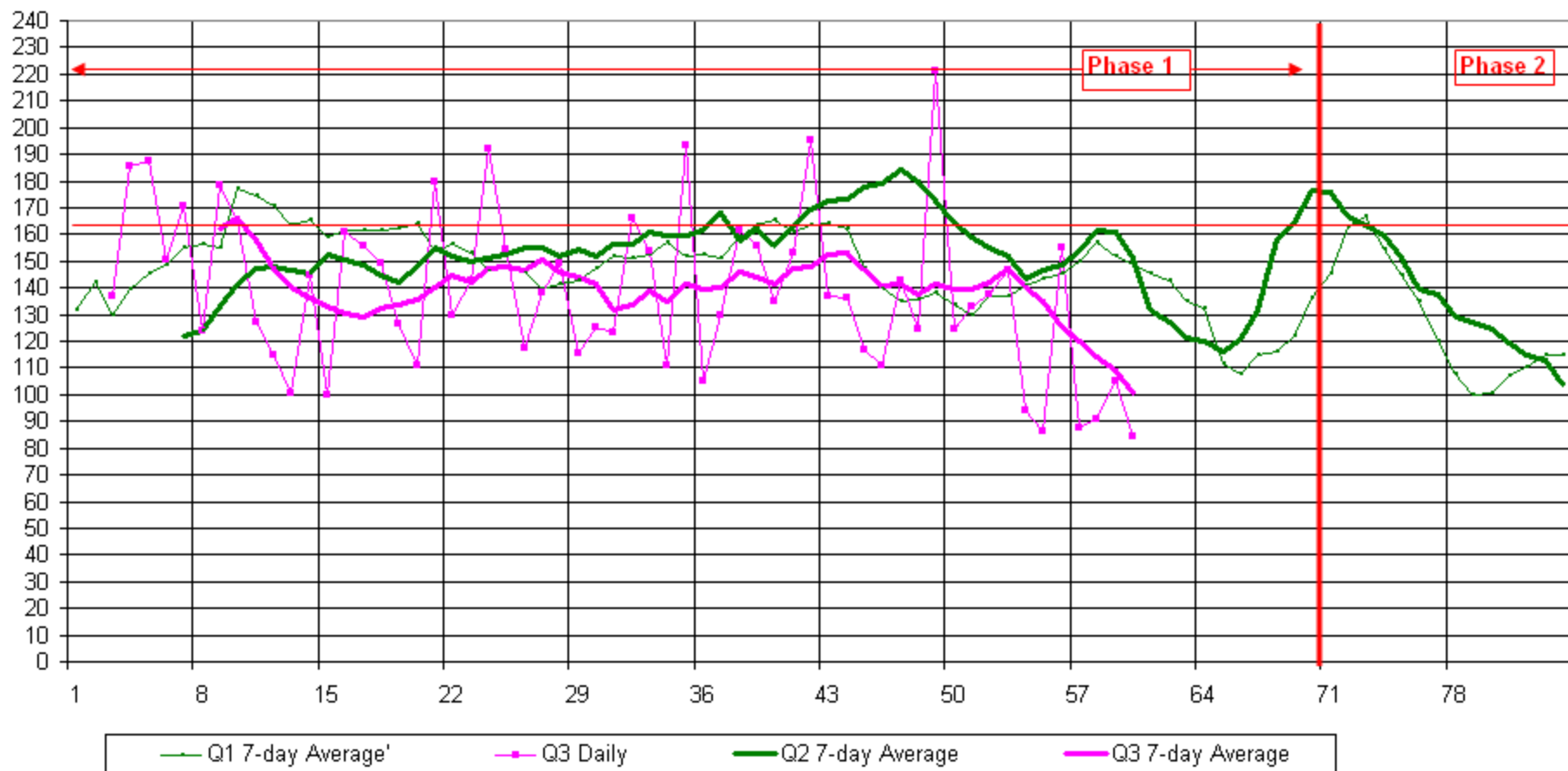
trends in key  
indicators



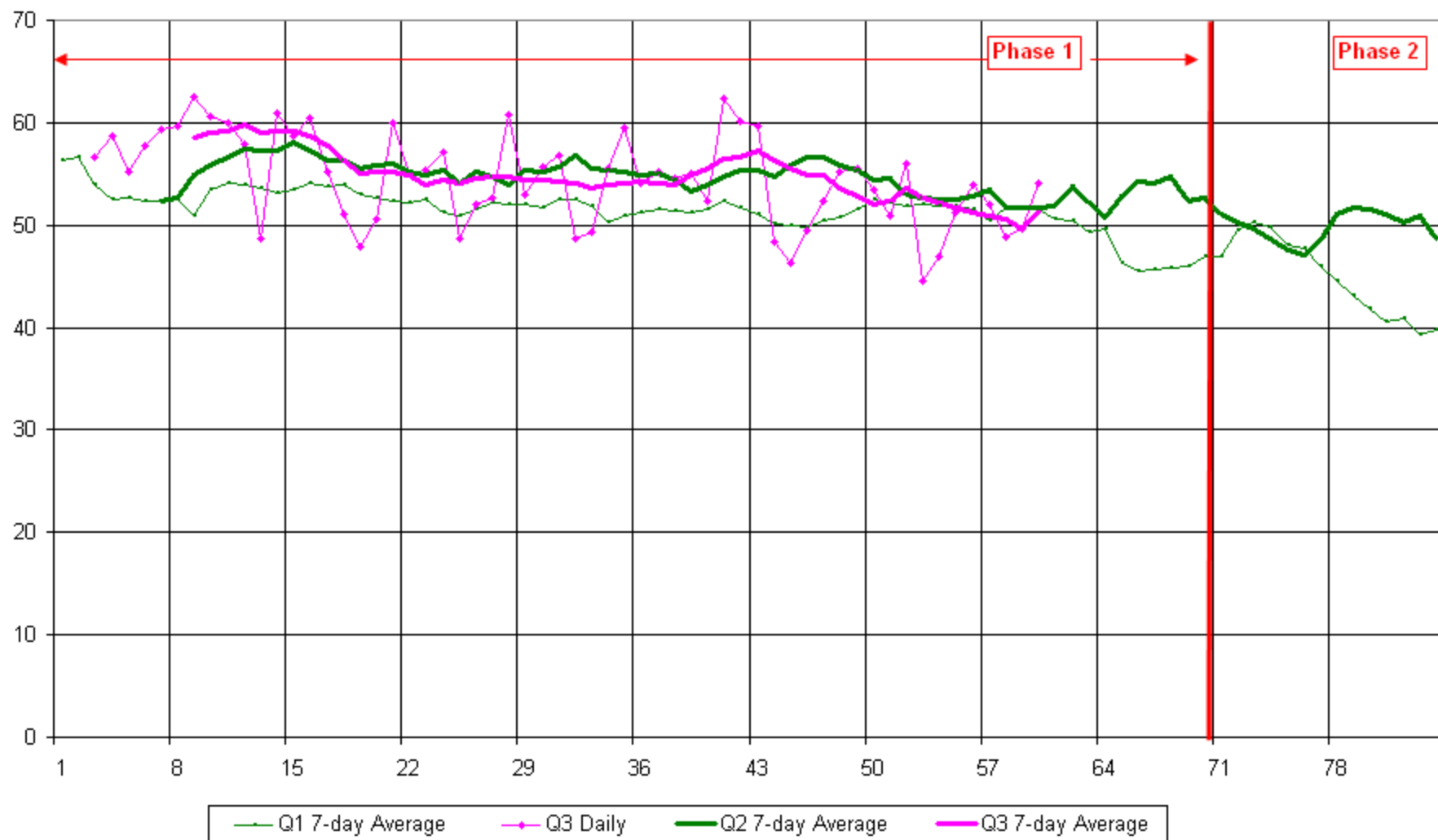
mean propensity  
by sexual activity  
judgment

Exit

## Screeener, Production, Travel, and Administrative Hours Per Day of Week Ordered by Week of Study

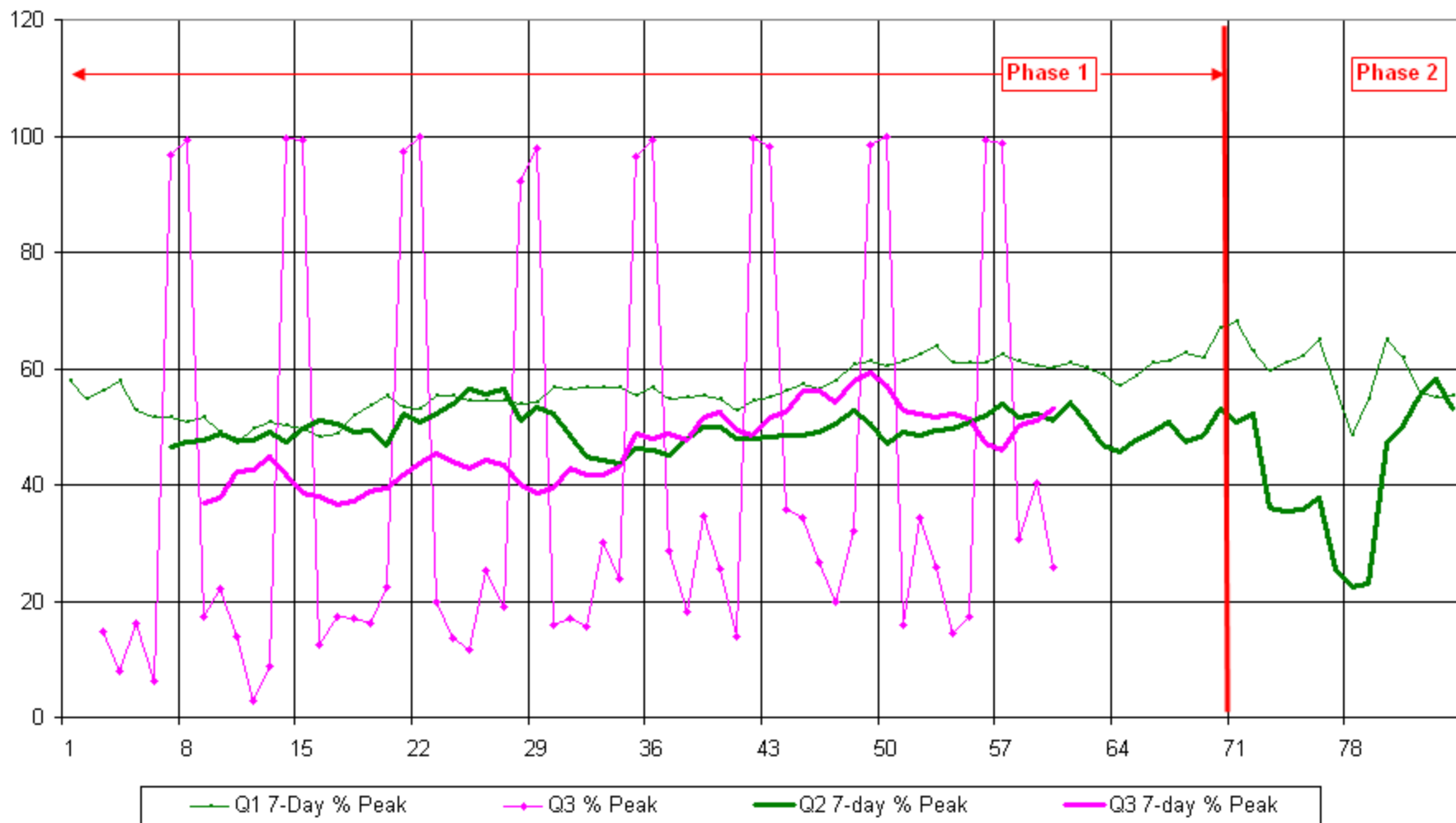


### Daily and 7-day Moving Average Screener + Main Hours Percentage (non-administrative, non-travel)

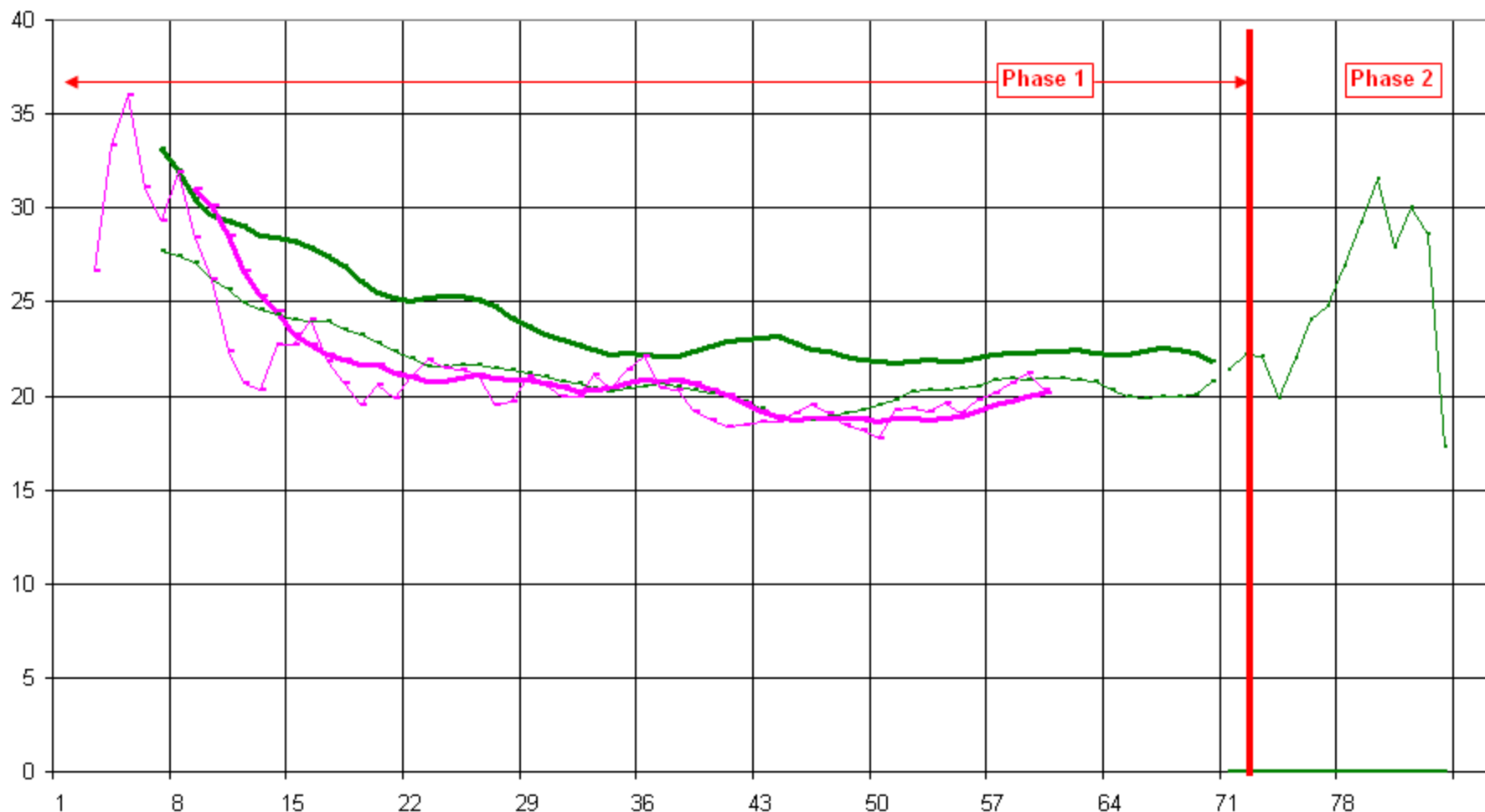




## Daily and 7-day Moving Percentage of Screener+Main Calls Made During Peak Hours

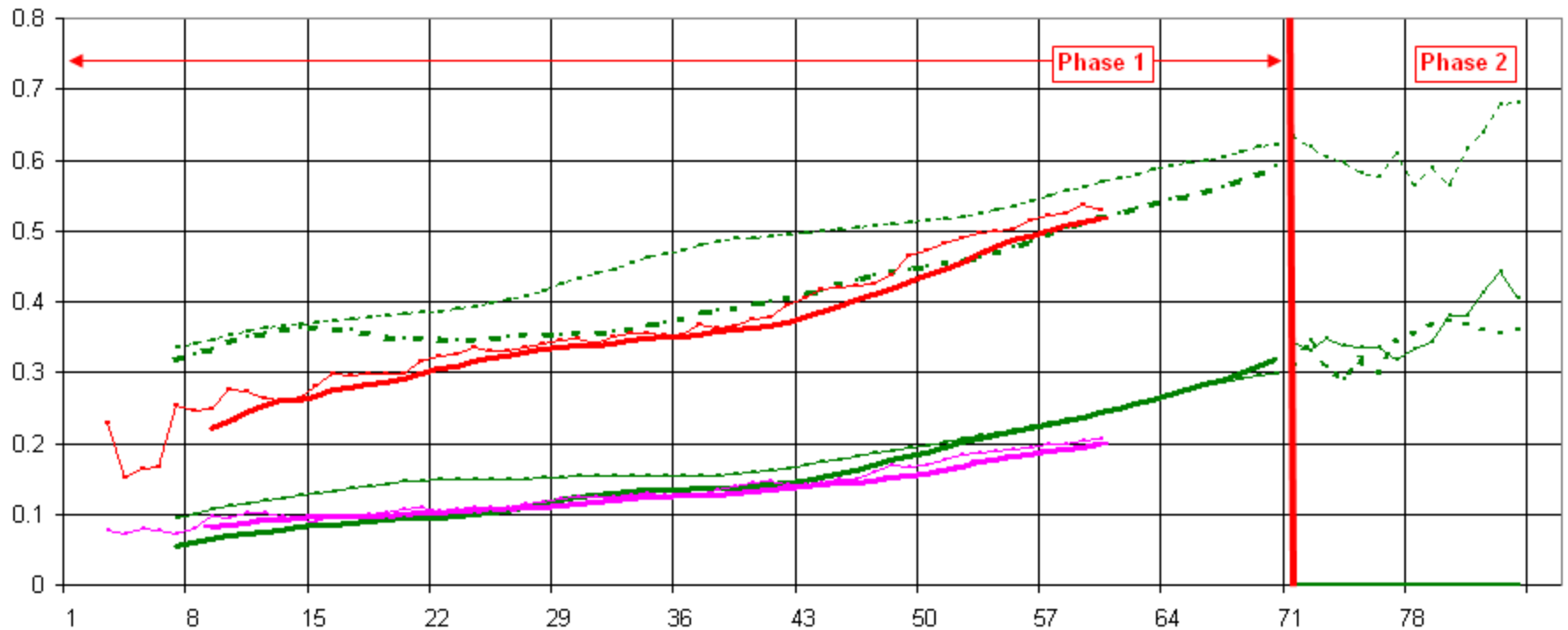


**Daily Percent of Non-finalized Main Cases with Hard Appointments**  
 ((Non-finalized Mains with Hard Appointments/All Contacted Cases)\*100)



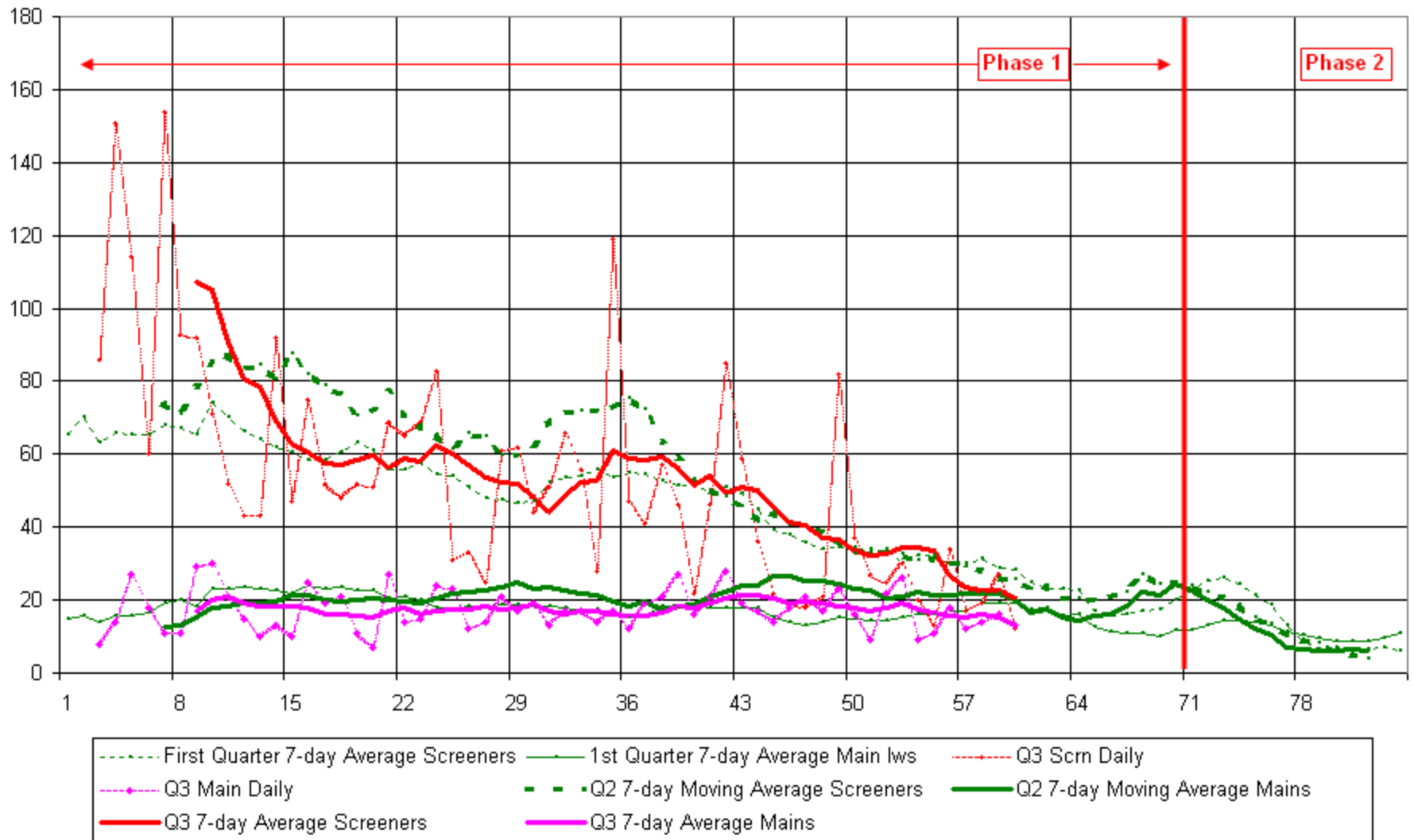
— Q1 7day Moving Average % Active Main Lines with Hard Appointments   
 — Q2 7day Moving Average % Active Main Lines with Hard Appointments  
— Q2 Daily % Active Main Cases with Hard Appointments   
 — Q1 Daily % Active Main Cases with Hard Appointments  
— Q3 Daily % Active Main Cases with hard Appointments   
 — Q3 7 Day Moving Average % Active Mains with Appointments

**Screener and Main Resistance Rate by Day**  
**(Nonfinalized Ever Resistant Screeners/All Contacted Non-finalized Cases**  
**Nonfinalized Ever Resistant Main/All Non-finalized Cases)**

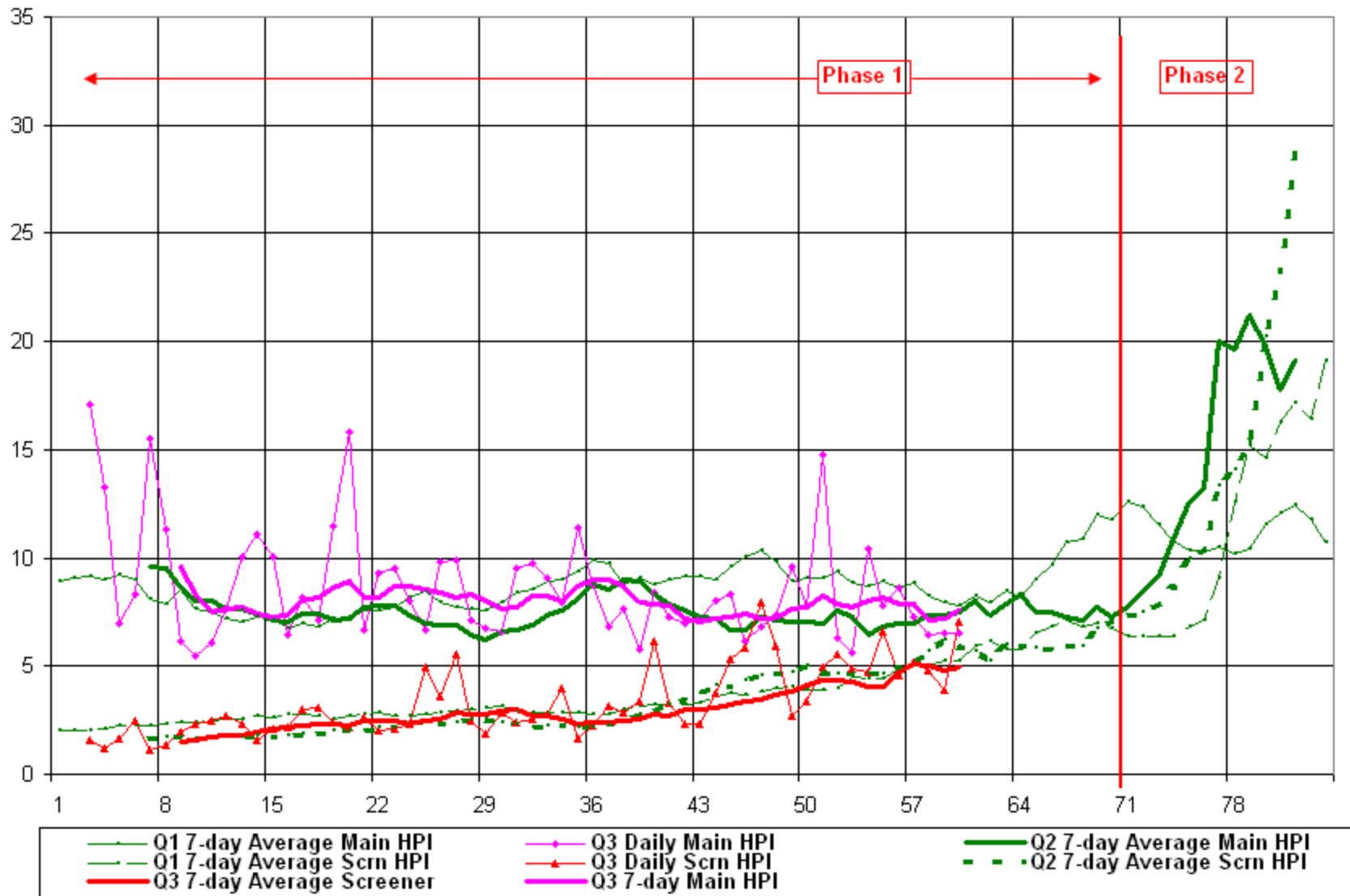


- Q1 7day Moving Average Screener Resistance Rate
- Q1 7day Moving Average Main Resistance Rate
- - - - Q2 7day Moving Average Screener Resistance Rate
- - - - Q2 7day Moving Average Main Resistance Rate
- - - - Q2 Daily Screener Resistance Rate
- - - - Q2 Daily Main Resistance Rate
- - - - Q1 Daily Screener resistance rate
- - - - Q1 Daily Main Resistance Rate
- Q3 Daily Screener Resistance Rate
- Q3 Daily Main Resistance Rate
- Q3 7 Day Moving Average Screener Resistance Rate
- Q3 7 Day Moving Average Main Resistance Rate

# Screeener and Main Interviews by Day



Daily Main and Screener HPI (total hours/ total l'ws) and 7-day Moving Average Main and Screener HPI by Day of Survey



# Paradata Next Steps

- Ongoing enrichment of paradata.
- Better predict ebb and flow of work each year.
- Continuous improvement of continuous interviewing.