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Timely Assistance
Evaluating the Speed of Road Home Grantmaking

Rick Eden, Patricia Boren

Sponsored by the Louisiana Recovery Authority
Preface

After hurricanes Katrina and Rita devastated southern Louisiana in 2005, the U.S. Department of Housing and Urban Development (HUD) made available $8.1 billion in community-development block grants to the state of Louisiana to reconstruct its housing stock. Then-governor of Louisiana Kathleen Babineaux Blanco established the Road Home (RH) program to disburse the HUD funds as grants to eligible homeowners. The Louisiana Division of Administration (DOA) Office of Community Development (OCD) administers the program, and a large consulting-service firm, ICF International, operates it.

This documented briefing, *Timely Assistance: Evaluating the Speed of Road HomeGrant-making*, assesses the performance of the RH program, focusing on how well the program has met its goal of timeliness. The Louisiana Recovery Authority (LRA) sponsored the evaluation under contract with the RAND Gulf States Policy Institute. The evaluation is intended for use by LRA in overseeing program administration and operation.

The RAND Environment, Energy, and Economic Development Program

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Summary

After hurricanes Katrina and Rita, the federal government made available $8.1 billion to help Louisiana reconstruct its housing stock. Louisiana’s governor established the Road Home (RH) program to disburse the federal funds as grants to eligible homeowners. This documented briefing assesses whether the RH grantmaking process has performed in a timely fashion.

The RH program established two principles related to timely grantmaking: “All applications should be processed in a timely manner,” and “Every applicant should have access to a fair and swift resolution of errors, disputes, and appeals.” Expectations for timely grantmaking were high at the outset of the program, as evidenced by press releases and public statements. As the program progressed, it became evident that these expectations were not being satisfied, as one of the most common complaints among homeowners was that the grantmaking process was too slow.

In support of its mission to coordinate recovery efforts, the Louisiana Recovery Authority (LRA) asked RAND to conduct an evaluation of the RH program, focusing on the timeliness of its grantmaking. The evaluation was intended to be formative and designed to support efforts to improve the grantmaking process.

Study Approach

Because the evaluation was to be small and quick, it relied on available program data and did not entail any special data-collection activities. ICF, the firm hired to operate the RH program, provided RAND with extracts from the eGrantsPlus data set (the latest dating from December 18, 2007) that contained dates marking the progress of each application through the grantmaking process, as well as data on features of the homeowner’s situation that might affect the time spent waiting for a grant:

- location (parish, ZIP® code)
- structure type (e.g., house, condo, mobile home)
- type of insurance coverage, if any
- the housing-assistance center (HAC) used
- program option selected by the homeowner, if available
- the firm disbursing the grant, if available.

The extract included no data that would permit identification of specific homeowners or properties. ICF also provided information about program features that might affect timeliness (e.g., dates of important policy or procedure changes).
The eGrantsPlus extract and program information proved adequate to support most of the analytic approaches that we hoped to employ:

- One analytic task was to develop “a process map that tracks applications from initiation to close-out.” With ICF’s assistance, we were able to develop a process map that could be linked to available “time stamps” marking the progression of individual applications through the grantmaking process.
- Another analytic task was to measure “applications’ dwell time and product error rates, along with standard deviations and other descriptive statistics at discrete stages, or nodes, of the process.” The data were sufficient to address dwell time in great detail.
- Another analytic task concerned with error was to “identify points where errors are introduced that cause files to be reworked and the root causes of those errors.” We lacked data to measure error rates directly; however, available data did permit us to measure rework rates, which are indicative of error, as well as to measure their effects on timeliness.
- A fourth analytic task was to identify “characteristics of applications [that] have particularly lengthy dwell or disposition times.” As our analysis proceeded, it became evident that this task rested on an assumption that did not hold—namely, that the grantmaking process performed in a predictable manner in the sense that certain characteristics of the applications in the process would predict how quickly they moved through it. However, we found wide distributions in grantmaking time on all dimensions that we examined.
- A related analytic task was to identify “characteristics of applications and processes that are associated with congestion at particular nodes.” We identified two process sources of congestion that caused a high volume of applications to surge into the RH program: One occurred early in the program (October 2006) and the other late (July 2007, the final month in which homeowners could apply). We analyzed how backlogs of applications built up as a result of these surges.
- Another analytic task was to “review files that are in dispute resolution, have been resolved, are in appeal, or had the appeal concluded.” Obtaining and analyzing a statistically meaningful sample of application files would have entailed a major data-collection effort. As a result, because of resource and time constraints, we did not review individual applications; moreover, we lacked data on applications in appeal. However, available data did permit us to analyze the performance of a segment of the grantmaking process called preclosing resolution that affects approximately 16 percent of all applications.
- Another analytic task that would have involved special data collection was to consult with and interview applicants and representatives of community groups. This turned out to be impracticable due to the sheer volume of persons seeking a grant. The project lacked resources and time to conduct interviews with a representative sample of homeowners or their advocates; as a fallback, we relied on published accounts of applicant and community concerns to help inform our data analyses.

**Major Findings**

Although some applications have been processed in a timely manner, the overall timeliness of the grantmaking process has not been consistently good or predictable. From the homeowner’s perspective, the total time waiting for a grant begins with the application and ends with the
disbursement of funds. The distribution of “grant wait time” (GWT) in this sense, for the 57,000 applications that had resulted in grants by December 18, 2007, is shown in the histogram in Figure S.1.

- On average, homeowners had waited about 250 days for grants; many have waited well over a year.
- Many homeowners who applied early in the program had not received grants by mid-December 2007. For example, only about half of eligible applicants who applied in December 2006 had received grants a year later.

Analyses of major segments of the grantmaking process provided insight into why the overall process was so long and variable:

- Almost every segment could contribute substantially (100 or more days) to the time that a given application took to result in a grant. As early as the initial processing, some applications began to experience long delays even as others moved through that segment quickly.
- Delays could compound. Applications that take a long time to complete more than one segment would necessarily have very long GWTs overall.
- Some applications experienced additional delay because they repeated one segment two or more times. Having to repeat final review delayed 20,000 applications, and 10,000 were delayed by repeating closing.

Figure S.1
Grant Wait Time Has Been Long and Variable (first 57,000 applications with funds disbursed)
Some features of the homeowner’s situation were correlated with longer GWTs:

- Homeowners with condominiums and mobile homes waited about 50 days longer for grants than did those with houses.
- Homeowners who chose option 2 or 3 (which involved selling)\(^1\) waited about 100 days longer than those who chose option 1 (repairing their homes).
- Homeowners with flood or wind insurance waited a little longer for grants than did those without it.

Some features of the grantmaking process itself also were correlated with delays in grantmaking:

- A backlog of applications built up quickly in initial processing and persisted until the program closed to new applications in July 2007.
- The program induced two large surges of applications into the process in October 2006 and July 2007, exacerbating large backlogs in the initial processing segment.
- No timeliness goals for grantmaking were established that focused on meeting expectations of the individual applicant. Program goals and metrics focused on quantity of activities performed in a time period, not on speed.
- The program sent “batches” of applications for rework based on errors found in samples, thus delaying mostly applications without errors.
- The program relied on three title companies whose utilization and performance have been uneven.

As of December 18, 2007, in almost all segments of the process except the earliest, many thousands of applications remained active and had yet to receive grants:

- in the segment in which homeowners consider their option letters: 3,000
- in the preclosing segment: 17,000
- in the segment in which applications are sent for preclosing resolution as necessary (affecting about 16 percent of applications): 3,000
- in the final review segment: 4,000
- in the closing segment: 11,000.

In each segment listed, the population of active applications represented a mix of those that had entered the segment relatively recently and those that had been moving slowly. In fact, there was little if any correlation between when an application entered the grantmaking process and how long it had been in the current segment. As the flat shape of the histogram suggests, progress through the grantmaking process was quite unpredictable.

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\(^1\) The three options are (1) to stay in the home and rebuild, (2) to sell the home to the state and relocate to a new home within Louisiana, and (3) to sell the home to the state and move outside Louisiana (Road Home, undated[b]).
Recommendations

The RH program has a limited lifespan. The middle segments of the grantmaking process have finished much of their work; therefore, improvement of these segments should focus on expediting remaining active applications. Collecting the reasons associated with the delay of specific applications will help inform efforts to diagnose and eliminate sources of delay and error. Reporting should occur at the level of individual applications.

The program should remain flexible as it works off the aging backlogs of applications, which are likely to include some of the most difficult to process. These difficult applications may point to changes in program policies, business rules, or procedures needed to complete the work of the program satisfactorily for all eligible applicants. For reasons of equity, changes that would have benefited applicants processed previously should be grandfathered.

There remains some opportunity for improving the later stages of the RH grantmaking process, particularly the closing and requesting funds segments. To foster improvement in timeliness, it remains advisable to establish overall time goals for each segment, both for the typical time and for variability (e.g., the median closing time will be x business days; 95 percent of closings must be done within y days). Such goals can be used to support efforts to improve and standardize the uneven performance of the three title companies.

Process improvements should focus on eliminating sources of delay, such as batch processing, which causes some applications to wait for others until proceeding to the next step in the process. An example of batch processing late in the grantmaking process is the requisition of funds from the U.S. Department of Housing and Urban Development (HUD). Sufficient funds are requested to cover the sum of a batch of closed applications ready to be awarded homeowner grants. An alternative process design would have HUD pre-position funds in accounts at the three title companies so that they could immediately disburse homeowner grants without waiting for a batch to accumulate before requesting funds and then waiting again for HUD to respond.

To set up these accounts and the associated business rules, a small team of technical experts might be needed from the title firms, from HUD, from the Office of Community Development (OCD), and from ICF. To ensure the effectiveness of expert teams, particularly when speed is critical, as at the end of the RH program, it may be necessary to convene a standing coalition of senior personnel who represent the participating organizations and who have the authority to approve and enable recommended process changes (avoiding the delay of seeking approval from someone higher up who has that authority). The same coalition can be used to set goals and to review progress toward achieving them.

The inclusion of homeowner advocates or representatives in such a senior coalition can help to ensure that it maintains a focus on activities that improve process performance from the homeowner's perspective. The value that this perspective provides is a sharp focus on the simple question that GWT addresses: “How long will it take for me to get the money?” Our evaluation of the speed of the RH grantmaking process suggests that this focus was insufficiently represented in the design and execution of the process.
Acknowledgments

Adam Knapp, deputy director and chief of staff of the Louisiana Recovery Authority (LRA), conceived this study and facilitated our interactions with key players in the Road Home program. David Bowman, director of research and special projects, assisted in directing us to the required data.

The analyses reported in this document could not have been accomplished without the assistance of key personnel at ICF International who provided data and related information about the Road Home program as well as written feedback on the first draft of this documented briefing. In particular, the authors wish to thank Frank Abramcheck, senior vice president, and (in alphabetical order) Jeffrey Adams, Lon Anderson, Russell Ardeneaux, Eric Booth, Karen Danel, Jacob Goodson, Laura Levy, Christopher McCarthy, and James Rance.

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Abbreviations

DOA Louisiana Division of Administration
EEED Environment, Energy, and Economic Development Program
GWT grant wait time
HAC housing-assistance center
HUD U.S. Department of Housing and Urban Development
ISE RAND Infrastructure, Safety, and Environment
LRA Louisiana Recovery Authority
OCD Office of Community Development
RGSPI RAND Gulf States Policy Institute
RH Road Home
CHAPTER ONE

Introduction

The Louisiana Recovery Authority (LRA) was created by then-governor Kathleen Babineaux Blanco in the months immediately following hurricanes Katrina and Rita to coordinate the state’s recovery efforts. Key to the recovery was the reconstruction of Louisiana’s damaged and destroyed housing stock. To help fund this reconstruction, the federal government provided more than $8 billion in federal block grants from the U.S. Department of Housing and Urban Development (HUD). Governor Blanco established the Road Home (RH) program in Louisiana to disburse these funds to homeowners in need of financial assistance. Due to its size and importance to Louisiana’s reconstruction, the RH program has had high visibility; it has been the object of criticism and complaints on several counts, most particularly timeliness. The
state’s selection of a contractor to operate the program and its administration of the contract have also received much criticism.

Expectations for timely assistance were high at the outset of the RH program. Two of its operating principles addressed timeliness:

- “All applications should be processed in a timely manner.”
- “Every applicant should have access to a fair and swift resolution of errors, disputes, and appeals” (LRA, 2007).

A press release from late August 2006, just a month after the program began accepting applications, illustrates the high initial hopes for timely assistance:

**Baton Rouge, La., August 25, 2006**—Today, the first homeowners from *The Road Home* pilot program received financial assistance for their losses from Hurricane Katrina. It is estimated that 42 applicants will receive compensation of almost $1.5 million in the next few weeks.

“We are off to a great start, and thousands more homeowners will be served in the coming weeks. The Road Home program launched the day the State of Louisiana received federal dollars for compensation. We opened 10 Housing Assistance Centers statewide this week and are closing on the first disbursement accounts in record time,” said Governor Kathleen Babineaux Blanco. “The work that has been put into this historic effort will allow us to help Louisiana residents return home and start rebuilding our state as quickly as possible.” (Road Home, 2006b)

It is noteworthy that, although expectations were high for timely grantmaking, no specific timeliness goals were established either for the total grantmaking process or for the resolution process. Rather, goals were established for the rate of production from the grantmaking process: For example, one goal was to disburse 500 grants per business day by May 15, 2007 (a rather distant date from Governor Blanco’s press release).\(^1\) Given approximately 250 business days in a year, that productivity goal implied that at least 125,000 applications would be funded by May 14, 2008; however, the goal was not framed to ensure that each application would be processed in a timely manner.

In support of its mission to coordinate recovery efforts, LRA asked RAND to conduct an evaluation of the RH program, focusing on its timeliness. The evaluation was intended to be formative and designed to support efforts to improve the grantmaking process—i.e., to facilitate understanding of performance shortfalls and to support performance improvement, including, where feasible, process improvement.\(^2\)

Focusing on timeliness, the RAND evaluation did not address questions regarding the program’s performance in terms of cost (e.g., could the program be operated more efficiently?) or the quality of grant outcomes (e.g., did homeowners receive grants of the right amount?).

This documented briefing reports the results of the evaluation together with recommendations for improvement.

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1. According to ICF, through early March 2008, it has almost met this contractual productivity goal, averaging 462 grants per day since May 15, 2007.
2. On the role of evaluation in process improvement, see Dumond et al. (2001).
The project had three research tasks, as outlined on this slide.

The first task was to assess the sufficiency of the RH program data to support performance analyses. The performance evaluations were to be based on available data already collected and maintained by the RH program.

The second task was to use the performance data to review the stages of application processing and identify points of delay and error introduction. This task was to be approached through seven subtasks:

- Develop “a process map that tracks applications from initiation to close-out.” With ICF’s assistance, the project team was able to develop a process map that was sufficient for the project’s analytic purposes and could be linked to available program data with time stamps marking the progression of individual applications through the grantmaking process.
- Measure “applications’ dwell time and product error rates, along with standard deviations and other descriptive statistics at discrete stages, or nodes, of the process.” The data were sufficient to address dwell time in great detail.
- Identify “points [at which] errors are introduced that cause files to be reworked and the root causes of those errors.” We lacked data to measure error rates directly; however, we were able to measure rework rates, which are indicative of error, as well as their effects on timeliness.
- Identify “characteristics of applications which have particularly lengthy dwell or disposition times.” As our analysis proceeded, it became evident that this subtask rested on an assumption that did not hold—namely, that the grantmaking process performed in a pre-
dictable manner in the sense that certain characteristics of the applications in the process would predict how quickly they moved through it. Although we did find slight correlations of characteristics with process time (e.g., homeowners with wind insurance usually took somewhat longer to receive a grant than did those without), these correlations were not predictive due to the highly variable performance of the grantmaking process. We found wide distributions in grantmaking time on all dimensions that we examined.

- Identify “characteristics of applications and processes that are associated with congestion at particular nodes.” We identified two process sources of congestion that caused a high volume of applications to surge into the RH program: One occurred early in the program (October 2006) and the other late (July 2007, the final month during which homeowners could apply). We analyzed how backlogs of applications built up as a result of these surges.

- Review “files that are in dispute resolution, have been resolved, are in appeal, or had the appeal concluded.” Because of resource and time constraints on extracting and analyzing a statistically meaningful sample, as well as human-subject concerns, the project did not review individual applications; moreover, we lacked data on applications in appeal. However, we were able to analyze the performance of a segment of the grantmaking process called preclosing resolution that affects approximately 16 percent of all applications.

- Consult with and interview applicants and representatives of community groups to the extent practical. This task turned out to be impracticable due to the sheer volume of persons seeking contact with the project team once the study was publicly announced. The project lacked resources and time to conduct interviews with a representative sample of homeowners or their advocates; as a fallback, we relied on published accounts of applicant and community concerns to help inform our data analyses. As our analyses revealed the slow and highly unpredictable performance of the grantmaking process, the bases for the homeowner complaints became evident.

As the slide indicates, the third task was to use the results of the analyses to develop recommendations on improving the RH program and to communicate the results and recommendations in a publicly releasable report—i.e., this documented briefing.
CHAPTER TWO
The Road Home Grantmaking Process

Outline

• The Road Home grantmaking process

• Evaluation of grantmaking timeliness

• Recommendations

The remainder of this documented briefing has three parts, beginning with an overview of the grantmaking process and its progress through mid-December 2007, the period of our evaluation.
In accordance with the first task, RAND signed a data-sharing agreement with ICF and worked with ICF staff to identify RH program data appropriate to support the evaluation of grantmaking timeliness. ICF provided RAND with extracts from the eGrantsPlus data set, the latest dating from December 18, 2007, together with a data dictionary and information about program features that might affect timeliness (e.g., dates of important policy changes). The eGrantsPlus data set seemed appropriate to the project’s purpose because it contained dates marking each application’s progress through the grantmaking process.

The eGrantsPlus extract also included a variety of data elements for each application in addition to its status as of December 18, 2007, and its status history. Key elements for the evaluation were date of entry into each status; parish, ZIP code, and structure type (e.g., house, condominium, mobile home) of the damaged property; the housing-assistance center (HAC) used by the homeowner; the program option selected by the homeowner, if available; the firm disbursing the grant, if available; and the type of insurance carried by the homeowner, if any.

The extract included no data that would permit identification of specific homeowners or properties. Each application was represented by an application identification number.
The Road Home Grantmaking Process is Complex, with Many Stages and Activities

ICF also provided RAND with information regarding the structure of the grantmaking process. This schematic depicts the RH grantmaking process from when a homeowner applies for financial assistance to the time when it is disbursed to the homeowner. As the schematic shows, the grantmaking process is complex, with 12 major steps:

1. The homeowner creates an application.
2. The program reviews the application.
3. The program sends a letter to the homeowner.
4. The eligible homeowner calls and schedules an appointment at the HAC.
5. The homeowner meets with an adviser.
6. A program adviser submits the application for processing.
7. The program conducts verification activities.
8. The program calculates the assistance to be offered.
9. The program sends the homeowner a letter with assistance options.
10. The homeowner selects an option.
11. The program conducts preclosing activities.
12. The title company conducts closing activities and disburses the award to the homeowner.

Throughout the grantmaking process, timely forward progress depends on the actions and interactions of multiple players, including the homeowners, private firms and their subcontractors, and federal and state agencies.
As an application moves through the RH grantmaking process, ICF tracks its progress in terms of statuses. This slide lists and defines the major statuses from the point at which an application is first created to the point at which the program disburses funds to the homeowner. We are able to evaluate the speed with which an application moves through the grantmaking process because the program records the date on which an application enters each status: The time spent in a status corresponds to the time between an application’s entry into one status and its entry into the next.

The status data correspond closely to the major steps outlined on the preceding slide. Generally speaking, the movement of an application through these statuses represents progress toward the award of a grant. However, an application may move in and out of a single status more than once: For example, it may make more than one pass through the status SENDRES or no passes through SENDRES. Moreover, there are other statuses, not listed here, that represent an exit from the process or from forward progression. For example, an application can enter the status INELIGIBLE or the status INACTIVE. As a result of these various possible pathways, the grantmaking process for a given application can be quite convoluted, and different applications may take quite different paths. Nevertheless, eventually, every successful application must progress through the same basic set of core activities, just as all the balls in a

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1 According to ICF personnel (telephone communication), not all statuses were recorded initially in eGrantsPlus. For example, TRANSCLOS was added to eGrantsPlus in April 2007; FUNDSDIS was added in May 2007, and FUNDSREQ was added in June 2007.
The Road Home Grantmaking Process

The game of croquet must pass through the same hoops in the same order, regardless of how much their paths on the court may vary.

Because these status codes are cumbersome for referring to key process segments, we will use the following plain-English terminology:

- For grantmaking activities in the status called GRTED or PAPPED, we will use the term *application creation*.
- For activities in the status called PROCESSING, we will use the term *initial processing*.
- For activities in the status called CNSLOGIN, we will use the term *application submission*.
- For activities in the status called REVSCHED, we will use the term *verification*.²
- For activities in the status called OPTLTRCRE, we will use the term *option consideration* (by homeowner).
- For activities in the status called OPTSEL, we will use the term *preclosing*.
- For activities in the status called SENDRES, we will use the term *preclosing resolution*.³
- For activities in the status called GACREADY, we will use the term *final review*.
- For activities in the status called TRANSCLOS, we will use the term *closing*.
- For activities in the status called FUNDSREQ, we will use the term *request (HUD) funds*.
- For the status called FUNDSDIS, we use the term *funds disbursal*. Note that we treat this status as an end point to the process, not as the beginning of a segment.

Although the time stamps in eGrantsPlus are useful to evaluating timeliness, the data set was not designed to help diagnose sources of delay or to support process-improvement efforts. It lacks data elements, such as reason codes or error codes, that would indicate why an application was delayed or had to be reworked. Similarly, it does not include data indicating which participants in an activity are the sources of delay or error. To take a hypothetical example, the data are not available to determine whether an item of information needed to further the application’s progress has not been requested or whether the request has not been fulfilled.⁴

² In the eGrantsPlus data, an application cannot be in more than one status at once; however, according to ICF, as of October 2006, applications were allowed to move forward in the grantmaking process before verification was complete. In some cases, this concurrency would have avoided delays; in other cases, according to ICF, it introduced delays to later segments in the grantmaking process.

³ According to ICF, this term does not refer to another activity in which an application is sent to a resolution team. Rather, *resolution* here refers to a situation in which a sample from a batch of applications contains too many errors to pass a quality-control check; when this occurs, the whole batch is sent back for rework.

⁴ As a result of program data limitations, satisfactorily addressing questions about why delays and errors occurred in RH grantmaking would require a study large and long enough to undertake an extensive data-collection effort of its own rather than rely on available data.

The RH weekly “situation and pipeline” reports include tables of the kind and number of issues addressed in the appeal process. Similar information on errors would be useful in understanding the progression of applications through the grantmaking process (e.g., see Road Home, 2007, pp. 45–47).
According to the December 18 data, the population of homeowner applications to the RH program totaled just more than 186,000. This was an important period for the program, as ICF was taking a number of actions to ensure that it successfully met a contractual milestone to close 90,000 grants by the end of 2007.

As shown in the pie chart, as of December 18, 2007, more than one-quarter of these were considered either inactive or ineligible. Thirty-one percent of the applications had resulted in grants. Measuring the progress of these granted applications should provide insight into the performance of the grantmaking process as a whole, from start to finish.

Other applications, labeled “Active and eligible” in the pie chart, had progressed through many segments of the process without yet reaching the final step of funds disbursement. Measuring this population’s progress can provide additional insight into the performance of specific segments. Compared to the applications that had completed the grantmaking process, some of these applications may have been experiencing unusual delays. It will be important to isolate and analyze these applications to understand and improve the process’s performance.

5 Applications move among the active, inactive, and even the ineligible statuses. For example, according to ICF, in May 2007, a policy developed by the state of Louisiana caused ICF to reassess the eligibility of approximately 20,000 applications initially considered ineligible because of their failure to meet a criterion for damage severity.

According to statistics published by RH, as of March 31, 2008, 154,830 applications had been determined to be eligible, an increase of 19,000 over the 137,000 considered eligible in December 2007 (Road Home, undated[a]).
This slide shows the status as of December 18, 2007, for the 136,837 applications that had either received grants or were still progressing toward grants (that is, inactive and ineligible applications have been excluded from these counts, as have the very rare applications that resulted in grant offers that homeowners declined).

Note that all applications had progressed past the application-creation segment (status GRTED/PAPPED, not shown), and relatively few remained in the second segment (PROCESSING). This is because the deadline for application for a grant was July 31, 2007: No new applications were entering the system. Activity in these early segments would soon end.

The slide shows that, as of December 18, 2007, one-quarter of the 137,000 nonexcluded applications (roughly 41 percent of the open applications) were in two segments, verification (status REVSCHEDE) and preclosing (status OPTSEL). Among the analyses below, we examine how long these applications have been in each segment and how long they have been in the grantmaking process as a whole.
This slide examines the population of 137,000 eligible applications, split into funded and active groups, and arrays each group by the month in which each application began the grantmaking process. The green portion of each bar shows the percent of homeowners entering in a given month that had received funds by December 18, 2007; the yellow portion of each bar shows the percentage who had yet to receive funds. For example, about half of the eligible homeowners who applied in December 2006 had received their grants by mid-December 2007, and about half had not.

Perhaps surprisingly, given the principles of timeliness, the stacked bars on the left side show that some homeowners who applied at the earliest opportunity still had not yet received grants by mid-December of the following year. The slow progress of these early applications is of high concern, particularly as a very large number of applications date from the fall of 2006. This is shown on the next slide.
This slide shows that there were two months in the RH program when the volume of new applications surged. Both surges were induced by features of the program. In October 2006, homeowners were permitted to make appointments with HAC advisers by phone rather than by mail. At the end of July 2007, the program closed to further new applications. (Some with July postmarks trickled in during August 2007.)
CHAPTER THREE
Evaluation of Grantmaking Timeliness

Outline

• The Road Home grantmaking process

• Evaluation of grantmaking timeliness
  – Metrics for “grant wait time”
  – Segment analyses

• Recommendations

Having laid out the grantmaking process and examined its progress through mid-December 2007, we are ready to evaluate its performance. The first step in evaluating process performance is to develop metrics that span the full process and reflect key customer values. Here we focus on metrics that reflect the value of timeliness, one of the RH program’s principles.
The primary metric for evaluating the timeliness of the RH program should be the total time, in duration, that it takes for an eligible homeowner to apply for and receive a grant. From the homeowner’s perspective, this total process time is time spent waiting for a grant. Therefore, we will refer to this total time as grant wait time (GWT).

GWT is affected by the timely performance of all players in the grantmaking process, including the homeowner. An end-to-end metric is critical for measuring process performance from the customer’s (i.e., applicant’s) perspective and for encouraging the effective interaction of multiple players in a complex process. An analogy is measuring the racing performance of a relay team: Because the race is measured end to end, runners need to work on coordinating their hand-offs as well as on their individual performance. It is not sufficient to measure the runners individually and sum their individual performance. Without a top-level metric of a process, each participant in a process will take actions that make his or her performance look good on internal metrics; inevitably, this leads to suboptimizing and prevents the process as a whole from achieving its optimal performance.

The RH program data are sufficient to support calculation of the GWT metric. For evaluation purposes, we define the beginning of the grantmaking process as the date on which the homeowner creates an application to the RH program, and we define the end as the date on which the RH program disburses funds to an account specified by the homeowner. The dates of these actions are available in program data. However, the program data provided for our evaluation of the timeliness of the grantmaking process were not sufficient to identify the sources of delay within a segment, including the specific errors that necessitated rework.
This slide is a histogram of the 57,500 applications that had completed the grantmaking process as of mid-December 2007. As the slide shows, the average GWT for that population was 251 days. Yet this single number does not provide insight into how homeowners as a group have experienced the process. Only a very small percentage of homeowners (see y-axis) received their grants in exactly the average time. Because the shape of the histogram is low and flat, one can see that the amount of time that it took to receive a grant was fairly unpredictable. The funded applications are strung out in time like runners at the end of a marathon. Some homeowners received their grants in as little time as two months, while others waited well over a year (homeowners still waiting for their grants are not represented here). As of mid-December, the very longest recorded GWTs were more than 500 days.¹

¹ The appendix includes examples of maximum GWTs (as well as minimums) by ZIP code.
Metrics other than average performance are needed to provide additional insight into both the speed and variability of a process. In a complex process with many players and inputs of varying quality, some variability is to be expected, but it must be managed. Excessive variability signals poor internal performance of the process and erodes customer trust and satisfaction.

This histogram shows four metrics of GWT: performance at the 25th percentile, the 50th percentile (i.e., median performance), the 75th percentile, and the 95th percentile. The 25th percentile is useful for understanding how quickly the fastest applications move through the process. The 50th percentile indicates how quickly half the applications move through the process completely. The 75th- and 95th-percentile metrics indicate how slower applications fare. The slowest 5 percent are included in the percentile calculations, but they are not reported in the quartile metrics as a precaution against extreme outliers that may reflect poor data rather than actual performance.

Below the histogram is a four-colored bar chart that shows the four metrics overlaid on one another (that is, the short green bar is in front of the longer yellow bar; they are not stacked segments). This format is used in the following charts to permit the compact side-by-side display of GWT for different populations and time frames.

The grantmaking process would not need to adopt a “first-in, first-out” policy to perform well on a GWT metric: Rather, measuring variability in GWT would help to guard against “early in, late out,” a situation that does not meet the timeliness principles.
This is the first of a succession of slides displaying GWT for the 57,500 applications to the RH program that had reached funds disbursal by December 18, 2007. (By definition, GWT cannot be measured for applications that remain active.) The blue diamond keyed to the right y-axis indicates the number of applications that each overlaid bar represents. (The black squares show the mean performance as a reference point for those who have been accustomed to thinking of performance in terms of averages.)

The leftmost set of overlaid bars shows the GWT for all applications, while the next three sets of overlaid bars separate the population according to structure type. The leftmost set of overlaid bars is just the same set displayed on the preceding slide below the histogram; here, it is made vertical.

As the blue diamonds indicate, the vast majority of closed applications have been for grants to homeowners of single-family residences. By mid-December 2007, 45 percent of eligible applications from homeowners with single-family homes (i.e., houses) had received grants; by comparison, only 3 percent of eligible applications from homeowners with manufactured homes (sometimes called mobile homes) and condominiums had received grants.3

A comparison of the overlaid bars for different structure types shows that this aspect of the homeowner’s situation could strongly affect GWT: Homeowners with condominiums waited about 50 days longer for their grants than did homeowners with houses.

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3 According to ICF, the state of Louisiana had provided key policies for determining prestorm value and estimated cost of damage for mobile homes in January 31, 2007, and for condominiums on May 11, 2007, eliminating one source of delay for these structure types. The key policies for duplexes and townhouses were provided on December 5, 2006.
This slide addresses the effect on GWT of another aspect of the homeowner’s situation: which option he or she selected. The RH program offers eligible applicants three options with different formulas for calculating the size of awards. Option 1 is to stay in the home and repair it. Option 2 is to relocate in Louisiana. Option 3 is to sell the home and move elsewhere.4

This slide shows that the vast majority of homeowners who have received RH grants have opted to stay in their homes (the number of applicants corresponding to each bar is indicated by the blue diamond keyed to the right y-axis). Those homeowners who elected option 2 or 3 have experienced longer GWT by about 100 days.5

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4 For most homeowners, option 1 is the most lucrative, as options 2 and 3 pay 60 percent of the option 1 award. However, in October 2006, the program ruled that seniors would receive the same amount for selecting options 2 or 3 as for selecting option 1.

5 According to ICF, one early source of delay for applications selecting options 2 and 3 was the time it took for the state of Louisiana to establish the Louisiana Land Trust, the agency accepting the properties. Another source of added time was the need for a full title search, because selecting options 2 and 3 involved the sale of property.
This slide compares GWT by the parish in which the home was located. Again, there are two y-axes, with the right axis indicating the number of applications represented in the associated overlaid bars. Only the top five parishes by number of applications are shown.\(^6\)

This slide shows that GWT has varied by parish, with applications from St. Bernard taking longer than those from other parishes. St. Bernard was the location of the large Murphy Oil spill that affected more than 1,000 of the St. Bernard applications represented in the slide. Generally, homeowners with the additional problem of oil contamination experienced GWT time about 40 days longer than those who did not.

Homeowners in St. Bernard parish have also been much more likely than those in other parishes to opt to relocate or sell: In this slide, about 40 percent of the applications from St. Bernard had selected option 2 or 3. Based on the findings shown previously, this mix of options also contributed to the longer GWT for applications from that parish.

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\(^6\) The appendix shows how GWT varied by ZIP code. Data are presented only for ZIP codes with 10 or more applications with funds disbursed. Because some ZIP codes contained too few funded applications to make quartile statistics meaningful, the appendix indicates the average GWT for funded applications in the ZIP code as well as the shortest and longest GWTs. It also indicates how many eligible applications came from the ZIP code and what percentage of those had received grants by mid-December 2007. ZIP codes are sorted by parish.
This slide addresses the question of whether the eligible homeowners in some parishes, as a group, had received more of their grants than homeowners in some other parishes. Looking at the top five parishes by number of applications, there did seem to be substantial variation by parish.\textsuperscript{7}

\textsuperscript{7} The appendix enables similar comparisons at the ZIP-code level.
This slide addresses the question of how having insurance (hazard, flood, or wind) affected GWT for homeowners. The leftmost set of overlaid bars shows GWT for homeowners who had no insurance. The next set of overlaid bars shows GWT for homeowners who had hazard insurance (commonly called homeowner’s insurance). The next two sets of overlaid bars show the GWT for homeowners with flood and wind insurance. (The bars are not exclusive: An application from a homeowner with more than one kind of insurance would be counted in more than one column.) Although relatively few homeowners had wind insurance, those who did waited longer for their grants to be awarded than those who had other insurance or lacked insurance.\(^8\)

\(^8\) For proposals to reform the wind risk–insurance system in the gulf states, see Dixon, Macdonald, and Zissimopoulos (2007).
ICF established about a dozen HACs to serve homeowners applying to the RH program. This slide compares GWT for applications passing through the top five HACs by volume. The data indicate variation across HACs; however, this variance was of little import to GWT as most of the volume was handled by a single HAC (Orleans 2).

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9 An RH press release described the activities of the HACs: "The program’s 10 Housing Assistance Centers will serve as the places where eligible homeowners with scheduled appointments can speak one-on-one with trained housing advisors who will guide homeowners through the process and help them make informed decisions about their options." (Road Home, 2006a). Other HACs were added later, including mobile centers.
This slide looks at GWT by the month in which the funds were disbursed. The first month for which a record exists in eGrantsPlus for an applicant to whom funds were disbursed was May 2007. The population of applications funded that month was those that had moved most quickly through the program. Each month since that time has included a mix of fast-moving applications and some slower applications that finally reached funds disbursal. As the months pass, more and more of the slowest-moving applications reach funds disbursal. As a result, GWT grows more and more variable, and the median GWT tends to trend upward.

This slide should not be interpreted to mean that the underlying process became slower and more variable over time; rather, it shows that early measurements of the grantmaking process were skewed because they represented only the fastest-moving eligible applications. It is not possible to make judgments about whether the grantmaking process as a whole became faster. However, as we noted previously, improvement may be evident in process segments through which a large proportion of the application population passed in several months of data. (Segment analysis is the subject of the next chapter.)

Focusing in the blue diamonds keyed to the right vertical axis, this slide also shows that the output of the grantmaking process in terms of number of grants disbursed per month was quite variable. Grant output in the first few months of funds disbursal went from a relatively

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10 According to ICF personnel (telephone conversation), some applications had funds disbursed to homeowners as early as February 2007. These disbursals do not appear in eGrantsPlus. Given that the program opened in July 2006, February 2007 disbursals would be consistent with a 200-day average GWT. According to written feedback from ICF, “disbursements to lending institutions” (versus homeowners) were made as early as August 2006.
high level in May, June, and August to a relatively low level in July and September; then the grant output stabilized at a level between these extremes in the last three months of 2007 (though only the first 18 days of December’s output are represented).
Chapter Three focused mainly on GWT for the grantmaking process as a whole. In this chapter, we focus on GWT components by segment of the grantmaking process. A segment analysis is needed to understand which segments have most strongly affected total GWT.

**Outline**

- Define the Road Home grantmaking process

- **Evaluation of grantmaking timeliness**
  - Metrics for “grant wait time”
  - Segment analyses

- Recommendations
This slide examines the movement of all 137,000 eligible applications through the major segments of the grantmaking process. Each set of overlaid bars shows the speed and variability in that segment for all eligible applications that had completed the segment by December 18, 2007, regardless of whether the application had completed the grantmaking process as a whole.¹

The blue diamonds indicate the population measured in each segment. Note that almost all 137,000 eligible applications had finished the first three segments of the grantmaking process by December 2007. By contrast, 80,000 applications had passed through the closing segment.

Of the first three segments, for which the data are essentially complete, only processing appears to have contributed substantially to overall GWT, with some applications taking as long as 150 days there.

¹ Because the data reflect both closed and open applications, cumulative times through the steps do not correspond to the earlier figures on GWT for completed applications only.
The RH program opened to applications in July 2006, and the first applications to enter the initial processing segment did so in August 2006. This is the segment in which the homeowner works with a HAC adviser to complete an application so that it can be submitted. The blue diamonds on the bars show how many applications entered initial processing that month; the stacked bars indicate how long that group of applications then took to complete the initial-processing segment. (The left vertical axis refers only to time in initial processing, not total GWT.) The data show high variability in the time spent in initial processing both within months and across months: The median time, for instance, trends up and down in a wave form.\(^2\)

The most important result of this variability is that many applications got off to a slow start in the grantmaking process.\(^3\)

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\(^2\) The dropoff in initial-processing time in the final few months does not necessarily indicate that initial processing became faster and less variable. There is a “windowing effect,” meaning that, in the window of time during which the data displayed here were collected, only a limited number of applications in those few months are represented. Some of the slowest-moving applications had not completed initial processing yet (see next slide); when their times become available, an updated version of this slide would show longer times in the final months.

\(^3\) According to ICF, a major source of delay in initial processing was homeowner delay in setting or meeting an appointment at a HAC. HAC throughput capacity was sufficient. However, it may be that the program relied too much on the HAC model for engaging eligible homeowners at the outset of the grantmaking process. Aggressive outreach approaches analogous to those used by voter-registration drives might have been effective in augmenting the HACs.
This slide shows time in the initial-processing segment for three different populations. The leftmost set of overlaid bars shows times for the 57,500 applications that had reached funds disbursal by December; the middle set shows times for the 79,000 active applications that had progressed past initial processing; and the rightmost set shows time in initial processing for applications that had not yet emerged from that segment. The time shown for these was the time thus far in initial processing—i.e., from the time they entered the segment until the time of measurement on December 18, 2007.

More than 400 applications remained in the initial-processing segment of the grantmaking process. These applications had been in the segment for an average of about 150 days; some had been there as long as 400 days. (Note that the scale for the left axis is set at 450 days.)

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4 According to ICF, these 400 applications involved homeowners who had not come in for their HAC appointments by December 18, 2007; later in the month, these applications were shifted to inactive status (though some had not been in initial processing for very long yet, as shown by the green bar). We lack data on how many, if any, subsequently moved back to eligible status.
One subtask of this evaluation was to identify points of congestion in the grantmaking process and to diagnose sources of congestion. As noted earlier, two features of the RH program induced surges of applications in October 2006 and in July 2007. This slide shows how those surges contributed to a backlog in initial processing.

As the distance between the blue curve (cumulative applications entering initial processing) and red curve (cumulative applications completing initial processing) shows, a backlog of applications built up almost immediately in the initial-processing segment and persisted until a few months after the program closed to new applications. The surges in October 2006 and July 2007 are evident in the blue curve as steep increases in the slope in those two time frames.

Interestingly, the red curve shows that initial processing was on a pace to work off the backlog by January or February 2007; however, initial processing then slowed to a rate of productivity that resulted in the maintenance of a steady backlog for most months of 2007. When the second surge occurred in July 2007, the backlog therefore doubled.

The effect of the two surges is less evident in the backlogs of other segments, because the steady rate of initial processing, in effect, helped to meter the flow of applications downstream in the grantmaking process.
This slide provides another view (noncumulative) of the backlog in initial processing. Again, the two surges in application volume in October 2006 and July 2007 are evident. At the peak of the backlog, nearly 35,000 applications were in the initial-processing segment. Once the program closed to new applications in July 2007, the backlog was gradually worked off.
Although our segment analyses are focused on time spent in statuses that contributed substantially to total GWT, this and the next slide show what happened to applications in one status that was very fast after the first few months. The submission of applications became automated several months into the program, resulting in same- or next-day durations for this activity. The surges of applications that began in October 2006 and July 2007 are evident in the blue diamonds on this slide, reaching the application-submission segment by December 2006 and August 2007. However, due to the very fast submission times, no backlogs occurred. This is shown on the next slide.
Because Submission of Applications Was Same or Next Day, No Backlog Emerged

This slide shows that, unlike in processing, no backlog emerged in the application-submission segment. Once automated, submission was very fast and predictable.
This slide returns to our focus on segments of the grantmaking process that contributed importantly to total GWT. It shows time spent in the verification segment (i.e., status REVSCHED) for all applications that had passed through it—88 percent of the 137,000 eligible and active applications, or about 121,000. Verification occurs after the homeowner’s HAC visit and reflects the time spent verifying the application data. According to ICF, this includes the time required to obtain two key determinants of the grant amount, the prestorm value (provided by an appraiser or broker) and the estimated cost of damage. According to the data in eGrantsPlus, the first applications to enter this segment did so in November 2006. As with processing, the verification segment has been a strong contributor to the variability in the total GWT. The variability is evident both within months and from month to month. In some periods, such as the summer months of 2007, times grew faster and less variable. Yet overall, the median performance takes a wave form similar to that demonstrated by the processing segment.
As of December 18, 2007, 12 percent of eligible applications had entered but not yet progressed past verification. To understand how quickly the applications still in verification were moving through it, this slide compares the time in verification for three populations. The leftmost and center sets of overlaid bars show verification time for funded applications and for active applications that have completed the segment.

The rightmost set of overlaid bars shows time in the verification segment for the almost 20,000 applications that had entered but not yet emerged by December 2007. As the green bar indicates, a quarter of these had been in verification for about 25 days or less. However, as the red bar indicates, another quartile had been in verification for about 100 days or more.
Focusing on the almost 20,000 of eligible applications that remained in verification as of December 18, 2007, this slide examines whether there was any correlation between how long they had been in that segment and when they entered the grantmaking process.

The dark bars show the program-entry months for the half of these applications that had been in verification the longest thus far. It shows that they entered the grantmaking process in all months (except July 2006, the first month). A large number dated from the spike in applications in July 2007 shown previously.

The light bars show the same trend for the half of the applications that have been in verification for the shortest time. Note the distribution is almost identical by month of entry into the grantmaking process. Although some of these applications had just reached verification recently, they had entered the process months earlier and were delayed in one or more earlier segments before entering verification.

In short, there is no correlation between how long these applications had been in verification and when they entered the grantmaking process.

This demonstrates a major finding of our evaluation that will receive further emphasis in subsequent segment analyses: Because long delays can occur in most segments, progress through the grantmaking process is highly unpredictable.
According to data in eGrantsPlus, the first option letters in the RH program went out to homeowners in November 2006. As the green and yellow bars indicate, many homeowners responded quickly. The process of considering options has been highly variable each month and very long for some applications, as the scale on the left axis indicates. The monthly throughput of this segment also varied sharply from month to month. On the other hand, median performance has been relatively stable. Of all segments, consideration of options has had the longest and most variable process times.

As of December 18, 2007, 14 percent of eligible applications had yet to move through option consideration.5

5 Because segment times are missing for 14 percent of eligible applications, there is a strong windowing effect in the final months shown on this slide.
This slide compares the time in the option-consideration segment for three populations. The leftmost and center sets of overlaid bars show the segment time for funded applications and for active applications that had progressed past the segment. The rightmost set of overlaid bars show time in the segment for applications that had entered but not yet emerged by December 2007.

As of December 18, 2007, about 2,700 eligible applications remained in the option-consideration segment, and some had been there for hundreds of days. The next slide examines how long these applications had been in the grantmaking process as a whole.
Focusing on the eligible applications that remained in the option-consideration segment as of December 18, 2007, this slide examines whether there was any correlation between how long they had been in the segment and when they entered the grantmaking process.

The dark bars show the entry points for the half of these applications that have been in option consideration the longest. It shows that they entered the grantmaking process at various points throughout the life of the program. As with the population remaining in verification, a large number dated from the spike in applications in July 2007.

The light bars show the same trend for the half of the applications that had been in option consideration for the shortest time. Note that the distribution is similar. Some of these applications had just reached option consideration recently after entering the process months earlier and being delayed in one or more earlier segments.

In short, there was no correlation between how long these applications had been in option consideration and when they entered the grantmaking process.
According to the data in eGrantsPlus, applications first started to enter the preclosing segment of the grantmaking process in January 2007, about six months after the program began accepting grant applications. Activities in this segment include resolving disputes, obtaining additional documentation, and requesting additional determinations of prestorm value or estimated cost of damage.

For about half of the applications passing through preclosing, times in this segment were quite fast (as shown by green and light yellow bars). However, this is another segment for which process times were highly variable, both within and across months, with some applications taking more than 100 days and many not out of the segment.

This slide shows process times only for applications that have completed the preclosing segment.
This slide compares time spent in the preclosing segment for three populations: left to right, applications with funds disbursed, active applications that had progressed through the segment, and active applications that remained in the segment as of December 18, 2007. As a comparison of the three sets of overlaid bars shows, those that remained in the segment were numerous and as a group were experiencing much longer and more variable segment time than those that had already passed through.

As of December 18, 2007, more than 17,000 applications remained active in this segment. As the rightmost set of overlaid bars indicates, some of these applications had been in the segment for more than 150 days.
Focusing on the more than 17,000 eligible applications that remained in preclosing as of December 18, 2007, this slide examines whether there is any correlation between how long they had been in the segment and when they entered the grantmaking process.

The dark bars show the entry points for the half of these applications that have been in preclosing the longest. It shows that they entered the grantmaking process at various times throughout the life of the program. As with the population remaining in verification, a large number dated from the spike in applications in July 2007.

The light bars show the same trend for the half of the applications that had been in preclosing for the shortest length of time. Note that the distribution is similar. Some of these applications had just reached preclosing recently after entering the process months earlier and being delayed in one or more earlier segments.

In short, there is no correlation between how long these applications have been in preclosing and when they entered the grantmaking process.
When a batch of applications finishes preclosing, a sample is tested for errors. If the number of errors is too high, the entire batch is sent back for rework. Applications sent back enter a status called SENDRES, i.e., sent for preclosing resolution. Only about 16 percent of applications enter this segment of the process; however, this segment’s performance is relevant to the program’s ability to meet its second principle of timeliness: “Every applicant should have access to a fair and swift resolution of errors, disputes, and appeals.” As the slide shows, preclosing resolution can occur quickly, but it can also be a very long activity.

The additional time and variability associated with the preclosing-resolution segment is especially likely to affect GWT for applicants who select option 2 or 3, which were shown earlier to have substantially longer GWTs than those selecting option 1. Only 11 percent of applicants selecting option 1 find their way to preclosing resolution, whereas more than two-thirds of the applicants selecting option 2 or 3 end up there.
This slide addresses the question of how much extra total time a application takes to reach funds disbursal if it is one of the 16 percent to go through preclosing resolution. Because the slide examines the effect of preclosing resolution on GWT, it focuses on the population of applications with funds disbursed.

A comparison of the left set of overlaid bars, representing GWT for applications that were never sent for preclosing resolution, and the right set, representing those that were sent one or more times, shows that preclosing resolution tended to add about 50 days to total GWT.
This slide follows the pattern used to examine how long applications that were active in a given segment on December 18, 2007, had been there. The rightmost set of overlaid bars shows that about 3,000 eligible applications remained in the preclosing-resolution segment; some had been there for more than 150 days.
This slide examines the questions of how often the preclosing-resolution segment was effective in one pass and what the effect was on segment time when an application had to be sent to resolution more than once. As the blue diamonds indicate, most of the applications selected for preclosing resolution were sent through only once, but a substantial number were sent twice, and a few were sent several times. (The scale refers only to time spent in preclosing resolution, not to total GWT.)

For the applications that took longest to resolve (the red bars), there was not much effect, but, for applications in the lower quartiles, there was a time penalty for having to go through preclosing resolution more than once.6

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6 At the outset of our evaluation, we had hoped to be able to examine how the various reasons for an application entering preclosing resolution affected resolution time, likelihood of repeating preclosing resolution, and total GWT. However, no reason codes were available to analyze. Of course, the decision to send a batch back for rework is based on an incidence of errors in a sample, not on specific errors found in specific applications. In fact, most of the applications sent for rework have no errors and are delayed only by reason of chance association with applications with errors that were sampled. Nevertheless, as a general practice, adding reason codes to the program data would be helpful both for diagnosing the sources of delay and for communicating with applicants regarding the progress of their applications.
The first applications began to emerge from final review in January 2007. As of December 18, 2007, about two-thirds of the 137,000 eligible applications had passed through final review. As the blue diamonds show, throughput for this segment was more than 8,000 per month for the last four months of 2007. Median times became very fast beginning in April 2007, though variability remained high.
After the first few months of program operation, most applications proceeded quickly through final review, some having same-day processing. However, the slowest applications spent more than 75 days here.

As of December 2007, about 4,000 applications remained in final review. The rightmost set of overlaid bars on this slide shows the time spent in the segment through December 18, 2007, for this population. The slowest to progress had been in final review for as long as 150 days.
Like resolution, final review is a segment of the grantmaking process through which an application may need to pass more than once before progressing to the disbursal of funds. Moreover, the efficacy of final review affects all eligible applications, whereas resolution affected only 16 percent.

The blue diamonds show that most applications passed through final review in one pass, but a sizable minority required two passes. A smaller number required three or four passes.

If an application has to pass through final review more than once, what was the effect on its time in that segment? (Note that the scale in this slide refers only to time in final review, not total GWT.) Generally, multiple passes through final review increased the length and variability of time spent in the segment. The trends in time penalty were straightforward at all quartiles.

As a result of multiple passes, some applications spent well more than 100 days in final review.
Focusing on the 4,000 eligible applications that remained in final review as of December 18, 2007, this slide examines whether there is any correlation between how long they had been in final review and when they entered the grantmaking process.

The dark bars show the entry points for the half of these applications that had been in final review the longest. It shows that they entered the grantmaking process at various points throughout the life of the program.

The light bars show the months of entry into the program for the half of the applications that have been in final review for the shortest time.
According to data in eGrantsPlus, applications began to enter the closing segment of the grantmaking process in April 2007. This segment includes such activities as resolving remaining issues with ownership, title, and mortgages, particularly for applications selecting option 2 or 3.

In the first month, the closing times were quite fast; in May 2007, perhaps because of increased volume and perhaps because more complicated applications entered the step, the closing times became slower and more variable. As of December 18, 2007, 59 percent of eligible applications—about 80,000—had passed through closing on their way to funds disbursal.
In addition to the 80,000 applications that had passed through closing by December 18, 2007, another 11,500 were active in the segment. As the rightmost set of overlaid bars shows, some of these had just entered, but others had been in the segment for more than 100 days.
Like resolution and final review, closing is a segment of the grantmaking process through which an application may require several passes. Like final review, closing is an activity that affects all eligible applications.

The blue diamonds show that most applications completed closing in one pass, but a sizable minority required two passes. A very small number required three or four passes. Generally, multiple passes through closing increased the length and variability of time spent in the segment. (Note that the scale in this slide refers only to time in closing, not total GWT.)
This slide is the first of a series examining whether differences in performance of the closing activities varied by which of three title companies were involved. We refer to the three companies as firms A, B, and C.

As this slide shows, applications handled by firm A were several times more likely to require two or more passes through the closing segment than those handled by the other two firms.
This slide compares the closing time associated with each of the three firms. As the blue diamonds indicate, firm A has handled the highest volume of applications, and firm C the lowest. Closing times at firm B have been notably longer and more variable than those at the other two firms.

This slide examines whether the difference in closing times for the three firms might be related to the composition of the application populations that they each handle. As this slide shows, firm A was handling a mix of applications that had a higher proportion of single-family residences. As shown earlier, GWT has been faster for single-family homes than for other structure types.
This slide compares, from a slightly different angle, the structure-type composition of application populations that the three firms handled. It shows that, despite its high volume, firm A (bottom segment of each stacked bar) was handling only 22 percent of the applications for condominiums and manufactured homes, the structure type with longest GWT. This would contribute to the firm’s faster and less variable closing times.
Like firm A, firm C had closing times that were faster and more reliable than those of firm B. Moreover, this was true despite the fact that firm C was handling a higher percentage of condominiums and manufactured homes than firm A or B. However, the volume of applications closed by firm C was very small by mid-December 2007. In fact, firm C had closed only 9 percent of the applications assigned to it by that time. As a result, the apparent relative speed and reliability of its closing times may be due to a windowing effect: As firm C closes more applications, its closing times are likely to appear longer and more variable than they appeared in December 2007.
This slide is the last of our segment analyses. It examines the speed of the final remaining segment that contributed strongly to GWT—namely, fund requisition. Fund requisition is a segment for which measurements had been available in eGrantsPlus for only a short time.\(^7\) Thus, the leftmost and middle sets of overlaid bars show process time in the newly measured segment for very few applications. The fund-requisition times had been fast for many applications, though the 95th percentile was more than 50 days.

The rightmost set of overlaid bars shows the time in the fund-requisition segment through December 2007 for a much larger population—about 22,000 eligible applications. Times for these applications in the segment had been longer and much more variable, with some spending more than two months in the request-funds segment.

\(^7\) According to ICF, when the RH program reports number of closings, for applicants selecting option 1, the term closing means that they have reached the point at which funds have been requested, whereas, for applicants selecting option 2 or 3, the term means that they have reached funds disbursal. By contrast, for the purposes of measuring GWT, we use funds disbursal as the single end point for all applications awarded grants.
Measurements of the length and variability of GWT and segment times throughout the grant-making process can be used to support efforts to improve the process and to expedite the processing of remaining applications. Moreover, though the RH program was unprecedented in many ways, insights into its performance may carry valuable lessons for other programs that are established quickly on a large scale to help large populations recover from disasters and other devastating events.
To provide context for our recommendations, we begin by summarizing the key findings from our evaluation of the speed of RH grantmaking.

The first finding is simply that GWT has been quite variable, with long GWTs for many applicants. The data reveal a basis for the complaints from homeowners about waiting a long time for their grants or not knowing when to expect to receive them. Although some applications had been processed in a timely manner, the overall timeliness of the grantmaking process had not been consistently good and predictable. To the contrary, the process’s unpredictability resulted in an uncertain and frustrating experience for most applicants.1

A second finding is that there are many potential sources of delay in the process; the process was designed with many segments, and more than half a dozen of those segments could contribute substantially to the time that a given application takes to complete the grantmaking process. As early as the processing segment, some applications began to experience long delays. Because of the number of segments in the grantmaking process, delays can compound. The distribution of program-entry times among the applications remaining in middle and late segments shows that some had also been delayed in previous segments. Applications that take a long time to complete more than one segment will necessarily have very long GWT overall.

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1 A common, rational response to a highly unpredictable process is for customers to place duplicate orders—in the case of grantmaking, to submit multiple applications. We did not analyze the incidence of duplicate applications or compare the relative progress through the process. However, we did note the presence of duplicate records in the initial data extract provided by ICF.
Finally, there is the problem of applications pooling at various points in the grantmaking process rather than flowing through it. Our segment analysis showed that backlogs existed in most major segments; moreover, these backlogs were aging in the sense that, by mid-December 2007, they contained not only applications that had recently entered the program but also applications that had been in the program for many months.

Total GWT measures only the population of applications that have completed the grant-making process: It does not reveal the problems that active but very slow-moving applications are having in progressing toward funds disbursal. Segment-time measurements are needed to focus on those problems. In almost all segments of the grantmaking process, there were hundreds and even thousands of applications that were moving so slowly as to appear “stuck.” These are obviously of high concern.
Several aspects of program design, including the number of steps or segments, contributed to long and variable GWT.

Importantly, the program lacked a specific goal for GWT—this despite the very high expectations and public assurances that the process would be timely. Such a time goal would have been keyed directly to the experience of the individual applicant and would have encouraged designers of the grantmaking process to focus on creating a quick and predictable application experience for the homeowner. The goal for GWT should have addressed not only the speed but the variability of the grantmaking process: Variability in process performance is particularly important to manage, because it can create uncertainty and erode trust in the population being served.

Instead, the program relied on goals and metrics that focused on the quantities of activities that were conducted in various periods. Unless augmented with metrics focused on speed, such activity metrics are potentially misleading: In fact, a backlog of applications in process may register positively on such metrics. A measure of busyness may be misinterpreted as a measure of productivity.

The top-level program goal that required a certain number of applications to be funded by a certain date (i.e., 90,000 by the end of December 2007) may have the unintended effect of encouraging cherry picking of the applications that can be moved through the process most quickly. There is evidence of such tacit cherry picking in RH grantmaking, as each successive

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Summary of Key Findings (2 of 2)

- Some program features contributed to the slow and variable grant wait time
  - No goals were established for grant wait time to encourage design of the program to focus on meeting expectations of the individual applicant
  - Program goals and metrics focused on quantity of activities performed in a time period, not on speed
  - The program induced two very large surges of applications that exacerbated backlogs
  - The program sent “batches” of applications for rework based on errors found in samples, thus delaying mostly applications without errors
  - The program has relied on three title companies whose utilization and performance has been uneven

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2 See, for example, the Road Home Week 77 Situation and Pipeline Report (Road Home, 2007), which contains many pages of metrics of activity corresponding to the same timeframe as the speed metrics analyzed in this study.
month of data reveals GWT to be longer and more variable than it had appeared previously. Cherry picking of faster-moving applications results in aging backlogs of slower-moving applications. Unlike a goal for GWT that applies to each application, a goal focused on a large initial batch of applications does not look out for the interests of all homeowners equally. It tacitly encourages the design of a grantmaking process that, to meet a selective goal, moves some applications quickly at the expense of delaying others.3

The program also induced congestion through two features of its design. In October, the program implemented a change permitting applicants to schedule appointments by phone rather than by mail. This change could have contributed to an acceleration of the early stages of the grantmaking process, but only if the program had been designed to respond effectively to the predictable surge in application volume that resulted from the change. As it turned out, the surge exacerbated an existing backlog in initial processing, and, although the program increased the output of the initial-processing segment in response to the surge, it did not maintain the increased pace long enough to work off the backlog. As it turned out, having adequate HAC capacity was not sufficient preparation to engage all late entrants into the grantmaking process.

As noted on the preceding slide, one source of delay in the grantmaking process was the need for some applications to pass through a segment more than once. Although rework is needed when an error occurs, the rate of rework is not necessarily indicative of the rate of error. In fact, it appears that many, perhaps most, of the applications that required rework did not contain errors. They were sent for rework because they were unfortunate enough to be in a batch of applications that was sampled for error. If the sample revealed an error rate exceeding an acceptable threshold, then the whole batch would be reworked. In other words, many applications without errors were delayed by chance association with other applications that contained errors.

Finally, the program relies on three title companies to handle closings and disbursements. The data show that, as of December 2007, the three firms had performed unevenly and were being utilized differently: These differences may be an unnecessary source of delay and variability in the final segments of the grantmaking process. It may be useful to compare activities at these three firms and to standardize them in a streamlined process design.

3 For example, ICF reports that, as it approached the end of December 2007, when it faced a contractual milestone to have closed 90,000 applications by the end of the year, it focused on expediting applications already well advanced in the grantmaking process: “contacting homeowners who had not returned a benefit selection form to determine [whether] they were ready to close, accelerating pre-closing and resolution so more files were ready to close, transmitting a significant number of files to closing companies, and closing on thousands of files” (ICF 2008).
The RH program has a limited life span. It has stopped accepting new applications and is designed to process only the existing population of eligible applications. The earliest segments of the grantmaking process were no longer active by December 2007. Improvement efforts must focus on the middle and later segments.

The middle segments as a set have already done much of their work in terms of processing the population of eligible applications. Therefore, improvement of these segments should focus the resources on expediting applications that remain “stuck” in the segment. Many of these applications have been in the middle of the process for a relatively long time, and, even when they “break free,” they face several other segments and sources of potential delay before they complete the grantmaking process. Collecting and reporting the reasons associated with the delay of specific applications will help inform efforts to diagnose and eliminate sources of delay and error.

It is important at this point in the program to identify these applications and develop and execute business rules for expediting them. Progress in doing so should be tracked and reported at the individual application level. The program has been dynamic in its policies and procedures, and it should remain flexible, particularly as it works off the aging backlogs of applications, which are likely to include some of the most difficult to process. These difficult applications may point to changes in program policies, business rules, or procedures that are needed to complete the work of the program satisfactorily for all eligible applicants. For reasons of equity, changes that would have benefited applicants funded previously should be grandfathered.
There is still opportunity, though still limited, for improving the later stages of the RH grantmaking process, since more applications have yet to enter or leave those stages. To foster improvement in timeliness, it remains advisable to establish overall time goals for each segment, both for the typical time and for variability (e.g., the median closing time will be $x$ business days; 95 percent of closings must be done within $y$ days). On the basis of these performance goals, goals for improvement could be established (e.g., a certain percent reduction in median time within a certain time frame).

There is still sufficient time in the life of the program to develop and implement improvements to segment activities. Process improvements should focus on eliminating sources of delay, such as batch processing, that cause some applications to wait for others until proceeding to the next step in the process.

An example of batch processing late in the RH program is the requisition of funds from HUD. Sufficient funds are requested to cover the sum of a batch of closed applications ready to be awarded homeowner grants. An alternative process design would have HUD pre-position funds in accounts at the three title companies so that they could immediately disburse homeowner grants without waiting for a batch to accumulate before requesting funds and then waiting again for HUD to respond. All this waiting is delay from the homeowner’s perspective. To enable this change, the firms could provide HUD with visibility into these pre-positioned accounts so that HUD could meter funds into them as needed to ensure that they always contained sufficient funds to cover daily disbursements (an empty account would create a new source of delay).
In such processes as grantmaking that have many stakeholders and cross-organizational boundaries, it is typical for process changes to require interorganizational cooperation that may be unfamiliar or even unprecedented. For example, to set up the accounts described here and the associated business rules, a small team of technical experts might be needed from the title firms, from HUD, from the Office of Community Development (OCD), and from ICF.

At a higher organizational level, some innovative process changes may require approvals or waivers from senior executives and officials. To ensure the effectiveness of expert teams, particularly when speed is critical, as at the end of the RH program, it may be necessary to convene a standing coalition of senior personnel who represent the participating organizations and who have the authority to approve and enable recommended process changes (avoiding the delay of seeking approval from someone higher up who has that authority). The same coalition can be used to set goals and to review progress toward achieving them.

The inclusion of homeowner advocates or representatives in such a senior coalition can help to ensure that it maintains a focus on activities that improve process performance from the homeowner’s perspective. Many stakeholders have an interest in goals, metrics, and activities that help with the operation and management of the program as a whole and of the participating organizations and firms. The value provided by the perspective of the individual homeowner is a sharp focus on the simple question addressed by GWT: How long will it take to get the money? Our evaluation of the speed of RH grantmaking process suggests that this focus was insufficiently represented in the design and execution of the process.
APPENDIX

Grant Wait Times, by ZIP Code

Table A.1 shows how GWT varied by ZIP code for applications that had resulted in grants as of December 2007. To ensure the privacy of individual applicants, even by inference, data are presented only for ZIP codes with 10 or more applications with funds disbursed. Because some ZIP codes contained too few funded applications to make quartile statistics meaningful, the table indicates the average GWT for funded applications in the ZIP code, as well as the shortest and longest GWTs. It also indicates how many eligible applications came from the ZIP code and what percentage of those had received grants by mid-December 2007.

Table A.1
Grant Wait Times, by ZIP Code

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LRA—see Louisiana Recovery Authority.

Road Home, homepage, undated(a). As of April 2, 2008: http://www.road2la.org/


