USER'S GUIDE TO HASE DATA, VOL. 3: THE PROGRAM FILES

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HOUSING ASSISTANCE SUPPLY EXPERIMENT

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PREFACE

This report provides guidance for using the research files that contain administrative data from housing allowance programs operated in Brown County, Wisconsin, and St. Joseph County, Indiana. The programs were part of the Housing Assistance Supply Experiment conducted by The Rand Corporation under contract with the U.S. Department of Housing and Urban Development (HUD). Each program was operated by the housing allowance office (HAO), a local, nonprofit corporation established by Rand.

The experiment yielded 40 research files--8 program files covering the program's first five years (essentially 1974-1979), and 32 files of survey data gathered in the surrounding housing market over the same period. This report is part of a three-volume user's guide for analysts and programmers who wish to use the HASE data. The companion volumes provide an overview of the experiment and its 40 files (Vol. 1) and specific guidance for using the survey files (Vol. 2).[1] All HASE files are accessible through the HUD-sponsored Housing Research Data Center, operated by Data Use and Access Laboratories (DUALabs) in Arlington, Virginia.

The HAO administrative procedures and record systems by which the program file data were collected were designed by the HASE Field and Program Operations Group (FPOG), under the supervision of Robert Dubinsky and his successor, G. Thomas Kingsley. Iao Katagiri planned the files, and Robert Young wrote the computer programs that produced them. This volume has benefited from structural guidance by Wayne Hansen, expository advice by Christine D'Arc, and useful suggestions by reviewers Allan Abrahamse and Suzanne Polich.

This report was prepared pursuant to HUD Contract H-1789 and fulfills the requirements of Task 2.20 of that contract.

[1] E. Wayne Hansen and Christine D'Arc, User's Guide to HASE Data, Vol. 1: Overview, R-2692/1-HUD, forthcoming; and Patricia Boren, User's Guide to HASE Data, Vol. 2: The Survey Files, R-2692/2-HUD, forthcoming. Both are published by The Rand Corporation.

SUMMARY

The Housing Assistance Supply Experiment (HASE) was part of a Congress-mandated investigation into the desirability of direct cash allowances to help low-income households maintain decent housing. From 1974 through 1979, HASE supervised a housing allowance program in Brown County, Wisconsin, and St. Joseph County, Indiana, and studied the program's effects on the local housing market. The experiment yielded 40 research files: 8 program files contain administrative data gathered on client characteristics and program operations, and 32 survey files contain data from field surveys of the housing market. This report describes the program files and offers guidance for using them.

To administer the program, Rand established the housing allowance office (HAO), a nonprofit corporation, in each experimental site. The HAO

- Screened applicants for program eligibility, enrolled them if eligible, and periodically verified their eligibility.
- Inspected clients' housing at enrollment and regularly thereafter. Clients could not receive allowance payments if their dwelling failed program standards.
- Disbursed monthly allowance payments. Each allowance equaled the difference between a standard cost of adequate local housng and one-fourth of the client's income.

The program files were compiled from data gathered on various administrative forms completed in the foregoing process. Four files per site capture the information on those forms, covering the five-year experimental period.

CLIENT CHARACTERISTICS FILE (CCF)

The client characteristics file contains eligibility screening information gathered at the time of enrollment and at the client's last transaction before the end of the five-year period. The information includes the age, sex, and race of all household members, and the household's assets, income, and expenses.

The CCF contains one fixed-length record for every person who applied for the program--16,670 in Brown County (Site I) and 34,657 in St. Joseph County (Site II). Each record contains 665 variables. For users interested primarily in program statistics--how many clients enrolled, how many received payments, and so forth--the client characteristics file is the one to use. Specifications are given for extracting information about various groups of clients.

HOUSING CHARACTERISTICS FILE (HCF)

The housing characteristics file documents the details and results of all inspections of clients' housing. Data include descriptions of the dwelling's facilities, room features, and interior and exterior characteristics, and judgments about the dwellings' habitability, condition, and size for its occupants.

The HCF contains one fixed-length record for every client who enrolled in the program--9,133 in Site I and 16,126 in Site II. An HCF record repeats all CCF variables for the client, then presents his housing evaluation data in chronologically arranged segments, one per evaluation to a total of 35. There are 8,191 variables on each HCF record. The housing characteristics file is appropriate for studying changes in clients' housing over time. Specifications are given for extracting information about various types of housing evaluations and results.

RECERTIFICATION CHARACTERISTICS FILE (RCF)

The recertification characteristics file contains client household and financial data gathered during periodic verifications of eligibility after enrollment. It also contains error corrections and revisions of HAO program policies, such as annual updates to standard utility costs.

Like the HCF, the RCF contains one fixed-length record for every program enrollee, and repeats all CCF variables. Recertification data are arranged chronologically in segments, one for each transaction to a total of 40. There are 5,446 variables per RCF record. The recertification characteristics file is appropriate for studying the details of clients' household changes over time. Specifications are given for extracting information about various types of recertification transactions.

CLIENT HISTORY FILE

To enable both detailed and cursory views of the entire process, the client history file combines all information from the other three files into a single, comprehensive dossier for each client, and adds a new record--the digital summary record--summarizing his program history. The CHF also contains specialized data, on allowance payment suspensions/reauthorizations and exceptional payment adjustments, that do not appear in the other files.

Like the CCF, the client history file contains a logical record for every program applicant. Unlike any of the other files, a logical record (the dossier) can contain many types of physical records of different lengths, and as many records in each type as needed to document the client's program participation. The number of variables thus differs for each client.

Because its size and complexity make the client history file relatively difficult and expensive to use, the CHF offers a clear advantage over the other program files only for analysis designs requiring all client information, a concise description of a client's entire history in the program, or information not found in the other three files.

In all eight files, the data are entered in a standard format, and variable names follow an established convention. A file-specific dictionary lists every variable by name, location in the record, and data type. Each file is documented by a codebook that defines and provides response distributions for all variables, and an audit report that assesses the completeness and reliability of the data.

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I. INTRODUCTION

The Housing Assistance Supply Experiment (HASE) conducted an experimental housing allowance program in two north central metropolitan areas to examine whether direct cash assistance to low-income households was a feasible and desirable way to help them secure decent housing.[1] Identical ten-year programs were mounted in Brown County, Wisconsin, and St. Joseph County, Indiana, and are being administered by the housing allowance office (HAO), a nonprofit corporation established by Rand in each site. HASE monitored the programs through their first five years of operation, essentially 1974-1979.

The allowance program was open to all households in the two counties who were unable to afford adequate housing without spending more than a fourth of their adjusted gross incomes.[2] Each enrolled household received monthly cash payments equal to the difference between a fourth of its income and a standardized housing cost, provided that the dwelling it occupied met minimum standards of space, domestic facilities, safety, and sanitation.

The HAO enrolled eligible applicants, evaluated their housing, and disbursed allowance payments. In the process, extensive data were collected and periodically updated on clients' household characteristics, financial circumstances, and housing expenses; each dwelling they occupied or planned to occupy and any repairs or improvements they made; and changes in enrollment status, allowance entitlement, and payments received.

The HAO entered those data in its automated system and periodically sent the resulting administrative files to Rand. We recompiled them into four cumulative research files for each experimental site: a client characteristics file (CCF), a housing characteristics file (HCF), a recertification characteristics file (RCF), and a client history file (CHF).[3] These program

files contain records for every applicant and client through the five-year monitoring period, covering the periods 17 June 1974 through 30 June 1979 for Brown County (Site I) and 17 December 1974 through 4 January 1980 for St. Joseph County (Site II).

This volume describes the program files--the data they contain, how they are organized, and how to use them.[4] The versions of the files accessible to the public differ slightly from those previously documented. To protect clients' identities, it was necessary to alter the values of certain variables on each file. Appendix A details the specific changes.

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[1] The background of the experiment and history of the allowance program are presented in Ira S. Lowry, ed., Experimenting with Housing Allowances: Final Report of the Housing Assistance Supply Experiment, The Rand Corporation, R-2740-HUD, forthcoming.

[2] Though the programs will remain in effect until 1984, we use the past tense to refer to program operation during the HASE monitoring period.

[3] In earlier documentation, these files are called "analysis files" to distinguish them from the raw files of administrative data received from the HAO. In this guide we call them "program files" to distinguish them from the survey files, the other part of the HASE data base.

[4] This guide omits discussion of the files resulting from two surveys we conducted under contract to the HAOs. The survey of clients in both sites who enrolled in the program but terminated without ever receiving allowance payments is documented in Diane Schoeff, Survey of HAO Clients Who Enrolled But Never Received Payments: Audit Report and Codebook, The Rand Corporation, N-1537-HUD, forthcoming. The survey of client landlords in Site II is documented in Diane Schoeff, Survey of Client Landlords, Site II: Audit Report and Codebook, The Rand Corporation, N-1538-HUD, forthcoming.

II. FILE CONTENTS AND ORGANIZATION

The contents of the files are best explained by a brief review of a client's course through the program.[1]

CLIENT CHARACTERISTICS FILE

Each client was screened for program eligibility from information given on a preliminary application form and in an enrollment interview. In the application the client provided basic household information--size of household, tenure, and length of residence. Each completed application was assigned a unique six-digit code to identify the client. During the enrollment interview, detailed information was collected on the client's household composition (including the race, sex, and age of household members, and their relationship to the household head), household assets, income, and housing expenses. The client characteristics file contains this information, along with household data at the end of the five-year monitoring period (for current clients) or at the time the household left the program (for terminated clients).

Clients could voluntarily terminate from the program, or the HAO could terminate their participation for failure to meet program standards--for example, if the client moved out of the county or his income rose beyond the eligibility limit. Terminated clients who wished to return to the program had to repeat the enrollment interview and housing evaluation; they retained their original client identification numbers.

HOUSING CHARACTERISTICS FILE

The enrollment interview established the applicant's eligibility, and eligible clients were then asked to sign a participation

agreement to enroll in the program. But before allowance payments could begin, the client's dwelling had to be evaluated against certain standards of adequacy.

In the housing evaluation, extensive data were collected on the dwelling's facilities, room features, and interior and exterior characteristics. Judgments were made about the dwelling's habitability (presence of full bath and kitchen, adequate heating, lighting, and ventilation), and condition (interior and exterior state of repair). Acceptability on both counts was necessary but not sufficient for allowance payments to begin. In addition, the dwelling had to be certified, that is, judged large enough for its occupants (e.g., a bedroom for every two persons); and renters had to submit evidence of a lease agreement with the landlord. A client whose dwelling failed the evaluation or certification criteria had to correct the identified defects or move to another dwelling.

We use "housing evaluation" loosely to refer to the entire evaluation and certification process, but the distinction should be borne in mind; it is preserved in the administrative forms used by the HAO. The housing unit certification form (HUCF) records the request for the evaluation, its results with respect to habitability and condition, and the certification decision. The dwelling's characteristics and assessment during the actual evaluation are recorded on the housing evaluation form (HEF).

The HAO enforced program housing standards by requiring an evaluation of each client's dwelling when the client moved or planned to move (premove or postmove evaluation), when the client corrected a defect found during a previous evaluation (deficiency reevaluation), at yearly intervals after enrollment (annual reevaluation), and when a client who had left the program rejoined it (reinstatement evaluation). In addition, quality-control evaluations were conducted to ensure consistency

among evaluators: the supervisor periodically chose a dwelling at random, evaluated it, and compared his results with the most recent inspection.

The housing characteristics file contains information gathered in all the foregoing evaluations, plus all the variables from the client characteristics file.

RECERTIFICATION CHARACTERISTICS FILE

For a client to remain in the program, both his household and dwelling had to continue to meet HAO standards and eligibility requirements. Just as the dwelling was reevaluated at regular intervals, so the client household was also periodically recertified. Changes in household characteristics affecting eligibility or the amount of the allowance payment were recorded during semiannual and annual recertifications, as well as at special and reinstatement recertifications. The recertification characteristics file contains the data collected during each of those transactions. Information that was not collected for a given recertification, and characteristics that remained unchanged since the last recertification (e.g., number of household members) were carried forward so that each transaction contains complete information on the client at a specific time. Revisions of program standards (e.g., annual updates to standard utility costs) are also treated as recertification transactions, along with revisions of client data and error corrections. The recertification characteristics file also contains all variables from the client characteristics file.

CLIENT HISTORY FILE

To enable both detailed and cursory views of the entire process, the client history file combines all information from the other three files into a single, comprehensive dossier for each client

who applied for the program, and adds a new record--the digital summary record--summarizing his program history. The client history file also contains a few specialized variables from HAO administrative files, concerning allowance payment suspensions/reauthorizations and exceptional payment adjustments, that do not appear in any other program file. Because the size and complexity of the client history file make it somewhat cumbersome to use, the other three files were retained to facilitate data processing for analysis designs that do not require the full range of client data.

FILE STRUCTURE

The client characteristics and client history files contain a record for every client whose preliminary application was processed during the monitoring period. The housing and recertification characteristics files contain a record for every client who actually enrolled in the program. Therefore, a logical record in all four program files is for a specific client. Table 2.1 summarizes the number of records and variables per record in each file. Record counts vary by site because of the differing number of clients; variable counts do not.

Table 2.1
RECORD AND VARIABLE COUNTS

File	Number of Records[a]		Number of Variables per Record
	Site I	Site II	
CCF	16,670	34,657	665
HCF	9,133	16,126	8,191
RCF	9,133	16,126	5,466
CHF	16,670	34,657	Varies by client

SOURCE: Compiled by HASE staff.

[a] For CCF, HCF, and RCF, logical and physical records; for CHF, logical records only.

All files except the client history file have one fixed-length record per client. Within the fixed-length format, HCF and RCF records contain varying amounts of data arranged in segments--one for each of the client's housing evaluation and recertification transactions, respectively. The HCF record allows for 35 segments of 215 variables each; the RCF record, 40 segments of 120 variables each (an additional variable on every HCF and RCF record totals the number of data-filled segments). In contrast, a dossier in the client history file can contain as many as seven types of physical records of different lengths, and as many of each type as needed to document the client's program participation. Figure 2.1 depicts the structure of a logical record in each of the four files.[2] Note the repetition of CCF variables in each HCF and RCF record, the segmented

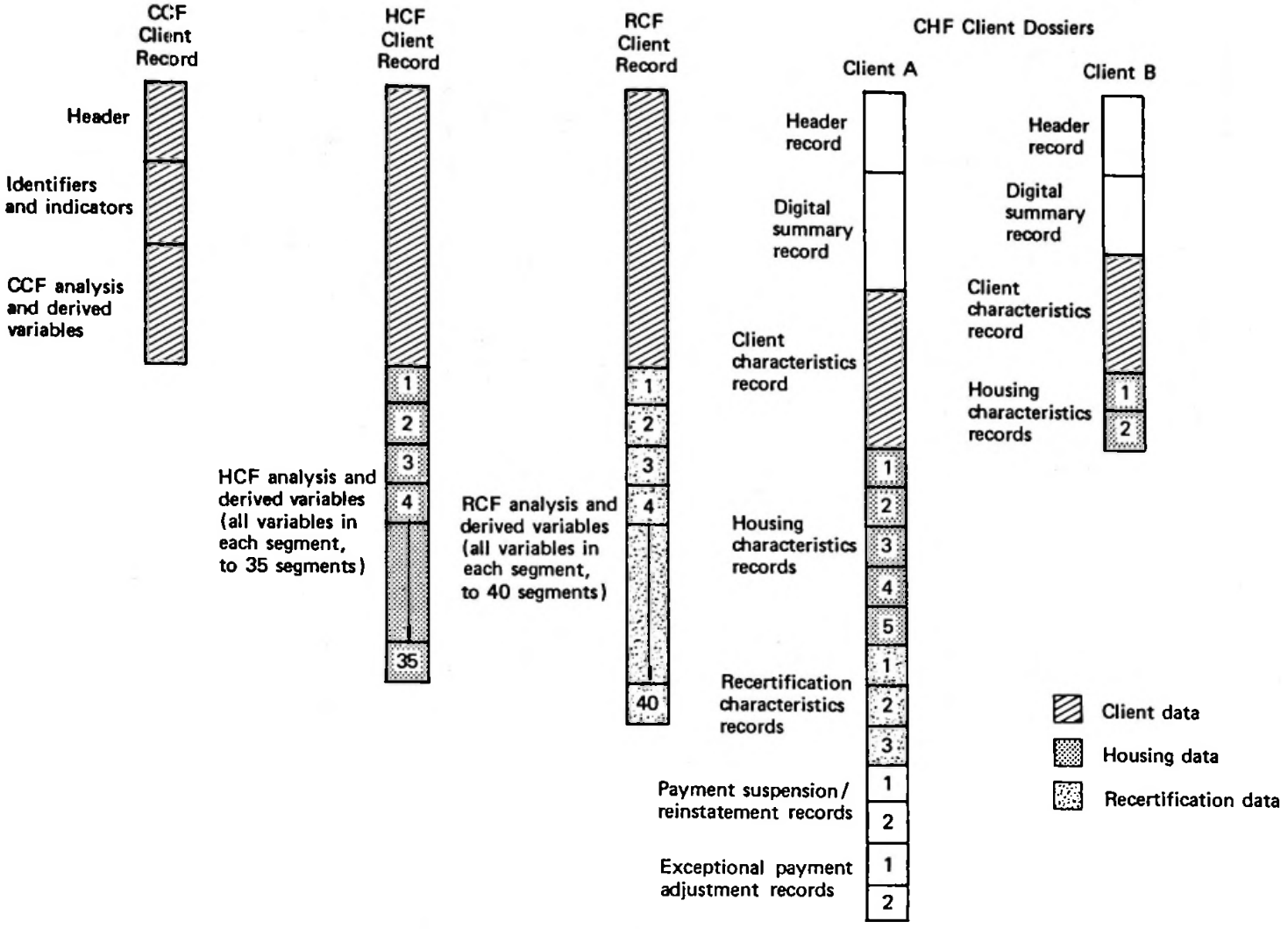

Fig. 2.1—Structure of client records on program files

arrangement of housing and recertification data, and the variation in CHF record numbers and lengths. The latter is illustrated in the dossiers of hypothetical clients A and B, who respectively had extensive and brief program experience.

The client, housing, and recertification characteristics files contain two types of data: character and 32-bit floating-point binary. The character type was used for variables with alphanumeric values suitable for linking or selecting records; the binary type was used for all other variables to enable mathematical computations.

To preserve order and facilitate file use, we entered the data in a standard format, arranged the variables the same way on each file, and established conventions for naming variables. We kept track of the variables by developing a dictionary that listed every variable by name, location on the file, length, and data type.[3] The following paragraphs describe the four types of variables on each record.

Header

The first 24 positions on each record are occupied by identifiers that were intended for use in matching the program files and survey files. That plan did not prove feasible and only the variable CLID (client identification number) can be used to track records across the program files.[4] The other positions carry variable names and even some data but are analytically meaningless. Header variables are in character format.

Other Identifiers and Indicators

Free space is allotted over the next 35 positions so that analysts can add identifiers (in character format) for matching records and indicators (in floating-point binary) for selecting analytic samples.

Analysis Variables

Analysis variables, containing the information from HAO administrative records, compose the bulk of each file. They vary in number by file and are in floating-point binary format.

The names of analysis variables identify the information they contain. The first letter or prefix designates the general type of information, as shown in Table 2.2. The rest of the variable name is a mnemonic that describes the information more specifically. For example, RENT stands for monthly contract rent--ERENT being the amount recorded at enrollment, and CRENT the current amount at the client's last recertification before the close of the file. On the housing and recertification characteristics files a counter (e.g., 03) intervenes between the prefix and the mnemonic. The counter indicates which of a client's several housing or recertification transactions provided the data. For example, H03NBR indicates the neighborhood of the dwelling evaluated in the client's third housing evaluation; R03NBR indicates the neighborhood at the time of the client's third recertification transaction.[5]

Table 2.2

PREFIXES OF ANALYSIS VARIABLES

File	Prefix	Type of Information
CCF	P	Preliminary application--basic client identification
	E	Enrollment application--detailed socio-economic and housing data
	C	Current (updated) enrollment and certification data
	T	Termination and reinstatement data
HCF	H	Housing evaluation details and results
RCF	R	Recertification transactions--timing, circumstances, and results

SOURCE: Compiled by HASE staff.

Derived Variables

To increase the analytic usefulness of the data, we aggregated or transformed some variables to create a set of derived variables. The number varies according to the file. Those on the client characteristics file are denoted by a "Z" intervening between the prefix and mnemonic; an example is the variable CZPASS, which indicates the number of unique housing units that were found acceptable for the client. Derived variables unique to the housing and recertification files are not distinguishable by name. Derived variables are in floating-point binary format.

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[1] See Appendix B, "Topical Index of HAO Variables," for a complete listing of the HAO file contents. For a detailed discussion of the various ways clients participated in the allowance program, and copies of all HAO administrative forms, see Iao Katagiri and G. Thomas Kingsley, The Housing Allowance Office Handbook, The Rand Corporation, N-1491-HUD, July 1980.

[2] The labels identifying record parts in the client, housing, and recertification characteristics files are explained later in this section. We omit further description of CHF file structure, which is detailed in Charles A. Hubay and Clairessa Cantrell, The HAO Client History File, The Rand Corporation, N-1711-HUD, forthcoming.

[3] Some variable names and dictionary specifications may have been changed from the Rand conventions. Users should refer to DUALabs staff, Housing Research Data Center User Manual, Vol. 3: Primer of On-Line Access Procedures, DUALabs, June 1981.

[4] The user is cautioned that CLID numbers are unique within a site, but the same number may appear across sites.

[5] In this volume, the counter is represented by the proxy "II," as in "HIINBR."

III. ANALYSIS CONSIDERATIONS

This section offers suggestions about how to use the files and how to select and link records for analysis. We also describe changes in HAO regulations and procedures that affect the data and point out data problems of which the file user should be aware.

WHICH FILE TO USE

If the user is interested primarily in program statistics--how many clients enrolled, how many received payments, and so forth--the client characteristics file is the one to use. To study changes in enrollees' housing over time, the housing characteristics file is appropriate. If details of household changes over time are required, the recertification characteristics file is applicable.

Because its size and complexity make the client history file relatively difficult and expensive to use, the CHF offers a clear advantage over the other program files only for analysis designs that require the following information:

- A concise description of the client's entire history in the program--provided in the digital summary record. That record also references the location of supporting detail and provides indicators for selecting records for clients with like characteristics or histories to form analytic subfiles.
- All client records, merged and indexed.
- Data on exceptional pay adjustments, suspensions, and reinstatements, which are unavailable elsewhere.
- Characteristics of client subgroups that would be difficult to identify otherwise. For example, clients

who moved to an acceptable dwelling in another neighborhood after failing the housing evaluation can be selected easily from the CHF but only with difficulty from the HCF.

Details of using the client history file are provided elsewhere;[1] the subsection below on selecting and linking records bears only on the portions of the CHF taken directly from the other three files.

SELECTING AND LINKING RECORDS

The client characteristics file is the most straightforward to use. Table 3.1 shows how CCF records can be selected to represent various client groups. Since all CCF variables are on the housing and recertification files, the specifications apply to those files as well.

To use the housing characteristics file, one must first determine the availability of housing evaluation information. Recall that each evaluation is documented by two administrative forms--the HUCF (request and certification results) and HEF (evaluation details)--so data from both forms are needed for a complete account. Values of the variable HIIMATCH indicate the availability of both types of data for a given evaluation:

1 = Both HEF and HUCF data available
2 = Only HUCF data available
3 = Only HEF data available
4 = Serial numbers of HEF/HUCF forms match; HUIDs (identification numbers for housing units) do not match[2]
5 = Serial numbers of HEF/HUCF match after Rand corrections

If records containing only HEF information are needed for analysis, HIIMATCH must equal 1,3,4, or 5. If records with only

Table 3.1

SELECTING CLIENT GROUPS FROM THE CLIENT CHARACTERISTICS FILE

Client Group	Number of Records		Selection Specification
	Site I	Site II	
Applicants			
Applied	16,670	34,657	Entire file
Could not be contacted to schedule an interview	265	1,621	EDEACT = -99999
Enrollment interview scheduled	16,405	33,036	EILENG >= 0
Scheduled interview did not take place	4,603	10,019	EILENG = 0
Interview took place	11,802	23,017	EILENG > 0
Interview not completed	513	1,294	EILENG > 0 and EINELIG = 7
Determined ineligible at interview	1,777	3,918	EILENG > 0 and EINELIG = 2-6
Determined eligible but declined to enroll	379	1,679	EINELIG = 1
Determined eligible and enrolled	9,133	16,126	EENROLL = 1
Enrollees			
Ever enrolled	9,133	16,126	EENROLL = 1
Currently enrolled	4,136	7,367	CSTATUS = 0
Currently terminated	4,997	8,759	CSTATUS = 1
Enrollees by Payment Status			
Ever enrolled	9,133	16,126	EENROLL = 1
Never authorized for payments	1,452	3,758	EENROLL = 1 and CAUJY < 0
Ever authorized for payments	7,681	12,368	CAUJY > 0
Currently terminated from participation	3,762	5,766	CAUJY > 0 and CSTATUS = 1
Currently suspended from payments	356	672	CAUJY > 0, CSTATUS = 0, and CPAYCODE = 0
Currently authorized for payments	3,563	5,930	CPAYCODE = 1

SOURCE: Tabulated by HASE staff.

HUCF data are required, HIIMATCH must equal 1,2,4, or 5. If a complete account is needed, HIIMATCH must equal 1,4, or 5.

Two other HCF variables are helpful in selecting general categories of information: HIIETYPE and HIIUSAGE. HIIETYPE describes the evaluation type, including initial enrollment evaluation, premove or postmove evaluation, annual reevaluation, deficiency reevaluation, quality control evaluation, and reinstatement evaluation. HIIUSAGE describes the type of program transaction resulting from the evaluation, such as payment authorization, incomplete certification, annual reevaluation (i.e., dwelling is recertified), error correction, and data update. Used separately or together, HIIETYPE and HIIUSAGE can help the file user locate specific evaluation information. For example, one may be interested in reviewing the results of annual evaluations (HIIETYPE = 4) that were incomplete (HIIUSAGE = 5), or reinstatement evaluations (HIIETYPE = 8) that resulted in authorization of allowance payments (HIIUSAGE = 1).

Table 3.2 summarizes the foregoing information and indicates the number of cases for each transaction in both sites.

Another useful HCF variable is HIIN, which counts the number of evaluations performed for a client during the monitoring period. Recall that an HCF client record contains up to 35 segments--one to report on the purpose and outcome of each evaluation requested. Clients will have different numbers of segments and different data in each segment. For example, though the variables pertaining to the third evaluation may have the same names for two clients (i.e., all begin with H03), the information for client A may pertain to an annual reevaluation and the information for client B to a premove evaluation.

Like the housing characteristics file, the recertification characteristics file contains variables for transaction type

Table 3.3

SELECTING TRANSACTIONS FROM THE RECERTIFICATION CHARACTERISTICS FILE

Transaction	Number of Transactions		Selection Specification
	Site I	Site II	
Total	58,011	89,063	Entire file
Utility update	11,934	19,783	RIITYPE = 1
Recertification	46,077	69,280	RIITYPE = 2
Semiannual	14,509	22,498	RIIUSAGE = 1
Annual	10,110	14,941	RIIUSAGE = 2
Special	1,928	3,123	RIITYPE = 2 and RIIUSAGE = 3
Reinstatement	1,033	2,196	RIIUSAGE = 7
Update or correction	18,497	26,522	RIIUSAGE = 4-6
Confirmed client's eligibility	27,286	42,890	RIIELIG = 1

SOURCE: Tabulated by HASE staff.

appropriate universe, usually records of clients who fully completed forms and interviews. For example, in examining enrollment data, the user should select records in which variable EILENG > 0 and EINELIG \= 7. Records for completed interviews and forms will have virtually no missing data.[3]

At Rand, we entered -99999 in fields that contained blanks or unusable data such as invalid codes that we could not correct. Finally, fields in which data were deleted to protect client confidentiality are coded -77777. To summarize the codes and their meanings:

0 = Missing data or zero value (coded by HAO)
-99999 = Missing or unusable data (coded by Rand)
-77777 = Value deleted to protect client confidentiality

PROGRAM CHANGES AFFECTING THE DATA

A number of changes in program regulations and procedures during the monitoring period affect HAO data.[4]

In December 1974, after six months of experience with the Brown County (Site I) program, several standards pertaining to income and eligibility were changed as the St. Joseph County (Site II) program was about to open:

- The cash value of life insurance and personal property such as cars and boats was excluded as an asset.
- The amount deductible for checking accounts and cash on hand was changed from $500 per household to $250 per household member.
- Amounts of income formerly itemized under Old Age Assistance, Aid to the Blind, and Aid to the Disabled were combined under Supplemental Security Income.

In April 1975, again in response to program experience, the three general income categories of wages, tips and bonuses, and profits were each expanded to provide more detail about the types of income included. When details were not available, the general categories were used. A concurrent change affected housing evaluation data. Bathrooms had hitherto been included in the total room count recorded on the HEF, leading to discrepancies with total room count recorded on the enrollment application, which excluded bathrooms. The housing evaluation instructions were revised to agree with the enrollment application instructions.

The eligibility rules for residents of federally subsidized housing were changed in February 1976. Formerly, such residents were not eligible for the program unless they moved to

nonsubsidized housing. The new rule allowed them to be eligible without moving, if they agreed to pay the "market" or unsubsidized rent for their dwelling. The purpose was to permit such households to participate if the allowance program offered them more benefits than the housing subsidy. After February 1976, 65 such households in Brown County and 126 in St. Joseph County received allowance payments.

Before August 1977, single-person households were eligible for the program only if they were 62 or older, disabled, handicapped, or forced to move by a government action. In August the program was opened to other singles younger than 62, provided that the number who enrolled did not exceed 10 percent of all enrollees in the site. Older singles were to be given priority. Between August 1977 and the end of the fifth program year, more than 600 nonelderly singles enrolled in Brown County and almost 1,400 in St. Joseph County.

A concurrent change lowered by 2 inches the minimum acceptable ceiling height of rooms within a dwelling. Although specific ceiling height information does not appear in the analysis files, this change affected the percentage of dwellings found acceptable after August 1977.

In July 1978, the asset limit for program eligibility was inflated by the consumer price index (CPI). The asset limit was originally set at $20,000 ($32,500 for households with a head or spouse 62 or older). The new limits changed each subsequent year, depending on the CPI. Only a few households were affected.

In January 1976, questions were added to the HEF about repairs or improvements made since the last evaluation. Those questions elicited the type and location of the repair, who did it, how much it cost,

and who paid for it. In February 1978, the questions were revised and all data previously collected for the questions were transcribed to avoid coding discrepancies. Codes for location of the repair were changed to emphasize the number rather than the type of rooms involved. Codes for who did the work were rearranged, and "homeowner" and "renter" were combined into one code, "unit occupant." "Insurance" was added to the codes for who paid for the repairs. Finally, the repair questions were expanded to cover the source of the cost information (client, evaluator's estimate, etc.) and an estimate of the time taken by unpaid labor. Data for the latter two questions were not entered on the analysis files. In April 1978 the repair questions, which had been asked only during annual and deficiency reevaluations, were extended to all evaluations.

In January 1977, paint condition became a criterion for a dwelling's acceptability in housing evaluations. Because of its possible lead content, paint that is cracked, chipped, peeling, scaling, or loose can pose a health hazard to children under 7 years of age. After adoption of the paint standard, evaluators of dwellings where such children resided or were frequent visitors examined all interior surfaces and certain exterior surfaces for signs of exposed paint. The applicable exterior surfaces included stairs, decks, porches, railings, windows, and doors that were accessible to young children. To account for evaluations conducted under the new criterion, two variables were added to the HCF. HIIPAINT documents the separate acceptability of interior and exterior surfaces and the presence of children under 7; HIIETEST, the acceptability of all paint surfaces and presence of children under 7. Values of the variable HIIFINAL account for evaluations conducted both before and after the paint standard was adopted.

Also in January 1977, a new code for evaluation type was created on the HEF for reinstatement evaluations. Prior to this date, reinstatement evaluations were coded as "other."

In February 1978, Site II added a new code for the ethnic designation "black Hispanic." The code was rarely used.

DATA PROBLEMS

Client Characteristics File

In Site I, one client was incorrectly enrolled in the program; the client was subsequently found to be ineligible and was immediately terminated from the program. However, his enrollment date remains on the file, so there is one extra date for CCF variables EENROJY and EENROJD, which indicate enrollment date. Another client in the same site was erroneously recorded as ineligible for exceeding the asset limit. The client was actually eligible and did enroll. Therefore the CCF variable EINELIG (reason for ineligibility) contains an error: response code 0, "eligible and participating" should show one more record.

The variable MOVER, which appears on the CCF, HCF, and RCF, contains incomplete data and should not be used.

Housing Characteristics File

From our discussion above of the possibility of incomplete housing evaluation accounts because of absent or mismatching HEFs and HUCFs, the user might wonder about the completeness of the HCF data. Missing evaluation data due to unmatched forms constitute only 3 percent of the HCF data for each site.

Recertification Characteristics File

Other than encountering data carried forward from previous transactions (and therefore possibly obsolete data), the user will not find any serious data problems in the RCF.

Client History File

Data in the digital summary record were audited to detect and correct illogical event sequences, but the original data in the client, housing, and recertification characteristics records were not altered. Therefore, those records contain the same problems and errors just noted for the client, housing, and recertification characteristics files.

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[1] Charles A. Hubay and Clairessa Cantrell, The HAO Client History File, The Rand Corporation, N-1711-HUD, forthcoming.

[2] We do not consider this a serious problem; the matching serial numbers indicate that the HEF and HUCF data apply to the same dwelling.

[3] This contrasts with the HASE survey files, where item nonresponse can be a problem because a record can be technically complete yet have many missing pieces of information.

[4] For a complete discussion of program standards, see Katagiri and Kingsley, eds., The Housing Allowance Office Handbook, Chap. 2.

IV. RELATED HASE PUBLICATIONS

From the some 300 monographs published by Rand to document the plans, methods, and findings of the Supply Experiment, this section lists and briefly describes the publications that are pertinent to the program files.[1] Publications are indexed by subject, so some titles appear more than once. Within subjects, titles are listed in order of publication number, which is roughly chronological. A short narrative follows each list and indicates the specific topics, scope, and interrelationship of the publications covered.

SITE SELECTION

N-1025-HUD. Testing the Supply Response to Housing Allowances: An Experimental Design. Ira S. Lowry, C. Peter Rydell, David de Ferranti. February 1981. (First issued as WN-7711-UI, December 1971.) 165 pp.

N-1026-HUD. Site Selection for the Housing Assistance Supply Experiment: Stage I. Housing Assistance Supply Experiment Staff. July 1980. (First issued as WN-7833-HUD, May 1972.) 75 pp.

N-1033-HUD. Site Selection for the Housing Assistance Supply Experiment: SMSAs Proposed for Site Visits (A Briefing). Housing Assistance Supply Experiment Staff. July 1980. (First issued as WN-7907-HUD, August 1972.) 11 pp.

N-1035-HUD. Estimates of Eligibility and Allowance Entitlement under Alternative Housing Allowance Programs. Barbara Woodfill, Tiina Repnau. July 1980. (First issued as WN-7974-HUD, September 1972.) 125 pp.

N-1041-HUD. Collected Site Selection Documents: Housing Assistance Supply Experiment. Robert Dubinsky. July 1980. (First issued as WN-8034-HUD, January 1973.) 61 pp.

R-2630-HUD. The Design of the Housing Assistance Supply Experiment. Ira S. Lowry. June 1980. 388 pp.

Following the experimental design proposed in N-1025, we screened 217 SMSAs and 14 SEAs as suitable HASE sites. As reported in N-1026, we selected 19 preliminary candidates that met the following criteria:

- Had a 1970 population of 100,000 to 250,000.
- Fell in one of two categories combining 1960-70 economic growth and percentage of black population in 1970: (a) fast growth (6.9+ percent) and low percent black (<10.8 percent), or (b) slow growth (<6.9 percent) and high percent black (>10.8 percent).
- Was not part of an interstate or other larger housing market.
- Had a HUD-recognized housing authority.

Six candidates were then chosen for visits by a Rand-HUD team and preliminary discussions with local officials; N-1033 consists of briefing charts comparing features of the six sites. N-1041 reviews the early progress in site selection and reproduces the questionnaires and briefing charts used in the site visits. N-1035 compares projected costs of administering the allowance program in the six sites and recommends the two least expensive--Green Bay, Wisconsin, and Saginaw, Michigan. Local officials in Saginaw ultimately declined to participate, whereupon the South Bend, Indiana SMSA was chosen as the second site; that development is summarized in R-2630.

THE ALLOWANCE PROGRAM

We list only the publications that are most pertinent to the program files.

N-1102-HUD. Inflation in the Standard Cost of Adequate Housing: Site I, 1973-1976. Ira S. Lowry. October 1979. (First issued as WN-9430-HUD, March 1976.) 125 pp.

N-1116-HUD. Rent Inflation in St. Joseph County, Indiana: 1974-1977. James P. Stucker. November 1979. (First issued as WN-9734-HUD, September 1977.) 93 pp.

N-1124-HUD. Client Responses to Housing Requirements: The First Two Years. Bruce W. Lamar and Ira S. Lowry. (First issued as WN-9814-HUD, February 1979.) 98 pp.

N-1134-HUD. Rent Inflation in Brown County, Wisconsin: 1973-78. James P. Stucker. March 1981. (First issued as WN-10073-HUD, August 1978.) 94 pp.

N-1198-HUD. Housing Allowances and Housing Improvement: Early Findings. James L. McDowell. September 1979. 120 pp.

N-1491-HUD. The Housing Allowance Office Handbook. Iao Katagiri and G. Thomas Kingsley, eds. July 1980. 571 pp.

R-2544-HUD. Sixth Annual Report of the Housing Assistance Supply Experiment. May 1980. 103 pp.

R-2630-HUD. The Design of the Housing Assistance Supply Experiment. Ira S. Lowry, ed. June 1980. 338 pp.

The overall design of the allowance program, its goals and their planned implementation, are discussed in R-2630. The status of

the program at the end of the experimental phase (year 5) is described in R-2544. Detailed procedural guidelines for client and housing certification, payment disbursement, recordkeeping, and data processing are specified in N-1491. N-1124 examines the HAO's experience with clients during the program's first two years, with charts indicating program decisions and client flow. Several adjustments were made to the standard cost of adequate housing, one of the bases for determining allowance entitlement. N-1102, N-1116, and N-1134 provide the justifications for that entitlement. The rationale for adding detailed information on housing repairs to HAO administrative records (and ultimately to the HCF) is presented in N-1198.

DATA MANAGEMENT

N-1029-HUD. Data Management System: Part I, Fieldwork Data and Data Transfer Specifications. Gerald Levitt. July 1980. (First issued as WN-7885-HUD, July 1972.) 20 pp.

N-1034-HUD. Data Management System: Part II, The Management of Data for Analysis. Gerald Levitt. February 1981. (First issued as WN-7953-HUD, August 1972.) 34 pp.

N-1042-HUD. Data Management System for the Housing Assistance Supply Experiment. Colleen M. Dodd, Misako C. Fujisaki, Gerald Levitt. July 1980. (First issued as WN-8054-HUD, November 1972.) 56 pp.

N-1062-HUD. Baseline Data Systems Design, Implementation, and Operation Report. Gerald Levitt, ed. (First issued as WN-8611-HUD, March 1974.) 184 pp.

N-1098-HUD. HASE Data Systems: The HASE Audit and Analysis Support Package (HAASP). Eric F. Harslem, Michael M. Rogson. May 1981. (First issued as WN-9292-HUD, November 1975.) 68 pp.

P-5494-1. Documentation in Social Science Experiments. Michael M. Rogson. January 1976. 19 pp.

Preliminary specifications for managing the data collected in both the surveys and the program are presented in two parts: field collection and transfer to Rand (N-1029) and preparing the data for analysis (N-1034). Those design specifications are developed further in N-1042. The actual system used for data entry and reduction is described in N-1062. Audit and analytic procedures were carried out using the software and data systems described in N-1098. Although a few of its specific suggestions were not adopted, P-5494-1 sets forth the general philosphy governing data management and documentation in the Supply Experiment.

FILE DOCUMENTATION

Codebooks and audit reports are the primary forms of documentation for the Supply Experiment's eight program files. Codebooks summarize file contents; audit reports assess the completeness and reliability of the data. Each file is represented by at least one codebook and one audit report. Rand published each codebook separately, as indicated in the list below; DUALabs has combined the codebooks for all 40 HASE files in Housing Research Data Center User Manual, Vol. 2: HASE Program and Survey File Codebooks, forthcoming.

Program Files, Site I

N-1417-HUD. Codebook for the HAO Client Characteristics File, Site I, Year 5. Ann W. Wang. October 1980. 215 pp.

N-1419-HUD. Codebook for the HAO Housing Characteristics File, Site I, Year 5. Ann W. Wang. February 1981. 108 pp.

N-1421-HUD. Codebook for the HAO Recertification Characteristics File, Site I, Year 5. Ann W. Wang. March 1981. 94 pp.

N-1149-HUD. Audit of the HAO Analysis Files, Site I, Year 3. Ann W. Wang. May 1979. 28 pp.

N-1423-HUD. Audit of the HAO Analysis Files, Site I, Year 5. Ann W. Wang. November 1981. 26 pp.

N-1711-HUD. The HAO Client History File. Charles A. Hubay, Clairessa Cantrell. Forthcoming.

Program Files, Site II

N-1418-HUD. Codebook for the HAO Client Characteristics File, Site II, Year 5. Ann W. Wang. September 1981. 191 pp.

N-1420-HUD. Codebook for the HAO Housing Characteristics File, Site II, Year 5. Ann W. Wang. September 1981. 108 pp.

N-1422-HUD. Codebook for the HAO Recertification Characteristics File, Site II, Year 5. Ann W. Wang. September 1981. 80 pp.

N-1318-HUD. Audit of the HAO Analysis Files, Site II, Year 3. Ann W. Wang. October 1979. 26 pp.

N-1424-HUD. Audit of the HAO Analysis Files, Site II, Year 5. Ann W. Wang. Forthcoming.

N-1711-HUD. The HAO Client History File. Charles A. Hubay, Clairessa Cantrell. Forthcoming.

The codebooks describe each file variable in detail, reproduce the HAO administrative forms from which the variables were taken, and provide frequency distributions of the responses. There are

6 HAO codebooks covering five years of program data, one for the client, housing, and recertification characteristics files in each site.[2]

At each stage in the development of the program files, we audited the data by running various manual and computerized checks to detect and correct errors. The procedures and results of those checks are described in four audit reports, two for each site covering cumulative CCF, HCF, and RCF data as of year 3 and again as of year 5. The master client history files, one for each site, are documented in a single report that is part user's guide, codebook, and audit report (N-1711).

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[1] For the full list of HASE publications, see Ira S. Lowry, ed., Experimenting with Housing Allowances: Final Report of the Housing Assistance Supply Experiment, The Rand Corporation, R-2740-HUD, forthcoming.

[2] The year 5 codebooks supersede all previously published codebooks because the program files are cumulative. The codebooks reflect file contents accurately for the most part but not in every detail. Some data errors were discovered too late for codebook publication, although the files themselves were corrected. The audit reports explain the discrepancies where possible.

Appendix A

PROGRAM FILE VARIABLES ALTERED TO PROTECT CLIENT IDENTITIES

This appendix describes how we altered the values of certain variables to prevent program clients from being identified by file users. To preserve the analytic richness of the data, we modified the minimum number of variables and values. The new values appear on the files transmitted to DUALabs; the old values are reflected in the response distributions tabulated for each variable in the appropriate codebook.

CLIENT AND HOUSING UNIT IDENTIFICATION CODES

The original client and housing unit identification numbers provided the means of linking program file records to the HAO administrative records. The identification numbers are of no analytic interest, so we scrambled them, thereby breaking the link and ensuring that the program files will be used only for statistical analysis.

SERIAL NUMBERS FOR HOUSING EVALUATIONS

We also scrambled the serial numbers used to match the housing evaluation forms (HEFs) with their housing unit certification forms (HUCFs) to break the link with HAO administrative records.

NEIGHBORHOOD AND CENSUS TRACT CODES

In neighborhoods and census tracts with few program clients, it would be easy to identify individual clients once their neighborhood or census tract was known. To prevent that possibility, we suppressed the codes of neighborhoods and census tracts in which there were fewer than:

- 10 enrollees at the close of the file
- 20 enrollees ever
- 20 applicants
- 20 housing evaluations.

The criteria were independent; meeting any one qualified a neighborhood or census tract for suppression.

In Site I, 19 neighborhoods qualified; in Site II, 7. We replaced their specific codes with a "99" equivalent that expressed a range. For example, code 399 replaced an original code between 300 and 398. The replacement was made for all occurrences of the code across the files. The presence of the original code in one field that was suppressed in another for the same client would have made it possible to deduce the original value of the suppressed code.

Only one census tract, in Site I, qualified for suppression; we replaced its code with -99999.

BIRTH DATES

To prevent the identification of clients by their birth dates, we changed all values of birth month and year to -77777. Clients' ages remain on the files, however, for use in analysis.

TYPE OF HOUSING SUBSIDY

Clients who received some form of housing subsidy were asked to specify the type on the enrollment application. We changed subsidy categories containing fewer than 10 responses to code 11, which signified "other."

Table A.1 summarizes the variables and number of records affected by data supression. Variables suppressed on the client, housing, and recertification files were also suppressed on the client history file.

Table A.1
MODIFIED PROGRAM FILE VARIABLES AND RECORDS

Variable Modified	Number of Records Affected	
	Site I	Site II
[Client Characteristics File]		
CLID (client identification number)	All	All
HUID (housing unit identification number)	All	All
PNBR (neighborhood at time of application)	203	109
ENBR (neighborhood at time of enrollment)	202	194
CNBR (neighborhood at close of file)	95	75
PCEN (census tract at time of first application)	0	0
ECEN (census tract at enrollment)	1	0
CCEN (census tract at close of file)	2	0
EBDTMO (birth month of each household member at enrollment)	All	All
EBDTYR (birth year of each household member at enrollment)	All	All
CBDTMO (birth month of each household member at close of file)	All	All
CBDTYR (birth year of each household member at close of file)	All	All
ESUBS (housing subsidy)	35	7
[Housing Characteristics File]		
HIIHUID (housing unit identification number)	All	All
HIITHUID (housing unit identification number [HUCF])	All	All
HIIHEF (HEF serial number)	All	All
HIIHUCF (HUCF serial number)	All	All
HIINBR (neighborhood of evaluated unit)	325	207
HIICEN (census tract of evaluated unit)	6	0

(Table A.1 cont'd)

[Recertification] [Characteristics File]		
RIINBR (neighborhood at recertification)	603	489
RIICEN (census tract at recertification)	11	0

SOURCE: Compiled by HASE staff.

Appendix B

TOPICAL INDEX OF PROGRAM FILE VARIABLES

Using HAO administrative forms, we collected hundreds of items of information about the program. Besides the primary program variables taken from those forms, the program files contain analytic variables derived from them. Topically related variables are not necessarily clustered in the same file, and their names differ across files. By arranging all variables in main research topics and related subtopics, this index enables analysts to determine quickly whether the four program files contain the information they are seeking and where it may be found.

COMPOSITION

The index is divided into 5 main research topics, each subdivided. To the right of each subtopic is a list of all pertinent variables. The specific file in which the variables are located is shown in parentheses to the left of the variable name:

File	Abbreviation
CCF	(C)
HCF	(H)
RCF	(R)
CHF:	
Digital summary record (HSUM indicators)[1]	(D)
Payment suspensions/ reauthorizations record	(P)
Exceptional payment adjustments record	(G)

Recall that all CCF, HCF, and RCF variables also appear in the client history file; therefore, abbreviations are given only for record types that are unique to the CHF.

USE OF THE INDEX

The following steps outline the appropriate use of the index.

1. Scan the topical index to determine reference variables of interest. The main topics are those printed in capital letters on the extreme left:

   CLIENT CHARACTERISTICS
   HOUSING UNIT CHARACTERISTICS
   HOUSING EXPENSES
   HOUSING EVALUATIONS
   ALLOWANCE PAYMENTS

   Many topics are interrelated, so analysts should look under other possible entries if the first one consulted does not yield the desired information. We have provided cross-references but have tried to preserve the specificity of the topics to avoid unwieldy lists.
2. Verify precise variable definitions by consulting the codebook for the site and file of interest (see "File Documentation" in Sec. IV). These topics may only give a general idea of content.

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[1] HSUM indicators summarize aspects of a client's history in the allowance program. This index omits another part of the digital summary record--"event-block" variables describing the circumstances of every client transaction--because they are simply aggregations of other variables. For further information on CHF structure and contents, see Charles A. Hubay and Clairessa Cantrell, The HAO Client History File, The Rand Corporation, N-1711-HUD, forthcoming.

CLIENT CHARACTERISTICS

Client identification	(C)	CLID, EPRVCLID
Client transactions:		
Client type	(C)	CZCLTYP
Preliminary application date	(C)	PAPPJY-JD
How client heard of program	(C)	PREFER
Contact information	(D)	HSUM1, HSUM2, HSUM3, HSUM4
Interview date	(C)	EIJY-JD
	(R)	RIIIJY-JD
Length of interview	(C)	EILENG
	(R)	RIILENG
Time between application and interview	(C)	EWAIT
Need to verify enrollment information	(C)	EVERIFY
Transaction type	(C)	CLSTRAN
	(R)	RIITYPE, RIIUSAGE
Signature date	(C)	EENROJY-JD
	(R)	RIISIGJY-JD
Recertification date	(C)	CLSTAJY-JD, CLSTSJY-JD
	(R)	RIIPROJY-JD, RIITRAJY-JD
Eligibility/participation status	(C)	PDEACT, EDEACT, EINELIG, EDECLINE, CELIG, CSTATUS
	(R)	RIIINELI, RIIELIG
	(D)	HSUM5, HSUM6, HSUM16, HSUM20, HSUM21, HSUM22, HSUM23
Enrollment/payment status	(C)	EENROLL, CZSUBPOP
	(H)	HIICSTAT
	(D)	HSUM7, HSUM9, HSUM32
Termination status	(C)	CSTATUS, T01-10TJY, T01-10TJD T01-10TREAS, CTREASN
	(D)	HSUM8, HSUM11, HSUM31
Reinstatement date	(C)	T01-10RJY, T01-10RJD
Data correction date	(C)	CLSTCHJY-JD, CLSTCRJY-JD, CLSTUPJY-JD
Date of current information	(C)	CINITJY-JD
Household characteristics:		
Household size	(C)	PTHS, ETHS, EAHS, EEHS, CTHS, CAHS, CEHS
	(R)	RIITHS, RIIAHS, RIIEHS
Ages of members	(C)	PELD, EAGE01-15, CAGE01-15, EBDT01-10YR, EBDT01-10MO, CBDT01-10YR, CBDT01-10MO
Sex of members	(C)	ESEX01-15, CSEX01-15
Race of members	(C)	ERAC01-15, CRAC01-15
Relationship of members	(C)	EREL01-15, CREL01-15
Family structure	(C)	EZSTRUC, CZSTRUC
	(R)	RIISTRUC

CLIENT CHARACTERISTICS (cont.)
Household characteristics (cont.):

Life-cycle stage	(C)	EZLIFE, CZLIFE, EZCYCLE CZCYCLE
	(R)	RIILIFE, RIICYCLE
Assets	(C)	EAST01-15, CAST01-15, EATOT, CATOT
	(R)	RIIAST01-15, RIIATOT
Income	(C)	EINC01-49, CINC01-49, EITOT, EIADJ, EINGP, CITOT, CIADJ
	(R)	RIIINC01-49, RIIITOT, RIIADJ
Home value	(C)	EHOME, CHOME
	(R)	RIIHOME
Occupation of members	(C)	EOCC01-15, COCC01-15
Tenure	(C)	PTEN, ETEN, CTEN
	(H)	HIIEVTEN, HIIAUTEN
	(R)	RIITEN
	(D)	HSUM14, HSUM15
Residence in program area	(C)	PRES
Housing subsidy recipient	(C)	ESUBS
Moving history	(D)	HSUM33, HSUM36, HSUM37, HSUM38, HSUM39, HSUM40, HSUM56

HOUSING UNIT CHARACTERISTICS

Housing unit identification	(C)	CHUID
	(H)	HIIHUID, HIITHUID
Neighborhood	(C)	PNBR, ENBR, CNBR
	(H)	HIINBR
	(R)	RIINBR
Census tract	(C)	PCEN, ECEN, CCEN
	(H)	HIICEN
	(R)	RIICEN
Type of unit	(C)	ERUNIT, EHUNIT, CRUNIT, CHUNIT
	(R)	RIIRUNIT, RIIHUNIT
Move-in date	(C)	ERESINJY-JD, CRESINJY-JD
	(R)	RIIRESJY-JD
Location of unit in building	(H)	HIILOCA-B
Access to unit	(H)	HIIACES
Occupancy status	(H)	HIIOC
Date of lease	(C)	CLEASJY-JD
	(H)	HIILSJY-JD
Furnished unit	(C)	ERSR, ERFURN
	(R)	RIIRSR, RIIFURN
Full and half baths	(H)	HIIBATHS, HIIHBATH
Bedrooms	(H)	HIIBRMS
Habitable rooms	(H)	HIIHRMS
Total rooms in unit	(H)	HIITRMS
Maximum number of occupants	(H)	HIIMAX
Nonresidential use	(C)	ERPURP, EHPURP
	(R)	RIIRPURP, RIIHPURP
Ownership status	(C)	EHLIEN
	(R)	RIIHLIEN

HOUSING UNIT CHARACTERISTICS
(cont.)

Bathroom features	(H)	HIIBATA-H
Kitchen features	(H)	HIIKITCH, HIIKITA-G
Repairs:		
Item repaired	(H)	HIIIT01-10
Type and location of repair	(H)	HIITP01-10, HIILC01-10
Who made the repair	(H)	HIIMK01-10
Who paid for the repair	(H)	HIIPY01-10
Cost of individual repairs	(H)	HIICS01-10, HIIBK01-10
Total cost of all repairs	(H)	HIITOTAL
Building/property characteristics:		
Building type	(H)	HIIBTP
Number of residential units	(H)	HIIBCHA
Number of levels	(H)	HIIBCHB-C
Number of basements	(H)	HIIBCHD
Number of porches	(H)	HIIBCHE-F
Number of commercial units	(H)	HIIBCHG
Siding material	(H)	HIISDNG
Roofing material	(H)	HIIRFNG
Type of roof	(H)	HIIROOF
Garage spaces	(H)	HIIGRGA-D
Other buildings on property	(H)	HIIOTBA-G

HOUSING EXPENSES

Cost of adequate housing	(C)	CRSTAR
Monthly housing expenses:		
Rent	(C)	ERENT, ERFULL, CRENT
	(H)	HIIRENT
	(R)	RIIRENT, RIIRFULL
Utilities	(C)	ERUTIL, CRUTIL, EHUTIL, CHUTIL, ERUP, EHUP, CRUP, CHUP
	(H)	HIIRUTIL, HIIHUTIL, HIIRUP, HIIHUP
	(R)	RIIRUTIL, RIIHUTIL,RIIRUP, RIIHUP
Mortgage interest	(C)	EHINTR, CHINTR
	(H)	HIIHINTR
	(R)	RIIHINTR
Taxes	(C)	EHTAX, CHTAX
	(H)	HIIHTAX
	(R)	RIIHTAX
Insurance	(C)	EHINS, CHINS
	(H)	HIIHINS
	(R)	RIIHINS
Maintenance	(C)	EHMAIN, CHMAIN
	(H)	HIIHMAIN
	(R)	RIIHMAIN
Mortgage interest/principal	(C)	EHMORT
	(H)	HIIHMORT
	(R)	RIIHMORT

HOUSING EXPENSES (cont.)

Monthly housing expenses (cont.):

Other housing expenses	(C)	EHOTHR, CHOTHR
	(H)	HIIHOTHR
	(R)	RIIHOTHR
Total housing expenses	(C)	EREXP, EHEXP, CREXP, CHEXP, EHQEXP, CHQEXP
	(H)	HIIREXP, HIIHEXP, HIIHQEXP
	(R)	RIIREXP, RIIHEXP, RIIHQEXP

HOUSING EVALUATIONS

Number/dates of contacts	(H)	HIINUMCT, HIIFCTJY-JD, HIILCTJY-JD
Number/dates of appointments	(H)	HIINUMAP, HIIFAPJY-JD, HIILAPJY-JD
Request date	(H)	HIIREQJY-JD
Number of requests	(C)	CZTRYS
	(D)	HSUM24
Number of evaluations passed	(C)	CZPASS
Evaluation date	(H)	HIIEVJY-JD
Presence of HEF/HUCF	(H)	HIIMATCH
Form serial number	(H)	HIIHEF, HIIHUCF
Evaluation type	(H)	HIIETYPE, HIIUSAGE, HIITACTN
Complete/incomplete	(H)	HIIACTN
	(D)	HSUM25, HSUM26
Transaction date	(H)	HIITRAJY-JD
Unit certification date	(H)	HIICETJY-JD
Special review date	(H)	HIISPJY-JD
Last unit certification	(C)	CLSTUNJY-JD
Last annual reevaluation	(C)	CLSTREJY-JD
Rating of housing unit:		
Interior/exterior	(H)	HIIEXPRA-D, HIIEXBDA-F, HIIINBUA-L, HIINRAT1-6
Paint condition	(H)	HIIPAINT, HIIETEST
Kitchen	(H)	HIIKRAT
Bathroom	(H)	HIIBRAT
Occupancy	(H)	HIIOTEST
Condition	(H)	HIICRAT
Habitability	(H)	HIIHRAT
Special review	(H)	HIISPRV
Final results	(H)	HIIFIND, HIIFINAL, HIIHCFIN
	(D)	HSUM27, HSUM28
Evaluation status of unit at enrollment	(C)	CZENR

ALLOWANCE PAYMENTS

Date authorized	(C)	CAUJY-JD
	(H)	HIIAUJY-JD
	(R)	RIIAUJY-JD
Payment code	(C)	CPAYCODE
	(D)	HSUM10, HSUM13, HSUM30, HSUM35
Entitlement	(C)	EALLEN, CALLEN
	(H)	HIIALLEN
	(R)	RIIALLEN
Amount disbursed	(C)	CMPAY, CTPAY
	(H)	HIIMPAY
Advance payments	(C)	CADPAY
Number of authorizations	(C)	CZPAY
Payment change date	(C)	CPACHJY-JD
Suspended	(D)	HSUM12, HSUM29
	(P)	EFFDATE, TUSE, REASON, PDATE, NDATE
Adjusted	(D)	HSUM34
	(G)	EFFDATE, TUSE, MIN, MAX, PDATE, NDATE